CITY OF AUBURN WASHINGTON

City Council Study Session Community Wellness Special Focus Area
August 26, 2024 - 5:30 PM
City Hall Council Chambers
AGENDA
Watch the meeting LIVE!

Watch the meeting video
Meeting videos are not available until 72 hours after the meeting has concluded.

I. CALL TO ORDER

II. PUBLIC PARTICIPATION

A. Public Participation

The Auburn City Council Study Session Meeting scheduled for Monday, August 26, 2024 at 5:30 p.m. will be held in person and virtually.

Virtual Participation Link:
To view the meeting virtually please click the below link, or call into the meeting at the phone number listed below. The link to the Virtual Meeting is:

https://www.youtube.com/user/watchauburn/live/?nomobile=1

To listen to the meeting by phone or Zoom, please call the below number or click the link:

Telephone: 253 205 0468
Toll Free: 888 475 4499
Zoom: https://us06web.zoom.us/j/89786081856

B. Roll Call

III. AGENDA MODIFICATIONS

IV. ANNOUNCEMENTS REPORTS AND PRESENTATIONS

V. AGENDA ITEMS FOR COUNCIL DISCUSSION

A. Comprehensive Storm Drainage Plan (Gaub) (60 Minutes)

B. Ordinance No. 6949 (Krum) (10 Minutes)

An Ordinance for a Site Specific Rezone of a portion of one parcel from R-10, Residential Zone - Ten Dwelling Units per acre to R-20, Twenty Dwelling Units per acre

C. Ordinance No. 6952 (Gaub) (20 Minutes)

An Ordinance relating to Water Main Extensions and Requirements for Private Fire Hydrant Installations and Maintenance Responsibilities, and amending Chapters 13.06

Water System Responsibility, 13.08 Water Main Extensions and Payment, and 13.16 Fire Hydrants of the Auburn City Code

D. Ordinance No. 6953 (Gaub) (10 Minutes)

An Ordinance amending Conditions of Ordinance No. 6839 associated with vacating Right-of-Way of a portion of West Main Street, East of Lund Road SW, within the City of Auburn, Washington

E. Resolution No. 5782 (Council) (60 Minutes)

A Resolution amending the City Council Rules of Procedure

VI. COMMUNITY WELLNESS DISCUSSION ITEMS

A. Ordinance No. 6950 (Hay) (15 Minutes)

An Ordinance relating to camping on City property, amending Sections 2.22.210 and 9.50.030 of the Auburn City Code, and providing for severability and an effective date

VII. ADJOURNMENT

Agendas and minutes are available to the public at the City Clerk's Office, on the City website (http://www.auburnwa.gov), and via e-mail. Complete agenda packets are available for review at the City Clerk's Office.

CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Comprehensive Storm Drainage Plan (Gaub) (60 Minutes)

Date:
August 19, 2024

Department:
Public Works

Attachments:
Presentation
Draft Comprehensive Storm Drainage Plan Update Part1
Draft Comprehensive Storm Drainage Plan Update Part 2

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

The storm drainage utility has prepared an update to the Comprehensive Storm Drainage Plan (Plan) in coordination with the update of City's overall Comprehensive Plan. This Plan is an update of the existing Comprehensive Stormwater Drainage Plan previously adopted in 2015. The Plan's purpose is to guide the City with respect to future activities and improvements for the Storm Utility.

Council was first introduced to elements of the Plan at the April 10, 2023, Study Session in conjunction with a general overview of the City Comprehensive Plan Update. The draft policies contained within Chapter 3 of the Plan were then discussed with Council at the Study Session held on June 26, 2023, and a general overview of the Plan contents was discussed with Council at the Study Session held on April 1, 2024.

Staff also presented the Plan to the Planning Commission on June 4, 2024, and June 18, 2024, with the second meeting also serving as a Public Hearing and the Planning Commission recommending the Plan to the City Council for approval. There are no regulatory agency reviews required for approval of the Comprehensive Storm Drainage Plan.

The purpose of this discussion is to present Council with an overview of the full Plan prior to the anticipated adoption of the Plan in conjunction with adoption of the 2024 City Comprehensive Plan that will occur later in 2024.

Reviewed by Council Committees:

Councilmember: Tracy Taylor **Staff:** Ingrid Gaub

Meeting Date: August 26, 2024 Item Number:

ENGINEERING SERVICES

2024 COMPREHENSIVE STORM DRAINAGE PLAN OVERVIEW AND UPDATE

TIM CARLAW, STORM DRAINAGE UTILITY ENGINEER

CITY COUNCIL STUDY SESSION
AUGUST 26, 2024

Public Works Department
Engineering Services • Airport Services • Maintenance & Operations Services

AUBURN VALUES

SERVICE
ENVIRONMENT
ECONOMY
CHARACTER
SUSTAINABILITY
WELLNESS
CELEBRATION

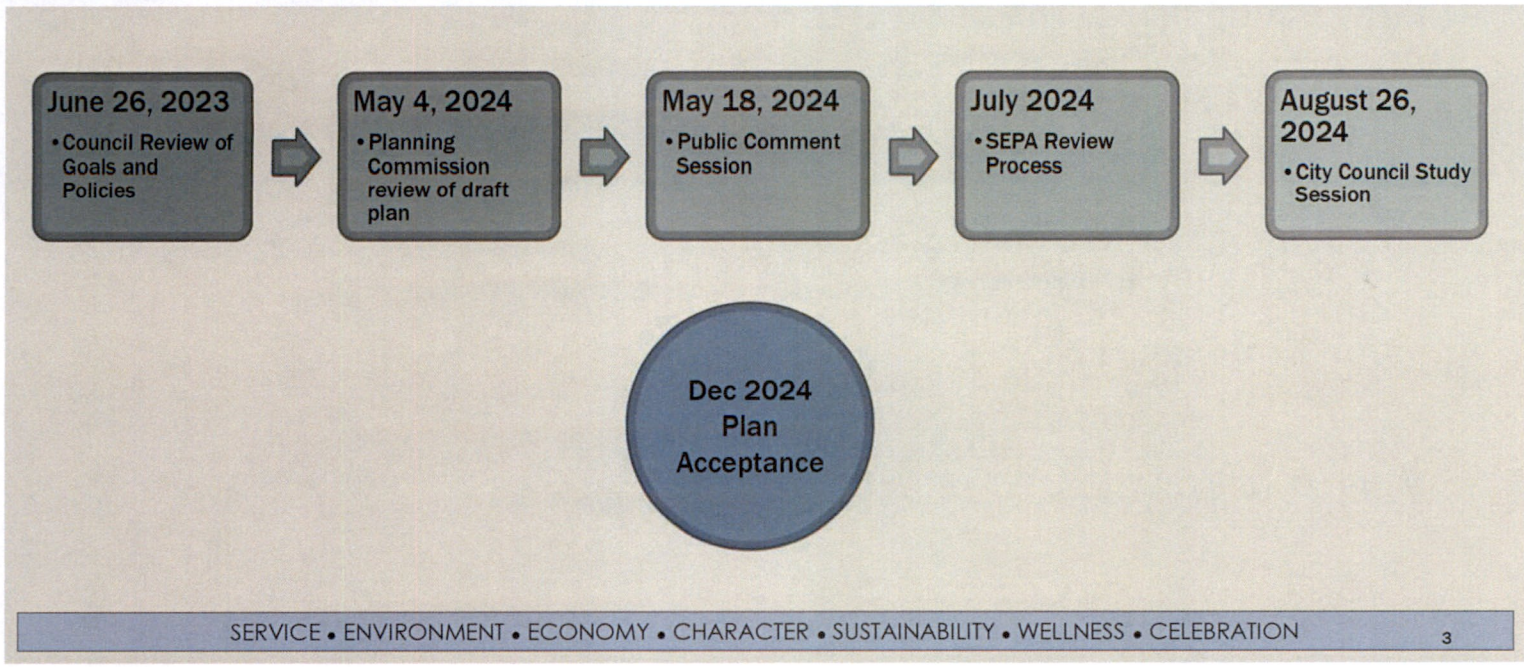
2024 COMPREHENSIVE STORM PLAN IS PART OF THE CITY COMPREHENSIVE PLAN

- Auburn Comprehensive Plan Elements
  - Core Plan (Community Development)
  - Land Use Element (Community Development)
  - Housing Element (Community Development)
  - Historic Preservation (Community Development)
  - Climate Change – NEW (Community Development)
  - Economic Development (Community Development)
  - Capital Facilities Element (Public Works)
  - Transportation Element (Public Works)
  - **Utilities Element (Public Works)**
  - Parks and Recreation (Parks)

IMAGINE AUBURN
~COMPREHENSIVE PLAN UPDATE 2024~

Citywide effort involving all departments coordinating together to create a cohesive, consistent, and forward-thinking Plan covering range of subject areas

PLAN DEVELOPMENT PROGRESS/MILESTONES



ECOLOGY REGULATIONS

- National Pollutant Discharge Elimination System (NPDES) regulates pollution in stormwater
- Washington State Department of Ecology issues a permit to municipalities that regulates storm drainage runoff
- Storm Water Management Manual for Western Washington (SWMMWW)

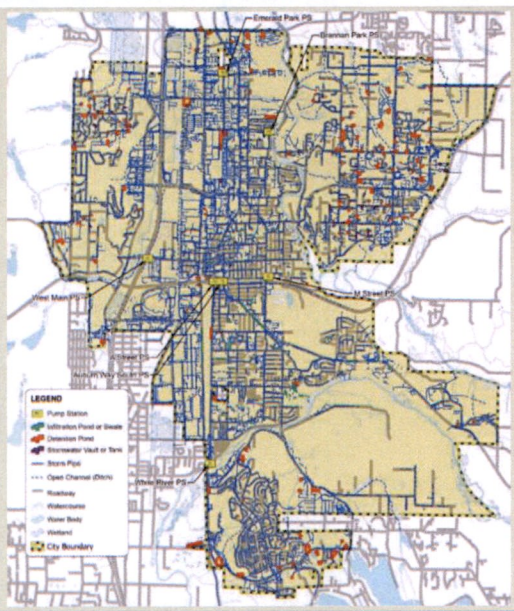
DEPARTMENT OF ECOLOGY
State of Washington

CITY OF AUBURN
WASHINGTON

STORM DRAINAGE UTILITY INTRODUCTION

Storm Drainage Utility Service Area = City Limits

- 240 miles pipe
- 40 miles of ditches
- 10,275 catch basins
- 3,025 manholes
- 167 stormwater ponds
- 7 pump stations



2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 1 - Introduction

- Purpose and objectives
- Approach and document organization

Chapter 2 - Background

- Utility organization and funding
- Regulatory standards
  - National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit
  - Storm Water Management Manual for Western Washington (SWMMWW)

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 3 – System Goals and Policies

- System planning
- Operations and maintenance
- Fiscal responsibility
- Environment and regional coordination

Goals

- Broad statements indicating a general aim or purpose to be achieved.

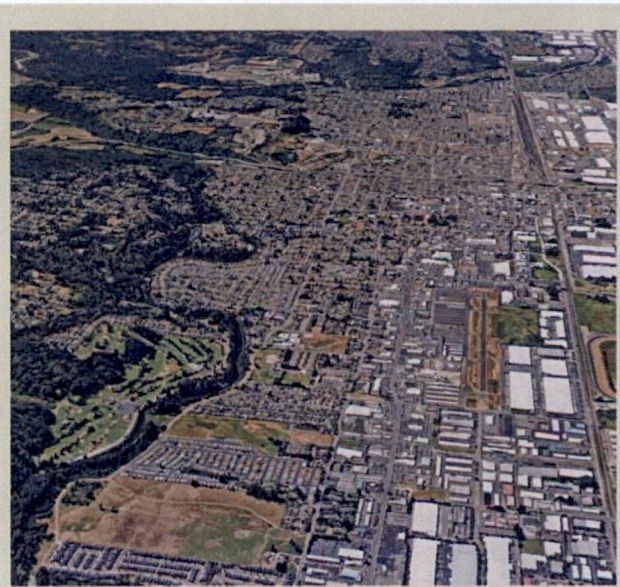
Policies

- Topic-specific statement providing guidelines for current and future decision-making.
- Indicates a clear commitment of the local legislative body.

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 4 – Description of Existing System

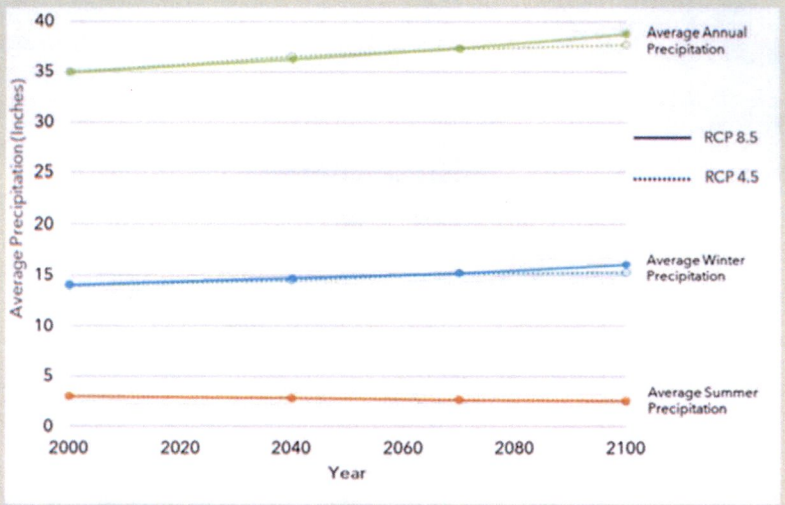
- Natural drainage features of the area
  - Geology
  - Geography
  - Groundwater
- Land use and development
- Inventory of assets
- Climate Change



2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 4 – Climate Change

- Changes in peak stormwater runoff, streamflow, flooding frequency
- Addressing challenges
  - Evaluate risk, consequence, cost
  - Design appropriate level of protection
  - Establish clear policies (safety, mobility, property protection)
- Additional measures to consider
  - Prepare a Critical Drainage Review
  - Adjust development standards & update models for future predictions
  - Add resilience to pump stations



Modified from Mauger, G., and J. Won. 2019. Expanding the Ensemble of Precipitation Projections for King County. University of Washington Climate Impacts Group, Seattle, WA.

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 5 - Storm Drainage Utility Analysis

- Hydraulic evaluation of known problem areas
- Asset management review
- Regulatory driven improvements



2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 6 - Operations and Maintenance

- Routine operations
- Non-Routine and emergency operations
- Record keeping
- Staffing requirements





2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 7 - Capital Projects

<u>6 Year CIP</u>

- West Main St Pump Station Upgrade
- R St SE (22nd St to 33rd St)
- Vegetation Sorting Facility
- M St NE Widening
- 287th St SE WQ Road Retrofit
- 284th St SE (West) WQ Road Retrofit
- 2026 Local St Preservation
- Storm Pipeline Extension Program
- Street Utility Improvements Program
- Frame & Grate Replacement Program
- Storm Drainage Renewal & Replacement Program



2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 8 – Implementation

- 6-year CIP
- Programmatic measures for NPDES compliance
- Future staffing options
- Asset management expansion
- Additional recommendations
  - Climate change considerations
  - Ditch maintenance program

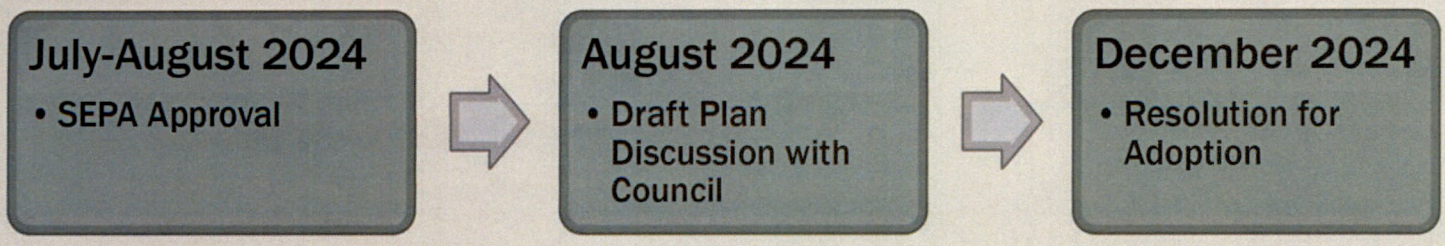
2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 9 - Finance

- 6-year review
- Planned expenses → funding plan
- 10-year forecast
- Maintaining reserves
- Projected rates

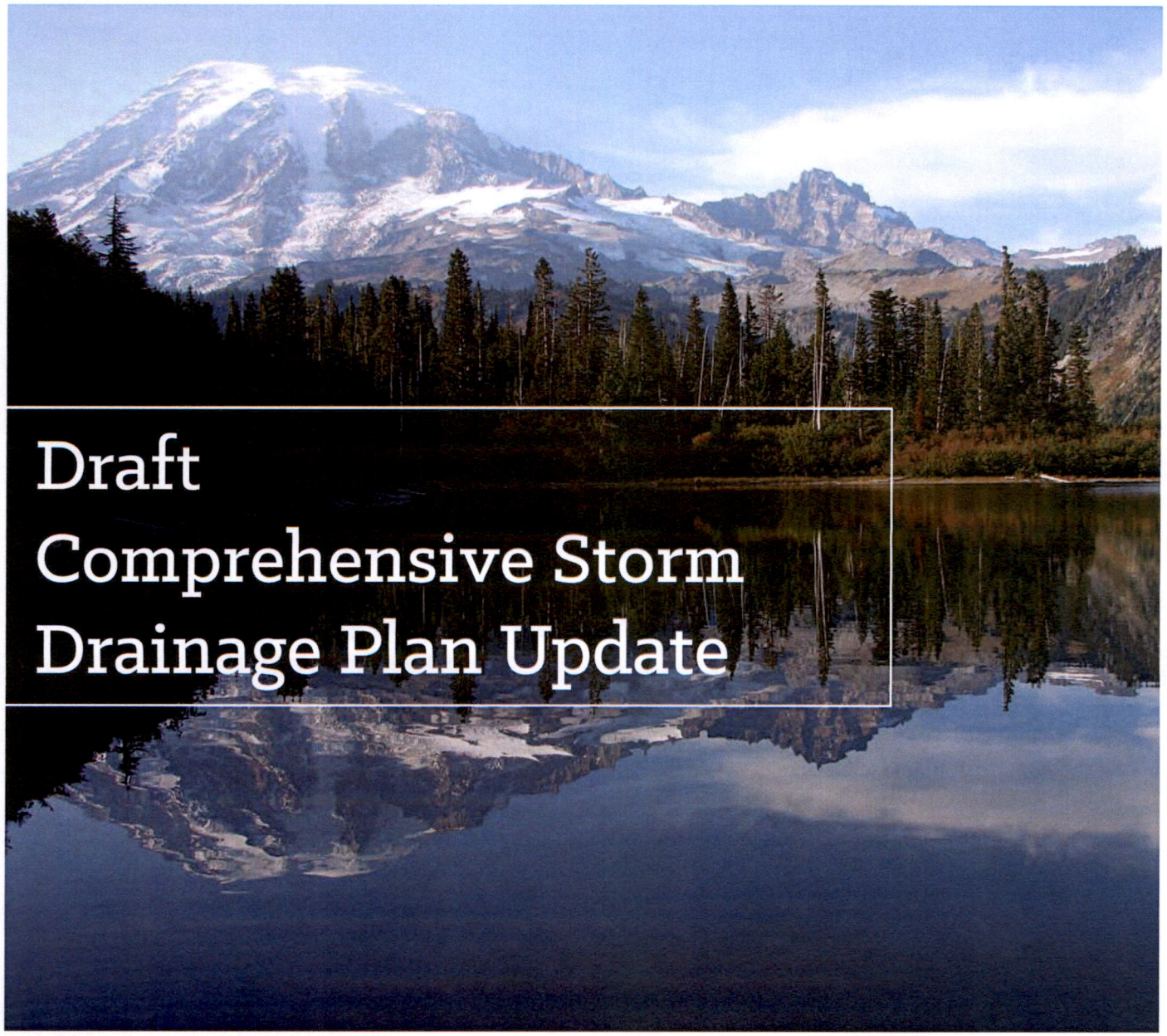


NEXT STEPS


July-August 2024
• SEPA Approval
August 2024
• Draft Plan Discussion with Council
December 2024
• Resolution for Adoption

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Any Questions?



Draft Comprehensive Storm Drainage Plan Update

Prepared for

CITY OF AUBURN WASHINGTON

August 2024

Parametrix

Draft Comprehensive Storm Drainage Plan Update

Prepared for

City of Auburn
25 W Main Street
Auburn, WA 98001

Prepared by

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August 2024 | 553-1931-052

Citation

Parametrix. 2024. Draft Comprehensive Storm
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Prepared for City of Auburn by Parametrix,
Seattle, Washington.
August 2024.

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B Hydrologic and Hydraulic Modeling Analysis

C Asset Management Evaluation

D Regulatory-Driven Improvements Assessment

E Ditch Maintenance and Operations Program - Development and Recommended Actions

F SEPA Compliance Documentation

Acronyms and Abbreviations

ACC	Auburn City Code
BMP	best management practice
CCTV	closed-circuit television
CDR	critical drainage review
CEMP	City Emergency Management Plan
CFP	capital facilities plan
CIP	capital improvement project
CMMS	computerized maintenance management system
COA Supplement	City of Auburn Supplement
CWA	Clean Water Act
DEM	digital elevation model
Ecology	Washington State Department of Ecology
Engineering	City of Auburn Department of Engineering Services
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESU	equivalent service unit
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FTE	full-time equivalent
GASB	Governmental Accounting Standards Board
GIS	geographic information system
GMA	Growth Management Act
G.O.	general obligation
H&H	hydrologic and hydraulic

Acronyms and Abbreviations (continued)

HPA	Hydraulic Project Approval
IDDE	illicit discharge detection and elimination
KCFCD	King County Flood Control District
KCSWDM	King County Surface Water Design Manual
LID	low impact development
LOMR	Letters of Map Revision
LOS	level of service
MEP	maximum extent practicable
M&O	maintenance and operations
MS4	municipal separate storm sewer system
NASSCO	National Association of Sewer Service Companies
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSF	non-single family
OCI	Overall condition index
OCR	overall condition rating
PACP	Pipeline Assessment and Certification Program
PCB	polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substance
Plan	Comprehensive Storm Drainage Plan
RCP	Representation Concentration Pathway
RCW	Revised Code of Washington
ROW	right-of-way
R&R	repair and replacement

Acronyms and Abbreviations (continued)

RSI	required supplementary information
SCIP	Source Control Inspection Program
SEPA	State Environmental Policy Act
SDC	system development charge
SFHA	Special Flood Hazard Areas
SMAP	Stormwater Management Action Plan
SR	State Route
SRP	soluble reactive phosphorus
SWMP	Stormwater Management Program
SWMMWW	Surface Water Management Manual for Western Washington
TAPE	Technology Assessment Protocol – Ecology
TMDL	total maximum daily load
UIC	underground injection control
ULID	utility local improvement district
USACE	U.S. Army Corps of Engineers
VRFA	Valley Regional Fire Authority
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

1. Introduction

This Comprehensive Storm Drainage Plan (Plan) for the City of Auburn, Washington, updates the previous plan that was completed in December 2015. The 2015 Plan is being updated for several reasons:

- The Washington State Growth Management Act (GMA) requires planning documents to be reassessed and updated periodically.
- Current and future regulatory and permitting requirements, such as those associated with the National Pollutant Discharge Elimination System (NPDES), need to be addressed. Since adoption of the 2015 Plan, the NPDES permit was updated and reissued in 2019 and will be updated again in August 2024.
- New compliance elements, such as the Stormwater Management Action Plan (SMAP) and the Source Control Inspection Program (SCIP) require new activities and regulatory responsibilities.
- Continued growth and system expansion via development, in addition to the 2024 annexed development area from the City of Kent, requires new and revised evaluations of the storm drainage system maintenance responsibilities and expanded service area.
- The storm drainage system inventory has been updated and is needed to manage utility assets and to update the analyses used for condition assessments and replacement planning.
- The capital improvements identified in the 2015 Plan needed reevaluation to account for completed projects, new compliance elements, changes in system conditions, new problem areas identified, and new development, as well as to incorporate new financial information.

In addition, expectations and changes to the stormwater program mission are evolving, which may include increasing coordination with land use and watershed planning, identifying proactive actions to update and retrofit the system, improving the maintenance programs and record-keeping, providing area-wide or basin stormwater control systems, and considering long-term retrofitting.

This Plan contains time frames that are the intended framework for future funding decisions and within which future actions and decisions are intended to occur. However, these time frames are estimates and, depending on factors involved in the processing of applications and project work and the availability of funding, the timing may change from the included time frames. The framework does not represent actual commitments by the City of Auburn, which may depend on funding resources available.

1.1 Purpose and Objectives

The purpose of this Plan is to guide the City's Storm Drainage Utility with respect to future activities and improvements. The Plan's objectives are to:

- Evaluate environmental, social, and regulatory drivers to update the system goals for capital facility infrastructure development, operation, maintenance, and other key elements of utility management.
- Perform hydraulic modeling analysis to evaluate system capacity, focusing on known problems and areas where data are available for model development and calibration. Incorporate those updates into the hydraulic models used for analyzing the system.
- Develop capital improvements that meet system needs and effectively manage risks.

- Document maintenance and operations (M&O) activities and develop recommendations for improving the M&O program.
- Review and document the condition of existing stormwater system assets and develop a prioritization system for inspecting critical system elements.
- List and describe Capital Improvement Projects (CIPs) to prioritize 6- and 20-year funding frameworks.
- Provide future-looking suggestions based on potential changing climate factors.
- Incorporate information and activities from current and anticipated NPDES compliance planning.
- Identify additional staffing needed based on NPDES requirements and future maintenance and operation activities.
- Coordinate the capital and operations plans to meet the anticipated revenue stream.
- Develop programmatic recommendations to address utility needs.

1.2 Approach and Document Organization

This Plan is organized to focus on the actions the utility will take to implement the Plan. In most cases, supporting documentation and background information is included in appendices rather than chapters of the Plan. The Plan is organized into the following chapters:

Chapter 1	Introduction: Describes the reasons for developing an updated Plan and states the purpose and objectives of the Plan.
Chapter 2	Background: Provides background information regarding the Storm Drainage Utility and regulatory drivers for developing system goals.
Chapter 3	System Goals and Policies: Specifies the system goals used to develop capital improvements and future M&O activities.
Chapter 4	Drainage System: Describes the existing conditions of the City's drainage system.
Chapter 5	Evolution of the Storm Drainage Utility: Describes methodologies used to evaluate existing problems and develop CIPs.
Chapter 6	Maintenance and Operations: Documents existing Storm Drainage Utility M&O activities.
Chapter 7	Capital Improvements: Describes recommended capital improvement projects, including cost estimates and conceptual figures.
Chapter 8	Implementation Plan: Prioritizes CIPs and lays out a future work plan.
Chapter 9	Finance: Identifies the total cost of providing stormwater drainage services and provides a program for the utility to remain viable during execution of the CIP.
Chapter 10	Limitations: Sets the limits of legal applications of this document.
Chapter 11	References: Lists documents referenced throughout the Plan.

2. Background

This chapter provides a brief description of the Storm Drainage Utility, organizational structure, and funding mechanisms, as well as an overview of the federal, state, and local regulations that can affect stormwater management in the City.

2.1 Storm Drainage Utility

2.1.1 Organizational Structure

The City's Storm Drainage Utility is organized under the larger umbrella of the Public Works Department (see Figure 2-1). The Public Works Department covers several areas of responsibility related to stormwater management:

- Utility Program.
- Transportation Program.
- M&O Program.
- Project Engineering.
- GIS (Asset Management).

Under these programs, the Public Works Department is responsible for the planning, design, construction, operations, and maintenance of the City's storm drainage. Management and construction of storm drainage CIPs is provided by Engineering Services, while maintenance of storm drainage facilities is provided by dedicated stormwater and vegetation divisions within M&O.

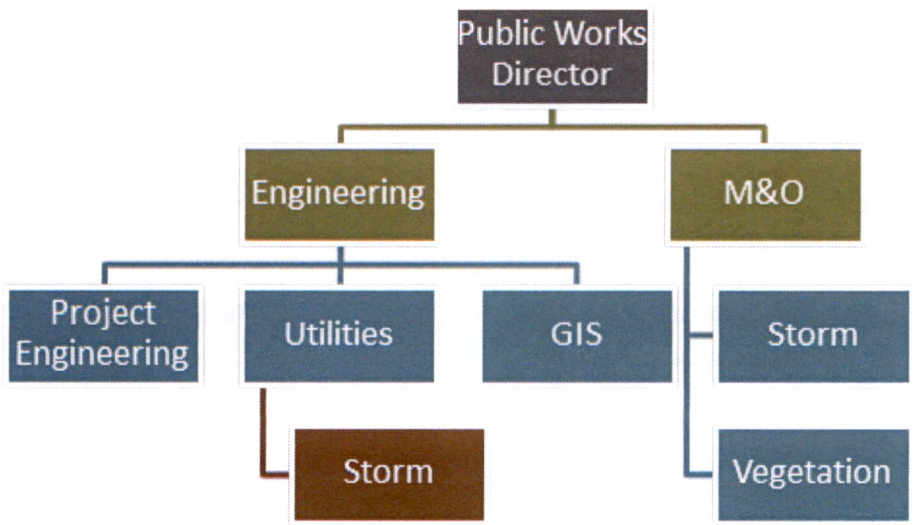


Figure 2-1. Public Works Department Staff Organizational Chart

2.1.2 Funding Mechanisms

The following section provides adapted text from Auburn City Code (ACC) Title 13: Water, Sewers and Public Utilities, Chapter 13.48, Storm Drainage Utility, §13.48.060, Authority to establish rates. Per the ACC, the City has established rate classifications, service charges, and various fees and charges to pay for the following costs:

- The development, adoption, and implementation of a Comprehensive Storm Drainage Plan.
- The debt service and related financing expenses of the design and construction of storm drainage and water quality facilities required for the management of stormwater and surface waters that benefit the service area.
- The operation, repair, maintenance, improvement, replacement, and reconstruction of storm drainage facilities that benefit the present service area (e.g., CIPs to increase system capacity in accordance with level of service [LOS] goals).
- The purchase of a fee or lesser interest, including easements, in land that may be necessary for the storm drainage system in the service area, including, but not limited to, land necessary for the installation and construction of storm drainage facilities and all other facilities that are reasonably required for proper and adequate management of stormwater for the benefit of the service area.
- The costs of monitoring, inspection, enforcement, and administration of the utility, including, but not limited to, water quality surveillance, private system maintenance inspection, construction inspection, and other activities that are reasonably required for the proper and adequate implementation of the City's stormwater and surface water policies and regulations.
- Preparing and implementing requirements for the City's municipal separated storm sewer system (MS4) permit.

2.1.2.1 Rates

The currently established rates for the storm drainage service are provided in Table 2-1 below, which lists rates for 2024 and 2025. Base rates are the monthly charge for service from the Storm Drainage Utility to recover costs incurred by the utility, such as administrative, billing, and collection. Equivalent service units (ESU) are used as a means for estimating the development or impervious surfaces[1] estimated to contribute an amount of runoff to the City's storm drainage system, which is approximately equal to that which is created by the average single-family residential parcel. Open, uncovered, retention/detention facilities shall not be considered as impervious surfaces for the purpose of ESU calculations. One ESU is equal to 2,600 square feet of impervious surface area or any portion thereof. Table 2-1 provides the current monthly charges, base rates, and ESU monthly rates for classifications used by the utility.

[1] An impervious surface is a hard surface area that prevents the entry of water into the soil mantle (see ACC Chapter 13.41). Common impervious surfaces include, but are not limited to rooftops, walkways, patios, concrete, or asphalt paving.

Table 2-1. 2024 and 2025 Utility Rates for Storm Drainage Service

	Effective as of January 1, 2024	Effective as of January 1, 2025
Single-family parcel types	Monthly charge, $	Monthly charge, $
Single-family residential parcels [a]	18.09	19.31
Two-family residential parcels [b]	19.25	19.31
Non-single-family (NSF) parcels	ESU rate per month, $	ESU rate per month, $
NSF [c]	18.09	19.31
NSF with detention [d]	15.57	16.62
NSF with retention [e]	13.04	13.92
NSF with water quality treatment [f]	16.64	17.76
NSF with detention and water quality treatment	4.12	15.07
NSF with retention and water quality treatment	11.59	12.37

[a] Any parcel of land having on it a single detached dwelling unit that is designed for occupancy by one family or a similar group of people.

[b] A building designed exclusively for occupancy by two families living independently of each other and containing two dwelling units.

[c] Any parcel of developed land other than single-family or two-family (duplex) residential.

[d] Detention is the temporary storage of stormwater and surface water runoff, with provisions for the controlled offsite surface release of the stored water.

[e] Retention means the storage of stormwater and surface water runoff, with no provisions for off-site surface release of the stored water other than by evaporation and infiltration.

[f] Water quality treatment means an engineered and approved facility to remove contaminants in the existing flow regime of stormwater generated from a developed parcel pursuant to applicable design standards in place at the time of approval.

Storm Drainage Utility rates are billed monthly. Storm drainage charges start from the day a water meter servicing the property is installed by the City. In cases where the property does not receive water service from the City, storm drainage charges start from the day that the storm drainage permit is finalized by the City. Payments received for utility bills are applied to expenses in the following order of priority: late charges, additional fees, stormwater, garbage, sewer, and water. Payment for stormwater drainage service charges is due and payable to the Finance Department office 15 days after the billing date that appears on the bill. Utility charges are constituted as a lien and thus can be applied to a lien upon the property from which such charges are due, superior to all other liens and encumbrances whatsoever, except for general taxes and local special assessments.

2.1.2.2 Connection Fees

Connection fees are comprised of a connection permit fee and a system development charge (SDC). Connection permit fees are applied to cover the planning, review, inspection, record drawings, and processing of permit information for new connections to the public storm drainage system. Other permit fees are assessed for inspection and permit processing for various repair, retrofit, and demolition activities.

A utility SDC is a charge imposed on new customers, or existing customers revising use of their property, in recognition of the previous investment of the City and its customers in the utility systems. The purpose of an SDC is to recover a fair share of the costs of providing existing utility system infrastructure to serve new customers or revised uses of existing customers and provide for future improvements to serve new customers. As with Storm Drainage Utility rates, SDCs are based on the relative amount of impervious surface added to the system. In 2024, SDCs were estimated to be $1,759 per ESU.

2.2 Development Code and Design Standards Updates

In compliance with the previous NPDES MS4 permit, the City has conducted updates to its development regulations and design standards and adopted a stormwater manual as required by the permit. Specifically, the City adopted the Washington State Department of Ecology (Ecology) 2019 Surface Water Management Manual for Western Washington (SWMMWW), with a City of Auburn Supplement (COA Supplement). The COA Supplement has received minor updates as needed—generally annually—to include new technologies and regulations. Ecology has recently adopted an update to the 2024 SWMMWW. The City has formally updated the standards to the revised manual as a condition of the NPDES MS4 permit.

In August 2024, Ecology issued an updated NPDES MS4 permit to comply with requirements of the federal Clean Water Act (CWA) when the current permit expires. The new permit would be effective through July 31, 2029.

Development regulations related to stormwater and drainage design standards will also be reviewed for potential revision consistent with current policies and LOS goals.

See the following section for an overview of the City's Stormwater Management Program (SWMP) and Chapter 8 for specific steps needed to maintain compliance with updated NPDES MS4 permit requirements.

2.3 Regulatory and Policy Considerations

Numerous federal, state, and local regulations govern stormwater management in the City. Other plans and programs provide additional guidance. Applicable regulations and policy guidance are summarized in Table 2-2.

Table 2-2. Federal, State, and City Regulations, Guidance, and Programs Relevant to the Auburn Storm Drainage Utility

Title	Regulation, Guidance, or Program	Application to the City
Federal		
Clean Water Act (CWA): §402 NPDES	Regulation	The National Pollutant Discharge Elimination System (NPDES) permit includes several requirements that affect stormwater management in the City. See Section 2.3.2 below.
CWA: §303(d) Impaired Waters and Total Maximum Daily Load (TMDL) Program	Regulation	In addition to existing TMDLs, new TMDLs could lead to more stringent stormwater quality controls in future NPDES permits.
CWA: §404 Permit Program	Regulation	Some stormwater Capital Improvement Projects (CIPs) can affect wetlands or other "waters of the U.S." §404 permitting and mitigation can increase CIP costs and schedules.
Endangered Species Act (ESA)	Regulation	Stormwater CIPs that involve federal permitting or funding could require consultation with federal agencies under §7 of the ESA. ESA consultation could increase project timelines and costs.

Table 2-2. Federal, State, and City Regulations, Guidance, and Programs Relevant to the Auburn Storm Drainage Utility (continued)

Title	Regulation, Guidance, or Program	Application to the City
National Flood Insurance Program	Program	The Plan could affect the City's rating under the Community Rating System, which affects flood insurance rates.
Governmental Accounting Standards Board (GASB) Statement 34	Program	Requires accurate inventory of City's stormwater infrastructure. See Section 2.3.3 below.
State		
State Environmental Policy Act (SEPA) (Washington Administrative Code [WAC] 197-11)	Regulation	Each CIP would require SEPA review prior to implementation unless that project is categorically exempt.
Water quality standards (WAC 173-201A)	Regulation	The NPDES MS4 permit does not authorize discharges that would violate State water quality standards. The State may establish TMDLs for water bodies that violate the standards. As noted above, the TMDLs can become NPDES permit requirements.
§401 water quality certification	Regulation	Individual projects that require §404 or other federal permits would also require a §401 certification from Ecology. A §401 certification could include site-specific mitigation measures, which could affect CIP design and cost estimates.
Puget Sound Water Quality Management Plan	Guidance	Plan recommendations should be consistent with the Puget Sound Water Quality Management Plan.
Puget Sound Partnership	Guidance	In 2007, the Washington State Legislature created a State agency for the purpose of developing and overseeing the implementation of a 2014/2015 "Action Agenda" to clean up, restore, and protect Puget Sound by 2020. The partnership's "Action Agenda" identified three priorities, one of which is to prevent pollution from urban stormwater runoff.
Growth Management Act (GMA) and City Comprehensive Plan	Regulation	This Plan is required by the GMA. GMA is discussed in Section 2.3.1 below.
State Hydraulic Code (Revised Code of Washington 77.55, WAC 220-660)	Regulation	CIPs that involve work in waters of the State would require a Hydraulic Project Approval (HPA) permit. HPA permitting and mitigation measures could affect CIP costs.
Archaeological and cultural coordination	Regulation	If any CIPs are planned for areas with known or suspected archaeological sites, the City will need to coordinate with the Department of Archaeology and Historic Preservation, local Indian tribes, and King County Historic Preservation.

Table 2-2. Federal, State, and City Regulations, Guidance, and Programs Relevant to the Auburn Storm Drainage Utility (continued)

Title	Regulation, Guidance, or Program	Application to the City
City		
Environmental review (Auburn City Code [ACC] Title 16.06)	Regulation	Each CIP would be subject to environmental review prior to permitting and construction as prescribed in ACC 16.06. This chapter of the ACC was adopted under the authority of SEPA.
Critical areas ordinance (ACC Title 16.10)	Regulation	The Plan should avoid CIPs in critical areas (e.g., wetlands, groundwater protection zones, or wildlife habitat). If a CIP must be sited in a critical area, the cost estimate should include costs for mitigation and permitting as prescribed in ACC 16.10.
Development regulations (ACC Title 18)	Regulation	The City's development regulations must be consistent with NPDES MS4 permit requirements.
Shoreline Master Program (ACC Title 16.08)	Regulation	Future projects should be located and designed to be consistent with the City shoreline regulations (ACC 16.08). Projects within designated shorelines could require permits and mitigation, which could affect project costs and schedules.

Most of the regulations listed in Table 2-2 primarily affect the implementation of specific measures recommended in the Plan. For example, CIPs that could affect wetlands would need to comply with City critical areas regulations and possibly federal CWA Section 404 regulations. However, three of the regulations listed in Table 2-2—the GMA, Ecology's Phase II NPDES Stormwater permit, and federal Governmental Accounting Standards Board (GASB) Statement 34—directly affect the LOS for this Plan.

These regulations are discussed in greater detail in Sections 2.3.1 through 2.3.3 below.

2.3.1 Growth Management Act

The Washington State Legislature enacted the GMA in 1990 in response to rapid population growth and concerns with suburban sprawl, environmental protection, quality of life, and related issues. The GMA is codified primarily in Revised Code of Washington (RCW) Chapter 36.70A.

The GMA provides a framework for regional coordination, and counties planning under the GMA are required to adopt countywide planning policies to guide plan adoption within the county and to establish urban growth areas. Local comprehensive plans must include the following elements: land use, housing, capital facilities, utilities, transportation, economic development, parks and recreation, and, for counties, a rural element. This Plan serves as a component of the utilities element for City-owned storm drainage assets.

2.3.2 Phase II Municipal Stormwater Permit

The NPDES MS4 permit program is a requirement of the federal CWA, which is intended to protect and restore waters for "fishable, swimmable" uses. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies, and these agencies can set

permit conditions in accordance with and in addition to the minimum federal requirements. In Washington, Ecology is the NPDES-delegated permit authority.

Phase I of the stormwater NPDES regulation applies to cities and counties that operate MS4s and had populations of 100,000 people or more according to the 1990 census. Phase II of the stormwater NPDES regulation applies to municipalities that operate MS4s and have populations of fewer than 100,000 people according to the 1990 census. Auburn is a Phase II permittee.

Ecology issued the current Western Washington Phase II Municipal Stormwater permit (the NPDES MS4 permit) in July 2024, with an effective date of August 2024. The NPDES MS4 permit term will last until July 2029.

The NPDES MS4 permit requires the City to submit a SWMP Plan by March 31 of each year, in which the City identifies activities to be completed in compliance with the permit requirements. The permit also requires submittal of an annual report that looks back on SWMP activities for the prior year. The NPDES MS4 permit and associated requirements are described in detail in the City's current SWMP Plan, which is available on the City's website.

The NPDES MS4 permit allows municipalities to discharge stormwater runoff from their municipal drainage systems into the state's water bodies (e.g., streams, rivers, lakes, and wetlands) as long as municipalities implement programs to protect water quality by reducing the discharge of "nonpoint source" pollutants to the "maximum extent practicable" (MEP) through application of permit-specified "best management practices" (BMPs). The stormwater management activities specified in the NPDES MS4 permit are collectively referred to as the SWMP and grouped under the following program components:

- SWMP administration.
- Public education and outreach.
- Public involvement and participation.
- Illicit discharge detection and elimination (IDDE).
- Control of runoff from new development, redevelopment, and construction sites.
- Municipal operations and maintenance.
- Monitoring and assessment.

The NPDES MS4 permit also requires compliance with established total maximum daily loads (TMDLs).[2] The current NPDES MS4 permit requires the City to monitor discharges to the White River, in association with the Puyallup River watershed fecal coliform TMDL. Additional actions required by the City to ensure compliance with TMDLs are listed in Appendix 2 of the NPDES MS4 permit (Appendix A of this Plan). Ecology has identified several other water bodies in the vicinity of Auburn that do not appear to meet the water quality standards, and additional TMDL requirements are possible in future permits.

[2] A total maximum daily load (TMDL) is a calculated maximum pollutant loading a water body can receive while still meeting water quality standards. Once a TMDL is established, the State determines how much each source must reduce its discharges of the pollutant in order to bring the water body back into compliance with the water quality standards. The federal CWA requires that TMDLs be established for all water bodies that do not meet water quality standards, and that TMDL requirements be included in the NPDES permits for dischargers into the affected water bodies.

2.3.3 Governmental Accounting Standards Board

Financial reporting by public utilities must adhere to requirements set by the GASB, the agency responsible for developing standards of state and local governmental accounting and financial reporting. Most prominent is GASB Statement 34, "Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments," which was issued in June 1999. The main objective of Statement 34's requirements is to have financial reports that are more comprehensive and are easier to understand by the public. Statement 34 consists of several components, which can be seen in full in paragraphs 3 to 166 of the GASB publications. In summary, Statement 34 requires that the basic financial statements and required supplementary information (RSI) for general purpose governments should consist of the following:

- Management's discussion and analysis. In sum, this requirement states that prior to the basic financial statements, a discussion providing an analytical overview of the government's financial activities is necessary.
- Basic financial statements, which should include:
  - → Government-wide financial statements that include information on net assets (e.g., storm drainage infrastructure) and a statement of activities.
  - → Fund financial statements that focus on information about the government's major governmental and enterprise funds (e.g., the City's Storm Drainage Utility), including its blended component units.
  - → Notes to the financial statements that will enable users to understand the basic financial statements.
- Required supplementary information. Budgetary comparison schedules should be presented as RSI along with other types of data, as required by previous GASB pronouncements.

Consequently, the City needs an accurate inventory of its stormwater infrastructure in order to comply with the GASB 34 requirements.

3. System Goals and Policies

This chapter describes a set of overarching goals for the City's Storm Drainage Utility and policies for complying with these goals.

3.1 City Comprehensive Plan Consistency

The City Comprehensive Plan is the City's growth management plan and contains policies for protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive utility plans, and implementing them through capital investments and development regulations. Therefore, the City Comprehensive Plan provides a framework of policies for development, expansion, and maintenance of the Storm Drainage Utility reflected in this Storm Drainage Comprehensive Plan.

3.2 Storm Drainage Comprehensive Plan Policy Goals

The City's Storm Drainage Utility policies are grouped within goal statements that are headlined under the following categories:

- System Planning.
- Operations and Maintenance.
- Fiscal Responsibility.
- Environment and Regional Coordination.

Taken together with the City Comprehensive Plan and ACC these goals define how the Storm Drainage Utility shall be operated and maintained. Several policies have been developed within each goal, many of which are also based on the Washington Department of Ecology SWMMWW and the City's Phase II NPDES MS4 permit.

3.2.1 System Planning

Goal 1: Employ recognized best business practices resulting in creating a sustainable, efficient, and cost-effective operation of the Storm Drainage Utility.

POLICY 1.1 Incorporate the Comprehensive Storm Drainage Plan as an Element of the City's Comprehensive Plan.

POLICY 1.2 The City shall seek to manage stormwater runoff within the public Right Of Way (ROW):

- to provide access to and functionality of critical services.
- to preserve mobility on major transportation routes (i.e., arterial roads) and residential roads.
- to protect real property structures (e.g., residences and businesses).

POLICY 1.3 The City shall seek to provide pump redundancy and backup power generators or dual power feeds at City-owned and -operated drainage pump stations.

POLICY 1.4 The City shall routinely assess the performance of pumped systems with a focus on capacity and vulnerability. This review aims to ensure that these systems operate efficiently, meet their intended capacity, and remain resilient against potential risks.

POLICY 1.5 The City shall require the separation of sanitary and storm sewer facilities wherever combined sewers may be discovered.

POLICY 1.6 Establish, maintain, and update an asset database to be used in prioritizing asset maintenance and repair and replacement activities. The database will include asset age and material information and will be validated and updated through inspections, records review, and other available information.

POLICY 1.7 Review complaints/citizen reports and claims made against the City and create a list of operational and capital improvements to be implemented by the Plan.

POLICY 1.8 The City shall use the outcomes of future rainfall intensity data updates for informing the design of its stormwater systems. Specifically, the same design storms—such as the 25-year event for pipe capacity and the 100-year event for storage facilities—shall be employed using projected rainfall statistics. The City shall draw upon relevant studies, including those mentioned in the King County Surface Water Design Manual (KCSWDM) or other ongoing regional research once the results become available (King County DNR 2021).

3.2.2 Operations and Maintenance

Goal 2: Maintain existing infrastructure and ensure facilities are reliable and operational now and into the future.

POLICY 2.1 The City shall maintain or seek access to all City-owned facilities for necessary maintenance and operation. [ACC 13.48.440B]

POLICY 2.2 The City's Storm Drainage Utility shall be responsible for implementation, maintenance, and operation of the City's public storm drainage system. Storm systems serving City-owned properties managed by other departments and/or divisions of the City that are not part of the public storm drainage serving the public ROW (e.g., Parks, Arts & Recreation; Administration – Facilities; Public Works – Airport) shall be responsible for their own maintenance and upkeep.

POLICY 2.3 Drainage facilities constructed to serve private property shall be owned and maintained by the property owner. Drainage facilities constructed to serve public ROW shall be owned and maintained by the City.

POLICY 2.4 The City shall seek to maintain storm drainage infrastructure to ensure proper function of drainage facilities by performing scheduled maintenance in accordance with the NPDES permit. [ACC 13.48.180]

POLICY 2.5 The City shall seek to seasonally maintain storm drain inlets, conveyance, and outfalls to preserve design conveyance capacity.

POLICY 2.6 Employee safety will be a primary consideration in the design, construction, operation, and maintenance of storm drainage infrastructure.

POLICY 2.7 Investigate all customer service calls within 24 hours and record results in the computerized maintenance management system (CMMS.)

3.2.3 Fiscal Responsibility

Goal 3: Responsibly manage funds, employ best business practices, and operate the utility in a cost-effective manner.

POLICY 3.1 Appropriate rates and system development charges shall be assessed and periodically updated to fund the ongoing maintenance, operation, and capital expenditures of the utility. [ACC 13.48.060]

POLICY 3.2 Manage the Storm Drainage Utility funds and resources in a professional manner in compliance with applicable laws, regulations, and City financial policies, which requires ongoing monitoring of revenues and expenses in order to make prudent business decisions, and report to City officials, as needed, regarding the status of utility operations.

POLICY 3.3 The City shall require that developers evaluate off-site storm drainage systems, consider improvements needed to serve new development, and construct identified improvements prior to or simultaneously with such development.

POLICY 3.4 The City shall continue to prioritize asset management as a business practice and use it to plan for preventative maintenance, predict system depreciation and replacement costs, prioritize inspections for condition status to inform system risk, and prepare to minimize the occurrence and impact of system failures.

POLICY 3.5 The City will monitor capital project implementation by tracking schedule, budget accuracy, and overall efficiency.

POLICY 3.6 Consider replacing or upgrading storm facilities to current standards in the ROW whenever a street is to be substantially reconstructed or other significant utility work is to be completed, especially when storm improvements are specifically identified in the Plan. In addition, consider street and other utility improvement needs when replacing or upgrading storm facilities.

POLICY 3.7 Pursue opportunities to secure grants and other revenue partnerships to fund storm drainage program needs.

POLICY 3.8 The utility will not accept nonstandard, powered, or private facilities for ownership, operation, or maintenance by the utility.

3.2.4 Environment and Regional Coordination

Goal 4: Work to protect the natural environment within the City and contribute to the preservation of natural resources throughout the region.

POLICY 4.1 The Storm Drainage Utility shall work with other jurisdictions and agencies to address regional water quality issues.

POLICY 4.2 The City shall comply with all federal, state, and local regulations pertaining to stormwater management, facility maintenance, and pollution control.

POLICY 4.3 The City shall promote policies that preserve existing native vegetation and natural drainage courses while maintaining their conveyance capacity.

POLICY 4.4 Environmental issues, such as water quality and fish habitat protection, shall be considered in all new development applications and new storm drainage improvements. This policy includes consideration of new and emerging concerns, such as the chemical 6PPD-quinone in street runoff and the effects of climate change on stream temperatures.

POLICY 4.5 The City shall seek to minimize impacts to natural river systems by encouraging pretreatment of surface flows from new development and reintroduction into groundwater, where feasible.

POLICY 4.6 The City shall seek opportunities, where feasible, to reintroduce treated urban runoff back into the groundwater system as new development and redevelopment occurs in order to minimize urbanization impacts to the hydrology of natural river systems.

POLICY 4.7 The City shall evaluate the feasibility of improving the water quality of its existing discharges into river systems.

POLICY 4.8 The City shall seek to comply with all federal, state, and local regulations to reduce runoff volumes and pollutant loads associated with new development and redevelopment.

POLICY 4.9 The City shall seek to prevent erosion and landslides related to construction, operation, and maintenance of the publicly owned drainage system.

4. Drainage System

Chapter 4 develops a future work plan to collect and organize information describing the current conditions of the storm drainage system, which provides the basis for investigations (Chapter 5) designed to evaluate the Storm Drainage Utility performance relative to the system goals. This chapter provides an overview of the City's drainage system, including both natural (Section 4.1) and constructed (Section 4.2) drainage elements. It also summarizes key factors related to the storm drainage system, namely critical facilities (Section 4.3) and water quality (Section 4.4), and existing issues facing the Storm Drainage Utility (Section 4.5).

Figures presented in this chapter consist of several maps of the Storm Drainage Utility service, drainage and surrounding areas.

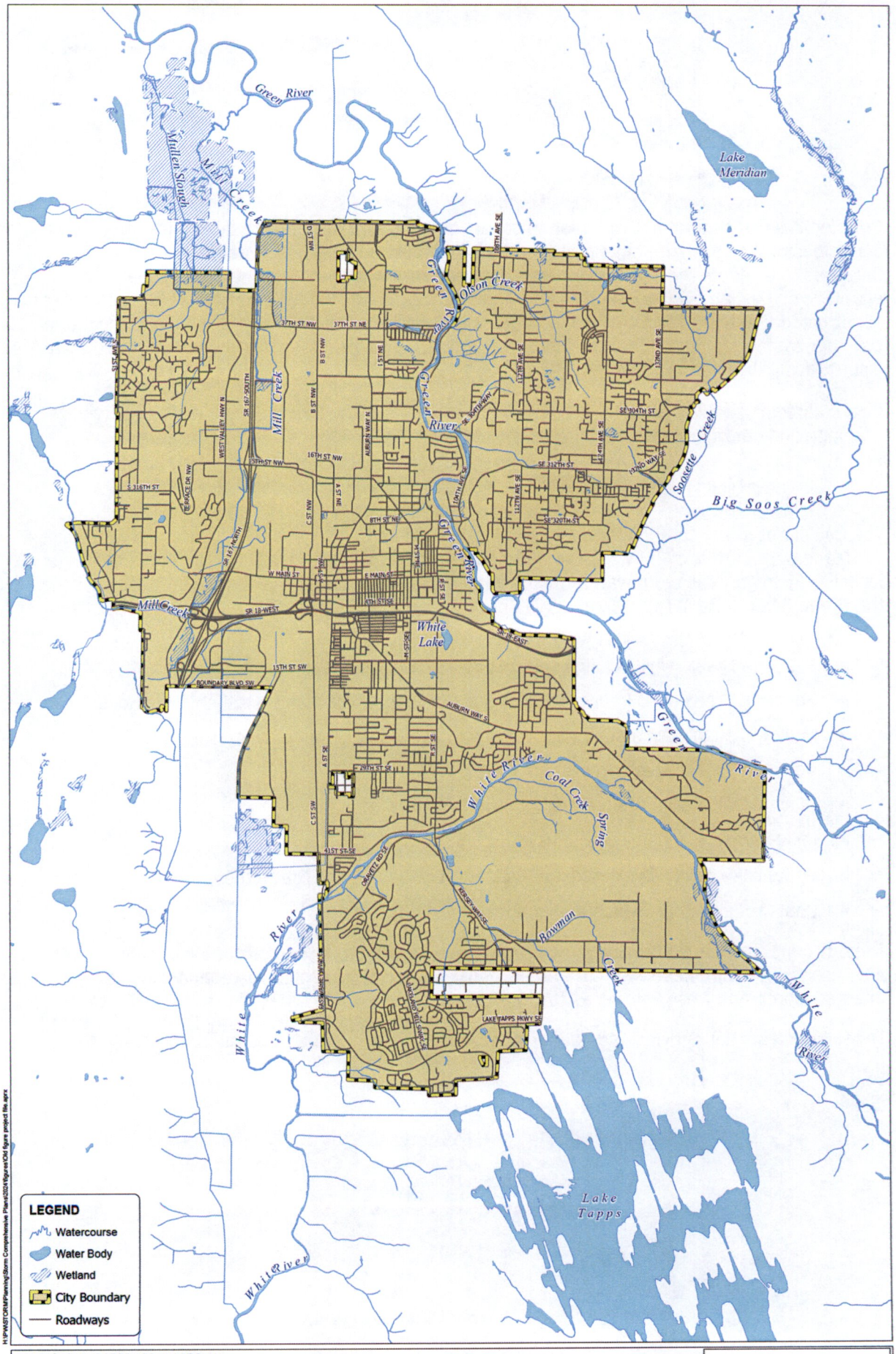
4.1 Natural Drainage

The City of Auburn encompasses approximately 30 square miles; the central portion of the City lies along the bottom of a valley, while the outer edges of the City extend into the surrounding hills (see Figure 4-1). In general, stormwater runoff from the City flows to one of three major receiving waters: the Green River, the White River, and Mill Creek. Other notable water features in the Auburn area include the following:

- Big Soos Creek, which drains southeast into the Green River.
- Soosette Creek (also known as Little Soos Creek), which drains south into Big Soos Creek.
- Mullen Slough, which drains along the northwest side of Mill Creek toward the Green River.
- Bowman Creek, which drains north into the White River.
- Olson Creek, which drains west into the Green River.
- Lake Tapps, which is located just south of the City.
- White Lake, which is located southeast of R Street SE and State Route (SR) 18.
- Coal Creek Springs, which drains north to the White River.

The City contains nearly 30 miles of rivers and streams and more than 1,000 acres of floodplain area associated with these water features. There are over 1,500 acres of wetlands, including forested/shrub and freshwater emergent wetlands.

The following section provides additional information on each of the three major receiving waters.


Green River
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Mill Creek
Lake Meridian
Olson Creek
Green River
Soosette Creek
Big Soos Creek
Mill Creek
White Lake
Green River
White River
Coal Creek
Spring
Rowman Creek
White River
White River
Lake Tapps
LEGEND
Watercourse
Water Body
Wetland
City Boundary
Roadways
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CITY OF AUBURN WASHINGTON
Figure 4-1
Natural Drainage Features
of the City of Auburn

4.1.1 Receiving Waters

4.1.1.1 Green River

The Green River flows over 93 miles, beginning on the west slope of the Cascade mountains and ending in the Duwamish Waterway, meandering through the northeast portion of Auburn along the east valley wall. Throughout the last century, the Green River was altered for the purpose of flood control, including the construction of levees and bank revetments and the diversion of the White River in the early 1900s. In 1962, the Howard A. Hanson Dam was built on the Green River to control flooding in the valley.

From 1960 to 2007, the City of Auburn participated in Green River flood management activities as part of the Green River Flood Control District. In 2007, the Green River Flood Control District was phased out because flood control and management efforts for the Green River are now included in the King County Flood Control District (KCFCD), which was established in 2007. These efforts are reflected in the 2006 King County Flood Hazard Management Plan. The KCFCD goals and objectives include maintaining and repairing levees and revetments and acquiring at-risk floodplain properties. Auburn elected officials and staff serve on advisory committees for the KCFCD.

4.1.1.2 White River

The White River originates on the slopes of Mount Rainier and flows generally northward and westward into the Puget Sound lowlands. Near Auburn, the White River flows north and then west through the southern portions of the City before it curves southward toward the Puyallup River. The White River is a very dynamic, sediment-laden river, which has led to changing channel morphology.

Prior to 1900, the White River flowed into the Green-Duwamish River; however, floodwaters from the White River drained to both the Green-Duwamish River and the Puyallup River. A flood in 1906 caused the White River to shift and flow into the old Stuck River channel, which leads to the Puyallup River. In 1907, a diversion wall was constructed in Game Farm Park to permanently direct the White River flow into the Puyallup River (USACE 2009a).

The shifting of floodwaters from the White River caused inter-jurisdictional conflicts between King and Pierce Counties. After attempts by the two counties to control flooding along the White River met with limited success, the U.S. Army Corps of Engineers (USACE) was engaged for help. In 1948, the USACE finished construction of the Mud Mountain Dam to control floods on the White River.

At the time Mud Mountain Dam was finished, White River channel capacity in Auburn was estimated to be 20,000 cubic feet per second. Since then, vegetation encroachment and sediment accumulation have reduced channel capacity (USACE 2009a). Reduced channel capacity causes higher river levels during large storm events, which can impact the City's gravity drainage outfalls along the White River.

4.1.1.3 Mill Creek

Mill Creek flows out of the hills on the west side of the valley near SR 18 and then turns northward along the western portion of the City, running adjacent to SR 167. It crosses under SR 167 several times as it flows through the valley floor. Approximately 1 mile north of the City boundary, Mill Creek discharges into the Green River.

Historically, Mill Creek served as vital habitat for migrating salmon and provided ideal conditions for rearing and storm refuge. However, increasing development has altered the natural flow pattern of Mill Creek, including the installation of diversions and culverts, channel straightening, degradation of water quality, and aggradation from increased stormwater inflows with high sediment loads. In many

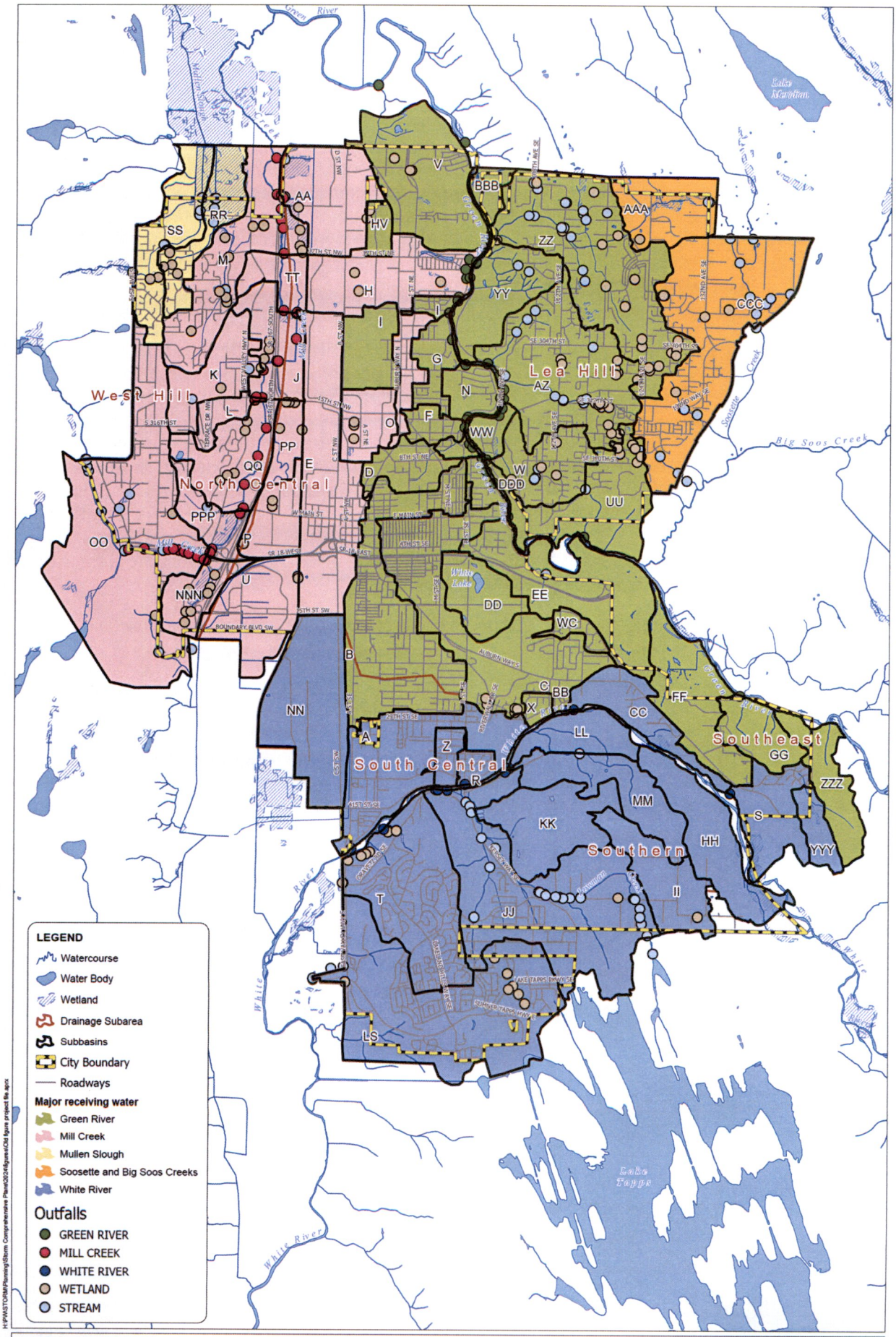
areas the stream is straight and shallow and exhibits a lack of quality riparian habitat for Endangered Species Act (ESA)-listed species such as Chinook salmon and bull trout (USACE 2009b). Aggradation along Mill Creek has also contributed to flooding and drainage problems in the City. The City's drainage outfalls to Mill Creek can become submerged, thereby reducing the hydraulic capacity of the system.

4.1.2 Drainage Areas

The City's drainage can be described by dividing the City into six general subareas and their discharge location (Figure 4-2):

- Lea Hill lies northeast of the Green River. Most of the Lea Hill area drains west into the Green River. However, the eastern edge drains south and east out of the City into Soosette Creek and Big Soos Creek.
- West Hill lies west of Mill Creek. The West Hill area drains into several small tributaries to Mill Creek. The northern portion of West Hill drains to the northeast into steep ravines that discharge to Mullen Slough and other wetland areas on the valley floor.
- The southern portion of the City drains to the White River. The area west of Bowman Creek consists largely of single family residential developments, which drain to the White River to the west and north and Bowman Creek to the east, with a small portion draining south toward Lake Tapps. The area east of Bowman Creek consists of rural residential development. This area drains to Bowman Creek on the southwest and the White River on the northeast side.
- The southeast portion of the City lies along a narrow plateau between the Green and White Rivers. Runoff from this area drains to the Green River along the north side and the White River along the south side.
- The north central portion of the City lies along the valley floor and is located north of 27th Street SE. This is part of the central and most developed area of the City. The topography in this area is so flat that roadways and storm drainage infrastructure largely determine the receiving water to which runoff is diverted. Runoff from this area is generally split between Mill Creek and the Green River.
- The south central portion of the City also lies along the valley floor and is located south of 27th Street SE. This area is also part of the most developed area of the City. The topography in this area is so flat that roadways and storm drainage infrastructure largely determine the receiving water to which runoff is directed. This area features extensive infiltration into groundwater, but otherwise drains toward the White River.

The above-described areas can be divided into smaller drainage subbasins. The City maintains a mapping of the storm drainage basins and subbasins, with a total of 59 drainage subbasins. Each subbasin is identified by a series of one, two, or three letters (Figure 4-2).



COMPREHENSIVE STORM DRAINAGE PLAN
May 2024

0 4,000 8,000 Feet
1:48,000

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CITY OF AUBURN WASHINGTON

Figure 4-2
Drainage Subareas for the City of Auburn Storm Drainage Utility

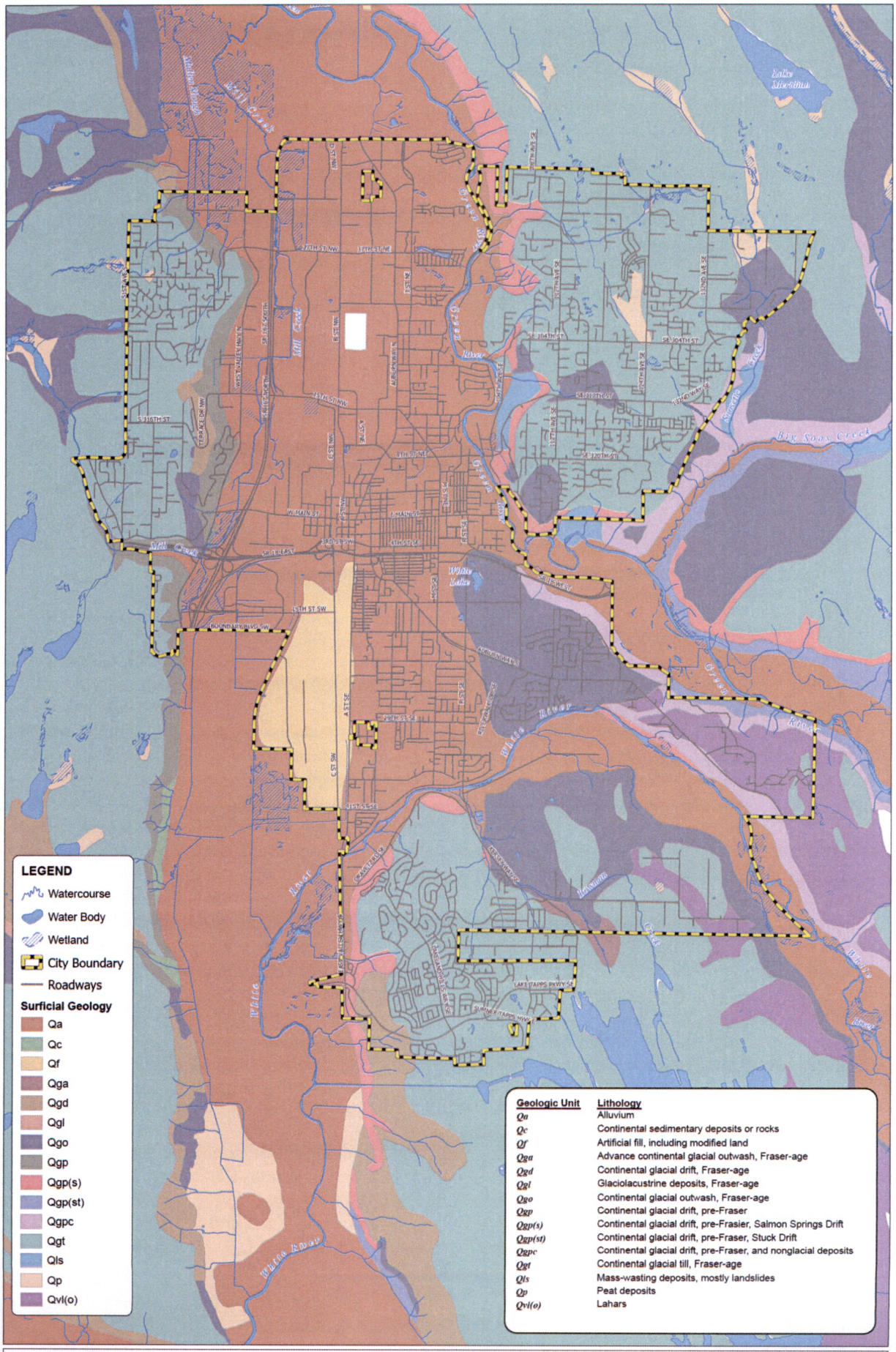
4.1.3 Geology and Groundwater

Topography and geology in the Auburn region has been influenced largely by millions of years of advancing and retreating glaciers, most recently with the Vashon glaciation occurring approximately 12,000 to 18,000 years ago (Booth 1991). Following the retreat of the glacier, interglacial processes, such as landslides, mudflows, erosion, and alluvial deposition, have continued to shape the region. In general, the upland hills around the City's periphery comprise glacial and interglacial deposits, while the valley is filled with more recent deposits overlying glacial and older interglacial deposits.

Major geologic units of the White and Green River valley include undifferentiated glacial and interglacial deposits, Vashon recessional deltaic deposits, undifferentiated alluvium, Osceola mudflow, and White River alluvium. The undifferentiated glacial and interglacial deposits form the lowest layer in the valley consist of materials deposited during the glacial periods. As the glacier retreated, meltwater flowed into a water-filled embayment then occupying the present White and Green River valley area. This meltwater deposited sand and gravel known as the Vashon recessional deltaic deposits. After the end of the glacial period, the Green River deposited undifferentiated alluvium in the valley because of erosion of upland glacial deposits. Approximately 5,700 years ago, a massive volcanic mudflow from Mount Rainier, known as the Osceola mudflow, flowed down into the valley (Troost and Booth 2008). White River alluvium is the geologic unit nearest the surface and consists of alluvial deposits from the White and Green Rivers.

Bedrock is found approximately 1,280 feet beneath the valley floor. Surficial geologic mapping of the Auburn region is shown in Figure 4-3.

In general, groundwater flow systems in the Auburn area are characterized by upland recharge flowing toward the valley. The two major aquifers in the White and Green River valley are the modern alluvium aquifer and a deep deltaic valley aquifer; the latter is used for Auburn's water supply. The modern alluvium aquifer is the shallowest aquifer in the Auburn-Kent Valley, often lying 10 to 15 feet below the ground surface. Groundwater in the deep deltaic valley generally flows in a pattern parallel to the direction of the Green River in the north and the White River in the south.


LEGEND
Watercourse
Water Body
Wetland
City Boundary
Roadways
Surficial Geology
Qa
Qc
Qf
Qga
Qgd
Qgl
Qgo
Qgp
Qgp(s)
Qgp(st)
Qgpc
Qgt
Qls
Qp
Qvl(o)
Geologic Unit | Lithology
Qa | Alluvium
Qc | Continental sedimentary deposits or rocks
Qf | Artificial fill, including modified land
Qga | Advance continental glacial outwash, Fraser-age
Qgd | Continental glacial drift, Fraser-age
Qgl | Glaciolacustrine deposits, Fraser-age
Qgo | Continental glacial outwash, Fraser-age
Qgp | Continental glacial drift, pre-Fraser
Qgp(s) | Continental glacial drift, pre-Frasier, Salmon Springs Drift
Qgp(st) | Continental glacial drift, pre-Fraser, Stuck Drift
Qgpc | Continental glacial drift, pre-Fraser, and nonglacial deposits
Qgt | Continental glacial till, Fraser-age
Qls | Mass-wasting deposits, mostly landslides
Qp | Peat deposits
Qvl(o) | Lahars
Lake Meridian
Mill Creek
Green River
Soos Creek
Big Soos Creek
Jovita Creek
White River
Ravensdale Creek
Hawkins Creek
Lake Tapps
Auburn
Kent
Maple Valley
Covington
Black Diamond
Enumclaw
Boundary Blvd SW
Auburn Way N
Auburn Way S
Lake Tapps Pkwy SE
Summer Tapps Hwy
Terrace Dr NW
Kersey Way
Ravensdale Rd SE
Jovita Blvd SE
Veterans Memorial Dr SE
Green River Rd
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4.1.4 Soils and Runoff Potential

Surface soils are classified by the Natural Resources Conservation Service (NRCS) into four hydrologic soil groups based on the soil's runoff potential: A, B, C, and D. Group A soils generally have the lowest runoff potential while Group D soils have the highest. Hydrologic soil groups are defined by NRCS (1986) as follows:

- Group A is sand, loamy sand, or sandy loam types of soils. It has low runoff potential and high infiltration rates, even when thoroughly wetted. It consists chiefly of deep, well- to excessively drained sands or gravels and has a high rate of water transmission.
- Group B is silt loam or loam. It has a moderate infiltration rate when thoroughly wetted and consists chiefly of moderately deep to deep, moderately well- to well-drained soils with moderately fine to moderately coarse textures.
- Group C is sandy clay loam. It has low infiltration rates when thoroughly wetted and consists chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine structure.
- Group D is clay loam, silty clay loam, sandy clay, silty clay, or clay. It has very low infiltration rates when thoroughly wetted and consists chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material.

Areas in the valley floor is mostly Group D soils, which typically have very low infiltration rates and high runoff potential. The West Hill, Lea Hill, and Lakeland Hills areas are predominantly Group C soils, which have low infiltration rates and moderate to high runoff potential. The Southeast area, Bowman Creek area, and valley area located generally between SR 18 and the White River have Group A soils, which are characterized by high infiltration rates and low runoff potential. See the NRCS maps (http://www.nrcs.usda.gov/) for mapped soils within the City.

4.1.5 Land Use and Development

Land use and the intensity of development have considerable effects on the quality and quantity of stormwater runoff flowing into the drainage system and ultimately discharging to receiving waters. As the population of the City increases, new areas of the City are developed or existing areas are redeveloped at a higher density. These changes can result in increased stormwater runoff and greater water quality impacts to water bodies. However, development regulations and drainage design standards imposed by the City are intended to mitigate these impacts. The following sections describe expected growth and how development regulations and design standards are being updated to reduce impacts to stormwater runoff.

4.1.5.1 Recent Growth

Auburn's population has steadily increased since the 1950s. Auburn's population increased by an average of 8% per year from 1960 to 1980, then slowed to approximately 1.7% per year from 1980 to 1994. Auburn's population growth rate began to increase in 1998 and continued as the City annexed new areas, known locally as the Lea Hill, West Hill, and Lakeland Hills areas. The larger Lea Hill area annexations began in 2000 and continued to 2024. The West Hill area was annexed in 2007, while the Lakeland Hills area annexations occurred between 1998 and 2005. As of 2010, the population of Auburn increased to 70,180 and increased to 86,340 by 2020. The Washington State Office of Financial Management indicates that Auburn's population in 2023 was approximately 88,820 (approximately 78,760 in King County and 10,060 in Pierce County).

4.1.5.2 Future Growth

The City's goals, objectives, and policies for growth and development are described in detail in the 2025 Comprehensive Plan. These goals, objectives, and policies are applied to different areas of the City through land use designations (see Figure 4-4). The City also has developed special land use plans for certain areas of the City where specific land use goals have been identified. An important example is the City's downtown area; one of the goals described in the Comprehensive Plan is to encourage development and redevelopment in the downtown area to serve as an urban center for the community.

4.1.5.3 Development Regulations and Drainage Design Standards

The City implements state and federal stormwater regulations through the stormwater code, the COA Supplement, and related stormwater management programs and policies. City stormwater regulations contain specific requirements for managing stormwater quality and quantity in areas subject to new development and redevelopment. For example, the SWMMWW provides guidance for implementing low impact development (LID) measures that are designed both to improve water quality and to control peak flows and durations of runoff. The City reviews and updates its local development regulations and design standards as necessary to meet the NPDES MS4 permit requirements. The COA Supplement was last updated in 2022.

City stormwater regulations and development standards are intended to avoid substantial increases in stormwater discharges to the existing drainage system through the implementation of on-site stormwater controls. This would keep stormwater conveyance demands at or near existing levels.

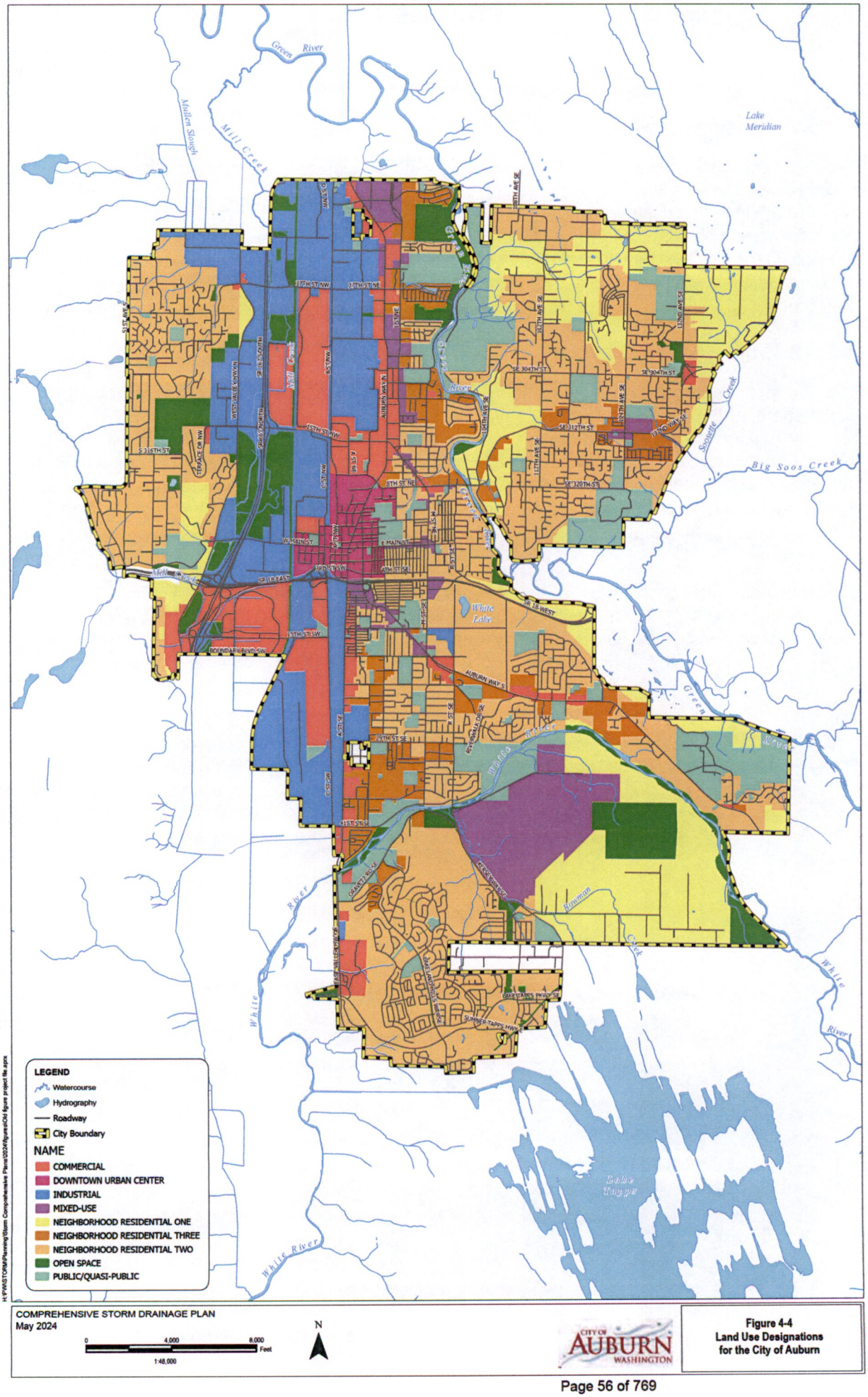


Figure 4-4
Land Use Designations for the City of Auburn

4.1.6 Flood Hazard Mapping

The City of Auburn is a participant in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA) to enable property owners to purchase insurance protection from the government against losses from flooding. Participation in the NFIP is based on an agreement between the City and the federal government, stating that if the City adopts and enforces a floodplain management ordinance to reduce future flood risks to new construction in areas designated as Special Flood Hazard Areas (SFHA), the federal government will make flood insurance available within the community as a financial protection against flood losses. The SFHAs and other risk premium zones applicable to each participating community are depicted on Flood Insurance Rate Maps (FIRMs).

FEMA established flood hazard zones from a Flood Insurance Study (FIS) for King County conducted in 2013, which examined flooding along several major rivers. Although the primary purpose of the FIS was to establish flood insurance rates, the flood mapping resulting from these studies is also used for floodplain management and flood hazard mitigation planning. Updates to the flood hazard zones are continually being made at local levels (King County and Pierce County) and represented in Preliminary FIRMs or Letters of Map Revision (LOMR). Preliminary FIRMs for all of King County were reissued on August 19, 2020. The most recent flood hazard mapping for Pierce County is presented in its Rivers Flood Hazard Management Plan adopted in 2023 and also in LOMR files located on the FEMA Map Service Center Web page (Pierce County 2023). Table 4-1 lists the FIRMs developed for areas within the City of Auburn.

Table 4-1. Federal Emergency Management Agency Flood Insurance Rate Maps Applicable to Auburn

53033CIND1B	53033CIND2B	53033C1232G	53033C1235G
53033C1242G	53033C1251G	53033C1252G	53033C1253G
53033C1254G	53033C1257G	53033C1259G	53033C1261G
53033C1262G	53033C1263G	53033C1264G	53033C1266G
53033C1267G	53033C1268G	53033C1269G	53033C1476F
53033C1477F			

4.1.7 Recent Climate and Precipitation Trends

Auburn's climate is typical of that in the Puget Sound lowlands of Western Washington, where the summers are cool and comparatively dry, while the winters are mild, wet, and cloudy (WRCC 2014). Mean annual precipitation in the Puget Sound lowlands varies from 32 inches (north Seattle) to approximately 47 inches (near Centralia, Washington).

The precipitation gauge at Auburn City Hall has been recording data since 1995. The mean annual precipitation recorded at that gauge (with missing data filled in from the nearby King County Lakeland Hills gauge) from 2015 to 2022 was approximately 39 inches. This is very similar to the mean annual precipitation recorded at the two nearest long-term gauges:

- Seattle-Tacoma Airport, which is part of the National Oceanic and Atmospheric Administration (NOAA) Cooperative Network (Station 457473), has a mean annual precipitation of approximately 38 inches based on 74 years of recorded data (WRCC 2014b). The Seattle-Tacoma Airport gauge is located approximately 8 miles northwest of Auburn.
- Kent, Washington (NOAA Co-op Station 454169) has a mean annual precipitation of approximately 39 inches based on 57 years of recorded data (WRCC 2014c). The Kent gauge is located approximately 7 miles north of Auburn.

Precipitation-frequency data for Washington are compiled in Volume 9 of NOAA Atlas 2 (Miller et al. 1973); precipitation-frequency estimates for Auburn, Washington, are listed in Table 4-2.

Table 4-2. Precipitation Frequency Data for Auburn, Washington, from NOAA Atlas 2

Frequency, duration	Precipitation (inches)
2-year, 6-hour	0.95
2-year, 24-hour	1.75
100-year, 6-hour	1.90
100-year, 24-hour	3.80

4.1.8 Anticipated Changes in Climate

Changing climate will continue to be a key factor in the performance, operation, maintenance, and design of the City's stormwater system. According to the publication, *Climate Change Impacts and Adaptation in Washington State*, the state is projected to experience decreases in snowpack, increases in stream temperatures, changes in stream base flow, increased frequency of high rainfall intensity and magnitude, and changes in peak stormwater runoff, streamflow, and flooding frequency (Snover et al. 2013). This section provides an assessment and strategy for the City to address future changes and effects to the storm sewer and flood management systems while considering the range of uncertain climate projections.

The available information on future climate conditions will help guide decisions and investments, avert impending impacts on stormwater programs from climate change, and enhance the effectiveness and resilience of stormwater systems in the face of environmental uncertainties. Assessing future climate impact magnitude, risk, and uncertainty are critical to making appropriate decisions about physical attributes (size, location, elevation, capacity) and performance (service levels, acceptable impacts, failure scenarios) for stormwater programs.

The following future climate conditions are potentially impactful to the City's stormwater programs:

- **Precipitation:** Projected changes in precipitation show evidence for increased frequency of intense, large, or persistent rains in the future, mostly in the winter storm season. These increases could exceed the existing level of performance in the City's stormwater system.
- **System performance and flooding:** Increased frequency of larger or more intense storms could lead to increased stormwater runoff and thus more frequent flooding of existing storm drainage systems in the City. Pumped or other operated systems are typically more vulnerable to changing storms.
- **River and stream flooding:** Increased frequency of larger and longer duration storms could lead to increased local stream and river flooding, increased stages over known or mapped floodplains, and different flood control operations on the White and Green River dams.
- **Groundwater:** More frequent storms of higher magnitude have the potential for increased infiltration and thus rising groundwater table. This should be a consideration in infiltration facility design, subsurface excavations, and installation of stormwater structures such as vaults.
- **High temperature:** Average and extreme high temperatures in Auburn are expected to be higher in the future, causing effects like higher summer surface water temperatures that can be harmful to aquatic life and fisheries.

4.1.8.1 Uncertainty and Risk Management

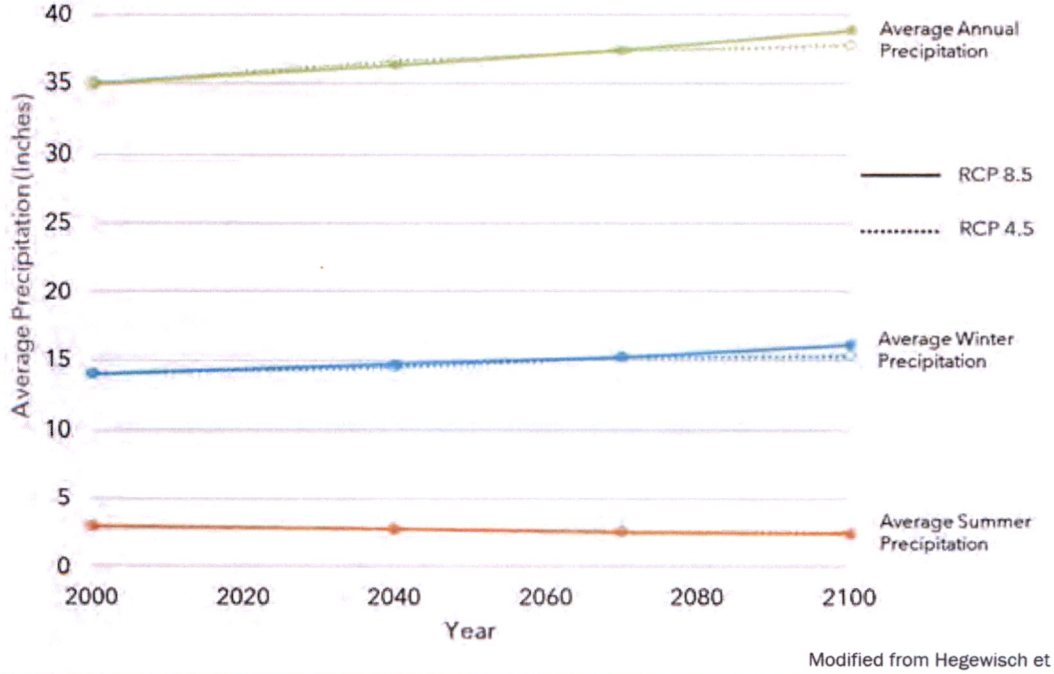
Addressing uncertainty in climate projections is an important aspect of climate research. Since future outcomes in climate conditions heavily rely on human activities and the Earth's climate system is extraordinarily complex, global climate models have an amount of uncertainty. All future climactic conditions are projections, not predictions. Ongoing research aims to reduce uncertainties by improving climate models, refining data collection methods, and enhancing our understanding of the Earth's climate system and its interactions with human activities.

When possible, this section uses locally refined, dynamic data to inform potential future climate scenarios. Because uncertainty is inherent in projections of climate change, the likelihood of a range of possibilities are presented.

Stormwater management is a risk-based practice, which means that standards are typically based on the likelihood or probability that an event will occur, and the level of protection needed is related to that possibility. Consequently, the approaches to applying recommendations in part consider the coincident events (e.g., sea level rise ranges plus event probability) with expected performance. No "reasonable" or applicable stormwater standards can apply to all possible events or outcomes, and extremes can exceed system capacity. An important consideration that is a core practice when establishing storm system criteria is to consider the consequences of failure, because all systems (unless designed for the probable maximum flood) can fail in any year.

4.1.8.2 Precipitation Projections

According to climate models, the region's average precipitation is expected to undergo minimal changes (Hegewisch et al. 2023). Figure 4-5 illustrates the projected alterations in average precipitation for two climate scenarios: Representation Concentration Pathway (RCP) 4.5 (low end) and RCP 8.5 (high end). When examining individual seasons, we observe a slight increase in total precipitation during the winter, an almost negligible loss of precipitation in the summer, a slight increase in precipitation in the fall, and a slight decrease in precipitation in the spring.



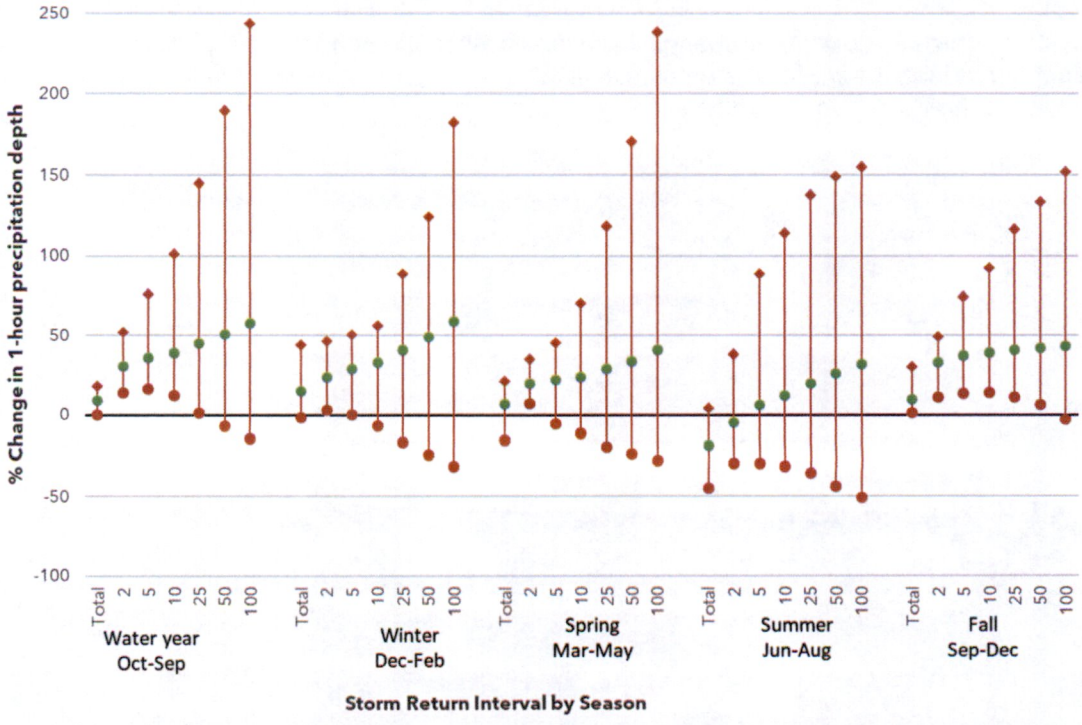
Modified from Hegewisch et al. 2023.

Figure 4-5. Projected Change in Average Precipitation for Seattle, Washington.

Although the City is not predicted to see a significant increase in overall precipitation, climate models predict an increase in the intensity of precipitation, specifically during the winter months. Heavy rain events in the Pacific Northwest are often caused by atmospheric rivers, where long, narrow regions of concentrated moisture are carried from lower latitudes (Morgan et al. 2021). Intensification of atmospheric rivers is projected to cause an increase in extreme winter precipitation frequency.

Figure 4-6 outlines the anticipated percentage change in extreme heavy rain events in SeaTac, Washington. The figure shows predicted changes in short duration storms (1 hour) across different return frequencies (ranging from 2 to 100 years) during the entire water year, as well as individual seasons (winter, spring, summer, and fall) for the 2080s (spanning from 2070 to 2099) relative to 1970 to 1999. Key details are summarized below:

- **Projection scope:** The total projection includes all precipitation occurring in a season or water year.
- **Return frequencies:** The 2- to 100-year return frequency projections represent the high- and low-end extremes, estimated based on only the largest value in each year.
- **Measurement:** All 2080 projections are expressed as the percent change in 1-hour precipitation depth relative to the climate normal period from 1970 to 1999, following the convention established by NOAA.
- **Climate scenarios:** The results are based on two greenhouse gas scenarios: RCP 8.5 (high end) and RCP 4.5 (low end).
- **Data presentation:** The data is organized by water year, season, total annual precipitation, and extremity.



*Green circles indicate model average, red diamonds represent the high model results,red circles represent the low model

Modified from Mauger et al. 2019

Figure 4-6. Projected Changes in 1-Hour Precipitation Statistics for the 2080s vs. 1970–1999

4.1.8.3 Implications

The increase in precipitation intensity will have several key implications or risks to the stormwater system. More frequent and intense winter storms are likely to exceed the capacity of the stormwater system more often than current conditions.

Impact

Stormwater structures are sized to meet system LOS objectives, considering the anticipated frequency of storm events. Historical rainfall data are collected and characterized by intensity (e.g., inches of rain per minute or hour) or magnitude over a certain time period (e.g., X-inches in 24 hours). The design storms are usually described in the likelihood of exceeding a certain depth. For instance, a 4% chance of occurrence may also be described by the "average" frequency of occurrence for that duration, such as a 25-year, 24-hour event (for a 4% exceedance event).

Future rainfall patterns are predicted to deviate from historic norms. Note that storms are not "increasing in size" (larger storms are possible any time without climate change), but rather the *frequency* of larger events is greater. For example, if a 3-inch, 24-hour storm has occurred every 25 years in the recent past, climate change can cause a 3-inch storm to occur more frequently in the future. The new 25-year, 24-hour storm could be 3.5 inches of rain or more at the same potential frequency. Storm intensity (the rate of rainfall depth per unit of time) follows the same pattern—the same extreme rates are more frequent.

For example, when a storm system is designed to convey water away from a roadway for a 25-year, 24-hour event, we assume that the system may fail, on average, once every 25 years. We accept this failure level because the impact may be modest and the cost of providing additional protection is high. However, with more frequent events of the same size, flooding could happen every 10 to 15 years, which may not be tolerable for safety, system disruption, or property damage. Consequently, returning to the same LOS would require a new drainage system to provide the same frequency of performance. However, floods could still occur that exceed that LOS. If a higher LOS is desired, careful consideration of a new, future design storm becomes necessary.

4.2 Stormwater Drainage Infrastructure

As part of the implementation of the City's NPDES MS4 permit, the City embarked on a substantial effort to update its inventory of drainage system infrastructure owned or operated by the Storm Drainage Utility. The citywide inventory is completed, but continued maintenance and new features will be ongoing. An up-to-date system inventory will assist the City in the following objectives:

- Help to meet regulatory requirements.
- Provide input for hydraulic models to analyze system conveyance capacity.
- Serve as a basis for an asset criticality database used to prioritize repair and replacement (R&R) activities.
- Support the City's M&O activities through the CMMS.

Table 4-3 provides a summary of stormwater infrastructure inventory.

Table 4-3. Stormwater Drainage Infrastructure Summary

Infrastructure element	Quantity [a]	Unit
Pipes, all sizes	1,310,937	Linear feet
Pipes, all sizes (excluding force mains)	15,259	Count
6–10 in. diameter	3,361	Count
	215,900	Linear feet
12–15 in. diameter	8,822	Count
	698,000	Linear feet
16–18 in. diameter	1,480	Count
	165,600	Linear feet
21–24 in. diameter	858	Count
	106,500	Linear feet
27–36 in. diameter	548	Count
	85,200	Linear feet
42–48 in. diameter	173	Count
	37,200	Linear feet
54–72 in. diameter	17	Count
	2,300	Linear feet
Force mains	35	Count
	4,400	Linear feet
Open channels	222,000 [b]	Linear feet
Culverts	1,164	Count
Manholes	3,172	Count
Catch basins	10,800	Count
Control structures	223	Count
Outfalls (to water courses, ditches, etc.)	124	Count
Detention ponds	156	Count
Infiltration ponds	14	Count
Vaults	8	Count
Pump stations	7	Count

[a] Quantities are based on current inventory and have not yet been finalized.

[b] Length has been approximated based on available data.

Most storm drainage infrastructure is in the City's core between Mill Creek and the Green River, where development densities are highest. Figure 4-7 shows an overview of the City's stormwater drainage infrastructure.

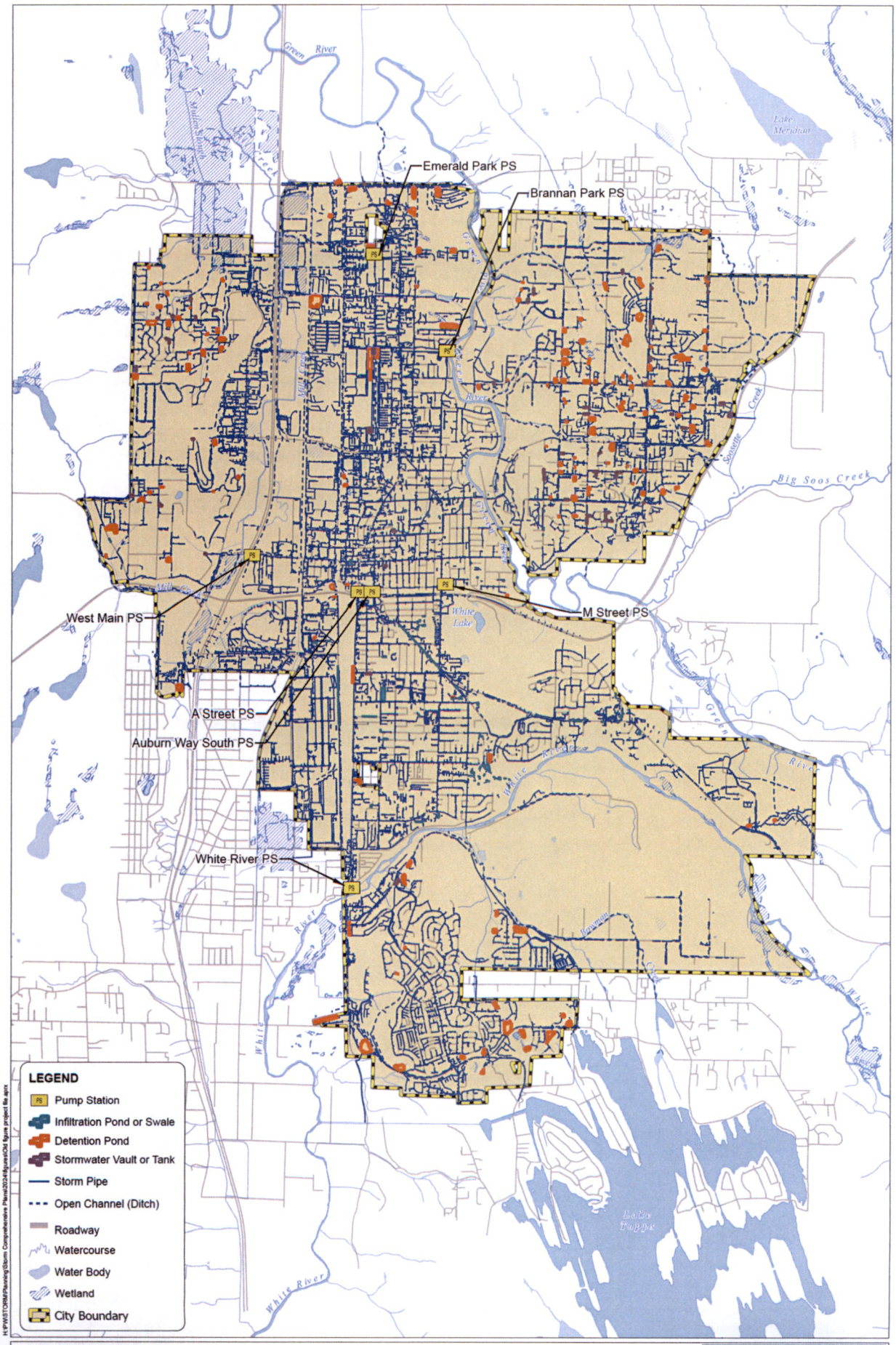


Figure 4-7
Drainage Infrastructure for the City of Auburn Storm Drainage Utility

4.3 Critical Facilities

Policies and system goals for managing the City's critical facilities and critical stormwater assets are described in Chapter 3, Section 3.2. Two groups of system goals and policies in particular focus on criticality. The first applies to critical facilities, stating that the City will manage stormwater runoff within the public ROW in the vicinity of critical facilities to allow access and ensure function of these facilities at all times (Policy 1.2). Ten critical facilities have been identified and included in Table 4-4.

The second group of policies relates to the management of the City's critical stormwater assets (Policies 1.4, 1.6, 2.4, 2.5, and 3.4). The City will modify its inspection and maintenance practices to prioritize active management of facilities with the highest combined risk and likelihood of failure (i.e., a criticality based maintenance program). Factors that impact likelihood of failure include the age of the asset, inspection or repair history of the asset, and condition of the asset. The consequences of a system failure impacting a hospital or school are considered more serious than one affecting a residence or unoccupied property and are thus assigned as critical assets. The City has identified 10 City facilities (Table 4-4) and seven stormwater pump stations (Table 4-5) as critical assets. The list of critical stormwater assets may expand as the City refines its criticality database by adding information (e.g., inspection and repair logs, asset age; see Policy 1.6). The locations of these critical facilities are shown in Figure 4-8.

Table 4-4. Critical City Facilities

Facility	Address
City Hall	25 W Main Street
City Hall Annex	1 E Main Street
Justice Center	340 E Main Street
Maintenance and Operation Facility	1305 C Street SW
Regional Hospital	201 N Division Street
Valley Regional Fire Authority (VRFA) Station 31	1101 D Street NE
VRFA Station 32	1951 R Street SE
VRFA Station 33	500 182nd Avenue E
VRFA Station 34	31290 124th Avenue SE
VRFA Station 35	2905 C Street SW

Table 4-5. Critical Stormwater Facilities

Storm drainage facility	Year constructed	Address
A Street Pump Station	1973	404 A Street SE
Auburn Way S Pump Station	1994	405 Auburn Way S
Brannan Park Pump Station	2001	1302 30th Street NE
Emerald Park Pump Station	1999	499 42nd Street NE
M Street Pump Station	2014	410 M Street SE
West Main Street Pump Station	2008	1410 W Main Street
White River Pump Station	2012	4640 A Street SE

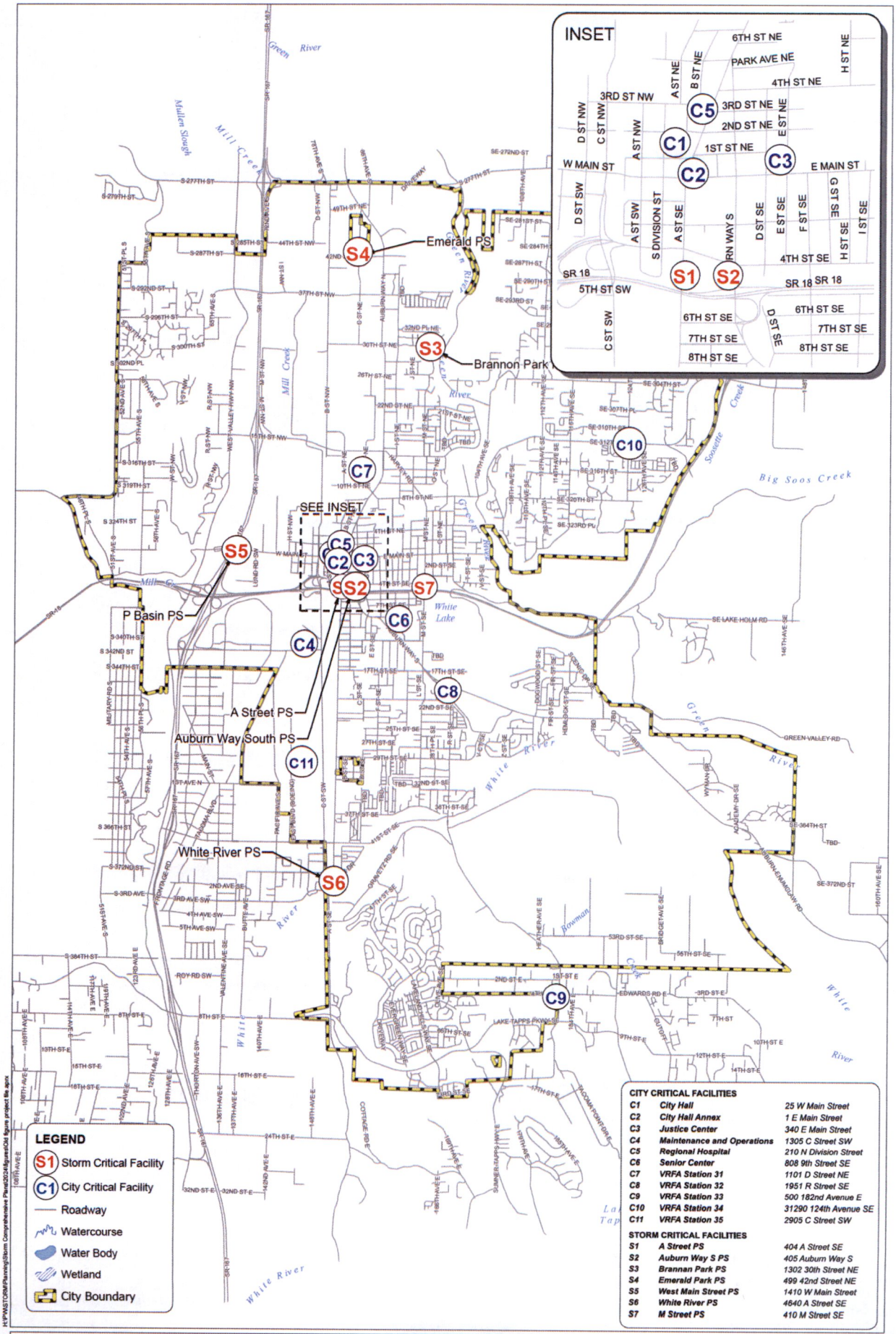


Figure 4-8
City and Storm Drainage Critical Facilities for the City of Auburn

4.4 Water Quality

This section describes the existing water quality and regulatory conditions that affect surface water quality in Auburn and describes processes that are required to maintain compliance with the City's NPDES MS4 permit.

4.4.1 Existing Conditions

According to water resource inventories by Ecology, the main water bodies within the City's administrative boundaries include the Green River, Mill Creek, White Lake, White River, Bowman Creek, and Soosette Creek. Municipal storm sewers that discharge runoff to surface waters are not authorized to violate state water quality standards.

Appendix 2 of the NPDES MS4 permit (Appendix A of this Plan) describes water bodies that are impaired and have additional requirements based on established TMDLs. A fecal coliform TMDL for the Puyallup River watershed is included in the current NPDES MS4 permit. As part of the TMDL, Ecology has designated the basin as a high-priority basin for IDDE screenings. Details of the required activities are included in Appendix 2 to the NPDES MS4 permit.

The Green River has a TMDL for temperature that was approved by EPA in 2011. The TMDL report indicated a cumulative waste load allocation was developed for all the municipal stormwater permittees. However, the TMDL did not contain any additional TMDL-related actions for stormwater permittees (Ecology 2011).

Other TMDLs under development include the lower White River pH TMDL and the Soos Creek subbasin multiparameter (temperature, dissolved oxygen, bacteria, and fine sediment) TMDL, described in the following paragraphs.

The lower White River pH TMDL was approved by EPA on January 13, 2023, and additional stormwater actions are listed in the public comment draft of the 2024–2029 NPDES MS4 permit. These include outfall and tributary conveyance mapping, monthly IDDE screening for flow in the critical period of May 1 to October 31, soluble reactive phosphorus (SRP) testing of flow from outfalls in the watershed during the critical period under certain sampling conditions (preceding precipitation, stormwater flow, and river flow), and source control tracing for any flow with SRP values that exceed the specified limits. Phosphorus treatment BMPs for new development and redevelopment will be required in the watershed no later than June 30, 2027.

The Soos Creek TMDL is not expected to be complete in time for the 2024–2029 Municipal Stormwater Permit. The temperature, dissolved oxygen, and bacteria TMDL is expected to be finalized in 2026. The fine sediment portion has become a separate TMDL and development of the draft implementation plan began in 2023. The impairments in this TMDL have been identified as fine sediment, high peak flows during storm events, and issues related to habitat degradation.

Other waterbodies listed as impaired on the Ecology water quality map include Mill Creek for bacteria (fecal coliform and e. coli), dissolved oxygen, pH, and benthic macro invertebrates; Bowman Creek for dissolved oxygen, temperature, and fecal coliform; and Olson Creek for benthic macroinvertebrates. These impairments will be addressed through future TMDLs.

4.4.2 Regulatory Compliance

The City has a well-developed MS4 M&O program that employs and provides training on numerous processes and procedures to minimize water quality impacts from municipal operations. The City also actively implements stormwater management BMPs in its municipal activities. BMPs include activities, prohibitions of practices, maintenance procedures, and structural and/or managerial

practices that prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

The current NPDES MS4 permit includes provisions for monitoring and assessment of water quality. Permittees have the option of paying annual fees to participate in statewide monitoring programs or developing individual monitoring programs to meet the requirement. The City notified Ecology in 2013 that it intends to participate in the statewide monitoring programs and has continued contributing the required funds every year since.

The City is in full compliance with its NPDES MS4 permit, with programs, codes, processes, and procedures that meet all of the requirements currently in effect. The City's SWMP Plan contains a summary of the NPDES MS4 permit requirements and descriptions of the City's current and planned activities for permit compliance.

The City will continue to make sundry changes to comply with updated requirements of the NPDES MS4 permit that phase in during the permit term. The City is conducting a process to identify and implement needed updates to codes, standards, and programs by the relevant due dates.

A schedule of relevant due dates to comply with updated NPDES MS4 permit requirements is provided in Chapter 8, Figure 8-2.

4.5 Existing Drainage Problems

Members of the City staff working within the Storm Drainage Utility are experienced and familiar with the condition of the drainage system. Existing drainage problems have been observed by the staff and are known to cause frequent flooding of roadways. The most apparent problems were identified for analysis (see Hydraulic Evaluation, Section 5.1). Existing drainage problems are described in Table 4-6 and locations are mapped in Figure 4-9. Problems were evaluated for potential inclusion in the capital improvement plan. CIPs developed to address these problems are described in Chapter 7.

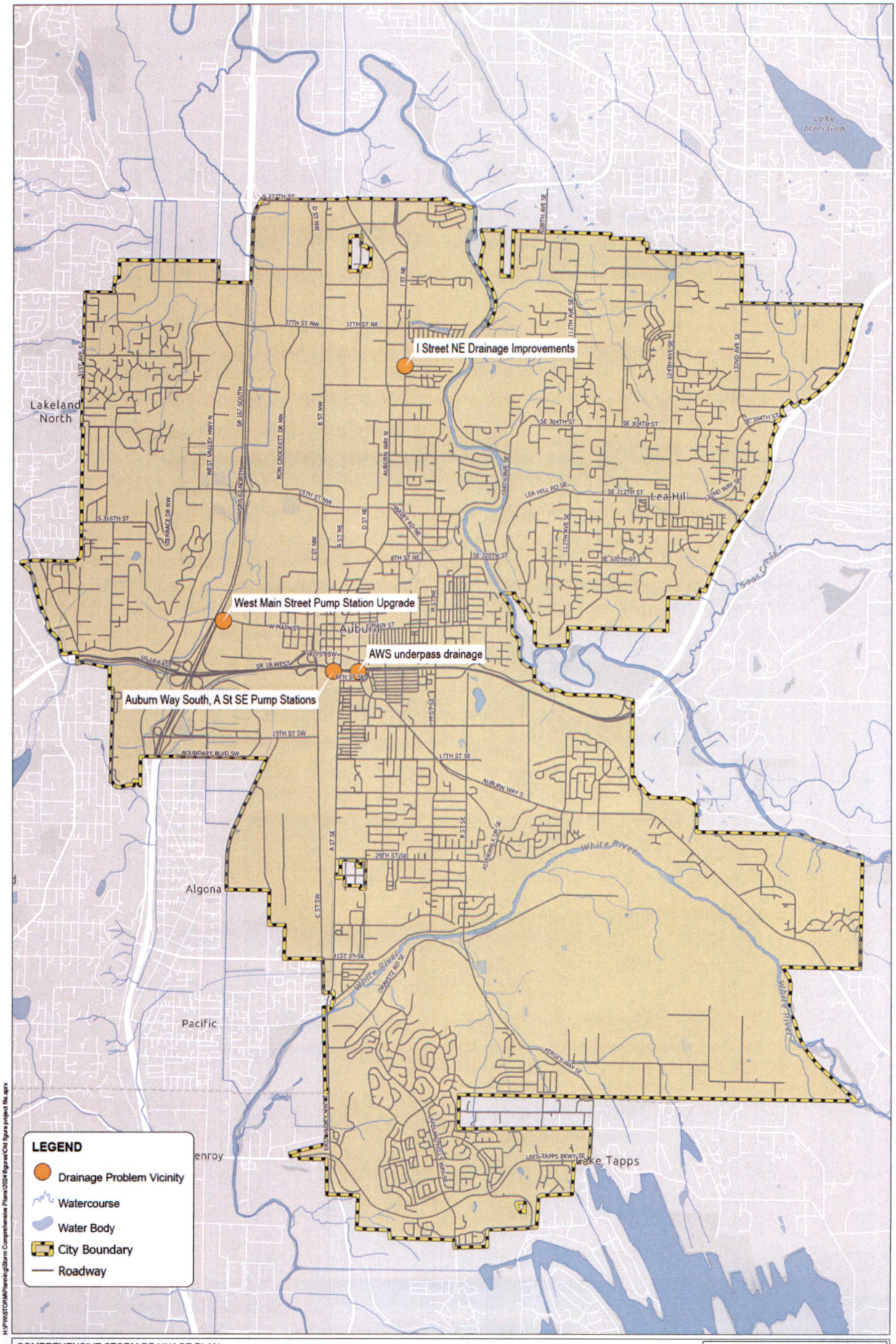
Table 4-6. Existing Drainage Problems

No.	Priority	Location	Description	Approximate frequency or last noted occurrence
1	1	West Main Street dead end near SR 167	The dead-end portion of Old West Main Street near State Route (SR) 167 has a history of observed flooding. The City installed a temporary pump station to dewater the gravity pipe flowing on the south side of Old West Main Street in an effort to protect local businesses from flooding. Since its installation in 2008, the pump station has eliminated flooding at the observed location. The pump station, however, does not meet the City's level of service guidelines regarding pump redundancy and may be insufficient to convey the 25-year flow rate. The City's gravity pipe on the north side of Old West Main Street experiences flooding at one catch basin approximately once per year. High water persists even in summer months. The pump station and gravity pipe discharge to a Washington State Department of Transportation ditch along the east side of SR 167.	Catch basin flooding once per year and system surcharging
2	2	Auburn Way South	Auburn Way South/SR 18 Underpass – minor roadway flooding causes disruptions to traffic during periods of intense rainfall.	Every few years

Table 4-6. Existing Drainage Problems (continued)

No.	Priority	Location	Description	Approximate frequency or last noted occurrence
3	3	I St NE	The area between 33rd Street NE and 35th Street NE on the east side of I Street NE has reoccurring flooding when the river level is high.	Every few years
4	2	Auburn Way South and A Street Pump Stations	Two existing stormwater pumping stations are reliant on portable emergency power, increasing workflow and reducing system reliability at time of need.	
5	3	Storm Pipeline Extension[a]	There are areas within the City not served by the public storm system, such as paved alleys and residential streets where roadwork is not anticipated.	

[a] Drainage problem 5, Storm Pipeline Extension, is not depicted in Figure 4-9 because it applies to multiple areas across the City and does not pertain to a specific location.



COMPREHENSIVE STORM DRAINAGE PLAN
August 2024

CITY OF AUBURN WASHINGTON

Figure 4-9
Drainage Problem Locations for the Storm Drainage Utility

5. Evaluation of the Storm Drainage Utility

This chapter presents analyses conducted to evaluate the Storm Drainage Utility and identify gaps between existing service levels and the system goals described in Section 3.2. The following types of evaluations were completed to identify Storm Drainage Utility future activities to address the range of system goals:

- Existing system deficiency and future service area expansion: Identified existing system deficiencies and future service areas in Chapter 4 and considered them in developing the capital improvement plan (Chapter 7). Did not evaluate improvements to address existing deficiencies and future expansion relative to policy and system goals as a part of this Plan.
- Hydraulic: Gathered system data, updated or developed computer models, assessed hydraulic performance, and developed CIPs with respect to associated system design criteria.
- Asset management: Reviewed existing asset system for data gaps, analyzed the adequacy of the condition assessment data being collected, established criteria for preparing criticality and risk analyses, developed the prioritization system to inspect critical system elements, developed the system requirements specification for integrating pipe criticality into the City's CMMS, estimated the funds needed for future asset repair and replacement, and included those estimates in the resource planning assessment (Chapter 6).
- Regulatory-driven improvements: Determined differences between the 2024–2029 permit and the previous NPDES MS4 permit and evaluated how the differences could affect City regulations, infrastructure, and activities; estimated the time and costs for NPDES MS4 permit compliance.
- Climate change analysis: Conducted a climate change analysis by reviewing the projected alterations in climate outlined in Chapter 4 and offered recommendations for effective mitigation measures.
- Maintenance and operations: Assessed process performance, equipment, and personnel with respect to service levels for M&O (covered in Chapter 6).

These evaluations were conducted to develop capital improvements for the 6- and 20-year horizons, as well as to identify future M&O needs. The following sections summarize the hydraulic, asset management, regulatory-driven improvements, and climate change evaluations. The existing system deficiency and future service area expansion are described in Chapter 4, and the M&O evaluations are described in Chapter 6.

5.1 Hydraulic Evaluation

As described in Chapter 4, the City of Auburn owns and operates a large system of stormwater drainage infrastructure to collect and convey stormwater runoff to nearby receiving waters.

Hydraulic modeling efforts for the 2024 Plan focused on updating models covering locations of proposed capital projects. The model updates were based on recent geographic information system (GIS) data, design drawings, and record drawings.

The City reviewed the remaining CIPs listed in the 2015 Plan and the recent proposed stormwater CIPs. Six projects are located within existing subbasins represented by hydrologic and hydraulic (H&H) subbasin models. Two of the projects were evaluated with associated H&H subbasins models

and were included in this Plan's CIP program. Appendix B provides a detailed description of the H&H model updates and CIP evaluation results.

The following sections describe the steps used to update existing models or develop new models.

5.1.1 Updating Existing Models

The hydraulic components of existing models were updated with recent GIS data. The following model data were verified against the GIS data:

- Pipe size.
- Pipe invert elevations.
- Pipe material (for estimating pipe roughness).
- Node rim elevation.
- System connectivity.

Where the GIS data did not accurately describe the existing system, technical reports, record drawings, or construction drawings were used to update the model. Where data were available, models were given more detail with respect to pump and storage facility information.

For model hydrology, subcatchment delineations within problem areas were reviewed and revised based on recent GIS data, topographic data, and 2024 aerial photography. For subbasins with significant changes in basin delineation, total impervious area was updated with the City's impervious area coverage. No existing models were calibrated or uncalibrated. If new and significant large infiltration facilities were constructed since the 2015 Plan, the percent impervious area was reduced based on an assumed contributing area by visual inspection of aerial photography.

5.1.2 Creating New Models

The following is a general description of steps followed to develop new Personal Computer Stormwater Management Models (PCSWMM)[3].

1. Infrastructure data from existing GIS databases were used to build drainage networks in problem areas. Drainage network models consist of catch basins, manholes, pipes, junctions, ditches, control structures, vaults, storage ponds, pump stations, and outfalls. GIS data were validated and augmented as necessary based on record drawings and City-conducted field investigations.
2. The drainage network was developed to a level of detail that is sufficient for analyzing conveyance on a subbasin-wide or problem-specific scale. In general, pipes 1 foot in diameter or greater were included. Smaller-diameter pipes and pipes that were part of private systems were generally not included in the model unless they provided an important link within the system.
3. Subbasin areas were divided into smaller drainage area delineations called subcatchments, which in the model are linked into the drainage network at specific nodes. Hydrologic parameters, such as area, slope, and percent impervious area, are developed for each subcatchment. Subcatchment slope was estimated as the average slope based on a digital elevation model (DEM). Total impervious area was estimated with the City's impervious area coverage.

[3] PCSWMM is a GIS-based hydraulic and hydrologic modeling platform developed by Computational Hydraulics International (CHI). The software fully supports the EPA SWMM5 hydrology and hydraulics engine, thus providing comparable computation between EPA SWMM and PCSWMM models. Information about PCSWMM software can be found at http://www.chiwater.com/Software/PCSWMM/index.asp.

For the purposes of this plan, there was no requirement to develop new models. Rather, the existing H&H models from the 2015 Plan underwent refinement and updates. Further information on these specific modifications is available in Appendix B.

5.1.3 Updating Precipitation Record and Flow Frequency

Auburn's H&H models use historical meteorological data to estimate stormwater flows and storage within the City's storm drainage system. The data consist of monthly evaporation and 15-minute precipitation volumes. As part of the Plan, the 15-minute precipitation record was extended to September 30, 2022, creating an approximate 74-year precipitation record.

Long-term simulations were performed using the extended precipitation record to determine the 2% and 4% exceedance storms (one in 50-year and one in 25-year flows, respectively) for the updated models. These storms were used as design storms to size capital improvements, which meet the water treatment standards and LOS (see Chapter 7 for a description of proposed capital improvements).

5.2 Asset Management Review

All utilities manage their assets in one way or another through maintenance practices, CIPs, and repair and replacement (R&R) activities. However, the ability to make an informed decision regarding where and how to direct limited resources is dependent on the quality of the utility's asset management. A comprehensive asset management framework includes building a thorough asset inventory, using that inventory to prioritize and document maintenance and inspection tasks, and tracking annual management expenses. An asset management framework developed in this way will demonstrate both the extent of the existing system, as well as aid in forecasting its useful life and the future costs of maintenance, reparation, and replacement.

Stormwater system assets fall into this framework but also exhibit unique characteristics regarding their service levels, failure risk and consequences, and asset response approaches. For example, the consequence of failure for a stormwater pipe is less significant than it would be for a water pipe, and this distinction is reflected in the asset management approach. The asset management plan for the City's stormwater system accounts for these considerations along with the current inventory and condition information while adopting a responsible approach to resource management of the assets.

5.2.1 Best Practices

The best practices for asset management involve methodically basing choices on an understanding of asset condition and performance, risks, and costs in the long term. Asset management best practices include the following:

- Establishing and maintaining a sustainable LOS that balances the performance goals of the utility, regulatory requirements, and consumer demand.
- Preparing and regularly updating an inventory and map of the system.
- Understanding the risk associated with managing a given asset (i.e., defining the asset's likelihood and consequence of failure).
- Implementing a prioritization process for work based on condition assessments and taking a life cycle approach to asset management planning.
- Establishing funding levels and rates to provide reliable, cost-effective service, and support ongoing infrastructure rehabilitation or replacement projects.

These best practices were followed in evaluating the management of the City's assets, as described below. System goals for the City's Storm Drainage Utility were established in Chapter 3 of this Plan.

5.2.2 Evaluation

For the Plan, the preliminary focus of the asset management evaluation was on the City's stormwater collection pipe network, the results of which may be used to inform the management plan for the other categories of assets within the City's Storm Drainage Utility system. The City uses Cartegraph as its CMMS to store and map its asset inventory, so all evaluations were performed on data exported from this source.

Data Gaps Analysis & Condition Assessment

The first step in the evaluation involved assessing the comprehensiveness of the asset inventory. To do so, a data gaps analysis and condition assessment was necessary to understand the completeness of the asset inventory and the availability of feature data for developing criticality and risk analyses. The results of these analyses demonstrated a pipe inventory that was incomplete. Several pipes were missing attribute data—namely installation date and material—critical for estimating risk of failure in the next step in the evaluation. See Figure 5-1 and Figure 5-2 for the availability of pipe attribute data relative to the total length of pipe in the system for reference.

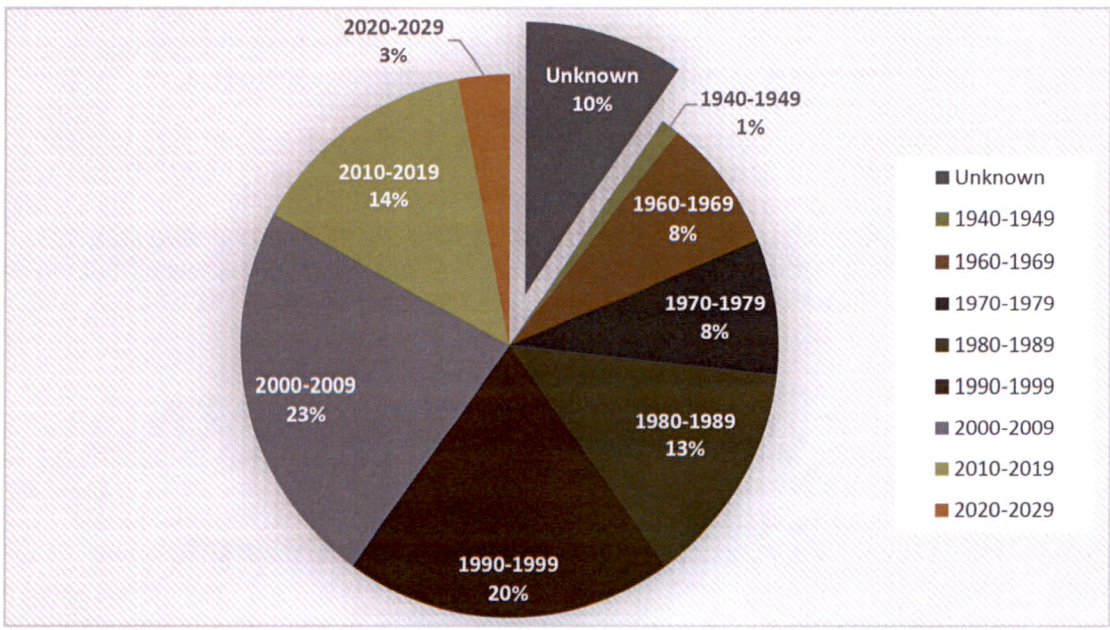


Figure 5-1. Pipe Installation Date Relative to Total Linear Feet of Pipe

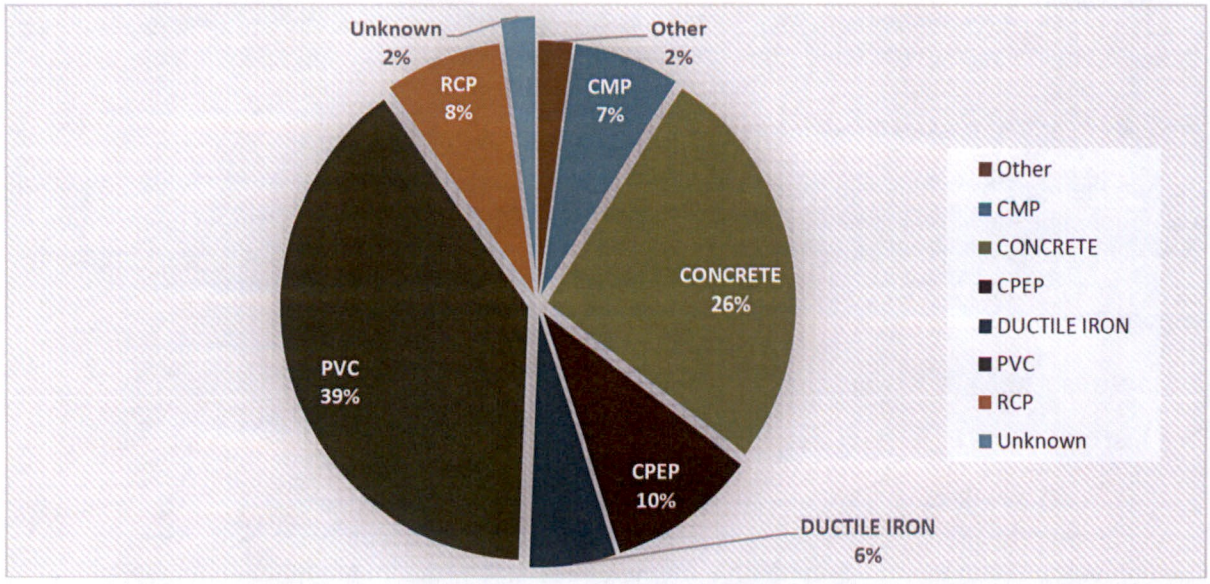


Figure 5-2. Pipe Material Relative to Total Linear Feet of Pipe

For the purposes of the risk evaluation, professional estimates were made to serve as placeholders for missing attribute data. A preliminary GIS-based assessment was performed to provide an estimate installation date based on adjacent infrastructure, parcel build-out years, and historical imagery as needed. Estimated inputs were added to a copy of the installation date attribute to ensure estimates could be distinguished from the original dataset. Further detail regarding the steps taken in the data gaps analysis and condition assessment is provided in Appendix C. There were critical data gaps in other stormwater asset inventories, namely culverts. Thus it could be beneficial to do a similar GIS-based assessment for other asset types to have a comprehensive starting point for prioritization of work. It is recommended that critical data gaps be addressed as part of the asset management program, as summarized in the following paragraphs.

Risk Determination

The next step in the evaluation involves determining the risk associated with managing each of the City's storm drainage assets. The exported pipe data from the City's Cartegraph database was used to build a risk assessment spreadsheet. The spreadsheet evaluates specified criteria to generate a score for likelihood of failure and criticality of failure for each asset. Within the spreadsheet, likelihood of failure is largely dependent on critical attributes specific to the feature, while criticality of failure is dependent on location-based factors.

For the City's pipe network, the attributes used to develop the likelihood of failure score include installation data and material. The installation date provides the age of the pipe, while the installation material is used to estimate the expected useful life. Combining these characteristics provides an estimate for the pipe's remaining useful life, which is the basis for the likelihood of failure score. In general, if a pipe had a negative remaining useful life, it had a high likelihood of failure (the highest score being 5), whereas if it had a positive remaining useful life, it had a low likelihood of failure (the lowest score possible is 1).

The criticality of failure score was developed by evaluating a pipe's proximity to critical facilities, high-priority roadways, and high-trafficked roadways. If a pipe is in close proximity to one of the aforementioned factors, this results in a higher criticality of failure score (the highest score being 5). Conversely, a pipe not in close proximity to any evaluated factors results in a low criticality of failure score (the lowest score being 1).

While the spreadsheet was developed solely for the City's pipe system, a similar process may be followed for the other asset types within the stormwater inventory. See Appendix C for the critical attributes recommended to use in determining the risk for the other types of stormwater assets.

Work Prioritization

The resulting failure scores allow for the City to rank different assets both on likelihood and criticality of failure. It is recommended to use this ranking strategy to develop an inspection program where inspections of different types of assets are prioritized based on their rank. The asset inspection program will serve to fill data gaps, update the likelihood of failure score based on field verification, and identify asset features requiring repair or replacement. After inspection data are input for an asset feature, the results of the inspection will supersede the use of estimated remaining useful life and installation date (where applicable) in calculating a likelihood of failure score. Using this system to prioritize maintenance allows resources to be used more efficiently and fills in data gaps resulting in a more robust asset inventory.

For the City's pipe system, the recommended program would prioritize inspection based on likelihood of failure and then criticality of failure. In this way, pipes with likelihood of failure scores greater than or equal to 4 (or a negative useful life estimate) will be inspected first. The next tier of inspections should address pipes with likelihood of failure scores equal to 3 and pipes with unknown installation dates. After pipes are inspected, they should be assigned a condition score, which will supersede the installation date and useful life expectancy in determining the likelihood of failure. The likelihood of failure for a pipe will increase over time, and this prioritization method will take this into account while integrating field inspection data. Since storm catch basins and storm manholes are related to pipes, it is recommended to inspect these at the same time as adjacent pipes.

The same inspection prioritization method is recommended for culverts as the failure consequences are similar. For storm pumps, it is recommended to closely evaluate their condition as their useful life nears the end (e.g., 5 or fewer years) and upgrade or replace them before probable failure. Stormwater control facilities should be routinely inspected and prioritized for inspection when critical feature data are unavailable. As mentioned previously, critical feature data for each asset type are listed in Appendix C. More detail regarding the inspection frequency and schedule for each type of stormwater asset is included in Chapter 6.

Life Cycle Estimation

A life cycle analysis was performed for pipes to demonstrate the expected depreciation rate of each asset and provide background for the recommended maintenance frequency of the entire system. To do so, the remaining useful life estimate for the City's pipe database was analyzed over time. This analysis was used to identify any spikes in development (and accordingly when spikes in R&R would be expected) and estimate the total linear feet of pipe "lost" (or whose projected remaining useful life becomes negative) per year. This rate of pipe loss may be used as a point of comparison for basing the resource planning recommendations in Chapter 6. A similar life cycle analysis could be beneficial for culverts.

As features are updated with field-verified data (during inspection or maintenance), the results of this life cycle analysis are expected to change. For this reason, the pipe depreciation analysis may be reconducted to evaluate the effect on the projected rate of pipe loss. The results of the pipe depreciation analysis can be found in Appendix C.

Cost Projection

A brief review of costs were included in the asset management evaluation for consideration in setting the R&R budget and resource planning goals in Chapter 6. Two options were contemplated in setting the R&R budget: investigating the prior use or need and evaluating the results of the life cycle estimation. The City's R&R spending in previous years was compiled to investigate the prior use. To evaluate the results of the life cycle estimation, the cost of replacing pipes based on the rate of depreciation was projected. The useful life of the system was also varied to observe the change in budgetary needs.

A comprehensive cost estimate was prepared for both pipe replacement and the replacement of catch basins and manholes within the City. Notably, the cost estimate for pipe replacement serves as a generic assessment for the City of Auburn rather than being tied to any specific project or geographical area. The primary calculations for cost estimation assume the replacement of 5,000 linear feet of pipe along with the associated conveyance structures, such as manholes and catch basins. To simplify these calculations, certain generalizations were made—including the assumption that all pipes are of uniform size, material, and depth—based on GIS averages for the City.

Furthermore, various scenarios were explored to assess how the cost of pipe replacement might vary based on location (downtown versus rural) and quantity (5,000 versus 10,000 linear feet). The resulting cost opinion is intentionally conservative, approximately $1,500 per linear foot, to account for the wide range of generalizations and assumptions inherent in the process. Notably, the analysis indicated that pipe replacement in rural areas is expected to be less costly than in the City center. Additionally, replacing a larger quantity of pipe is only marginally more cost-effective.

For detailed estimates and further information regarding the cost projection, please refer to Appendix C.

As a prudent practice, it is recommended to diligently track the costs associated with installation, repair, and replacement of asset features on an annual basis. This data serve as valuable reference information for future asset replacement budget planning. As additional data are collected, cost opinions can be updated to enhance accuracy.

5.2.3 Recommendations

Evaluations completed for this Plan consisted of developing a system requirements specification for implementing risk assessment using the data in the City's asset management system, Cartegraph. The spreadsheet's scoring methods may be integrated into Cartegraph so that, as the pipe inventory is updated, likelihood of failure and criticality of failure scores can be used to inform future R&R priorities. Currently, the spreadsheet only includes collection system piping scores. However, there is an opportunity to expand the scoring methods to include other asset features, as described in Appendix C.

The following are recommended to implement the asset management strategy:

- Train staff in asset inventory needs, capability, data collection, data quality objectives, and maintenance of system.
- Implement the likelihood of failure and criticality of failure scoring methods into Cartegraph.
- Implement the prioritized inspection and asset information update process to fill data gaps in the asset data and provide observation-based condition assessments.

- Develop a process for reviewing the asset inventory and a routine for updating when changes and inspections occur.
- Expand scoring methods to include asset types other than collection system piping and implement them similarly into Cartegraph and inspection prioritization techniques.
- Consider reconducting pipe depreciation analysis every 5 years to evaluate the effect of implementing the prioritization practice.
- Assess the inspection process in 5 years to assess the efficiency of the program and identify areas for improvement.

5.3 Regulatory-Driven Improvements Investigation

The federal Clean Water Act requires municipalities to help maintain fishable/swimmable waters through the NPDES MS4 permit program (see Section 2.3.2 and Appendix A), which requires municipalities to reduce the discharge of pollutants from their stormwater systems to the MEP by implementing municipal stormwater management programs. The City has an established municipal SWMP that complies with all NPDES MS4 permit requirements currently in effect. Updates to the City's codes, programs, and standards are being developed to comply with the requirements of the updated 2024 NPDES MS4 permit.

The City's SWMP plan identifies activities that will be implemented by the City to comply with NDPES MS4 permit requirements. The SWMP plan is updated annually to reflect new requirements that phase in during each year, including one-time and new ongoing activities. An updated SWMP is submitted to Ecology in March of each year. The City's current SWMP plan is accessible on the City website.

To plan for upcoming requirements of the new NPDES MS4 permit, the City formed a project team consisting of staff from the City Public Works department and Parametrix.

The project team reviewed Auburn's citywide stormwater management programs, codes, standards, processes, and documentation protocols in order to identify potential actions to comply with the NPDES MS4 permit conditions over the 5-year permit period. From these sources, the project team catalogued responsible City departments/entities, reference documents, and potential requirements for each updated section of the permit. Interviews were then conducted with appropriate staff (e.g., stormwater M&O staff) to discuss the potential implications of permit changes for existing City codes, programs, and standards. The information on existing City practices and programs was then compared to the updated permit requirements to identify potential compliance needs. Some policy issues and potential compliance strategies were also identified. This Plan was developed using the draft 2024 NPDES MS4 permit and updated as needed following the release of the final 2024 NPDES MS4 permit. A table summarizing the notable changes between the previous permit, the draft 2024 NPDES MS4 permit, and the final 2024 NPDES MS4 permit was developed and is included in Appendix D. Recommended future activities are summarized below and included in the implementation plan in Chapter 8.

5.3.1 New Permit Requirements and Recommendations

Table 5-1 summarizes the recommended actions to address regulatory driven stormwater program responsibilities.

Table 5-1. Recommended Actions Regarding New Permit Requirements

Permit Section	New Requirement	Recommended Action(s)
S5.C.1.c.iii	Adopt and implement tree canopy goals and policies to support stormwater management and water quality improvement in receiving waters.	Prepare an assessment of existing conditions. Draft a list of potential policies. Select and adopt policies.
S5.C.1.d.i	Complete a stormwater management action plan (SMAP) for at least one new high-priority catchment area or additional actions for the existing SMAP.	Identify a preferred catchment area for inclusion or enhancement. Prepare a new SMAP or update the existing SMAP.
S5.C.1.d.i.(a)	Consider implementing projects that address transportation-related runoff from high traffic areas.	Review the road system plan. Review high-priority roadways. Determine candidate sites for retrofitting using SMAPs, capital improvement projects, or other relevant plans. Select projects and include in capital improvement plan.
S5.C.2.a.i.(b)	Provide public education regarding source control best management practices (BMPs) for building materials to reduce pollution to stormwater, including stormwater pollution from materials containing polychlorinated biphenyls (PCBs).	Provide public education regarding source control BMPs for building materials.
S5.C.4.b.ii	Map permittee-owned or operated properties with tree canopy.	Begin mapping of permittee-owned or operated properties with tree canopy based on available, existing data.
S5.C.4.b.iii	Develop a map of discharge points that have stormwater treatment and flow control BMPs/facilities. Use to estimate the area managed by stormwater treatment and flow control BMPs/facilities.	Develop a methodology to map tributary basins to outfalls. Identify facilities to be mapped. Use a geographic information system (GIS) to prepare a map of catchment areas. Quantify the total managed or unmanaged acreage of treated or controlled City-owned facilities.
S5.C.4.b.iv	Map overburdened communities in relation to stormwater treatment and flow control BMPs/facilities, outfalls, discharge points, and tree canopy on permittee-owned or operated properties.	Overlay available data regarding overburdened communities with previously prepared maps of areas with stormwater treatment or flow control facilities and tree canopy.
S5.C.5.e.ii	Develop a management plan for per- and polyfluoroalkyl substances (PFAS).	Coordinate with firefighting agencies/departments to implement specific protocols regarding PFAS discharges into stormwater.
S5.C.7.c	Fully fund, start construction, or completely implement project(s) that meet the City's assigned equivalent acreage of 14.2 acres.	Prioritize projects developed in the SMAP that together meet the City's assigned 14.2 acres.
S5.C.9.e	Develop and implement a municipal street sweeping program to target high-priority areas.	Review and revise the existing sweeping program as needed. Include map of swept priority areas in annual report.

5.4 Climate Change Analysis

Section 4.1.8 reviewed the projected climate changes specific to the City. This section focuses on potential strategies to mitigate these changes and provides recommendations for effective implementation. By comprehending expected shifts in the environment, the City can proactively adapt its practices and policies to safeguard the community.

5.4.1 Discussion of Proposed Approaches

Although the City is not predicted to see a significant increase in overall precipitation, climate models predict an increase in the frequency of intense precipitation, specifically during the winter months (see Figure 4-5). Increased winter storm intensity frequency is most likely to push the stormwater system past the accepted LOS over time up to the projected time frame of the reported climate models.

Storm intensity (rate of rainfall for a unit of time, usually in inches per minute) tends to affect storm drainage systems differently than prolonged, atmospheric river systems. Storm sewers and local conveyance systems are generally designed for the peak runoff intensity (within a short or long event), whereas larger conveyance systems, streams and floodplains, and stormwater control facilities are designed using hydrographs for longer duration events. This would suggest, based on the predictions regarding total rainfall versus intense rainfall, that storm sewers, conveyance systems, and culverts will be more vulnerable to capacity exceedance and subsequent flooding.

One approach to addressing this potential service deficiency is to design with future projected storm patterns or to apply a larger design storm. This would address the greater flood frequency risk. However, it would not "prevent" flooding. This would increase the costs of all projects for both public and private development and would also impact the cost of housing impacting the affordability of future housing developments. Stormwater conveyance systems are designed to manage a specific LOS, usually the peak runoff rate from a 25-year, 24-hour storm. Performance is typically evaluated by hydraulic metrics, such as minimum freeboard in a channel, headwater depth on a culvert, or surcharging in a storm sewer that keeps water in the system and away from property. While a stormwater system may not be performing according to design, the impacts may not be flooding or property damage. In addition, storms larger than the design storm can and will occur, with adverse consequences.

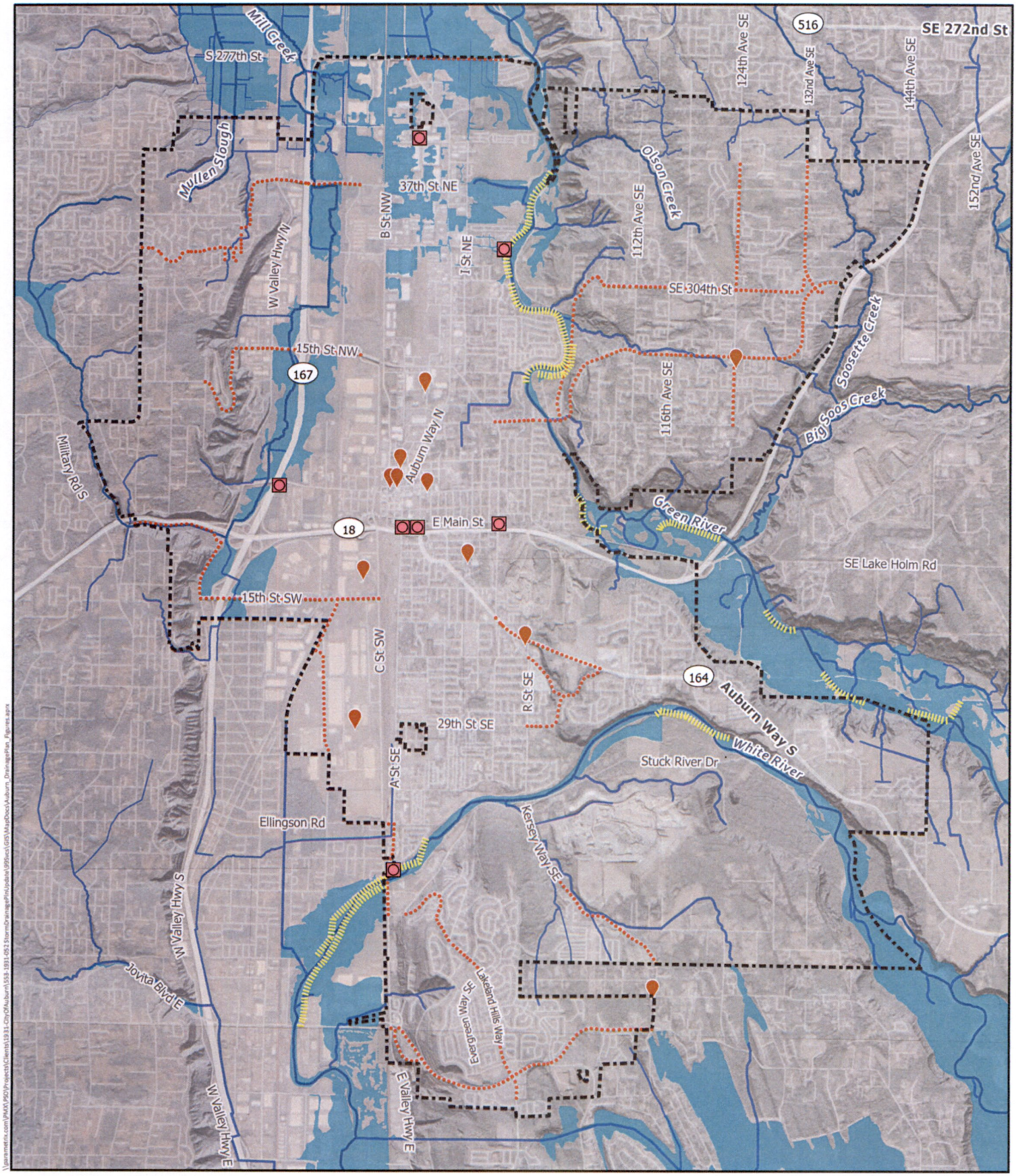
It has generally been deemed to not meet cost-benefit metrics to build systems to address every likely storm outcome. An event exceeding the design capacity of a system could occur at any time; the "average" number of times it occurs is likely to increase with increased storm intensity frequency due to climate change. Another approach would be to address the *consequences* of the projected change on a site-by-site basis rather than a blanket change in service levels for future rainfall.

Stormwater flow control facilities are designed to manage changes to the landscape and resultant runoff to existing or predeveloped levels. The analyses use a historical rainfall record and projections of that record over an extended time period, all based on past rainfall patterns. The stormwater control standards require runoff changes to be matched to land conditions prior to development or existing conditions, typically a forested condition. One approach to new stormwater standards to address flow control under a changed climate with more frequent intense rains is to use projected rainfall patterns that are modified to add climate change projections. In addition, flow control evaluations are comparative, which means they evaluate the hydrologic changes due to development. This is different than considering the changes in hydrology from the site today with a site under future climate conditions (in addition to restoring existing hydrology to predevelopment

conditions). The comparative change (future climate to compare existing and future site development) may not be significant.

Another approach involves identifying the City's most vulnerable areas to the effects of climate change and using this information to make informed decisions about potential stormwater infrastructure improvements. Figure 5-3 highlights key areas of vulnerability. The extent of floodplains indicates where the City is most susceptible to flooding. Similarly, levee locations should be evaluated to determine if adjustments are necessary due to changes in flood levels. Pump stations should be assessed for capacity. Ensuring access to critical facilities and emergency routes is crucial; both the areas around these facilities and the routes to them should be evaluated for vulnerability. By assessing the stormwater infrastructure in these areas, the City can better understand the impact of potential infrastructure failures and make decisions to mitigate the most harmful consequences.

River and stream flooding could increase in frequency due to climate change. According to the stream flow projections shown in the publication, Effect of Climate Change on Flooding in King County Rivers, winter flow volumes are expected to rise due to an increase in the proportion of precipitation falling as rain over the course of the 21st century (Lee et al. 2018). This increase is anticipated despite the modest long-term projections for average annual rainfall shown in Figure 4-5. Smaller, local stream systems (e.g., Olson Creek, Mill Creek, Bowman Creek) are expected to have more frequent flooding (i.e., flow overflowing its confined banks), and extreme events are more likely to occur (i.e., the current 1% probability flood would have a higher percentage chance of occurring in the future). Storm drainage infrastructure that interfaces with these natural drainages should be reevaluated to consider negative consequences and resiliency (the ability to safely withstand critical service disruption).



Date: 8/14/2024
Sources: City of Auburn, King County, WA Ecology, WA DNR, FEMA, USGS, ESRI
Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

- Critical Facilities
- Pump Stations
- Watercourse
- Evacuation Routes
- Levees
- Auburn City Limits
- Floodplain

0 ¼ ½ 1 Miles

Figure 5-3
Key Areas for Vulnerability Assessment
Stormwater Drainage Utility
Comprehensive Storm Drainage Plan

5.4.2 Recommendations

Stormwater design guidelines will need to consider the possible changes in storms that are *informed* by future climate scenarios. The strategy aligns with the guidance for stormwater design and sizing recommended and approved by the Water and Land Resources Division of the King County Department of Natural Resources (King County DNR 2021). For example, the guidance provides direction for the design of new pipe systems with sufficient capacity to convey and contain (at minimum) the future predicted 25-year peak flow. Pipe system structures may overtop during runoff events that exceed the 25-year design capacity. However, this is permissible as long as the overflow resulting from a larger event (e.g., a 100-year runoff event) does not lead to severe flooding or erosion issues. Additional design guidelines for new flow control standards, conveyance standards, culverts, ditches, and canals are also included.

The recommended approach to mitigate effects due to climate change is described as follows.

Drainage System Performance. Because of likely changes in the frequency of intense rainfall, the following recommendations should be considered in the design of conveyance systems:

- Review and revise the hydraulic performance metrics related to freeboard, headwater depth, and surcharging. Evaluate the financial implications associated with enforcing strict hydraulic performance standards.
- Prepare a critical drainage review (CDR) process (as identified as a work order in Section 8) to evaluate the consequences of storm events exceeding the design parameters. Establish clear policies regarding safety, property protection, service continuity, and mitigation of nuisance flooding to make systems more resilient to infrequent but probable flooding. Ensure that the level of protection aligns with the associated costs and risk factors.
- Prioritize effective hydraulic performance and resilience measures for critical facilities during severe storm events that go beyond the intended design limits.
- Perform a vulnerability analysis of critical drainage and stormwater infrastructure to identify any areas where the effects of climate change may be intolerable. Prioritize these areas for capital improvement projects to minimize the adverse effects of flooding.

River and Stream Flooding. River and stream flooding frequency is expected to increase. The vulnerability of existing infrastructure in or near streams or floodplains has not been assessed in this Plan.

6. Maintenance and Operations

An evaluation of existing Storm Drainage Utility M&O activities was conducted in support of this Plan. This chapter documents existing Storm Drainage Utility M&O activities with the primary purpose of establishing a baseline understanding of the proactive and responsive maintenance procedures performed by City Storm Drainage Utility M&O staff. This baseline understanding is used herein to evaluate utility staffing, data collection and computerized record-keeping needs, and other utility needs necessary to continue to meet system goals.

The information provided in this chapter is a summary of information collected during City Storm Drainage Utility staff interviews, review of computerized records, and existing utility forms/checklists.

6.1 Utility Responsibility and Authority

This section provides an overview of the Storm Drainage Utility organization and basic information related to utility staffing, training, and education.

6.1.1 Organizational Structure

The City Storm Drainage Utility is operated as a utility enterprise under the direction of the director of public works. The Public Works Department is responsible for planning, design, construction, operation, maintenance, quality control, and management of the storm drainage system. The City has a mayor-council form of government; therefore, the director of public works reports to the mayor, with input from council through council study sessions and meetings. The mayor provides oversight for the implementation of policies, planning, and management for the Storm Drainage Utility. The City Council provides direction on policy and budget considerations.

The Engineering Services Department is the lead group for comprehensive storm drainage system planning, development of a CIP, and the design, construction, and inspection of projects related to the storm drainage system.

M&O Services is the lead group responsible for the day-to-day maintenance and operation of the storm drainage system. The storm drainage/sanitary sewer manager reports to the M&O Services general manager and oversees 11 total storm drainage employees (1 field supervisor and 10 maintenance workers, as shown in Table 6-1). The Vegetation Maintenance Division is responsible for mowing, tree trimming, and weed control of City ROW and storm facilities.

The overall Public Works Department organizational structure is shown in Figure 2-1.

6.1.2 Staffing Level

The Storm Drainage Utility currently includes 10 full-time M&O field staff, plus a field supervisor and a manager, who perform administrative duties. This chapter does not include an evaluation of utility management, which includes regulatory compliance, planning, and coordination with other City departments. Position titles and the primary functions of the M&O staff working within the Storm Drainage Utility are shown in Table 6-1.

Table 6-1. Storm Drainage Utility M&O Personnel

Position	Primary function(s)
Storm drainage/sanitary sewer manager	Management of sanitary sewer and storm drainage M&O staff
Storm field supervisor	Supervision of field staff
Maintenance worker	Ten full-time staff dedicated to field inspection and maintenance

M&O = Maintenance and Operations

In addition to the M&O field staff identified in Table 6-1, secondary staff support the following Storm Drainage Utility functions:

- Management and administration: A full-time manager performs administrative duties for both the Sanitary Sewer and Storm Divisions. Management and administrative tasks include general oversight of the Sanitary Sewer and Storm Drainage Utility M&O staff, regulatory compliance, planning, and coordination with other City departments. Field work is supervised by a full-time field supervisor.
- Vegetation maintenance: The Vegetation Maintenance Division consists of 10 full-time staff, a field supervisor, and a manager. These staff primarily support the Storm Drainage Utility M&O field staff (approximately 60% of total staff effort) with pond vegetative control, weed control and herbicide spraying, ROW and ditch mowing, tree trimming and removal, and leaf removal.
- Contracted services: The Storm Drainage Utility uses other City departments or external contractors for some services, as discussed in Section 6.3.

M&O activities routinely performed by Storm Drainage Utility staff are discussed in Section 6.2. The staffing plan presented in Section 6.6 considers M&O activities performed by Storm Drainage Utility and Vegetation Maintenance staff.

6.1.3 Level of Service

The Storm Drainage Utility operates in accordance with the system goals and policies outlined in Chapter 3 and internally adopted objectives integral to meeting those goals. These objectives are generally based on the current staffing level and tasks deemed most critical to the City and its residents. However, the existing staffing requirements discussed in Section 6.6 herein include near-term goals that may not be met by existing staff.

6.1.4 Training and Education

The City recognizes the value of having a knowledgeable and well-trained staff operating the storm drainage system and encourages employees to obtain the highest level of training available. At this time, the State of Washington does not require certification for stormwater maintenance operators, but the City would support any effort to establish certification for these positions. Seminars, conferences, and college coursework have become tools to advance knowledge for maintenance staff.

Many M&O staff are specialized in specific job functions, which can promote expertise through specialization but also has the potential to limit the ability of the utility to absorb absences due to vacation, sickness, retirement, resignation, and termination. To mitigate this limitation, the City has broadened the scope of the Storm Drainage Utility's education system by conducting cross-training programs.

6.2 Routine Operations Provided by the Storm Drainage Utility

This section discusses routine operations provided by the Storm Drainage Utility M&O staff shown in Table 6-1. Each subsection provides a brief description of the M&O activity, City goals with respect to proactive maintenance, and the estimated Storm Drainage Utility staff effort to achieve the proactive maintenance goal.

6.2.1 Catch Basin and Manhole Inspection, Cleaning, and Repair

The storm drainage system includes approximately 10,800 catch basins and 3,172 manholes. Catch basin and manhole maintenance includes initial inspection and potential follow-up cleaning and/or repair. Inspection is performed by a two-person crew using utility mapping to locate the targeted facilities. M&O staff use condition categories from the CMMS asset management system to identify which facilities require further cleaning or repair. The condition categories consider items such as observation of trash, debris, sediment, or vegetation blocking or within the catch basin/manhole; structural damage; evidence of contamination or pollution; and the integrity of catch basin grates, manhole covers, and ladders. Follow-up cleaning and maintenance work orders are generated based upon the results of initial inspection and typically include a two-person crew. Based upon recent maintenance history, approximately one in five catch basin and manhole inspections leads to further cleaning. The City assumes that a total of 5% of catch basins and manholes per year require an additional visit post inspection for some level of maintenance or repair. Catch basins and manholes requiring only minor maintenance tasks that can be performed during inspection are not included in this total.

Catch basin inspection is required as part of the City's NPDES MS4 permit, per the most recent permit, 2024–2029 issuance. The City is required to inspect and maintain all catch basin facilities every 2 years, with each 2-year cycle ending on December 31. To achieve this permit requirement, the City goal is to inspect 40 catch basins per day. Manhole inspection frequency is not mandated by the permit, but the City's goal is to complete inspection of all City manholes on a 4-year rotating schedule.

The City will use the CMMS software (see Section 6.5) to record and track results of catch basin inspection, cleaning, and maintenance efforts. In the future, if catch basin inspection records demonstrate that catch basins generally comply with maintenance standards and do not require inspection every 2 years, the City may be able to justify and suggest a less frequent inspection schedule for compliance with the Permit.

6.2.2 Stormwater Pipeline Cleaning

The storm drainage system includes approximately 250 miles of collection system piping. The City currently cleans its stormwater pipelines on an as-needed basis. Cleaning of the storm drainage system is performed using a City-owned Vactor/jet truck. Cleaning is typically performed from structure to structure (e.g., catch basin or manhole) by a two-person crew.

Jetting of stormwater pipelines is the principal means of removing debris or obstructions from the storm drainage system. A hose with a special end fitting is inserted into a pipe and high-pressure water (up to 2,500 pounds per square inch) is sent through the hose. The high-pressure water exits the small hole at the tip of the nozzle, breaking down and/or scouring obstructions. Debris is then removed via suction by the Vactor truck equipment at each manhole.

The City expects to clean 4% of its stormwater pipeline system per year. On average, a two-person crew can clean approximately 1,500 feet of pipe per day and inspect approximately 500 feet of pipe per day.

6.2.3 Stormwater Outfall Inspection, Cleaning, and Maintenance

The storm drainage system includes 124 outfalls or discharges from localized collection systems to the Green River, White River, or Mill Creek. Outfall maintenance includes initial inspection and potential follow-up corrective actions. Outfall inspections are performed to identify the following: excessive vegetative growth that could obstruct flow, outfall erosion protection, structural damage to the conveyance system itself, and abnormal discharge that might be indicative of contamination (as demonstrated by a color, sheen, or odor). Cleaning and minor maintenance tasks are performed during inspection. Necessary follow-up repairs or more intensive maintenance work orders are generated based upon the results of the initial inspection. The City goal is to inspect, clean, and perform minor maintenance tasks at each outfall twice per year. The City assumes that 5% of outfall inspections per year require an additional visit post-inspection for some level of maintenance/repair. For a two-person crew, it is anticipated that inspection, cleaning, and minor maintenance requires 2 hours per outfall, while follow-up maintenance or repairs requires 0.5 hour per outfall.

6.2.4 Drainage Ditch Maintenance and Restoration

The storm drainage system includes approximately 42 miles of drainage ditches (as shown in Figure 6-1). Drainage ditch maintenance is required to preserve the original line and grade, hydraulic capacity, and purpose of the ditch. Routine maintenance activities include regrading and removal of sediment; nuisance vegetation; and isolated obstructions, such as trash, trees, and accumulated debris. Because vegetation is important for erosion control, the City strives to minimize the removal of beneficial vegetation.

Up to six M&O staff are required for a single ditch maintenance crew to operate the City-owned excavator, control traffic (as necessary), and manually regrade or remove obstructions. On average, these crews can complete 200 feet of ditch maintenance per hour. This rate does not include mobilization and demobilization, equipment repair and other downtime, waste disposal, and administrative tasks, such as training and record keeping. Currently the ditch inventory is maintained on an as-needed basis, however the City has a target to maintain all ditches within the system on a 5-year cycle.

6.2.5 Stormwater Facility Inspection, Maintenance, and Restoration

Inspection of the approximate 300 City stormwater facilities is performed by a one-person crew using an inspection checklist to identify conditions that require correction. Facilities include stormwater ponds, swales, vaults, tanks, UIC, LID, and manufactured treatment devices. The checklist includes items such as observation of trash, debris, sediment, and animal or insect infestation that could impact function or future maintenance; structural damage or erosion; evidence of contamination or pollution; and the integrity and/or function of emergency overflow spillways (as applicable). The City goal is to inspect each facility once per year. On average, inspection activities require 0.75 hours for a one-person crew per location. This rate does not include mobilization and demobilization, equipment repair and other downtime, waste disposal, and administrative tasks, such as training and record keeping.

Maintenance and restoration of each facility type varies. The City has a goal of maintaining permeable pavement twice per year. On average, a four-person crew can maintain 0.3 miles of permeable pavement per hour. The maintenance of vaults, tanks, and underground injection control (UIC) wells are all accounted for under general facility maintenance in Section 6.2.9, Manufactured treatment devices are maintained by an outside contractor and included in Section 6.3.3.

Maintenance of ponds and swales (of which there are approximately 184) are performed as necessary, with the expectation of maintaining or restoring 20% of the system each year. A six-person stormwater pond crew is required for pond maintenance, while swales require a four-person crew. For the purposes

of the full-time equivalent (FTE) calculation, the expected maintenance of ponds and swales have been combined (as there are only two swales within the system). Follow-up maintenance and restoration is scheduled during the summer months. The City assigns a six-person stormwater pond/swale crew approximately 21 days per year (3 days per week for 3 out of 4 months in the summer).

After significant storms, it is recommended that some stormwater facilities be inspected to verify proper function and identify damage, if any. It is recommended that the City develop a list of facilities that should be inspected following these larger storm events.

6.2.6 Culvert Inspection and Cleaning

Culvert maintenance includes inspection and cleaning of the approximately 1,164 culverts within the storm drainage system. Culverts are typically inspected by a two-person crew, with corrective actions and cleaning performed during the inspection when possible. On average, inspection and cleaning activities require 1 hour per culvert for a two-person crew. Culvert inspection focuses on the assessment of free flow within the culvert and identifying any structural defects. Any debris that cannot be removed during the initial inspection or any noted structural concerns result in a work order for corrective action. The City goal is to inspect (and clean as necessary) each culvert once per year.

6.2.7 General Facility Maintenance and Other Field Tasks

Storm Drainage Utility M&O staff perform a number of field tasks that do not readily fall into the categories previously listed and often support other City departments. Examples of these additional storm drainage tasks include the following:

- General facility maintenance: Maintenance may include detention vault and tank cleaning and sediment removal, weir cleaning, filter inspection and cleaning, and maintenance of oil/water separators and UIC.
- Engineering support: Storm Drainage Utility M&O staff often provide facility inspection services for engineering projects and support Engineering through visual observation in the field. M&O staff also make small repairs such as replacing catch basins or failed culverts or minor drainage pipe replacement. See Section 6.7 for recommendations related to documenting M&O repair projects.

Identifying the FTE for each task identified above was not considered as a part of this Plan. Instead, the FTE for the above tasks have been combined into one group summarizing the general inspection and field tasks performed by the Storm Drainage Utility staff. The City may choose to identify the expected FTE for each task at a later date, if desired. FTE assumptions are summarized in Section 6.6.

6.2.8 Storm Drainage Utility Overhead

The Storm Drainage Utility is responsible for ensuring routine operations are carried out as described above. To do so, several tasks not readily assigned to any one of the routine operation categories must be performed. Examples of these tasks are listed below:

- Training: Staff must be trained in routine field operations as well as the general order of processes required before and after field operations
- Record keeping and map maintenance: The utility ensures the results of routine operations are recorded and updated with condition assessments and mapped appropriately. The utility also notes any other field observations that may require further investigation. Additional details regarding this topic are given in Section 6.5.

- Equipment repair: Staff must address equipment malfunctions and necessary repairs, as needed.
- Preparation: Time is needed to prepare for routine operations

These tasks are expected for each routine operation previously described, but they have not been allocated to the specific tasks. For the purposes of resource planning, overhead is expected to account for 10% of the available staffing time.

6.3 Routine Operations Provided to the Storm Drainage Utility

This section discusses routine operations performed by other City staff or by contracted services in support of the Storm Drainage Utility. Each subsection provides a brief description of the M&O activity. FTE efforts for these activities are funded by the Storm Drainage Utility. Because Vegetation Maintenance staff primarily support the Storm Drainage Utility (approximately 60% of total staff effort), these staff are included in the existing staffing requirements discussed in Section 6.6.

6.3.1 Vegetation Maintenance

Vegetation maintenance is performed by Vegetation Maintenance Division full-time and seasonal staff that support City Storm Drainage Utility M&O staff. Vegetation maintenance includes mowing, herbicide application, seeding and replanting, and removal of nuisance vegetation or vegetation that impairs the function of storm drainage facilities. In the fall, vegetation maintenance also includes removal of leaves that can accumulate and block flow to catch basins (performed as needed).

Full-time Storm Drainage Utility staff may also perform limited vegetation maintenance as part of the routine operations discussed in Section 6.2.

6.3.2 Stormwater Pump Station Maintenance

Maintenance of the seven pump stations within the City storm drainage system is performed by Sanitary Sewer Utility staff because they have pump specialists who perform all pump station maintenance. Sanitary ewer Utility staff perform scheduled weekly and monthly maintenance inspections, as described in the City of Auburn Sewer Comprehensive Plan Update and summarized below.

Pump station maintenance activities include both weekly and monthly inspections and include checking lubrication, seals, valves, and general cleanliness of pump stations, as well as cleaning out sumps and trash racks.

6.3.3 Manufactured Treatment Device Maintenance

As described in Section 6.2.5, manufactured treatment devices are inspected by city staff annually to identify conditions that require additional, unscheduled maintenance. Such conditions could include excess sediment accumulation, damaged piping, or vault and access cover damage. Manufactured treatment devices are serviced by City staff, as noted in the inspections. Some proprietary media or filter units are maintained by a private contractor, as needed.

6.4 Non-Routine and Emergency Operations

The intent of the routine inspection and maintenance activities discussed in Sections 6.2 and 6.3 is to minimize, through proactive management of the stormwater facilities, the potential for conditions that could lead to emergencies. This section discusses unscheduled activities performed by Storm Drainage Utility M&O staff and describes a response plan for emergency conditions.

6.4.1 Customer Service Requests

Customer service requests, typically related to a local drainage complaint, trigger creation of a work order to inspect the affected area or stormwater facility and identify potential solutions. In some cases, relatively simple solutions, such as removal of blockages, can alleviate the issue. However, other cases require coordination with Engineering or other City departments. On average, City Storm Drainage Utility staff respond to approximately five customer service/complaint-related work orders per week. The effort required to resolve these complaints varies considerably.

Good recordkeeping helps in complaint resolution by ensuring that all relevant data are gathered and by serving as a reminder to resolve the complaint and notify the complainant. When a complaint is received, the following information is recorded to the extent possible:

- Name and contact information of the person making the complaint.
- Brief description of the nature of the complaint.
- Time and date the complaint was received.
- Storm Drainage Utility staff assigned to respond.

Following initial response, the complaint record gets updated to include the results of inspections and any corrective actions taken. If the complaint cannot be resolved internally within the Storm Drainage Utility, the complaint record will be forwarded to Engineering for further investigation.

Notification of any system investigation and/or action is provided to the customer making the complaint.

6.4.2 Emergency Response Program

The Storm Drainage Utility, in conjunction with the other utility divisions, has prepared an Emergency Binder as a guide on how to handle emergency situations. While the guide is by no means all-inclusive for every type of disaster, it is a valuable tool for dealing with many of the emergency situations that municipalities face. Copies of the Emergency Binder are available at the M&O Building, and at City Hall Annex with the Director.

The primary objectives of the Utilities response is ensuring public safety, restoring essential services as quickly as possible, and providing assistance to other areas as required. There is also a master response program for the entire City, as documented in the City's Comprehensive Emergency Management Plan (CEMP). The material in the CEMP provides guidance for mitigation, preparedness, responsibilities, recovery operations, training, and community education activities. Copies of the CEMP are located in each City department, the M&O Building, and the VRFA.

The utility has implemented a standby program whereby one on-call employee is designated to be the first to receive after-hours emergency calls. Most storm drainage system problems that occur outside of normal working hours are reported through the City's 911 emergency response system or a non- emergency response number. An emergency callout list is provided to the emergency operator in order to contact utility staff in case of an emergency. The primary responder to those after-hours

calls is the on-call employee. Storm Drainage Utility M&O staff have been trained to respond to system emergencies. The contacted staff assesses the situation, contacts additional staff as necessary, and then responds in accordance with established emergency response procedures.

6.4.3 Source Control Inspection Program

Per the NPDES MS4 permit, the City must implement a program to prevent pollutant-laden runoff from existing development to its MS4. A source control inventory of publicly and privately owned institutional, commercial, and industrial sites with the potential to contribute pollutants to the MS4 was developed in 2022 and must be updated once every 5 years. The City is required to annually inspect 20% of the sites listed in its source control inventory to assess compliance with source control requirements, evaluate the effectiveness of existing BMPs (and provide recommendations), and ensure required BMPs and actions are enacted through enforcement (as needed).

The City has hired a full-time employee to handle the SCIP. As the program is only in its second year, the required time and resources are still being evaluated. It is recommended that the City document these aspects and evaluate after 5 years. This will allow the City to develop a more accurate estimate of the required FTE for implementation of the SCIP.

6.5 Data Collection and Record-Keeping

Data collection and record-keeping functions for the Storm Drainage Utility are performed using a CMMS system called Cartegraph, a web-based commercial software package provided by Cartegraph Inc. Cartegraph integrates GIS data with utility M&O records, providing managers with overview information about system and operational performance and field crews with information related to the condition and failure history of specific stormwater facilities. The City currently uses Cartegraph to plan field staff activities (work orders), record results of both routine and non-routine maintenance, and compare actual maintenance efforts to City goals. The City recently upgraded its Cartegraph system and plans to transition toward the use of Cartegraph as an asset management tool, through which the City would optimize staffing and capital resource planning.

In recent years, the City has made considerable progress in adding asset information to Cartegraph, specifically GIS data, physical information related to size and material, and installation dates. However, to fully utilize the asset management function of Cartegraph, additional information related to risk, asset criticality, and condition is also necessary. To assist the City's transition to an asset management program, as described in Chapter 5, the attributes listed below should be used within Cartegraph to define each of the City stormwater assets (catch basin, pipe segment, stormwater pond, etc.).

Asset-specific attributes. The following asset-specific attributes are related to the asset and remain relatively unchanged over time.

- Asset ID: The unique asset number that is used by all business systems to identify an asset.
- Location: Where the asset is located (GIS).
- Installation date: The date the asset was installed.
- In-service date: The date the asset was placed into service.
- Material: The material making up the composition of the asset's structure.
- Asset class: A group of assets that share the same characteristics (e.g., ponds, pipe segments). Asset class is used to estimate replacement costs and useful life of groups of assets.
- Nameplate information and asset specifications: Important information that is used to uniquely describe an asset, such as the manufacturer name, type of asset, serial number, size, material, etc. This information is used for asset identification, replacement, and repair.

Operation-specific attributes: The following attributes are related to routine operations (inspection and repair or replacement) for each asset and must be updated afterwards accordingly.

- Replacement cost: The cost to replace the asset.
- Replacement year: The year the replacement cost data were calculated.
- Inspection date: The date the asset was inspected.
- Overall condition rating (OCR): The condition rating of the asset assigned as a result of the inspection.
- Overall condition index (OCI): A numeric score describing the condition of the asset, assigned as a result of the inspection (related to OCR).

Post-processing attributes. The attributes listed below are generated using asset-specific and operation-specific attributes data for each asset. These attributes are not manually entered. They are calculated to determine the risk associated with each asset and prioritize future work accordingly (as previously described in Chapter 5, and detailed in Appendix C).

- Useful life: The average life expectancy of the asset (life expectancy estimates for the different asset types can be found in Appendix C).
- Remaining useful life: The age of the asset (installation year – current year) subtracted from its useful life.
- Asset criticality: A value assigned to each asset that indicates how essential it is to maintain a defined LOS. Typically it is defined as a combined score based on the consequence of failure and the likelihood of failure.
  - → Criticality of failure: A score assigned to an asset on the scale of 1 to 5 that communicates the social and economic cost if the asset fails, where a score of 1 would represent an asset not expected to have extreme consequences after failure, and a score of 5 would represent an asset that may have detrimental consequences after failure. This score will not be entered manually into Cartegraph; it is determined largely based on location-based factors and will be assigned using a GIS-based spatial analysis.
  - → Likelihood of failure (condition): A score assigned to an asset on a scale of 1 to 5 that communicates the estimated time until the asset fails, where a score of 1 would represent an asset in excellent condition, and a score of 5 would represent an asset on the brink of failure. This score will not be entered manually into Cartegraph. It is initially calculated based on critical attributes (as defined in Appendix C), but after the inspection date becomes available, the results of the inspection (OCI and OCR) will supersede the estimated rank based on critical attributes in assigning a likelihood of failure score.

M&O attributes. The following M&O attributes are captured as part of the operations, maintenance, and repair history associated with each asset:

- Asset ID: The unique asset number that is used by all business systems to identify an asset. Work orders should be associated with one or more assets.
- Issue, cause, action: These codes are used to classify historical M&O activities associated with corrective actions or unplanned maintenance.
  - → Issue: What is the problem observed in the field?
  - → Cause: What is the underlying cause of the problem?
  - → Action: What was done to address the cause?

- Target hours and actual hours: Recording the estimated hours and actual hours to complete a work order can help in determining efficiency, planning workloads, and assessing repair costs.
- Target start and stop dates and actual dates: Recording the estimated and actual start and stop dates for a work order can help in determining efficiency, planning workloads, and assessing repair costs.
- Work order costs: Work order costs include labor, parts, materials, and equipment and should be accurately recorded for each work order.
- Work order type: Work order types are used to group and compare different types of work activities. Typical work order types are as follows:
  - → Capital improvement: Work associated with a CIP.
  - → Corrective maintenance: Work associated with an unplanned repair.
  - → Preventive maintenance: Work associated with a planned preventive maintenance activity (or inspection).
  - → Predictive maintenance: Work associated with predictive measures (usually for critical assets).
- Warranty information: Helps to determine assets that are under warranty and the warranty maintenance requirements.

6.6 M&O Staffing Requirements

This section outlines existing and future staffing requirements for M&O staff.

6.6.1 Existing Staffing Requirements

Existing staffing requirements for M&O activities discussed in this chapter were compiled and evaluated to determine the M&O staffing level needed to efficiently operate, maintain, repair the storm drainage system and collect and report the information necessary to properly operate system. Table 6-2 and Table 6-3 evaluate Storm Drainage Utility and Vegetation Maintenance Division staff, respectively. Each table evaluates the estimated time to conduct storm drainage system M&O tasks in the manner currently performed. Calculated days for each M&O activity are for a single person performed over an 8-hour "day." Therefore, an activity that is performed quarterly and that requires 4 hours and two M&O staff to complete would result in an annual requirement of 4 days.

Table 6-2. Existing Storm Drainage System Maintenance and Staffing Requirements

Work activity	FTE days required annually	Assumptions/City goal
Catch basin and manhole inspection, cleaning, and repair		
Catch basin inspection	270	Inspect once every 2 years, total of 10,800 catch basins. Perform 40 inspections per day with 2-person crew.
Manhole inspection	79	Inspect once every 4 years, total of 3,172 manholes. Perform 20 inspections per day with 2-person crew.
Catch basin cleaning	68	1 cleaning is required for every 10 inspections. 2-person crew, 0.25 hour each.

Table 6-2. Existing Storm Drainage System Maintenance and Staffing Requirements (continued)

Work activity	FTE days required annually	Assumptions/City goal
Manhole cleaning	32	1 cleaning is required for every 10 inspections. 2-person crew, 0.4 hour each.
Catch basin/manhole repair	155	310 repairs (approximately 5% of all inspected) per year. 2-person crew, 0.5 hours each.
Stormwater pipeline cleaning		
Pipeline cleaning	67	City expects 50,688 ft per year (entire system in 25 years). 2-person crew can clean 1,500 ft of pipe per day.
Stormwater outfall inspection, cleaning, and maintenance		
Inspection/Cleaning	124	City goal is 2 times per year (124 total outfalls). 2-person crew, 2 hours each.
Maintenance	2	City expects 10% of annual outfall inspections to require an additional maintenance visit. 2-person crew, 0.5 hours each.
Maintenance and restoration of drainage ditches, stormwater ponds/swales, and permeable pavement		
Drainage ditch maintenance and restoration	166	City's goal is once every 5 years. 6-person crew, 200 ft per hour.
Stormwater pond and swale maintenance and restoration	28	6-person crew expected to maintain/restore 20% of the ponds and swales within the system per year.
Permeable pavement maintenance and restoration	9	City's goal is 2 times per year (approximately 89,000 square feet). 4-person crew, 0.3 miles per hour.
Stormwater facility inspection		
Stormwater facility inspection	28	City goal is once per year for each facility (approximately 300 total). Includes ponds, swales, vaults, tanks, UIC, LID, and manufactured treatment devices" 1-person crew, 0.75 hours each.
Culvert inspection and cleaning		
Culvert inspection and cleaning	291	City goal of once per year for each of 1,164 culverts. 2-person crew, 1 hour each.
Other stormwater M&O activities		
General facility maintenance and other field tasks	26	1 day per week. 2-person crew, 2 hours each.
Customer service requests/complaints	65	5 requests per week.[a] 2-person crew, 1 hour each.
Utility overhead for routine operations		
FTE total for Routine Operations	1410	
Overhead	141	Assumed 10% of FTE total.
Data entry	130	20 hours per week total (8 people at 0.5 hours per day).

Table 6-2. Existing Storm Drainage System Maintenance and Staffing Requirements (continued)

Work activity	FTE days required annually	Assumptions/City goal
SCIP		
Implementation of SCIP	260	FTE reflects the full-time employee who will be implementing the SCIP. 1 person, 52 weeks per year, 40 hours per week.
Subtotal	1,941	
Total	2,135	Assumes 10% unquantified work
Total number of working days available per FTE	221	365 minus weekends (104), holidays (12), vacation (15), sick (12) and training (1).
Number of FTEs required	9.7	2,135 days required divided by 221 days per FTE year.
Current funded FTEs	10.0	10 full-time staff dedicated to field inspection and maintenance.

Note: FTE = full-time equivalent. FTE days are defined as 8 hours.

a. Many customer service requests are related to maintenance needs for privately owned drainage systems.

Table 6-3. Existing Vegetation Maintenance and Staffing Requirements

Work activity	FTE days required annually	Assumptions/City goal
Pond/Vegetation Management		
Mowing	683	6-person crew, 40 hours per week for 7 months
Weeding/Spraying	152	4-person crew, 20 hours per week for 7 months
Weed Control/Herbicide Spraying		
Weed Control/Herbicide Spraying	59	2-person crew, 3 days per week for 6 months
ROW and Ditch Mowing		
Staff 1	137	40 hours per week for 9 months
Staff 2	49	2 days per week for 8 months
Tree Trimming and Removal		
Tree Trimming and Removal	173	4-person crew, 40 hours per week for 4 months
Leaf Removal		
Leaf Removal	390	2-person crew, 40 hours per week for 12 months
Total	1,641	
Total number of working days available per FTE	221	365 minus weekends (104), holidays (12), vacation (15), sick (12), and training (1).
Number of FTEs required	7.4	1,641 days required divided by 221 days per FTE year
Current funded FTEs	7.6	6.6 FTE 3 seasonal staff

Note: FTE = full-time equivalent. FTE days are defined as 8 hours.

Table 6-2 shows that the Storm Drainage Utility meets the base level of staffing required with respect to meeting current City proactive goals for M&O activities. Additional staffing needs required to implement future regulatory requirements and recommended management activities are discussed in Section 6.6.2. Table 6-3 shows that there is adequate staffing to meet current vegetation maintenance needs of the Storm Drainage Utility.

6.6.2 Future Staffing Requirements and Equipment Needs

The M&O activities discussed in Section 6.2 and summarized in Table 6-2 are current efforts and do not include additional activities that will be required as part of the revised NPDES MS4 permit. In order to implement newly recommended asset management tasks with respect to drainage ditches and pipe inspection (see Table 6-4), additional staffing may be required. Future staffing requirements are summarized in the sections below.

6.6.2.1 Drainage Ditch Maintenance Program

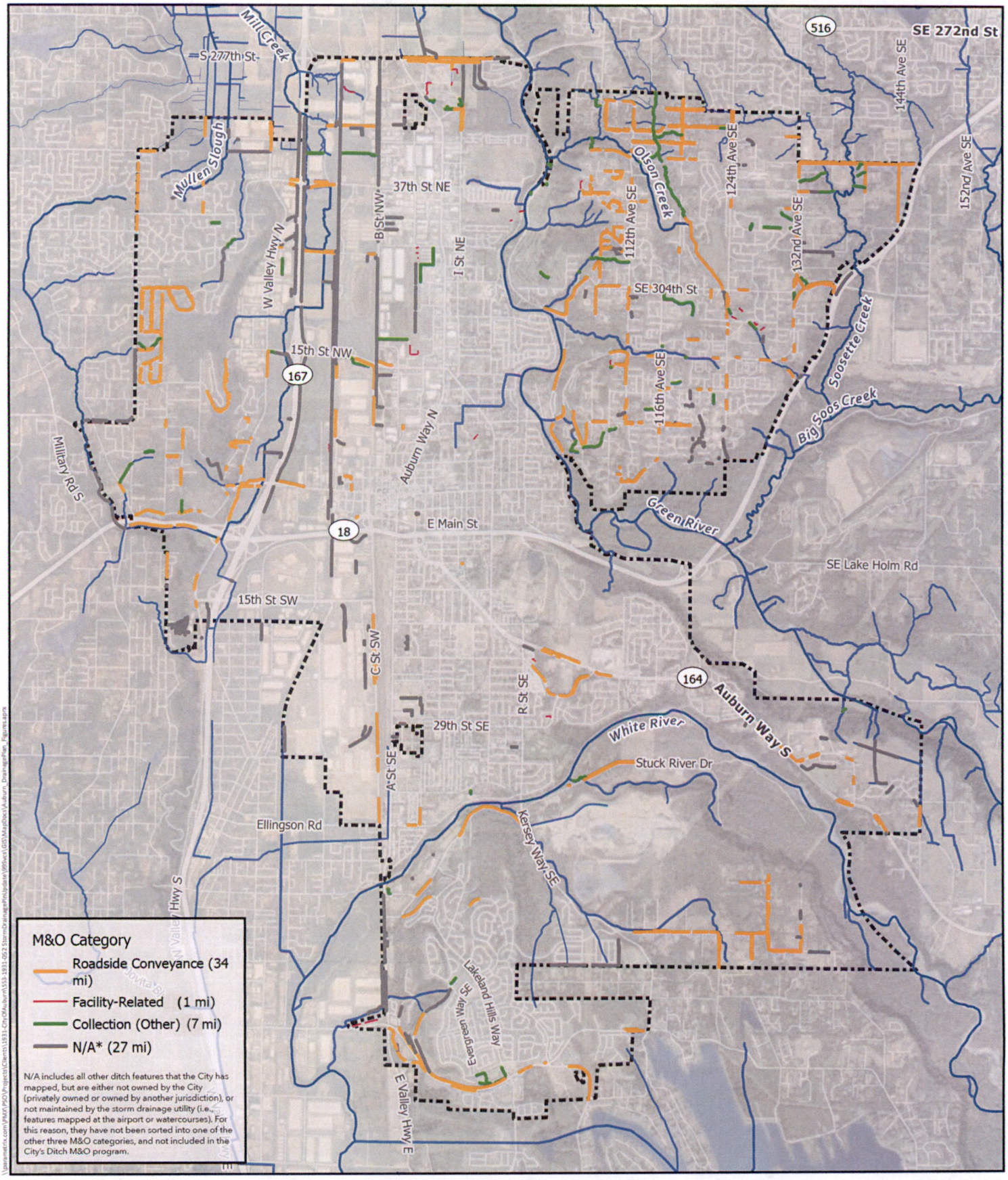
The City's ditch maintenance program was reviewed by Parametrix on behalf of this Plan to determine if additional controls and resources are required to meet needs and address potential liabilities. As a result of the review, it is recommended that the City categorize ditches according to the anticipated M&O needs (roadside ditch, facility-related, and collection [other]) and incorporate inspection as a new aspect in the ditch maintenance program. Figure 6-1 shows the extent of the City's ditch inventory and the recommended categorization according to M&O needs.

Roadside ditches are expected to require constant maintenance. Additional or enhanced actions are not anticipated at this time but could be an outcome of an enhanced maintenance program that could be proposed or required under the NPDES MS4 permit. The collection ditches will require additional routine maintenance, such as annual mowing and sediment removal. Facility-related ditches are recommended to be maintained and inspected with the facilities they are related to. This will require adjusting the City's goal of maintenance frequency.

Inspection will involve field verifying the condition, updating the asset inventory with findings, and generating a work order (as needed). Work orders will ensure the appropriate staff are aware of the issue (M&O, vegetation, office staff, etc.). Features in need of action are prioritized, and that work is scheduled appropriately. The following items will require consideration in incorporating the proposed ditch maintenance program.

- How does inspection turn into a work order?
- How often should ditches be inspected?
- What are the thresholds for action?

Because the inspection process is new, it is expected to take time to understand the staff and time needed as well as to set an achievable goal for inspection of the entire system. To begin to understand the expectation of M&O staff, starting estimates were developed for consideration. For the purposes of this Plan, inspection is anticipated to require a one-person crew to inspect 500 feet of ditch per hour, and it is recommended to inspect all ditches within the program annually. Further, the frequency and resources needed for this program should be evaluated every 5 years.



Date: 5/10/2024
Sources: City of Auburn, King County, Pierce County, WA Ecology, WA DNR, USGS, ESRI
Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

0 ¼ ½ 1 Miles

Figure 6-1
City Drainage Ditch Inventory
Maintenance & Operations (M&O) Categorization
Stormwater Drainage Utility
Comprehensive Storm Drainage Plan

For the near-term future ditch program, additional analysis and resource streams have been identified. The proposed ditch inspection program and recordkeeping will be initiated. New protocols for finding, adding, mapping, and classifying ditches in the system are needed and should primarily focus on collector and facility ditches. Newly added ditches will require ownership and responsibility research and subsequent easements or purchase. The ditch inspections may reveal system failures that require minor capitol repairs or replacement. The projects should be added as a programmatic CIP. In addition, an assessment to consider ditch improvements for water quality improvement will be prepared, focused on roadside ditches.

The findings and recommendations of the drainage ditch maintenance program have been discussed in further detail in Appendix E.

Taking this into consideration, the City will need to increase the expectation of overall Storm Drainage Utility staffing in order to dedicate more staff to drainage ditch maintenance and restoration (see Table 6-4). It is recommended that the City consider adjusting from the current levels to a regulated biannual basis for maintaining the its ditch inventory. In addition, it would be recommended to inspect the ditch inventory annually to prioritize ditches for maintenance. In order to meet this goal, approximately 363 FTE days (with a six-person crew), or 1.6 FTE per year would be needed (see Table 6-4).

6.6.2.2 Stormwater Pipe Inspection

As explained in Chapter 5.2, the City has a goal to implement an inspection prioritization program for its stormwater pipe system. The program will prioritize inspection for pipes with the highest likelihood of failure scores, which are generally those that are older, have little to no critical attribute data on record, or have no recorded history inspection. As part of the inspection process, feature attributes will be added/updated to the CMMS system, resulting in a robust pipe inventory and a more efficient use of resources. In the beginning of the program, there will be a greater number of pipes with high likelihood of failure scores (approximately 52,000 feet of pipe) since there is a large amount of missing feature data, and approximately 15,000 feet of the City's pipe system per year is expected to have surpassed its expected useful life (see Appendix C).

They City will slowly expand its pipe inspection program as time and finances allow, beginning with periodic use of the Sanitary Sewer Utility's closed-circuit television (CCTV) equipment on an as-needed basis. Since the CCTV equipment will be used as-needed, it is not anticipated to require additional FTE days at this time and has not been included in Table 6-4. Dedicated equipment for the storm utility will be investigated and worked into future budget cycles.

"Lamping" inspections, where the camera is inserted into the manhole or catch basin but not advanced through the pipe system, are typically performed as a first step of the CCTV process. Although the visual range is limited, lamping can identify structures and piping that are in very good condition. In these cases, no additional CCTV inspection would be necessary. Lamping can be utilized in many areas to get a baseline and can be done with current equipment. It is not a full substitute for CCTV inspections but will help get the program going before additional equipment can be purchased.

6.6.2.3 Other M&O Activities

The NPDES MS4 permit requires the City to implement a municipal street sweeping program to target high-priority areas (see Section 5.3). The City will need to review the existing street sweeping program and ensure the permit requirements are addressed or revised, as necessary. The new requirements are not anticipated to require additional FTE days for sweeping crews.

Table 6-4. Future Storm Drainage System Maintenance and Staffing Requirements

Work activity	FTE days required annually	Assumptions/City goal
Drainage ditch maintenance program		
Drainage ditch inspection	55	1-person crew, 500 ft per hour. Inspection of the entire system (~220,000 ft) annually.
Roadside ditch maintenance and restoration	327	6-person crew, 200 ft per hour. Expect to maintain the entire category (79% of drainage ditch inventory) every 2 years.
Collector-ditch maintenance and restoration	79	6-person crew, 200 ft per hour. Expect to maintain the entire category (20% of drainage ditch inventory) every 2 years.
Facility-related ditch maintenance and restoration	20	6-person crew, 200 ft per hour. Expect to maintain (1% of drainage ditch inventory) at the same time as maintenance occurs for the related facility (annually).
Total	530	Assumes 10% unquantified work
Additional FTE required for ditch maintenance and restoration	363	Subtracting the existing staffing goal (166 FTE days) to understand the additional need.
Total number of working days available per FTE	221	365 minus weekends (104), holidays (12), vacation (15), sick (12), and training (1).
Number of FTEs required	1.6	363 days required divided by 221 days per FTE year.

Note: FTE = full-time equivalent

6.6.2.4 Equipment Considerations

The Storm Drainage Utility utilizes the Sanitary Sewer Utility's reallocated CCTV inspection equipment and truck. New equipment would allow for increased efficiency and inspection frequency. It is recommended that the City consider the benefit of acquiring a CCTV for the Storm Drainage Utility after the pipe inspection program has been in effect for 5 years.

6.7 Potential Improvement Opportunities and Capital Needs

The Storm Drainage Utility has a positive track record for M&O, as evidenced by the limited need for non-routine maintenance and few customer service complaints about the City's drainage system. Routine facility cleaning, regular inspections, experienced staff, and a well-planned storm drainage system contribute to that success. Additionally, significant increases to the drainage ditch maintenance and pipeline inspection program could be addressed by the City by adding to the current Storm Drainage Utility M&O staff. An additional 1.6 FTEs are required to achieve proactive City M&O goals (Table 6-4).

Based upon discussions with City staff and analysis of M&O activities discussed in this chapter, the following improvement opportunities are available to the Storm Drainage Utility. These opportunities are based on improving existing services, regulatory compliance, and improving work productivity:

- Continue to integrate asset management with existing utility management software (Cartegraph and GIS).
  - → Continue to add GIS attributes to known Storm Drainage Utility assets.
  - → Perform and document condition assessments. Use defined criteria (such as leaks/cracks observed, cleanliness, and other specific measures), and provide staff training to ensure assessment consistency.
  - → Use results of condition assessments to move toward risk-based maintenance to best utilize staff resources. For example, consistently high assessment scores would result in a lower risk or need for maintenance, allowing M&O staff to be diverted to more essential activities.
  - → Over time, demonstrate (through maintenance records) that a subset of City catch basins do not require inspection, cleaning, and maintenance every 2 years per the NPDES MS4 permit.
- Reevaluate the inspection frequency and expected effort for the pipe inspection and ditch maintenance programs to adjust as needed.
- Consider obtaining a CCTV inspection equipment for pipe inspection the following utility equipment to improve M&O efficiency.
- Consider aligning catch basin cleaning with stormwater pipeline cleaning and CCTV to ensure efficient use of available resources.
- All M&O repair projects should be constructed to established City engineering standards. It is recommended that the City develop a more formal procedure for tracking M&O repair projects to ensure that as-built and GIS records are updated when repairs are completed.
- Develop a list of facilities that should be inspected following major design storms and inspect accordingly to verify proper function and identify damage, if any.
- Document the time and resources required on behalf of the SCIP program. Evaluate the resource need of the program after 5 years. This will allow the City to develop a more accurate estimate of the required FTE for implementation of the SCIP.
- Continue to develop the ditch maintenance program as broken down in the steps below.
  - → Ditch mapping and classification: Develop protocols for finding, adding, mapping, and classifying ditches within the system. Focus primarily on collector and facility ditches. Accurate mapping and classification will help prioritize maintenance efforts.
  - → Adding new ditches: Consider the steps required when adding new ditches to the system. Elements to address include determining ownership, responsibility, and any necessary easements or land purchases. Having a clear plan in place ensures smooth integration of new ditches.
  - → System failures and CIP: Use the results of regular ditch inspections to identify system failures. System failures may include erosion, blockages, or other issues that require capital repair or replacement. Add a program to the CIP to address ditches with these system failures.

- → Water quality improvements: Implement a program that focuses on retrofitting ditches with water quality enhancements. Specifically target roadside ditches, which play a crucial role in managing runoff and pollutant removal.

- Coordinate with the Street division to review and revise the City's street sweeping plan, as needed.

7. Capital Improvements

This chapter describes the recommended capital improvement plan for the City of Auburn Storm Drainage Utility. Of the 12 CIPs described in this chapter, 4 are included in the 6-year plan (2025–2030) and 8 are included in the 20-year plan (2031–2044). The 6-year plan includes the highest priority CIPs that address existing drainage problems, address an ongoing waste disposal issue, and ensure compliance with NPDES MS4 permit deadlines. The 20-year plan addresses longer-term capital goals (see Chapter 8). This Plan contains timeframes that are the intended framework for future funding decisions and within which future actions and decisions are intended to occur. However, these time frames are estimates and, depending on factors involved in the processing of applications and project work and the availability of funding, the timing may change. The framework, which may depend on available funding resources, does not represent actual commitments by the City of Auburn.

In general, CIPs are modifications to stormwater drainage infrastructure designed to improve the condition and function of the drainage system so that it can meet the LOS goals established for the City's Storm Drainage Utility (see Chapter 3). CIPs may also be developed to ensure the utility is able to carry out routine operations and ensure compliance with permit requirements.

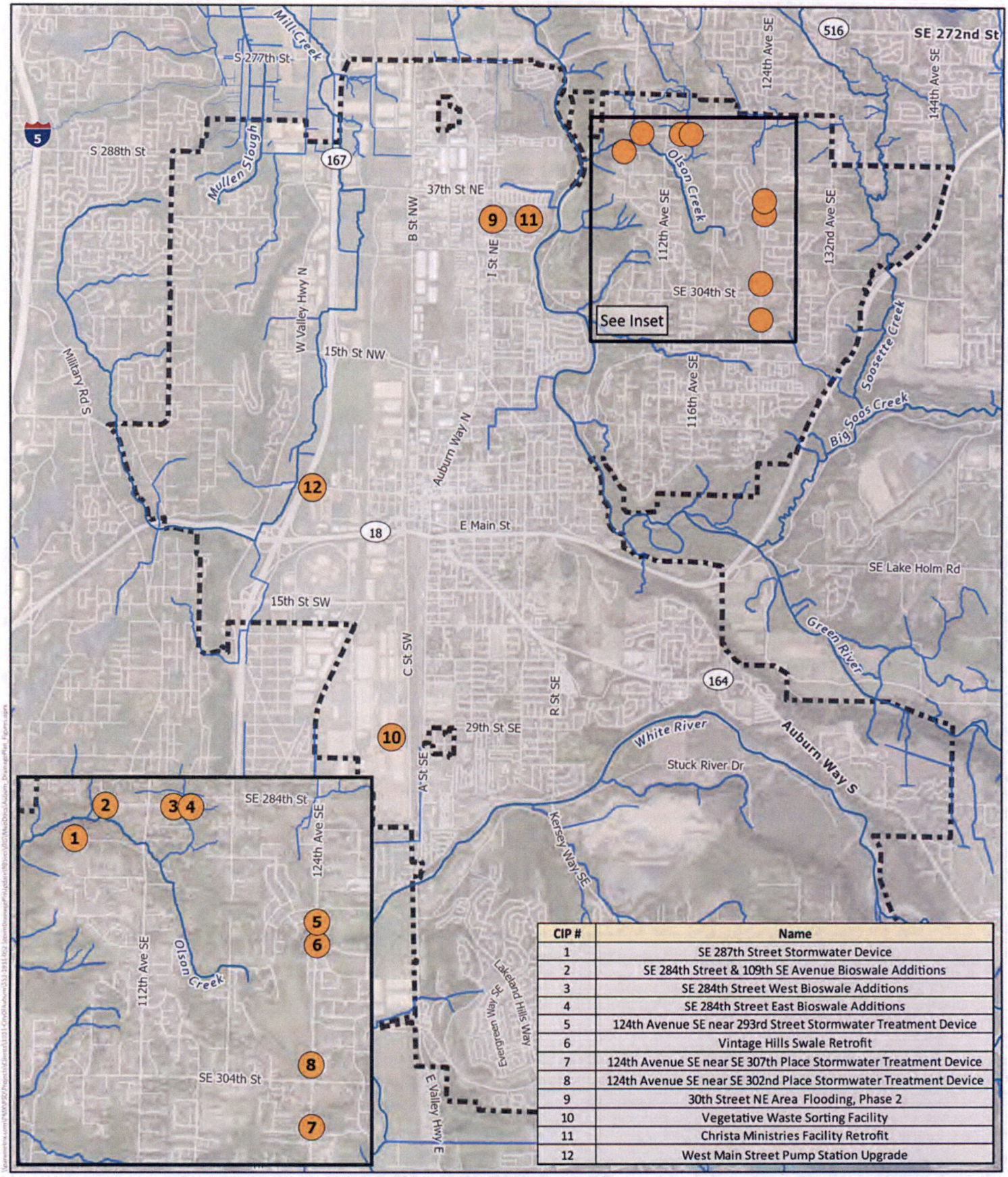
The CIPs presented in this chapter were identified and developed through focused investigations and by working collaboratively with City staff. This focused and collaborative approach was based on the practical consideration that the quantity and delivery of CIPs the City can implement is limited by existing revenue streams and staff availability. The intent is to produce an economical capital improvement plan that addresses the most salient issues in the near term, while still planning for the long-term ability of the Storm Drainage Utility to meet LOS goals. The following steps were used to develop the CIPs.

A list of potential projects was developed for further investigation. The list was developed by working closely with City staff to identify the delayed projects from the 2015 Plan that were still necessary or beneficial to the Utility, locate and characterize existing problems based on direct staff observations, recognize potential opportunities for enhancement, and address needs of the utility. Projects that were generated on behalf of the SMAP for Olsen Creek were also included in this list. Such observations are a valuable supplement to modeling analyses and, in this case, were used in conjunction with modeling activities to assist with model development.

For the potential projects that required H&H analyses, modeling was completed using PCSWMM, a software package that uses GIS technology to import and export data, allowing a seamless transition between the system inventories and modeling input files. Models used the historical event that most closely produced a once per 25-year flow rate (the specific event varied by basin). Results from historical events were used to assess the extent and severity of the drainage problem. Results from the design event were used to understand the feasibility of the potential project in mitigating the drainage problem.

Potential projects were developed and discussed with members of the City staff to identify the most viable alternative/solution. Potential projects were then evaluated based on their potential benefit and feasibility, and a final list was developed. Once the projects were defined, the project team developed concept-level cost estimates.

An overview of project locations is shown in Figure 7-1. Section 7.1 describes a tiered method for establishing project priorities. Section 7.2 presents detailed descriptions of CIPs. Section 7.3 describes programmatic drainage projects.



CIP #	Name
1	SE 287th Street Stormwater Device
2	SE 284th Street & 109th SE Avenue Bioswale Additions
3	SE 284th Street West Bioswale Additions
4	SE 284th Street East Bioswale Additions
5	124th Avenue SE near 293rd Street Stormwater Treatment Device
6	Vintage Hills Swale Retrofit
7	124th Avenue SE near SE 307th Place Stormwater Treatment Device
8	124th Avenue SE near SE 302nd Place Stormwater Treatment Device
9	30th Street NE Area Flooding, Phase 2
10	Vegetative Waste Sorting Facility
11	Christa Ministries Facility Retrofit
12	West Main Street Pump Station Upgrade

Date: 8/13/2024
Sources: City of Auburn, King County, Pierce County, WA Ecology, WA DNR, USGS, ESRI
Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

Auburn City Limits
Watercourse
CIP Location

Figure 7-1
Capital Improvement Project (CIP) Locations
Stormwater Drainage Utility
Comprehensive Storm Drainage Plan

7.1 Project Prioritization

Storm Drainage Utility staff prioritized CIPs by grouping them into one of three tiers. Projects in the top tier, or highest priority, are classified as tier 1. Projects with medium priority are classified as tier 2. And projects with lowest priority relative to the other projects are considered tier 3.

The following items were considered when prioritizing the CIPs:

- The magnitude of the LOS gap that would be addressed by a CIP. For example, a project that rectifies an annual flooding problem would rank higher than a project in a different area that eliminates less frequent flooding.
- The reduction in risk and reduction in consequences associated with a CIP. For example, the consequence of flooding that occurs near critical facilities (e.g., hospital or fire station) or along major arterial streets may be larger than flooding along residential streets. A CIP that addresses a larger consequence would rank higher.
- The opportunity for coordination with ongoing City of Auburn street improvements or other utility or transportation projects. Coordinated projects that reduce the overall cost of a CIP would rank higher.
- The capital funding capacity of the Storm Drainage Utility. The overall list of project priorities attempts to balance the need for action with the funding and implementation capacity of the Storm Drainage Utility.
- The action deadlines necessary for compliance with the NPDES MS4 permit.
- Other considerations with the potential to improve water quality, reductions in maintenance, and increased reliability of the system.

Priorities for each project are included in each project description in the following sections. Project priority and budgetary constraints were considered together in developing the year-by-year schedules for project implementation in the 6- and 20-year capital improvement plans (see Chapter 8).

7.2 Proposed Capital Improvement Projects

CIPs described in this section were developed as part of this Plan and are described in sufficient detail to allow the City to proceed with budgeting and design. Project descriptions are organized into summaries containing the following information:

- Project number: CIP numbers generally assigned to align with the number given in the SMAP (as applicable) for consistency.
- Project name: A short, descriptive name assigned to each project.
- Project type: A brief description of the specific type of project being undertaken, used to categorize and identify the purpose or focus of the project.
- Location: A simple description of the project location, such as the cross streets.
- Existing and proposed use: A summary of the existing and proposed site conditions.
- Drainage basin: The receiving water drainage basin where the project is situated.
- Tributary drainage area: Area (in acres) that drains to the project (as applicable).
- Total cost: The estimated cost of the project, based on the attached opinion (estimate) of probable cost.

- Project description: A description of the proposed project, including major project elements and sizes.
- Site opportunities: The anticipated opportunities and benefits of the project.
- Site challenges: The anticipated challenges in undertaking the project.
- Opinion (estimate) of probable cost: A list of estimated costs, including construction costs, engineering and administrative costs, taxes, and contingency costs. The estimate was developed based on the conceptual design, preliminary quantity take-offs, and estimated unit costs. Estimated unit costs were based on bids from the WSDOT Unit Bid Tab, vendor quotes, and escalated project costs from recent projects with similar components.
- Vicinity map: A figure showing the location of the project relative to the City of Auburn.
- Proposed conditions figures: Figures showing the conceptual design and location of project elements.

CIP summaries and cost opinions are presented on the following pages.

Parametrix

CIP 1 – SE 287th Street Stormwater Device

6-Year Capital Improvement Plan (Priority 1)





RETROFIT TYPE
Road retrofit
Manufactured treatment device

LOCATION
At the end of SE 287th Street

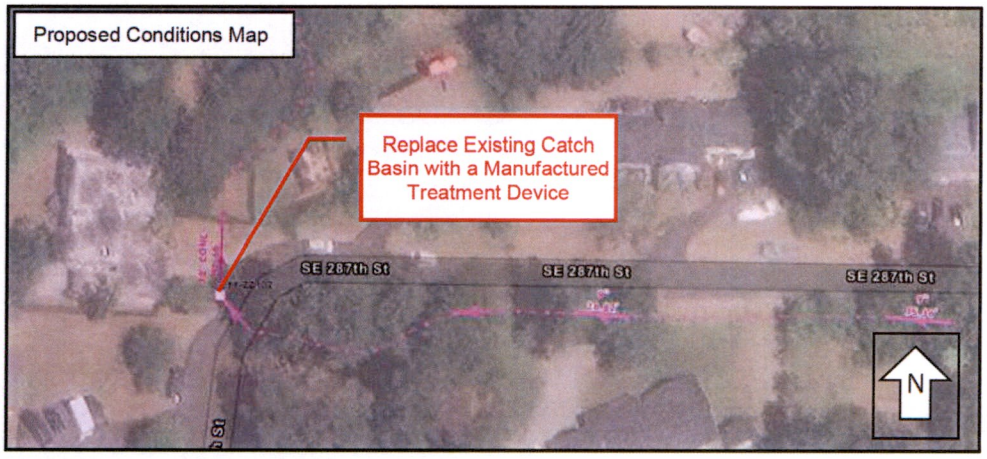
EXISTING USE
ROW

PROPOSED USE
ROW with enhanced runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
7.3 acres total
2.0 acres impervious

TOTAL COST (2024 DOLLARS)
$427,000



Project Description

This project is proposing to replace the existing Type 1 catch basin with a stormwater treatment technology reviewed and certified by the Washington state Technology Assessment Protocol – Ecology (TAPE) program to provide 7.3 acres with enhanced water quality treatment. This project would provide treatment for approximately 700 linear feet of roadway. The catch basin replacement will likely be low complexity since there is existing infrastructure in place and traffic control needs will be low. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Low traffic control requirements.

Site Challenges

- Water quality only, no flow control.
- Need site survey to confirm catch basin is located within City ROW.

Opinion (Estimate) of Probable Cost

Project Name	CIP 1 - SE 287th Street Stormwater Device
Location	At the end of SE 287th Street (Near 10624 SE 287th Street, Auburn, WA 98092)

ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 5-13		$14,442
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 5-13		$4,332
3		TESC (5%)	5%	% of lines 5-13		$7,221
4		DEWATERING (2%)	2%	% of lines 5-13		$2,888
					Lines 1 - 4 Subtotal	**$28,883**
		MATERIALS				
5		SAWCUTTING	56	LF	$31	$1,715
6		PAVEMENT REMOVAL/RESTORATION	11	SY	$220	$2,347
7		ENHANCED MEDIA FILTER SYSTEM 6X8	2	EA	$60,000	$120,000
8		CONNECTION TO DRAINAGE STRUCTURE	4	EA	$3,415	$13,661
9		STRUCTURE EXCAVATION CLASS A INCL. HAUL	44	CY	$41	$1,824
10		SHORING OR EXTRA EXCAVATION CLASS B	1	LS	$1,000	$1,000
11		STRUCTURE EX AND SHORING LABOR (50% OF EACH)	50	% of lines 9-10		$1,412
12		CRUSHED SURFACING BASE COURSE	3	TN	$54	$176
13		RECORD DRAWINGS	1	LS	$2,280	$2,280
					Lines 5 - 13 Subtotal	**$144,416**
					Subtotal Line-Item Costs	**$173,299**
					Design Contigency 50%	**$86,649**
					Permitting 5%	**$8,665**
					Design 25%	**$43,325**
					City Project Mgmt. Admin. 5%	**$8,665**
					Construction Management 25%	**$43,325**
					Management Reserve 10%	**$17,330**
					TOTAL PROJECT COST	**$382,000**

Parametrix

CIP 2 – SE 284th Street & 109th Avenue SE Bioswale Additions

20-Year Capital Improvement Plan (Priority 3)





RETROFIT TYPE
Road retrofit
New bioswales

LOCATION
SE 284th Street and 109th Avenue SE

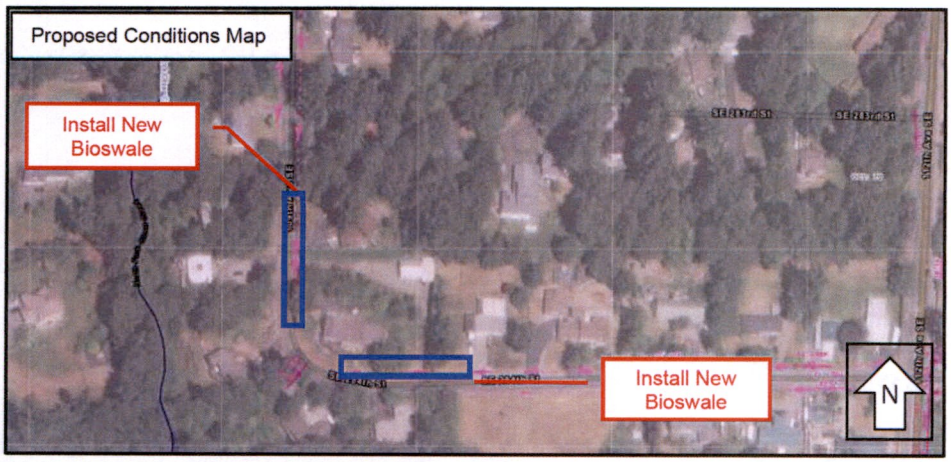
EXISTING USE
ROW (vegetated and gravel driveway)

PROPOSED USE
ROW with basic runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
20.6 acres total
3.0 acres impervious

TOTAL COST (2024 DOLLARS)
$143,000



Project Description

This project will retrofit a section of SE 284th Street by adding two bioswale ditch enhancements. The bioswales will provide basic water quality treatment to 20.6 acres, including approximately 2,300 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Treatment can be situated within ROW.
- Provides some flow control.

Site Challenges

- Clearing and grubbing required.

Opinion (Estimate) of Probable Cost

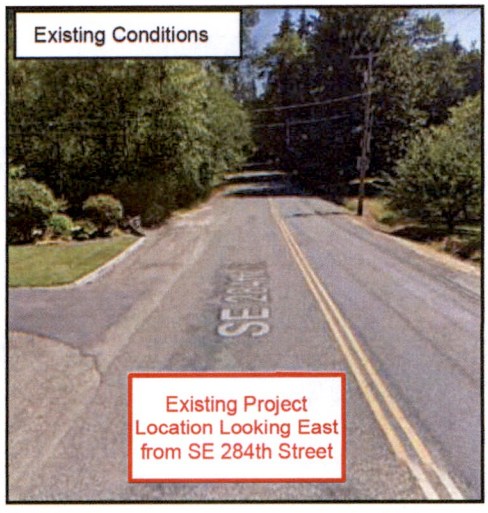
Project Name	CIP 2 - SE 284th Street & 109th Avenue SE Bioswale Additions
Location	SE 284th Street and 109th Avenue SE

ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 5-9		$5,390
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 5-9		$1,617
3		TESC (5%)	5%	% of lines 5-9		$2,695
4		DEWATERING (2%)	2%	% of lines 5-9		$1,078
					Lines 1 - 4 Subtotal	**$10,781**
		MATERIALS				
5		CLEARING AND GRUBBING	0.1	ACRE	$10,000	$1,045
6		CHANNEL EXCAVATION INCL. HAUL	169	CY	$40	$6,724
7		TOPSOIL TYPE A	253	SY	$66	$16,599
8		COMPOST BLANKET	42	SY	$8	$337
9		SEEDING, FERTILIZING, AND MULCHING	506	SY	$58	$29,200
					Lines 5 - 9 Subtotal	**$53,904**
					Subtotal Line-Item Costs	**$64,685**
					Design Contigency 50%	**$32,343**
					Permitting 5%	**$3,234**
					Design 25%	**$16,171**
					City Project Mgmt. Admin. 5%	**$3,234**
					Construction Management 25%	**$16,171**
					Management Reserve 10%	**$6,469**
					TOTAL PROJECT COST	**$143,000**

Parametrix

CIP 3 – SE 284th Street West Bioswale Additions
6-Year Capital Improvement Plan (Priority 1)





RETROFIT TYPE
Road retrofit
New bioswales

LOCATION
Along SE 284th Street

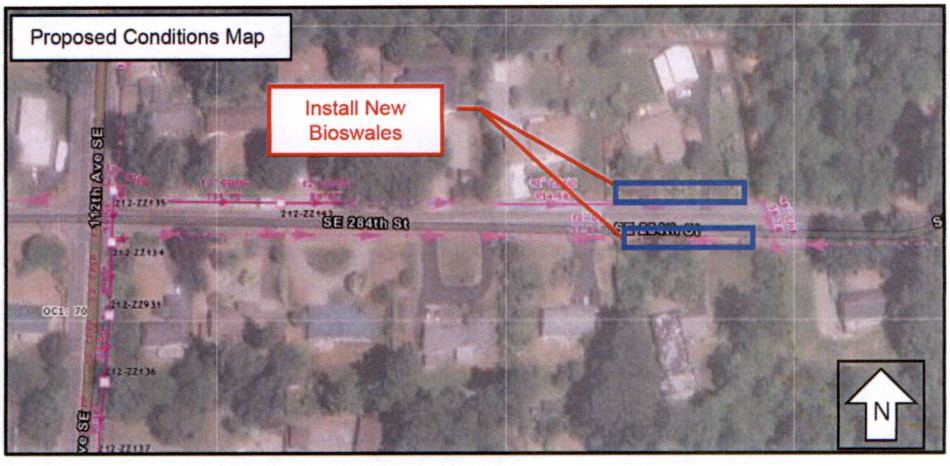
EXISTING USE
ROW

PROPOSED USE
ROW with basic runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
2.2 acres total
1.1 acres impervious

TOTAL COST (2024 DOLLARS)
$52,000



Project Description

This project will retrofit a section of SE 284th Street by adding two bioswale ditch enhancements to the side of the road. The bioswales will provide basic water quality treatment to 2.2 acres, including approximately 700 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Treatment can be situated within ROW.
- Provides some flow control.

Site Challenges

- Clearing and grubbing required.

Opinion (Estimate) of Probable Cost

Project Name	CIP 3 - SE 284th Street West Bioswale Additions
Location	Along SE 284th Street (Near 11429 SE 284th Street, Auburn, WA 98082)

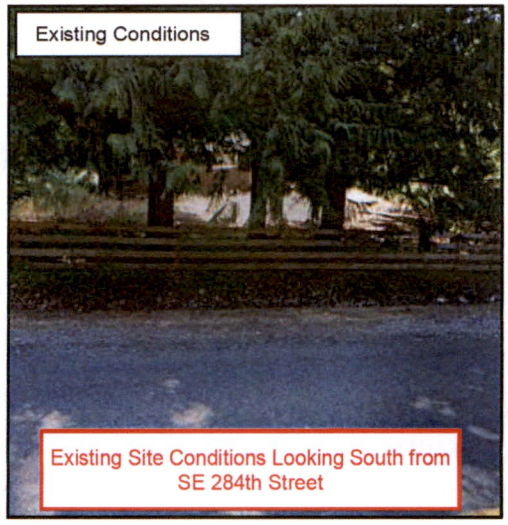
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 6-10		$1,719
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 6-10		$516
3		TESC (5%)	5%	% of lines 6-10		$860
4		DEWATERING (2%)	2%	% of lines 6-10		$344
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%	% of lines 6-10		$2,579
					Lines 1 - 5 Subtotal	**$6,017**
		MATERIALS				
6		CLEARING AND GRUBBING	0.04	ACRE	$10,000	$419
7		CHANNEL EXCAVATION INCL. HAUL	68	CY	$40	$2,698
8		TOPSOIL TYPE A	34	SY	$66	$2,221
9		COMPOST BLANKET	17	SY	$8	$135
10		SEEDING, FERTILIZING, AND MULCHING	203	SY	$58	$11,718
					Lines 6 - 10 Subtotal	**$17,192**
					Subtotal Line-Item Costs	**$23,209**
					Design Contigency 50%	**$11,604**
					Permitting 5%	**$1,160**
					Design 25%	**$5,802**
					City Project Mgmt. Admin. 5%	**$1,160**
					Construction Management 25%	**$5,802**
					Management Reserve 10%	**$2,321**
					TOTAL PROJECT COST	**$52,000**

Parametrix

CIP 4 – SE 284th Street East Bioswale Additions

20-Year Capital Improvement Plan (Priority 3)





RETROFIT TYPE
Road retrofit
New bioswale

LOCATION
Along SE 284th Street

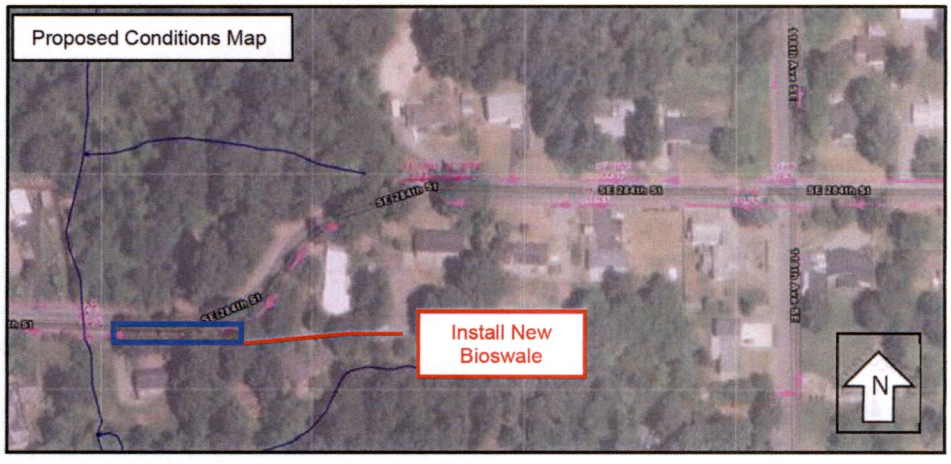
EXISTING USE
Roadside ditch

PROPOSED USE
Roadside bioswale

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
1.8 acres total
0.8 acres impervious

TOTAL COST (2024 DOLLARS)
$28,000



Project Description

This project will retrofit a section of SE 284th Street by adding a bioswale ditch enhancement to the side of the road. This bioswale will provide basic water quality treatment to 1.8 acres, including approximately 1,600 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Treatment can be situated within ROW.
- Provides some flow control.

Site Challenges

- Clearing and grubbing required.

Opinion (Estimate) of Probable Cost

Project Name	CIP 4 - SE 284th Street East Bioswale Additions
Location	Along SE 284th Street (Near 11619 SE 284th Street, Auburn, WA 98082)

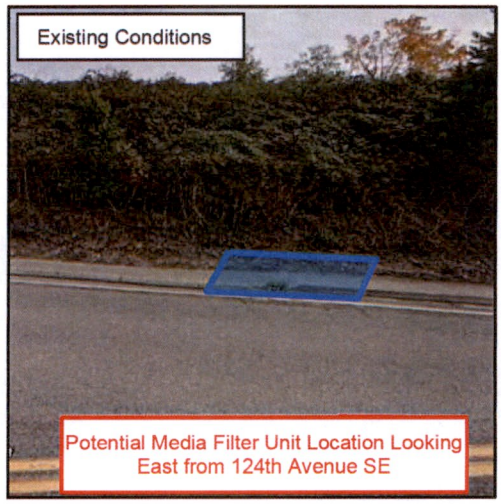
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%		% of lines 6-10	$932
2		CONTRACTOR PROVIDED SURVEY (3%)	3%		% of lines 6-10	$280
3		TESC (5%)	5%		% of lines 6-10	$466
4		DEWATERING (2%)	2%		% of lines 6-10	$186
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%		% of lines 6-10	$1,398
					Lines 1 - 5 Subtotal	**$3,262**
		MATERIALS				
6		CLEARING AND GRUBBING	0.02	ACRE	$10,000	$227
7		CHANNEL EXCAVATION INCL. HAUL	37	CY	$40	$1,463
8		TOPSOIL TYPE A	18	SY	$66	$1,204
9		COMPOST BLANKET	9	SY	$8	$73
10		SEEDING, FERTILIZING, AND MULCHING	110	SY	$58	$6,353
					Lines 6 - 10 Subtotal	**$9,321**
					Subtotal Line-Item Costs	**$12,583**
					Design Contigency	**50%**	**$6,292**
					Permitting	**5%**	**$629**
					Design	**25%**	**$3,146**
					City Project Mgmt. Admin.	**5%**	**$629**
					Construction Management	**25%**	**$3,146**
					Management Reserve	**10%**	**$1,258**
					TOTAL PROJECT COST	**$28,000**

Parametrix

CIP 5 – 124th Avenue SE near SE 293rd Street Stormwater Treatment Device

20 Capital Improvement Plan (Priority 2)





RETROFIT TYPE
Road retrofit
Manufactured treatment device

LOCATION
124th Avenue SE near SE 293rd Street

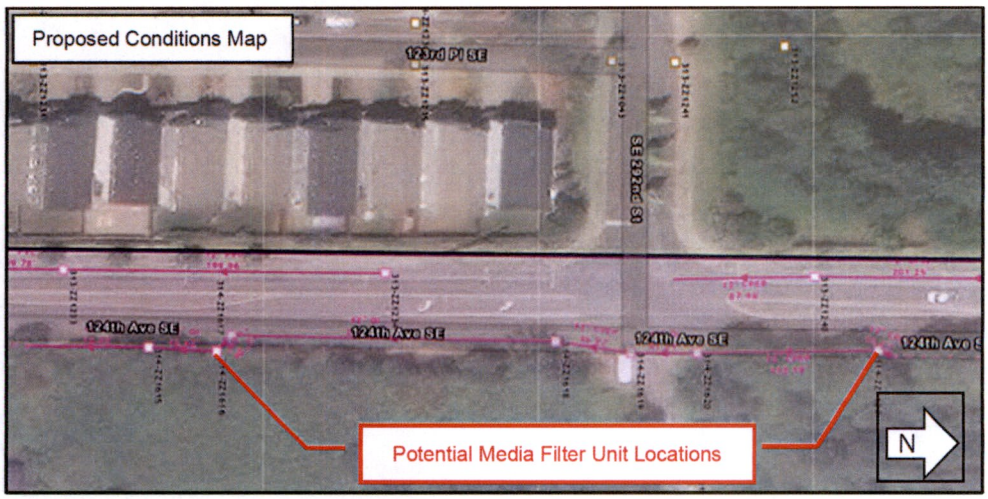
EXISTING USE
Untreated ROW

PROPOSED USE
ROW with enhanced runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
14.1 acres total
2.4 acres impervious

TOTAL COST (2024 DOLLARS)
$581,000



Project Description

This project will retrofit a section of 124th Avenue SE by replacing existing Type 1 catch basins with TAPE-approved manufactured treatment devices. The manufactured treatment devices will provide enhanced water quality treatment to 14.1 acres, including approximately 800 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Provides enhanced stormwater treatment for a high traffic roadway.

Site Challenges

- May be constrained by outlet height.
- Coordination with other utilities.

Opinion (Estimate) of Probable Cost

Project Name	CIP 5 - 124th Avenue SE near SE 293rd Street Stormwater Treatment Device
Location	Along 124th Avenue SE near SE 293rd Street

ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 6-16		$19,562
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 6-16		$5,868
3		TESC (5%)	5%	% of lines 6-16		$9,781
4		DEWATERING (2%)	2%	% of lines 6-16		$3,912
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%	% of lines 6-16		$29,342
					Lines 1 - 5 Subtotal	**$68,466**
		MATERIALS				
6		UTILITY RELOCATION (SMALL)	1	LS	$15,000	$15,000
7		PAVEMENT REMOVAL/RESTORATION	52	SY	$220	$11,489
8		REMOVE CEMENT CONCRETE CURB AND GUTTER	20	LF	$14	$274
9		ENHANCED MEDIA FILTER SYSTEM 6X10	2	EA	$68,000	$136,000
10		CONNECTION TO DRAINAGE STRUCTURE	4	EA	$3,415	$13,661
11		STRUCTURE EXCAVATION CLASS A INCL. HAUL	52	CY	$41.04	$2,128
12		SHORING OR EXTRA EXCAVATION CLASS B	1	LS	$1,000	$1,000
13		STRUCTURE EX AND SHORING LABOR (50% OF EACH)	50	% of lines 11-12		$1,564
14		CRUSHED SURFACING BASE COURSE	4	TN	$54	$220
15		SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	100	LF	$120	$12,000
16		RECORD DRAWINGS	1	LS	$2,280	$2,280
					Lines 6 - 16 Subtotal	**$195,616**
					Subtotal Line-Item Costs	**$264,082**
					Design Contigency 50%	**$132,041**
					Permitting 5%	**$13,204**
					Design 25%	**$66,020**
					City Project Mgmt. Admin. 5%	**$13,204**
					Construction Management 25%	**$66,020**
					Management Reserve 10%	**$26,408**
					TOTAL PROJECT COST	**$581,000**

Parametrix

CIP 6 – Vintage Hills Swale Retrofit

20-Year Capital Improvement Plan (Priority 1)





RETROFIT TYPE
Existing facility retrofit
Swale soil amendment

LOCATION
Along 124th Avenue SE

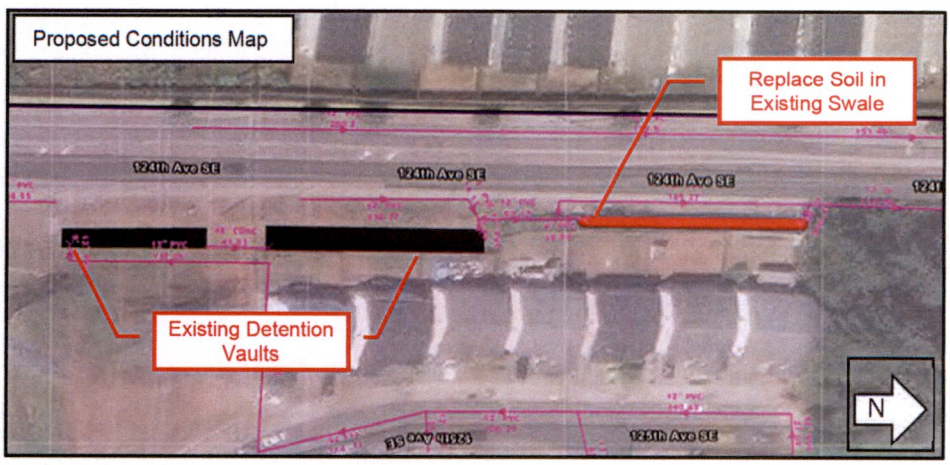
EXISTING USE
Bioswale

PROPOSED USE
Bioretention swale with enhanced treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
5.0 acres total
1.1 acres impervious

TOTAL COST (2024 DOLLARS)
$264,000



Project Description

This project is proposing to amend the soil in the existing Vintage Hills swale. The soil will be replaced from conventional soil to bioretention soil to provide enhanced treatment for 5.0 acres. Rock check dams may be required throughout the length of the swale to ensure infiltration occurs to provide treatment. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Upgrading vintage basic treatment to enhanced treatment.

Site Challenges

- Water quality only, no flow control (though flow control is provided by the detention vaults).

Opinion (Estimate) of Probable Cost

Project Name	CIP 6 - Vintage Hills Swale Retrofit
Location	Along 124th Avenue SE (Near 29501 125th Avenue SE, Auburn, WA 98082)

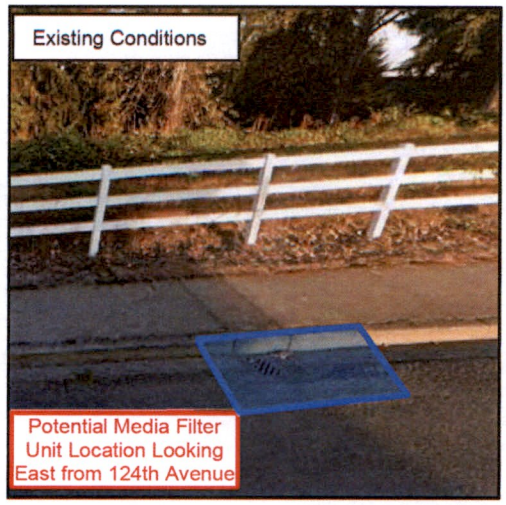
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 6-13		$10,458
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 6-13		$3,137
3		TESC (5%)	5%	% of lines 6-13		$5,229
4		DEWATERING (2%)	2%	% of lines 6-13		$2,092
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%	% of lines 6-13		$15,687
					Lines 1 - 5 Subtotal	**$20,915**
		MATERIALS				
6		CHANNEL EXCAVATION INCL. HAUL	151	CY	$40	$6,012
7		EROSION CONTROL BLANKET	75	SY	$9	$687
8		18" BIORETENTION SOIL	750	SF	$120	$90,000
9		COMPOST BLANKET	75	SY	$8	$603
10		QUARRY SPALLS	6	TN	$70	$424
11		TRASH RACK	1	EA	$500	$500
12		SEEDING, FERTILIZING, AND MULCHING	75	SY	$58	$4,351
13		RECORD DRAWINGS	1	LS	$2,000	$2,000
					Lines 6 - 13 Subtotal	**$104,577**
					Subtotal Line-Item Costs	**$125,492**
					Design Contigency 50%	**$62,746**
					Permitting 5%	**$6,275**
					Design 15%	**$18,824**
					City Project Mgmt. Admin. 5%	**$6,275**
					Construction Management 25%	**$31,373**
					Management Reserve 10%	**$12,549**
					TOTAL PROJECT COST	**$264,000**

Parametrix

CIP 7 – 124th Avenue SE near SE 307th Place Stormwater Treatment Device

20-Year Capital Improvement Plan (Priority 2)





RETROFIT TYPE
Road retrofit
Manufactured treatment device

LOCATION
124th Avenue SE near SE 307th Place

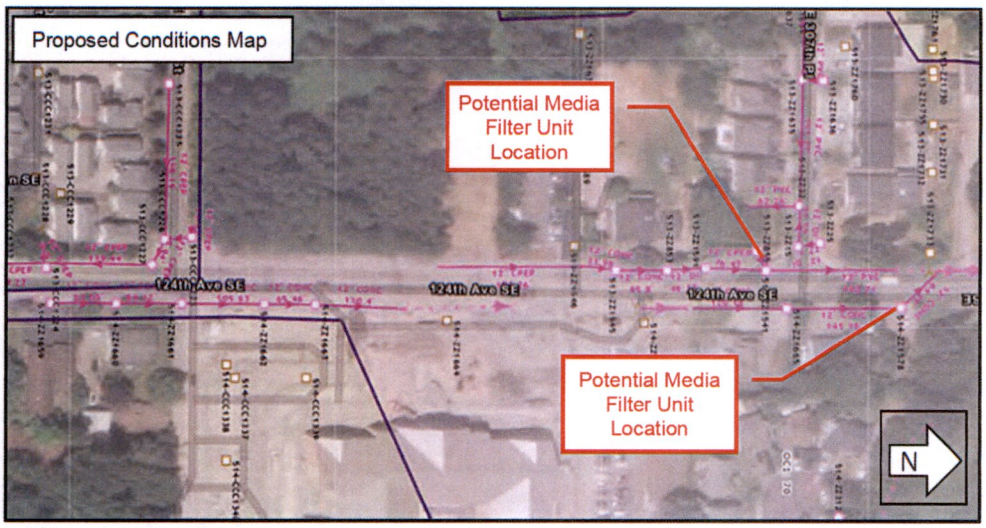
EXISTING USE
Untreated ROW

PROPOSED USE
ROW with enhanced runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
5.9 acres total
1.4 acres impervious

TOTAL COST (2024 DOLLARS)
$531,000



Project Description

This project will retrofit a section of 124th Avenue SE by replacing existing Type 1 catch basins with TAPE-approved manufactured treatment devices. The manufactured treatment devices will provide enhanced water quality treatment to 5.9 acres, including approximately 1,200 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Provides enhanced stormwater treatment for a high traffic roadway.

Site Challenges

- May be constrained by outlet height.
- Coordination with other utilities.
- Traffic control requirements.

Opinion (Estimate) of Probable Cost

Project Name	CIP 7 - 124th Avenue SE near SE 307th Place Stormwater Treatment Device
Location	124th Avenue SE near SE 307th Place

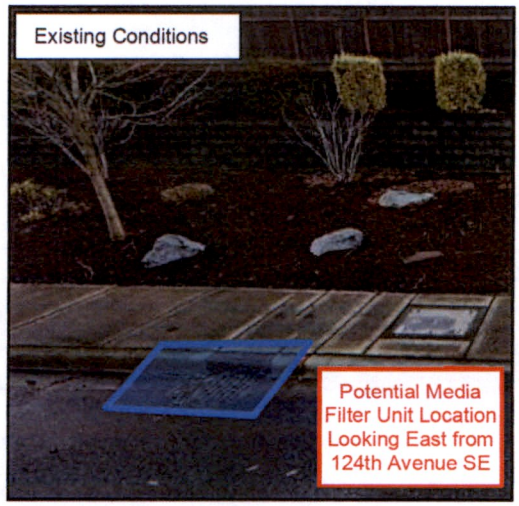
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 6-16		$17,847
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 6-16		$5,354
3		TESC (5%)	5%	% of lines 6-16		$8,924
4		DEWATERING (2%)	2%	% of lines 6-16		$3,569
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%	% of lines 6-16		$26,771
					Lines 1 - 5 Subtotal	**$62,466**
		MATERIALS				
6		UTILITY RELOCATION (SMALL)	1	LS	$15,000	$15,000
7		PAVEMENT REMOVAL/RESTORATION	50	SY	$220	$10,902
8		REMOVE CEMENT CONCRETE CURB AND GUTTER	16	LF	$14	$219
9		ENHANCED MEDIA FILTER SYSTEM 6X8	2	EA	$60,000	$120,000
10		CONNECTION TO DRAINAGE STRUCTURE	4	EA	$3,415	$13,661
11		STRUCTURE EXCAVATION CLASS A INCL. HAUL	44	CY	$41.04	$1,824
12		SHORING OR EXTRA EXCAVATION CLASS B	1	LS	$1,000	$1,000
13		STRUCTURE EX AND SHORING LABOR (50% OF EACH)	50	% of lines 11-12		$1,412
14		CRUSHED SURFACING BASE COURSE	3	TN	$54	$176
15		SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	100	LF	$120	$12,000
16		RECORD DRAWINGS	1	LS	$2,280	$2,280
					Lines 6 - 16 Subtotal	**$178,475**
					Subtotal Project Cost	**$240,941**
				Design Contigency	**50%**	**$120,470**
				Permitting	**5%**	**$12,047**
				Design	**25%**	**$60,235**
				City Project Mgmt. Admin.	**5%**	**$12,047**
				Construction Management	**25%**	**$60,235**
				Management Reserve	**10%**	**$24,094**
					TOTAL PROJECT COST	**$531,000**

Parametrix

CIP 8 – 124th Avenue SE near SE 302nd Place Stormwater Treatment Device

20-Year Capital Improvement Plan (Priority 2)





RETROFIT TYPE
Road retrofit
Manufactured treatment device

LOCATION
124th Avenue SE near SE 302nd Place

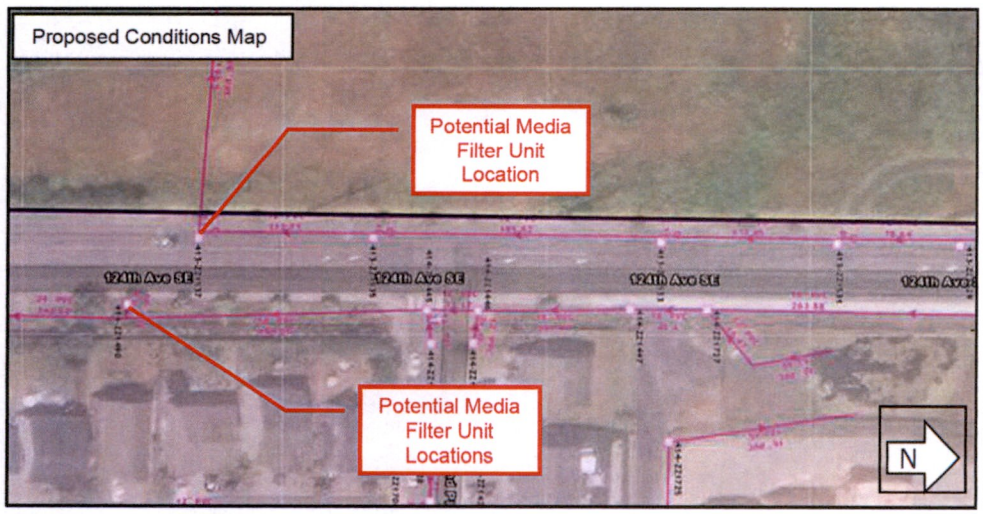
EXISTING USE
Untreated ROW

PROPOSED USE
ROW with enhanced runoff treatment

DRAINAGE BASIN
Olson Creek

TRIBUTARY DRAINAGE AREA
2.9 acres total
1.3 acres impervious

TOTAL COST (2024 DOLLARS)
$531,000



Project Description

This project will retrofit a section of 124th Avenue SE by replacing existing Type 1 catch basins with a TAPE-approved manufactured treatment devices. The manufactured treatment devices will provide enhanced water quality treatment to 2.9 acres, including approximately 1,600 linear feet of roadway. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- Provides enhanced stormwater treatment for a high traffic roadway.

Site Challenges

- May be constrained by outlet height.
- Coordination with other utilities.
- Traffic control requirements.

Opinion (Estimate) of Probable Cost

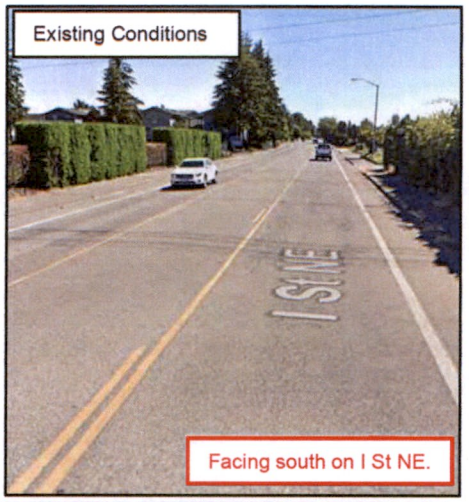
Project Name	CIP 8 - 124th Avenue SE near SE 302nd Place Stormwater Treatment Device
Location	124th Avenue SE near SE 302nd Place

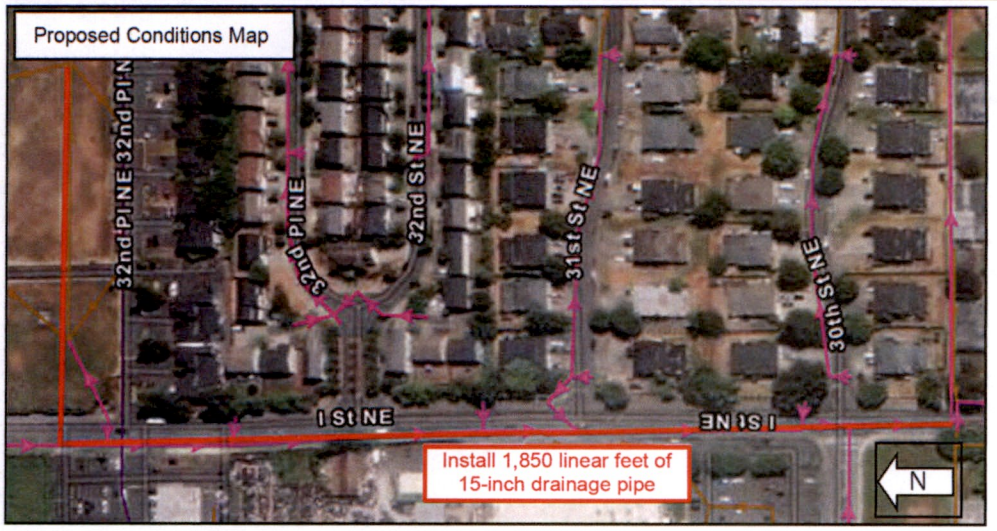
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 6-16		$17,847
2		CONTRACTOR PROVIDED SURVEY (3%)	3%	% of lines 6-16		$5,354
3		TESC (5%)	5%	% of lines 6-16		$8,924
4		DEWATERING (2%)	2%	% of lines 6-16		$3,569
5		PROJECT TEMPORARY TRAFFIC CONTROL (15%)	15%	% of lines 6-16		$26,771
					Lines 1 - 5 Subtotal	**$62,466**
		MATERIALS				
6		UTILITY RELOCATION (SMALL)	1	LS	$15,000	$15,000
7		PAVEMENT REMOVAL/RESTORATION	50	SY	$220	$10,902
8		REMOVE CEMENT CONCRETE CURB AND GUTTER	16	LF	$14	$219
9		ENHANCED MEDIA FILTER SYSTEM 6X8	2	EA	$60,000	$120,000
10		CONNECTION TO DRAINAGE STRUCTURE	4	EA	$3,415	$13,661
11		STRUCTURE EXCAVATION CLASS A INCL. HAUL	44	CY	$41.04	$1,824
12		SHORING OR EXTRA EXCAVATION CLASS B	1	LS	$1,000	$1,000
13		STRUCTURE EX AND SHORING LABOR (50% OF EACH)	50	% of lines 11-12		$1,412
14		CRUSHED SURFACING BASE COURSE	3	TN	$54	$176
15		SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	100	LF	$120	$12,000
16		RECORD DRAWINGS	1	LS	$2,280	$2,280
					Lines 6 - 16 Subtotal	**$178,475**
					Subtotal Line-Item Costs	**$240,941**
					Design Contigency 50%	**$120,470**
					Permitting 5%	**$12,047**
					Design 25%	**$60,235**
					City Project Mgmt. Admin. 5%	**$12,047**
					Construction Management 25%	**$60,235**
					Management Reserve 10%	**$24,094**
					TOTAL PROJECT COST	**$531,000**

Parametrix

CIP 9 – 30th Street NE Area Flooding, Phase 2
20-Year Capital Improvement Plan (Priority 3)







RETROFIT TYPE
Road retrofit
Upgraded conveyance system

LOCATION
East of I Street NE between 32nd Street NE and 35th Street NE

EXISTING USE
Conveyance system

PROPOSED USE
New conveyance system and upgraded pipe

DRAINAGE BASIN
Mill Creek and Green River

TRIBUTARY DRAINAGE AREA
Unknown

TOTAL COST (2024 DOLLARS)
$1,186,000

NOTES
Cost, design, figures, and description completed by Brown & Caldwell in 2015. Cost and description updated by Parametrix per City comments

Project Description

The north-central area of Auburn has a history of surface flooding with street flooding occurring once every few years. The residential development east of I Street NE between 32nd Street NE and 35th Street NE discharges flows into a City-owned infiltration area. The infiltration area commonly experiences prolonged periods of standing water due to high groundwater from extended high flows in the Green River, which is adjacent to the infiltration area. The drainage system on I Street NE currently lacks infrastructure to collect and convey stormwater away from the infiltration area, as well as residential roadways and parking area. Ponding occurs within the parking areas of the developments and presents a nuisance and potential hazard to local residents.

This project is Phase 2 of a three-phased capital improvement project (Relieve 30th Street NE Area Flooding) from the 2015 Comprehensive Stormwater Drainage Plan. The goal of the 2015 CIP was to increase the capacity of the 30th Street NE system to reduce flooding along 30th Street NE and to provide capacity to connect other flooding drainage systems (C Street NE and I Street NE). The implementation of this CIP is occurring in phases, as funding, staff availability, and priorities allow. The first phase (30th Street NE Area Flooding, Phase 1) was scheduled for construction in 2015/2016. The next phase, referred to as CIP 9 in this Plan, is scheduled for the 2031–2044 timeframe.

This project would address the flooding adjacent to I Street NE. This project would locate a storm drain line to capture stormwater from the two residential developments currently discharging stormwater to the City's infiltration area. In addition, this project would construct a new storm drain within I Street NE southward to connect into the 42-inch-diameter storm drain (constructed as part of the 30th Street NE Area Flooding project, Phase I, from the 2015 Plan) near the intersection of I Street NE and 30th Street NE. The 42-inch-diameter line will have sufficient available capacity to convey the I Street NE flows.

Site Opportunities

- Public drainage infrastructure will be designed and maintained so that the annual chance of a flooding disruption that inundates the city roadways to an impassable level occurs no more than once every 25 years.
- Public drainage infrastructure will be designed and maintained so that the annual chance of occurrence of flooding (surface water from ROW runoff entering premises and damaging building structures) will occur no more than once every 50 years.

Opinion (Estimate) of Probable Cost

Project Name	CIP 9 - 30th Street NE Area Flooding, Phase 2
Location	30th Street NE and I Street NE

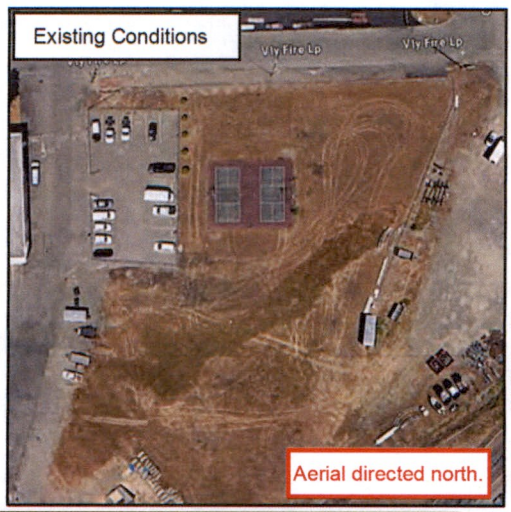
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		CONTRACTOR OVERHEAD, PROFIT, AND MOBILIZATION	18%	% of lines 2-2		$115,380
					Lines 1 - 1 Subtotal	**$115,380**
		MATERIALS				
2		2015 PROJECT (4A) 1,850 LF OF 15-IN DRAINAGE PIPE	1	LS	$641,000	$641,000
					Lines 2 - 2 Subtotal	**$641,000**
					Subtotal Line-Item Costs	**$756,380**
					Construction Contingency 20%	**$151,276**
					Sales Tax (all above costs) 9%	**$79,874**
					Subtotal Construction Costs	**$987,530**
					Permitting, design, management, and administration 20%	**$197,506**
					TOTAL PROJECT COST	**$1,186,000**

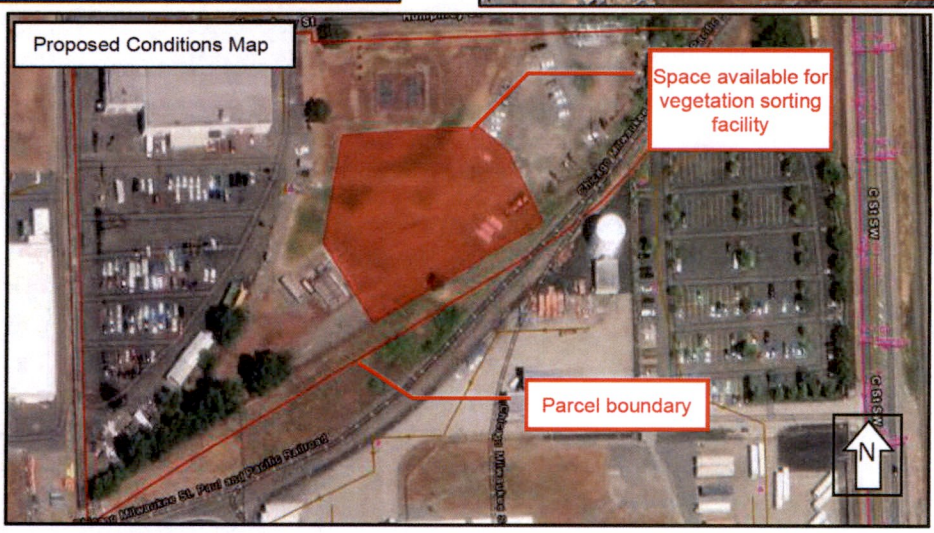
Parametrix

CIP 10 – Vegetative Waste Sorting Facility

6-Year Capital Improvement Plan (Priority 3)







RETROFIT TYPE
New waste sorting facility

LOCATION
GSA site

EXISTING USE
Shared open space

PROPOSED USE
Waste sorting facility for plant/organic material pulled from conveyance and treatment systems and facilities

DRAINAGE BASIN
White River

TRIBUTARY DRAINAGE AREA
N/A

TOTAL COST (2024 DOLLARS)
$200,000

NOTES
Cost, design, figures, and description completed by Brown & Caldwell. Cost and description updated by Parametrix per City comments.

Project Description

The Storm Drainage Utility is responsible for the M&O of the storm drainage system. Pond and drainage ditch maintenance and rehabilitation involves removal of plant material and sediments, which are considered non-hazardous and are suitable for recycling. During fall and winter, debris from storm cleanups also yield materials suitable for recycling. The Storm Drainage Utility currently uses the City-owned Jacobson Tree Farm property for storing and drying of these materials prior to hauling off-site for recycling. The property is owned by the Parks Department and is scheduled to be repurposed, precluding its use for ongoing M&O activities.

This project addresses the need for a new site to sort, dry, and store materials removed from drainage ditches, swales, and ponds during maintenance and restoration activities necessary to maintain the storm drainage system. The project property is being sourced from existing land owned by the City. The cost to develop the property and purchase equipment are represented in the project cost.

Site Opportunities

- The City shall seek to maintain storm drainage infrastructure to ensure proper function of drainage facilities in accordance with Ecology requirements.

Site Challenges

- Coordination with other users of the site.

Opinion (Estimate) of Probable Cost

Project Name	CIP 10 - Vegetative Waste Sorting Facility
Location	GSA Site

ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 5-5		$10,000
2		CONTRACTOR PROVIDED SURVEY (5%)	5%	% of lines 5-5		$5,000
3		TESC (5%)	5%	% of lines 5-5		$5,000
4		PROJECT TEMPORARY TRAFFIC CONTROL (5%)	5%	% of lines 5-5		$5,000
					Lines 1 - 4 Subtotal	**$25,000**
		MATERIALS				
5		2015 PROJECT (10) DEVELOP PROPERTY AND PURCHASE EQUIPMENT	1	LS	$100,000	$100,000
					Lines 5 - 5 Subtotal	**$100,000**
					Subtotal Line-Item Costs	**$125,000**
					Construction Cost Contigency 20%	**$25,000**
					Permitting 5%	**$6,250**
					Design 10%	**$12,500**
					City Project Mgmt. Admin. 5%	**$6,250**
					Construction Management 10%	**$12,500**
					Management Reserve 10%	**$12,500**
					TOTAL PROJECT COST	**$200,000**

Parametrix

CIP 11 – Christa Ministries Facility Retrofit

20-Year Capital Improvement Plan (Priority 3)





RETROFIT TYPE
Existing facility retrofit
New water quality pond

LOCATION
Christa Ministries property

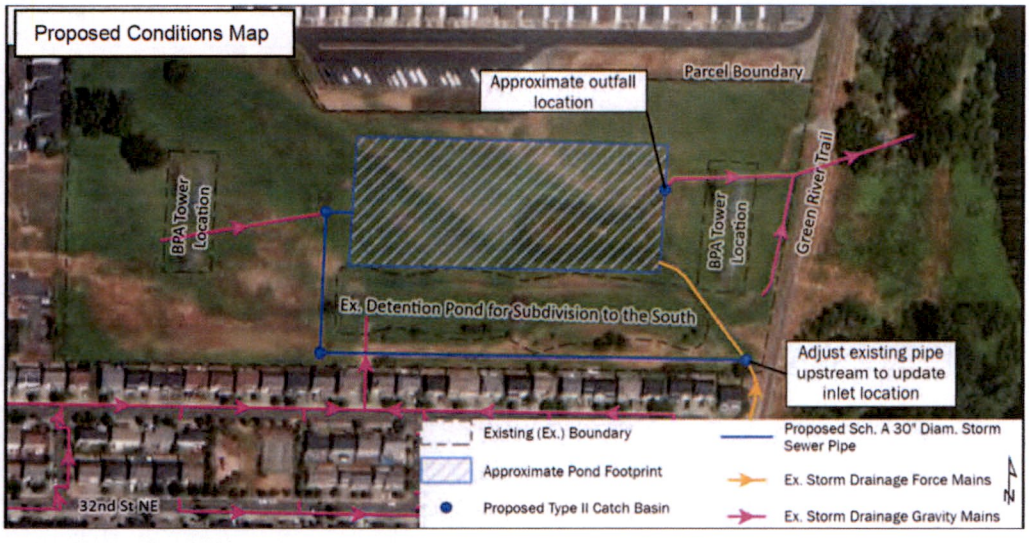
EXISTING USE
Bioswale

PROPOSED USE
Enhanced water quality treatment pond

DRAINAGE BASIN
Green River

TRIBUTARY DRAINAGE AREA
377 acres total
242 acres impervious

TOTAL COST (2024 DOLLARS)
$2,906,000



Project Description

This project proposes retrofitting an existing stormwater swale to an enhanced water qualtiy treatment pond. The pond would be sized based on current enhanced treatment standards for 377 acres of contributing area before discharging into the Green River. Final size, placement, and configuration of the project components may be adjusted as the design progresses.

Site Opportunities

- The location may be suited to provide educational signage due to surrounding residential areas and the Green River Trail to the east.
- Provides enhanced water quality treatment of stormwater from large contributing drainage area based on current standards.

Site Challenges

- Adjacent utilities will likely require coordination (sewer, water, gas, and communications) and may constrain placement locations of the treatment systems.
- Field verification of stormwater infrastructure will be necessary to ensure project feasibility.
- Verification of inlet and outlet pipe elevations will need to be verified to determine feasibility.
- Coordination with BPA easement will be needed.
- A condition assessment of the existing storm pipe at the proposed outfall will be required to evaluate whether repair or replacement will be necessary.
- A wetland impact mitigation analysis will be needed.

Opinion (Estimate) of Probable Cost

Project Name	CIP11 - Christa Ministries Facility Retrofit
Location	Christa Ministries Property (Southeast in 35th St NE & I St NE intersection)

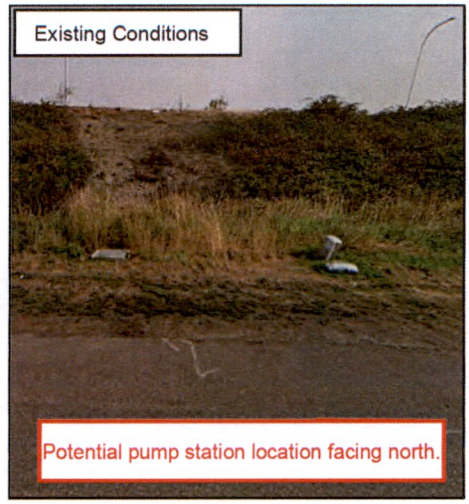
ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
		SITE PREP AND TESC				
1		MOBILIZATION (10%)	10%	% of lines 1-4		$107,010
2		CONTRACTOR PROVIDED SURVEY (6%)	6%	% of lines 1-4		$64,206
3		TESC (5%)	5%	% of lines 1-4		$53,505
4		PROJECT TEMPORARY TRAFFIC CONTROL (3%)	3%	% of lines 1-4		$32,103
					Lines 1 - 4 Subtotal	**$256,825**
		MATERIALS				
5		CLEARING AND GRUBBING	4	ACRE	$45,471	$175,703
6		CHANNEL EXCAVATION INCL. HAUL	7,065	CY	$39	$275,535
7		COMMON BORROW INCL. HAUL	1,445	CY	$30	$43,350
8		EMBANKMENT COMPACTION	1,445	CY	$9	$13,005
9		SCHEDULE A STORM SEWER PIPE 30 IN. DIAM.	1,190	LF	$311	$370,090
10		CATCH BASIN TYPE 2 60 IN. DIAM.	3	EACH	$9,978	$29,934
11		CONNECTION TO DRAINAGE STRUCTURE	2	EACH	$3,535	$7,070
12		QUARRY SPALLS	18	TON	$68	$1,224
13		GRAVEL MAINTENANCE ROAD	3,028	SY	$32	$96,882
14		CATCH BASIN TYPE 2 72 IN. DIAM.	1	EACH	$11,877	$11,877
15		SEEDING, FERTILIZING, AND MULCHING (BY ACRE)	4	ACRE	$10,205	$39,433
16		RECORD DRAWINGS	1	LS	$6,000.00	$6,000
					Lines 5 - 16 Subtotal	**$1,070,103**
					Subtotal Line-Item Costs	**$1,326,927**
					Construction Cost Contingency	**30%** **$398,078**
					Permitting	**9%** **$119,423**
					Design (Including Contingency)	**40%** **$530,771**
					City Project Mgmt. Admin.	**10%** **$132,693**
					Construction Management	**20%** **$265,385**
					Management Reserve	**10%** **$132,693**
					TOTAL PROJECT COST	**$2,906,000**

Parametrix

CIP 12 – West Main Street Pump Station Upgrade

6-Year Capital Improvement Plan (Priority 1)





RETROFIT TYPE
Existing facility retrofit
Pump station upgrade

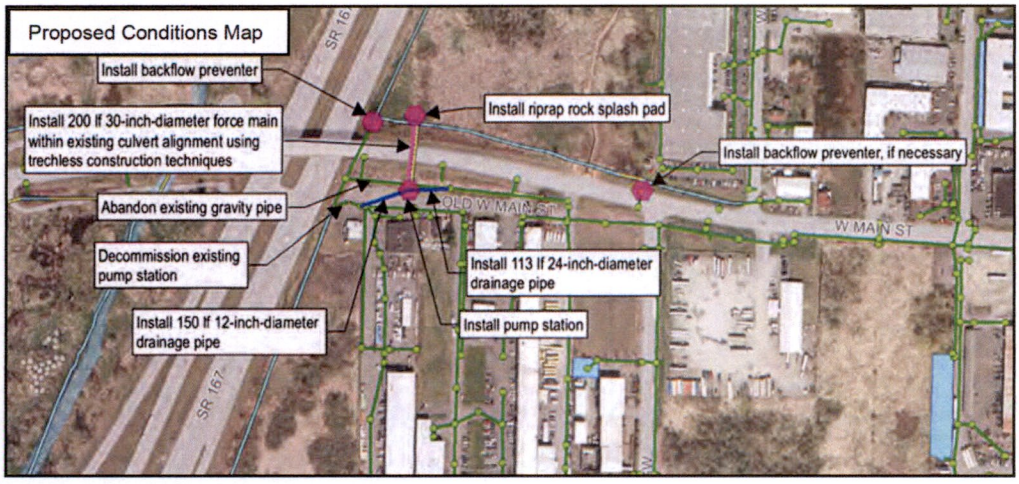
LOCATION
South of West Main Street, east of the SR 167 overpass

EXISTING USE
Pump station

PROPOSED USE
Upgraded pump station

DRAINAGE BASIN
Mill Creek

TRIBUTARY DRAINAGE AREA
N/A



TOTAL COST (2024 DOLLARS)
$3,929,000

NOTES
Cost, design, figures, and description completed by Brown & Caldwell. Cost and description updated by Parametrix per City comments.

Site Opportunities

This project consists of building a new pump station sized to convey the peak 25-year flow rate with multiple pumps to meet the pump redundancy LOS. The new pump station would convey all flows from the gravity pipe on the north and south sides of Old West Main Street. The pump station and its associated area pipes will be reassessed for overall function and purpose. A new design for the pump station will be created that will allow for adequate pumping capacity and a new discharge location that will alleviate backflow flooding from Mill Creek and its drainage ditches.

Site Opportunities

- Meet pump redundancy LOS goal.
- Address history of local flooding.

Site Challenges

- May require post-construction monitoring to determine whether an additional backflow preventer is warranted.
- Discharges to WSDOT ditch may require additional coordination with WSDOT.

Opinion (Estimate) of Probable Cost

Project Name	CIP 12 -West Main Street Pump Station Upgrade
Location	South of West Main Street east of the SR 167 overpass

ITEM NO.	SPEC SECTION	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
SITE PREP AND TESC						
1		WETLAND PERMITTING AND MITIGATION	20%	% of construction subtotal		$302,000
2		CONTRACTOR OVERHEAD, PROFIT, AND MOBILIZATION	18%	% of construction subtotal		$271,800
					Lines 1 - 2 Subtotal	**$573,800**
MATERIALS						
3		2015 PROJECT (1) STORMWATER PUMP STATION WITH SCADA/TELEMETRY	1	LS	$999,000	$999,000
4		2015 PROJECT (1) GRAVITY PIPING: 150 FT OF 12-INCH-DIAMETER PIPE AND 113 FT OF 24-INCH-DIAMETER PIPE	1	LS	$114,000	$114,000
5		2015 PROJECT (1) FORCE MAIN: 200 FT OF 30-INCH-DIAMETER FORCE MAIN, ABANDON CULVERT, RIPRAP ROCK SPLASH PAD AT CULVERT OUTFALL	1	LS	$343,000	$343,000
6		2015 PROJECT (1) ANCILLARY IMPROVEMENTS: DECOMMISION EXISTING STATION, INSTALL BACKFLOW PREVENTER ON WSDOT CULVERT	1	LS	$54,000	$54,000
					Lines 3 - 6 Subtotal	**$1,510,000**
					Subtotal Line-Item Costs	**$2,083,800**
				Construction Contingency	**30%**	**$625,140**
				Sales Tax (all above costs)	**9%**	**$238,387**
					Subtotal Construction Costs	**$2,947,327**
				Permitting, Design, Management, Administration, Contingency	**33.3%**	**$981,460**
					TOTAL PROJECT COST	**$3,929,000**

7.3 Programmatic Drainage Projects

To ensure an adequate level of utility funding in the future, the City must consider longer-range programmatic efforts to maintain and/or improve storm drainage service. Table 7-1 lists programmatic projects that should be included in the Storm Drainage Utility budget. These projects are not linked to any specific problem or location, but are included for budgetary purposes. By itemizing these activities, the Storm Drainage Utility can track actual costs to compare with budgeted costs and specifically track how these expenditures address the LOS goals listed in Chapter 3. The items listed in the table below are distributed between the 6- and 20-year CIPs in Chapter 8.

Table 7-1. Summary Programmatic Drainage Projects

Project Number	Program Name	Description	Priority	Total Project Cost (2024 dollars)
13	Street Utility Improvements	The Storm Drainage Utility will seek opportunities to incorporate drainage improvements into transportation and pavement projects on City roads. A significant portion of storm drainage costs related to projects make improvements to the street network are incurred by the City's Transportation Program.	2	$5,200,000
14	Frame & Grate Replacement	As manholes and catch basins age and their condition deteriorates, frame and grates can become loose and/or misoriented or, due to age, are no longer meeting standards. This annual project will replace approximately 50 storm manhole and catch basin frame and grates to maintain access to the storm system and decrease the likelihood of the manholes becoming road hazards. In some years, this replacement will be a stand-alone project, and in some years, many of these replacements will be in conjunction with other City projects.	2	$1,700,000
15	Storm Drainage Infrastructure Repair & Replacement Program	This program addresses the need to repair or replace storm drainage infrastructure, such as individual pipes, pump station repair and maintenance, and pond improvements. The long-term priorities for R&R should be developed by adhering to the City's system goals regarding the maintenance of a criticality database and the prioritized assessment of critical infrastructure.	1	$14,400,000
16	Storm Pipeline Extension Program	Program to extend stormwater infrastructure into areas lacking infrastructure or where known stormwater issues occur.	3	$7,450,000

Note: All costs are in 2024 dollars.

8. Implementation Plan

This chapter presents the implementation plan, which brings together information from the preceding chapters of this 2024 Comprehensive Storm Drainage Plan to form a work plan of future activities for the Storm Drainage Utility. The information in this chapter serves as a road map to the Storm Drainage Utility staff. This road map outlines the critical elements of plan implementation (e.g., capital improvement plan implementation, NPDES MS4 permit compliance, future staffing, asset management, drainage ditch maintenance program, climate change, etc.) and links them into a schedule of utility activities.

The implementation plan is divided into five main sections:

- Section 8.1 presents the capital improvement plan for both 6-year and 20-year time frames.
- Section 8.2 contains a summary of activities for NPDES MS4 permit compliance.
- Section 8.3 presents recommendations for future staffing and M&O activities.
- Section 8.4 summarizes the recommendations for continuing the implementation of best practices for asset management.
- Section 8.5 lists recommendations for additional activities that help the Storm Drainage Utility achieve the system goals.

The foldout chart (Figure 8-3) at the conclusion of this chapter shows the proposed implementation timeline. Appendix F provides the SEPA determination for the implementation plan.

8.1 6-Year and 20-Year Capital Improvement Program

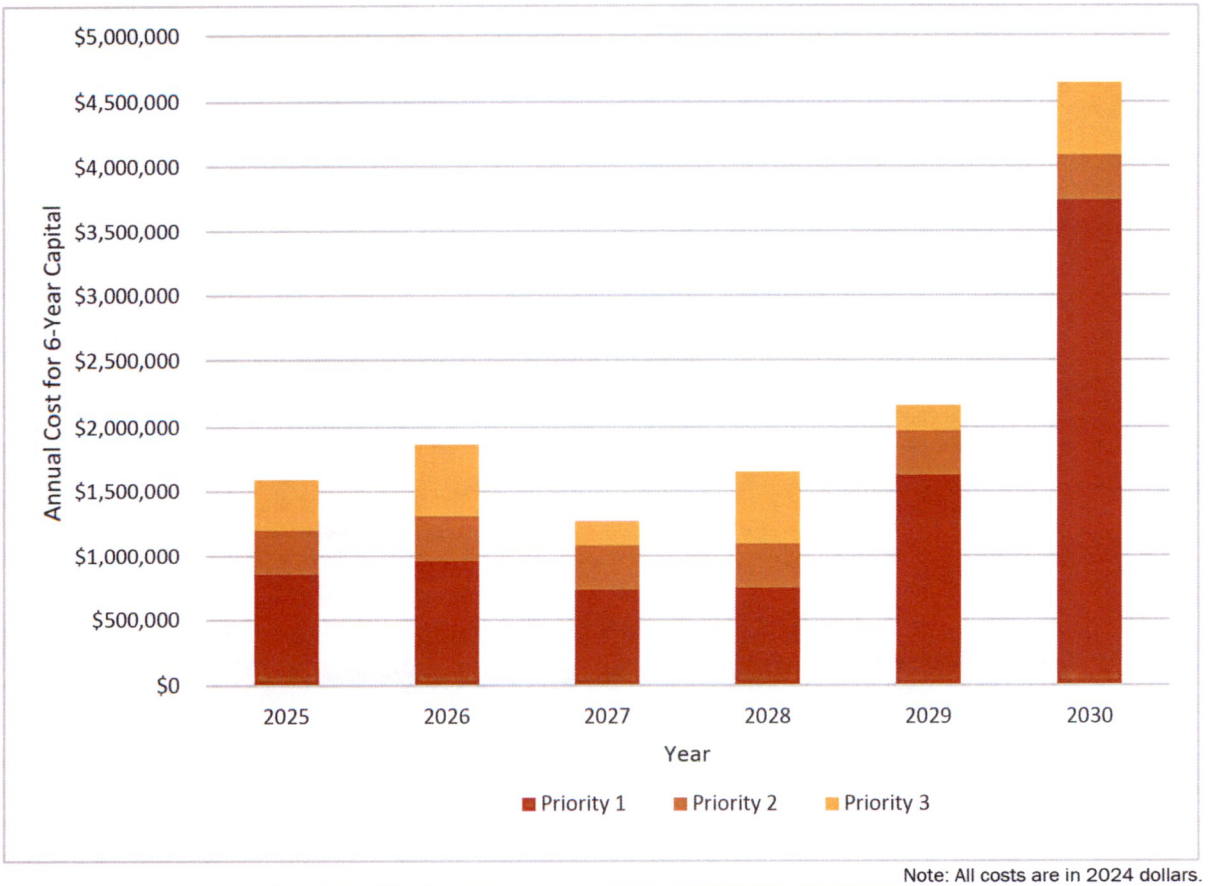
The 6-year CIP contains near-term capital improvement projects focused on mitigating critical existing drainage problems that have been observed and are well understood by the City's staff, addressing an ongoing waste disposal issue and ensuring compliance with NPDES MS4 permit requirements. These projects are described in detail in Chapter 7. In addition to site-specific projects, the 6-year CIP contains ongoing programmatic efforts, such as the Storm Drainage Utility's participation in the Street Utility Improvement program, which is a program designed to complete storm repairs and replacements in conjunction with transportation projects. Table 8-1 lists the short-term capital improvement projects and programs described in Chapter 7 and lays out annual expenditures for the 6-year capital improvement time frame. Project timing is based on project priorities weighed with likely budgetary constraints such that costs are distributed somewhat evenly from year to year (see Table 8-1 and Figure 8-1).

Table 8-1. Annual Cost Summary for 6-Year Capital Improvement Plan

Project Number	Project Name	Priority	Repair/ Replacement	Upgrade/ Expansion	2025	2026	2027	2028	2029	2030	6-Year Cost
1	SE 287th Street Stormwater Device	1	0%	100%	$139,000	$243,000	$0	$0	$0	$0	$382,000
3	SE 284th Street West Bioswale Additions	1	0%	100%	$0	$0	$20,000	$32,000	$0	$0	$52,000
10	Vegetative Waste Sorting Facility	3	90%	10%	$200,000	$0	$0	$0	$0	$0	$200,000
12	West Main Street Pump Station Upgrade	1	25%	75%	$0	$0	$0	$0	$907,000	$3,022,000	$3,929,000
13	Street Utility Improvements	2	100%	0%	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$1,560,000
14	Frame & Grate Replacement	2	100%	0%	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$510,000
15	Storm Drainage Infrastructure Repair & Replacement Program	1	100%	0%	$720,000	$720,000	$720,000[a]	$720,000[a]	$720,000	$720,000	$4,320,000
16	Storm Pipeline Extension Program	3	0%	100%	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$2,235,000
	Total 6-year CIP cost for priority 1 projects/programs:				$859,000	$963,000	$740,000	$752,000	$1,627,000	$3,742,000	$8,683,000
	Total 6-year CIP cost for priority 2 projects/programs:				$345,000	$345,000	$345,000	$345,000	$345,000	$345,000	$2,070,000
	Total 6-year CIP cost for priority 3 projects/programs:				$390,000	$555,000	$190,000	$555,000	$190,000	$555,000	$2,435,000
	Total 6-year cost:				$1,594,000	$1,863,000	$1,275,000	$1,652,000	$2,162,000	$4,642,000	$13,188,000

Note: All costs are in 2024 dollars.

[a] Funding includes budget for implementing CIP 6 following updated requirements from the 2024 NPDES MS4 permit.



Note: All costs are in 2024 dollars.

Figure 8-1. Annual Costs for 6-Year Capital Improvement Plan

After high-priority drainage problems are addressed, the City will be able to focus on the remaining projects described in Chapter 7. In addition, the City will continue to emphasize the management of existing storm drainage assets to ensure that LOS goals are continuously met. Table 8-2 summarizes the program expenditures and forecasts total capital improvement costs for the years 2031 to 2044.

In addition to the identified projects and programs, the Storm Drainage Utility will be involved in several ongoing system updates and capital facilities plan (CFP) projects that will require the utility's time and expenditures. Additional detail regarding these items are provided in Section 8.5.

Table 8-2. Capital Improvement Cost Summary for 2031–2044

Project Number	Project Name	Priority	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Cost for 2031–2044
2	SE 284th Street & 109th Avenue Bioswale Additions	3													$55,000	$88,000	$143,000
4	SE 284th Street East Bioswale Additions	3													$11,000	$17,000	$28,000
5	124th Avenue SE near SE 293rd Street Stormwater Treatment Device	2									$225,000	$356,000					$581,000
6	Vintage Hills Swale Retrofit	1	$95,000*	$169,000*													$264,000
7	124th Avenue SE near SE 307th Place Stormwater Treatment Device	2					$205,000	$326,000									$531,000
8	124th Avenue SE near SE 302nd Place Stormwater Treatment Device	2							$205,000	$326,000							$531,000
9	30th Street NE Area Flooding, Phase 2	3											$198,000	$988,000			$1,186,000
11	Christa Ministries Facility Retrofit	1			$774,000	$2,132,000											$2,906,000
13	Street Utility Improvements	2	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$3,640,000
14	Frame & Grate Replacement	2	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$1,190,000
15	Storm Drainage Infrastructure Repair & Replacement Program	1	$720,000*	$720,000*	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$10,080,000
16	Storm Pipeline Extension Program	3	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$5,215,000
Total 2031–2044 cost for priority 1 projects/programs:			$815,000	$889,000	$1,494,000	$2,852,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$720,000	$13,250,000
Total 2031–2044 cost for priority 2 projects/programs:			$345,000	$345,000	$345,000	$345,000	$550,000	$671,000	$550,000	$671,000	$570,000	$701,000	$345,000	$345,000	$345,000	$345,000	$6,473,000
Total 2031–2044 cost for priority 3 projects/programs:			$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$190,000	$555,000	$388,000	$1,543,000	$256,000	$660,000	$6,572,000
Total 2031–2044 cost for projects/programs:			$1,350,000	$1,789,000	$2,029,000	$3,752,000	$1,460,000	$1,946,000	$1,460,000	$1,946,000	$1,480,000	$1,976,000	$1,453,000	$2,608,000	$1,321,000	$1,725,000	$26,295,000

Note: All costs are in 2024 dollars.

* CIP 6 will be funded earlier (2027–2028) to comply with requirements from the 2024 NPDES MS4 permit. Projected cost to implement CIP 6 in 2027 and 2028 will be added back to the budget for the Storm Drainage Infrastructure Repair & Replacement Program in 2031 and 2032.

8.2 Programmatic Measures for NPDES Compliance

The City of Auburn is covered by the Western Washington Phase II Municipal Stormwater permit. The permit regulates stormwater discharges from the City's MS4 (see Section 2.3.2). The current version of the NPDES MS4 permit was issued in August 2024 and will remain in effect through July 2029, when a new version is due to be issued. A regulatory-driven improvements investigation was performed on behalf of this Plan and was discussed in Chapter 5.3. The recommended actions on behalf of this investigation have been summarized below.

- Update local development regulations and drainage standards in accordance with updated NPDES MS4 permit requirements.
- Review and revise municipal code to reflect IDDE changes, specifically concerning routine washdowns of structures likely to have PCB-containing materials.
- Carry out permit-required activities related to TMDLs (identified in Chapter 4.4.1).
- Develop and implement protocols with firefighting agencies regarding PFAS discharges into stormwater.
- Develop and implement tree canopy goals to support stormwater management and improve receiving water quality.
- Prepare an SMAP for a new high-priority catchment area or enhance the existing one for Olson Creek.
- Ensure the existing street sweeping plan covers the permit requirements.
- Reflect on the ongoing public outreach campaign and consider adding new actions or developing a new campaign.
- Map piped MS4 outfalls with flow control or stormwater treatment upstream to determine the amount of treated/untreated area within the MS4.
- Continue implementing the SCIP.

These actions have been further detailed and organized on a timeline in Figure 8-3. Additionally, the compliance-specific schedule for key requirements under the current NPDES MS4 permit is shown in Figure 8-2.

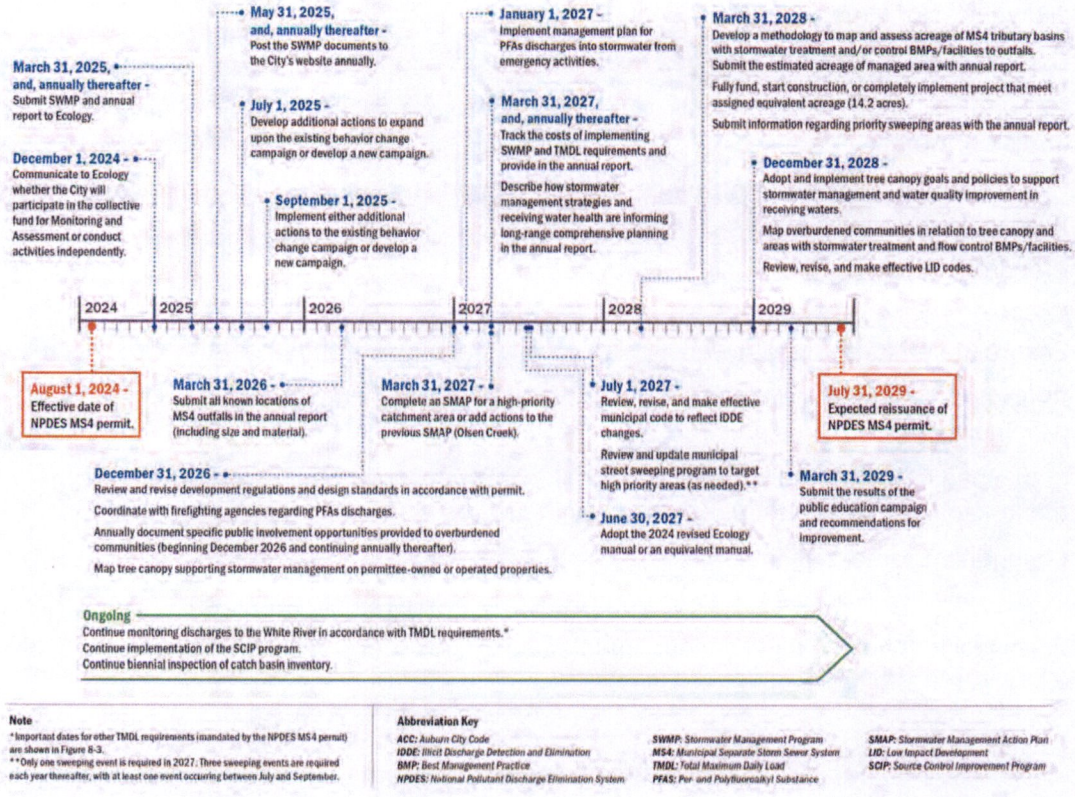


Figure 8-2. NPDES Compliance Schedule

8.3 Future Staffing and Equipment Needs

During this planning effort, current Engineering and M&O staffing were considered in light of future activities that will need to be performed to maintain compliance with the NPDES MS4 permit. M&O staffing and equipment were also reviewed, taking into account existing maintenance goals and future, additional M&O responsibilities. The following sections summarize the additional staffing, staffing responsibilities, and equipment needs for the Storm Drainage Utility.

8.3.1 Engineering Services

As part of this Plan, the City evaluated engineering staffing responsibilities required to address the revised NPDES MS4 permit and other storm drainage system deficiencies. The recommended actions in Figure 8-3 are expected to be managed by engineering staff.

8.3.2 Maintenance and Operation Services

The evaluation of M&O staffing for managing, operating, and maintaining the storm drainage system in Chapter 6 revealed that the Storm Drainage Utility is adequately staffed to meet current proactive City goals. However, additional staff and equipment may be necessary to fulfill NPDES MS4 permit requirements and anticipated future work (as outlined in Section 6.6.2). Although no immediate staffing additions are planned, ongoing monitoring of staffing levels will assess the need.

Support from M&O staff will be needed in the following actions (identified in Chapter 6 and summarized below):

- Asset management recommendations (Section 8.4):
  - → Prioritizing work using risk-based scoring methods.
  - → Documenting condition assessments and work orders in Cartegraph.
- Street Sweeping Plan (NPDES MS4 permit):
  - → Coordinating with the Street Division (as needed) to implement the required street sweeping plan.
- Ditch Maintenance Program (Section 8.5):
  - → Carrying out the recommended needs from the ditch maintenance program.

Additionally, based on discussions with City staff and analysis of M&O activities, the Storm Drainage Utility will consider obtaining CCTV inspection equipment for pipe inspection within five years.

8.4 Continue Implementation of Best Practices for Asset Management

As an integral part of this comprehensive plan, the City conducted a thorough review of its existing asset inventory and management practices, as discussed in Chapter 5.2. The recommended actions have been summarized below.

- System inventory:
  - → Continuously update the inventory with additional data collected during maintenance activities (e.g., condition assessment and frequency of maintenance).

  - → Train staff on asset inventory needs, capability, data collection, data quality objectives, and maintenance processes.
  - → Develop a process for reviewing and updating the asset inventory when changes and inspections occur (see Section 5.2.3).
  - → Implement the prioritized inspection and asset information update process to address data gaps and provide observation-based condition assessments.
- Risk-based scoring in Cartegraph:
  - → Integrate scoring methods into Cartegraph.
  - → Populate critical feature attributes (used in risk calculations).
  - → Add scoring fields to calculate likelihood of failure and criticality of failure scores for each pipe in Cartegraph.
- Risk-based scoring improvements:
  - → Expand scoring methods to include asset types beyond collection system piping.
  - → Implement these improvements into Cartegraph and inspection prioritization techniques (see Appendix C for recommended attributes for other stormwater assets).
- Maintenance and R&R prioritization:
  - → Prioritize maintenance activities for assets with the highest risk.
  - → Assess the inspection process every 5 years to evaluate efficiency and identify areas for improvement.
  - → Consider reconducting pipe depreciation analysis periodically to assess the impact of prioritization practices.

8.5 Recommendations for Additional Activities

The following sections summarize recommendations for additional activities discussed during this Plan for the Storm Drainage Utility. Section 8.5 is divided into the following three sub-sections:

- Section 8.5.1 summarizes recommendations discussed in Section 5.4.2.
- Section 8.5.2 summarizes recommendations discussed in Section 6.6.2.1.
- Section 8.5.3 presents the ongoing system updates carried out by the Storm Drainage Utility and the CFP projects that will require coordination from the Utility.

8.5.1 Climate Change

As discussed in Chapter 5.4, climate change will need to be considered in developing and implementing stormwater design guidelines for future scenarios. The actions recommended on behalf of climate change are summarized below.

- Review and revise the hydraulic performance metrics related to freeboard, headwater depth, and surcharging. Evaluate the financial implications associated with enforcing strict hydraulic performance standards.
- Prepare a CDR process to evaluate the consequences of storm events exceeding the design parameters. Establish clear policies regarding safety, property protection, service continuity, and mitigation of nuisance flooding to make systems more resilient to infrequent but

probable flooding. Ensure that the level of protection aligns with the associated costs and risk factors.

- Prioritize effective hydraulic performance and resilience measures for critical facilities during severe storm events that go beyond the intended design limits.
- Perform a vulnerability analysis of stormwater infrastructure along critical roadways to identify any areas where the effects of climate change may be intolerable. Prioritize these areas for capital improvement projects to minimize the adverse effects of flooding.

8.5.2 Ditch Maintenance Program

A drainage ditch maintenance program was developed as a part of this Plan. See Chapter 6.6.2.1 for more details. The previously discussed recommendations have been summarized below.

- Develop protocols for finding, adding, mapping, and classifying ditches within the system.
- Consider the steps required when adding new ditches to the system.
- Use the results of regular ditch inspections to identify system failures.
- Implement a program that focuses on retrofitting ditches with water quality enhancements.

8.5.3 Ongoing System Updates and Capital Facilities Plan Projects

The City will be involved in several ongoing system updates throughout the period of 2031–2044. These updates and their projected costs and timelines have been listed in Table 8-3 below.

Table 8-3. Ongoing System Updates

Name	Description	2031–2044 Cost
Pump Station Level of Service Review	Program to review all pump stations for level of service. Specifically focus on A Street SE and Auburn Way S as an existing drainage issue has been identified there (see Section 4.5).	$400,000
Pump Station Update	Program to update the pump stations according to the results of the level of service review.	$2,000,000
Underground Injection Wells Retrofit Program	Retrofit program to map underground injection wells in the City with water quality treatment.	$975,000
	Total 2031–2044 cost:	$3,375,000

Note: All costs are in 2024 dollars.

In addition, there are several CFP projects that will require coordination from the Storm Drainage Utility from 2024–2026. These projects are listed in Table 8-4 below.

Table 8-4. Capital Facilities Plan Project Schedule 2024–2026

Name	2024 Cost	2025 Cost	2026 Cost	Cost for 2024–2026
R Street SE Widening - 22nd Street SE to 33rd Street SE		$303,850	$938,897	$1,242,747
Regional Growth Center Improvements	$100,000			$100,000
R Street SE Preservation	$320,000			$320,000
12th Street SE Water Main Improvements	$16,000			$16,000
Arterial Preservation	$215,000			$215,000
Jornada Park Access Improvements	$100,000			$100,000
C Street SW Preservation (W Main to GSA signal)	$50,000			$50,000
M Street NE Widening		$824,000		$824,000
Total project cost for 2024–2026:	$801,000	$1,127,850	$938,897	$2,867,747

Note: Costs shown in this table have been escalated as described in Section 9.

8.6 Implementation Plan

The recommended actions within this Plan have been organized in a timeline, as depicted in Figure 8-3. This timeline serves as a guide for implementing the actions in a structured manner.

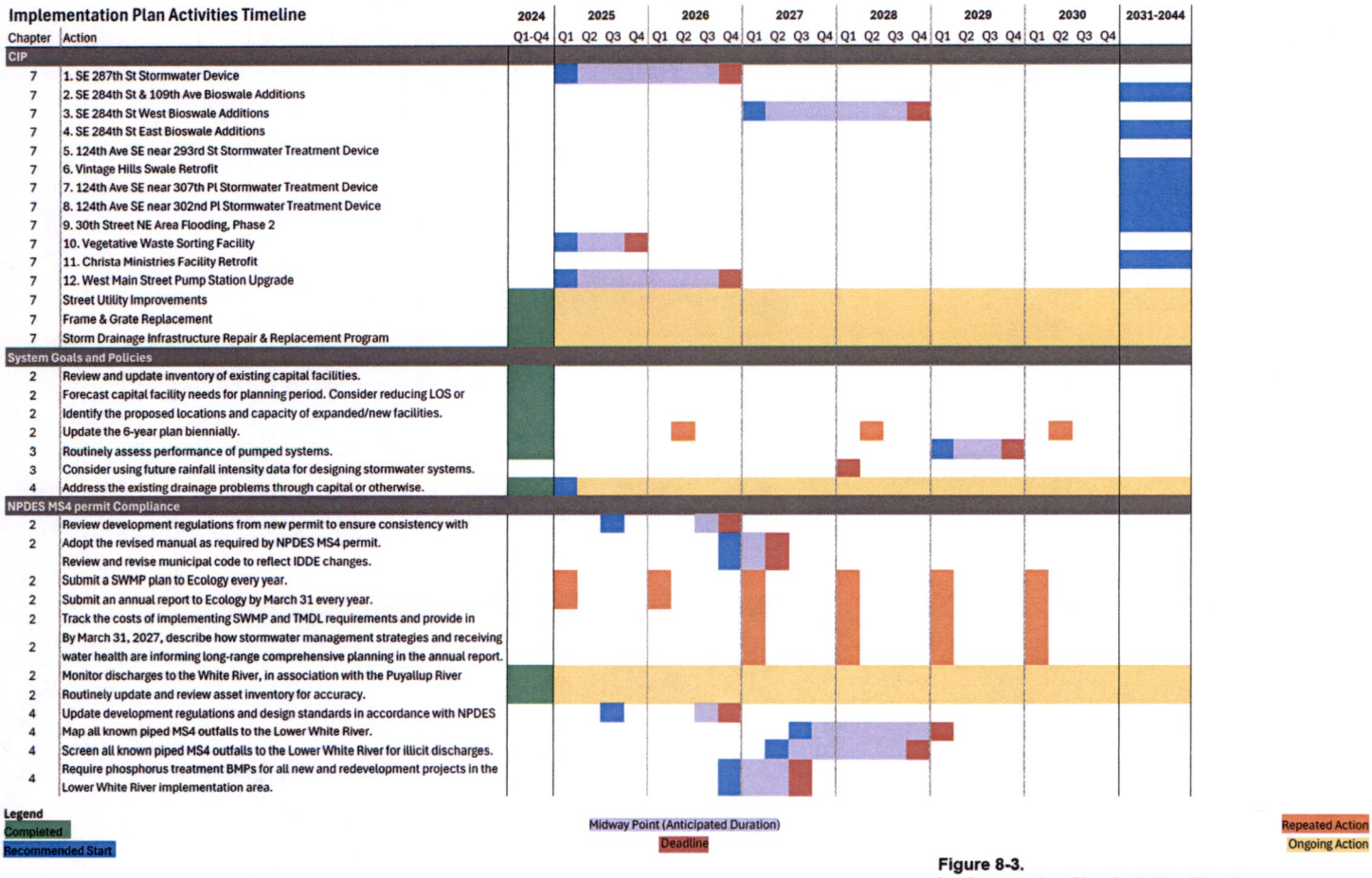


Figure 8-3.
Implementation Plan Activities Timeline
(1 of 3)

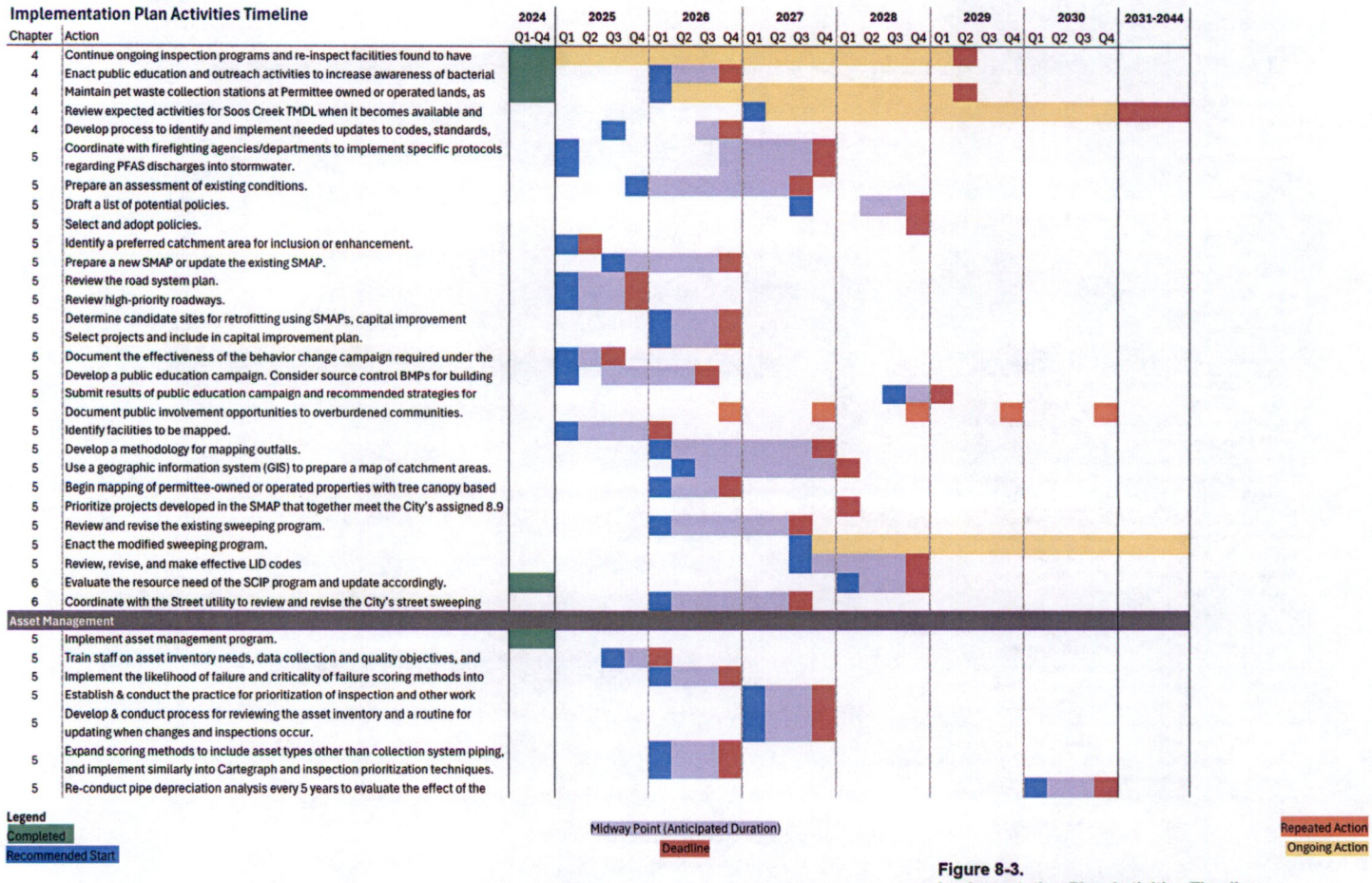


Figure 8-3.
Implementation Plan Activities Timeline
(2 of 3)

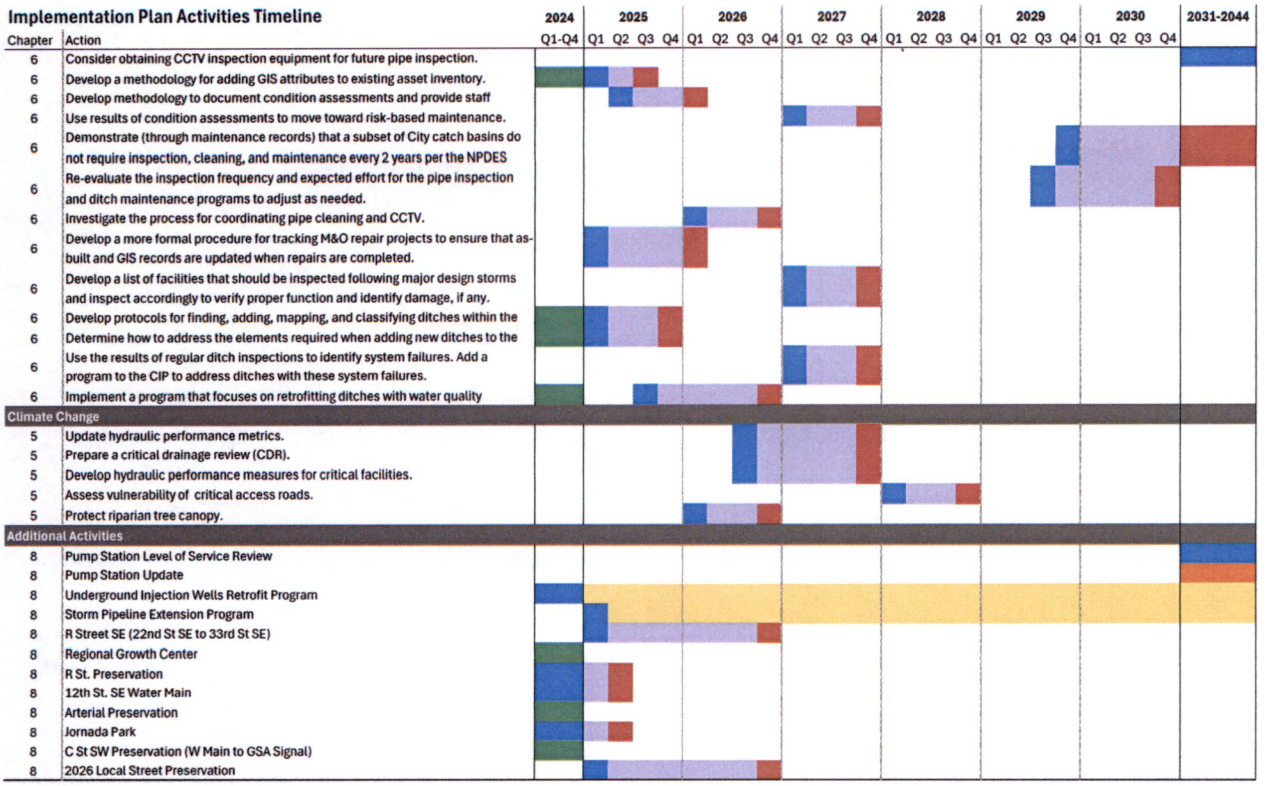


Figure 8-3.
Implementation Plan Activities Timeline
(3 of 3)

9. Financial Plan

9.1 Introduction

This chapter was prepared by FCS Group to provide a financial program that allows the City of Auburn Storm Drainage Utility to remain financially viable during the planning period. This financial viability analysis considers the historical financial condition, current and identified future financial goals and policy obligations, M&O needs, and the financial impacts of the capital projects identified in this Comprehensive Storm Drainage Plan. Furthermore, this chapter provides a review of the Storm Drainage Utility's current rate structure with respect to rate adequacy and customer affordability.

9.2 Past Financial Performance

This section includes a historical summary of financial performance as reported by the City, including fund resources and uses arising from cash transactions.

9.2.1 Comparative Financial Statements

The City legally owns and operates the Auburn Storm Drainage Utility. Table 9-1 shows a summary of storm drainage fund resources and uses arising from cash transactions for the previous six years (2017 through 2022). The 2023 financial statements were not available at the time this chapter was developed. Table 9-2 shows a summary of assets and liabilities, with the difference between the two reported as "net position." Increases and decreases in net position are useful indicators of the financial position of the City's utility. Noteworthy findings and trends for the historical performance and condition of the City's Storm Drainage Utility are then discussed.

Table 9-1. Summary of Historical Fund Resources and Uses Arising from Cash Transactions

	2017	2018	2019	2020	2021	2022
OPERATING REVENUES						
Charges for Service	$ 9,778,102	$ 9,809,840	$ 10,110,490	$ 10,301,049	$ 10,591,890	$ 10,985,794
Other Operating Revenue	-	-	-	-	-	-
Total Operating Revenues	$ 9,778,102	$ 9,809,840	$ 10,110,490	$ 10,301,049	$ 10,591,890	$ 10,985,794
OPERATING EXPENSES						
Operations and Maintenance	$ 3,379,046	$ 3,568,600	$ 3,509,728	$ 3,360,404	$ 4,150,264	$ 4,135,306
Administration	3,372,935	3,326,599	3,230,505	3,144,182	3,109,673	3,835,875
Depreciation and Amortization	1,885,931	2,067,030	2,092,443	2,120,788	2,133,233	1,837,459
Other Operating Expenses	13,085	-	-	-	-	-
Total Operating Expenses	$ 8,650,997	$ 8,962,229	$ 8,832,676	$ 8,625,374	$ 9,393,170	$ 9,808,640
Operating Income (Loss)	$ 1,127,105	$ 847,611	$ 1,277,814	$ 1,675,675	$ 1,198,720	$ 1,177,154
NONOPERATING REVENUES (EXPENSES)						
Interest Revenue	$ 151,733	$ 327,884	$ 518,073	$ 162,516	$ (34,640)	$ 300,426
Other Non-Operating Revenue	78,397	165,136	81,307	125,963	102,214	132,440
Gain (Loss) on Sale of Capital Assets	-	-	-	-	-	-
Interest Expense	(328,972)	(310,816)	(293,420)	(129,471)	(152,526)	(133,330)
Other Non-Operating Expense	-	(101,328)	-	(26,022)	-	(428,759)
Total Non-Operating Revenues (Expenses)	$ (98,842)	$ 80,876	$ 305,960	$ 132,986	$ (84,952)	$ (129,223)
Income (Loss) before Contributions and Transfers	$ 1,028,263	$ 928,487	$ 1,583,774	$ 1,808,661	$ 1,113,768	$ 1,047,931
Capital Contributions	$ 2,313,033	$ 995,853	$ 1,021,824	$ 1,546,772	$ 5,364,962	$ 1,408,167
Transfers In	300,000	125,000	-	-	-	-
Transfers Out	(672,122)	(332,589)	(138,357)	(137,399)	(155,972)	(133,555)
Change in Net Position	$ 2,969,174	$ 1,716,751	$ 2,467,241	$ 3,218,034	$ 6,322,758	$ 2,322,543
Net Position, January 1	$ 64,010,652	$ 66,979,826	$ 68,696,577	$ 71,163,818	$ 74,381,852	$ 80,704,610
Net Position, December 31	$ 66,979,826	$ 68,696,577	$ 71,163,818	$ 74,381,852	$ 80,704,610	$ 83,027,153
O&M Coverage Ratio	113.0%	109.5%	114.5%	119.4%	112.8%	112.0%
Net Operating Income as a % of Operating Revenue	11.5%	8.6%	12.6%	16.3%	11.3%	10.7%
Debt Service Coverage Ratio	3.75	3.63	4.21	5.59	4.92	4.46

9.2.1.1 Findings and Trends

- The City's storm drainage charges for services increased from $9.8 million in 2017 to $11.0 million in 2022. The average annual increase was approximately 2.4% per year, with a total increase of 12.4% from 2017 to 2022. Operating expenditures increased by $1.2million across the 6 years with an average annual increase of 2.5%. While operating expenditures increased across the 6 years, they fell in 2019 and 2020 before increasing by 8.9% in 2021. With growth in total operating revenues slightly below growth in operating expenses, operating income has remained positive in all years.
- The M&O coverage ratio (total operating revenues divided by total operating expenses) was 113% in 2017. With relatively balanced revenues and expenses, this metric has maintained its stability, ending 2022 at 112.0%. A ratio of 100% or greater shows that operating revenue will successfully cover operating expenses, and the utility has remained above this ratio for the past 6 years.
- Net operating income as a percentage of operating revenue was 11.5% in 2017, decreasing to 8.6% in 2018, before recovering back to 10.7% by 2022. Similar to the M&O coverage ratio, these trends show how successfully operating revenue actually covered operating expenses, with higher positive numbers being the best and negative numbers showing a need for improvement. In addition, these trends demonstrate the ability of the utility to invest in capital, whether through direct cash transfers or the issuance and servicing of debt.

- The debt service coverage ratio measures the amount of cash flow available to meet principal and interest payments. Typically, revenue bond debt service coverage requires a minimum factor of 1.25 during the life of the loans. This ratio is calculated by dividing cash or net operating income (operating revenues minus operating expenses) by annual revenue bond debt service. The debt service coverage ratio for all outstanding revenue bond debt ended 2017 at 3.8, decreasing to 3.6 in 2018, before increasing to 4.5 by 2022. The fact that this ratio has sustained levels higher than the minimum target of 1.25 indicates a stable capacity for new debt and will likely result in favorable terms when entering the bond market.

Table 9-2. Summary of Historical Comparative Statements of Net Position

	2017	2018	2019	2020	2021	2022
CURRENT ASSETS						
Cash and Cash Equivalents	$ 14,545,114	$ 10,644,121	$ 12,738,639	$ 17,124,762	$ 16,904,318	$ 16,689,485
Investments	-	4,781,224	4,389,043	2,729,581	4,951,200	4,566,850
Restricted Cash:						
Bond Payments	804,480	803,251	800,093	679,184	657,541	658,088
Customer Deposits	3,422	3,422	3,422	3,422	3,422	3,422
Other (Reserve for Bonds and Rate Stabilization)	1,195,817	1,203,670	1,211,285	1,081,961	1,082,389	1,088,818
Customer Accounts	1,066,124	1,105,972	1,631,660	1,712,774	1,611,351	1,796,825
Other Receivables	-	14,757	14,757	-	7,104	7,104
Due From Other Governmental Units	70,124	103,343	-	72,123	109,161	122,276
Inventories	7,390	4,795	9,099	8,745	9,597	10,414
Total Current Assets	$ 17,692,471	$ 18,664,555	$ 20,797,998	$ 23,412,552	$ 25,336,083	$ 24,943,282
NONCURRENT ASSETS						
Long-Term Contracts, Leases and Notes	$ -	$ -	$ -	$ -	$ -	$ -
Net Pension Asset	-	-	-	-	2,040,168	751,962
Capital Assets Not Being Depreciated:						
Land	5,937,014	5,937,014	5,937,014	5,937,014	5,937,014	5,937,014
Intangible - Water Rights	-	-	-	-	-	-
Construction In Progress	459,310	153,082	648,531	342,126	980,569	1,135,843
Capital Assets:						
Buildings and Equipment	290,575	290,575	290,575	282,111	282,111	282,111
Improvements Other Than Buildings	79,177,949	81,449,103	82,903,631	84,749,193	89,739,833	93,201,563
Right of Use (Leases)		-	-	-	-	-
Less Accumulated Depreciation	(26,325,396)	(28,392,426)	(30,484,869)	(32,587,697)	(34,720,930)	(36,558,389)
Total Noncurrent Assets Net of Accumulated Depreciation	$ 59,539,452	$ 59,437,348	$ 59,294,882	$ 58,722,747	$ 64,258,765	$ 64,750,104
TOTAL ASSETS	$ 77,231,923	$ 78,101,903	$ 80,092,880	$ 82,135,299	$ 89,594,848	$ 89,693,386
DEFFERED OUTFLOWS OF RESOURCES						
Deferred Outflow from Bond Refunding	$ -	$ -	$ -	$ 29,232	$ 29,232	$ 29,232
Deferred Outflow related to Pensions	292,611	254,676	274,851	309,222	286,842	820,313
Total Deferred Outflows of Resources	292,611	254,676	274,851	338,454	316,074	$ 849,545
CURRENT LIABILITIES						
Current Payables	$ 391,180	$ 308,381	$ 578,689	$ 305,576	$ 626,924	$ 496,608
Claims Payable	-	-	-	-	-	-
Loans Payable - Current	-	-	-	-	-	-
Employee Leave Benefits - Current	173,857	156,429	154,609	156,429	199,603	246,831
Leases Payable - Current	-	-	-	-	-	-
Revenue Bonds Payable - Current	425,578	437,948	452,418	411,430	426,973	446,716
Payable From Restricted Assets:						
Accrued Interest	377,766	365,303	347,675	267,753	249,914	229,124
Deposits	3,422	3,422	3,422	3,422	3,422	3,422
Other Liabilities Payable	469					
Total Current Liabilities	$ 1,372,272	$ 1,271,483	$ 1,536,813	$ 1,144,610	$ 1,506,836	$ 1,422,701
NONCURRENT LIABILITIES						
Employee Leave Benefits	$ 52,506	$ 56,590	$ 41,091	$ 56,590	$ 86,394	$ 94,689
Loans Payable	-	-	-	-	-	-
Leases Payable	-	-	-	-	-	-
Revenue Bonds Payable	7,495,862	7,030,496	6,550,661	6,069,633	5,564,619	5,039,861
Net Pension Liability	1,339,843	805,573	527,198	509,014	(122,090)	128,697
Total Non Current Liabilities	$ 8,888,211	$ 7,892,659	$ 7,118,950	$ 6,635,237	$ 5,528,923	$ 5,263,247
TOTAL LIABILITIES	$ 10,260,483	$ 9,164,142	$ 8,655,763	$ 7,779,847	$ 7,035,759	$ 6,685,948
DEFERRED INFLOWS OF RESOURCES						
Deferred Inflow Related to Leases	$ -	$ -	$ -	$ -	$ -	$ -
Deferred Inflow Related to Pensions	284,225	495,860	548,150	312,054	2,170,553	829,830
Total Deferred Inflows of Resources	$ 284,225	$ 495,860	$ 548,150	$ 312,054	$ 2,170,553	$ 829,830
NET POSITION						
Net Investment in Capital Assets	$ 52,422,492	$ 52,772,155	$ 53,091,896	$ 52,920,868	$ 56,884,546	$ 58,512,575
Restricted For:						
Debt Service	398,648	411,110	426,793	375,725	393,992	1,078,288
Rate Stabilization	419,403	427,257	436,817	438,483	438,483	438,483
Pension Asset		-	-	-	-	751,962
Unrestricted	13,739,283	15,086,055	17,208,312	20,646,776	22,987,589	22,245,845
TOTAL NET POSITION	$ 66,979,826	$ 68,696,577	$ 71,163,818	$ 74,381,852	$ 80,704,610	$ 83,027,153
Current Ratio	12.9	14.7	13.5	20.5	16.8	17.5
Debt to Net Position Ratio	0.12	0.11	0.10	0.09	0.08	0.07
Debt to Noncurrent Capital Assets Ratio	0.14	0.13	0.12	0.11	0.10	0.09

9.2.1.2 Findings and Trends

- The current ratio is calculated by dividing unrestricted current assets by current liabilities and measures an entity's ability to pay short-term obligations. This ratio ranges from a low of 12.9 in 2017, reaching a high of 20.5 in 2020, before ending at 17.5 in 2022. Anything above 2.0 for this liquidity ratio is good.
- The debt-to-net-position ratio compares total debt to total net position, which is the difference between current assets and liabilities. This ratio begins at 0.12 or 12% debt in 2017 and decreases to 0.07 or 7% by 2022. These results indicate the utility has ample borrowing capacity to address future capital improvement needs. For utilities, a ratio of 40% to 60% helps to moderate rate impacts by spreading costs over a longer period. Based on these results, the City may consider utilizing debt service for future capital investments, especially if it benefits system expansion.
- The debt-to-noncurrent-capital-asset ratio compares total debt to noncurrent capital assets, which are also known as property, plant, and equipment. This ratio begins at 0.14 or 14% debt to 86% noncurrent assets in 2017. Noncurrent capital assets increase by $5.2 million throughout the 6-year history, while debt decreases $2.5 million, and the ratio decreases to 0.09 or 9% by 2022. Similar to the debt-to-net position ratio, these results indicate the utility has ample borrowing capacity and may consider utilizing debt service for future capital investments, especially if it benefits system expansion. A ratio of 40% debt to 60% equity or below is a general industry target.

9.3 Financial Plan

The Storm Drainage Utility is responsible for generating sufficient revenue to meet all of its costs. The primary source of funding is derived from ongoing monthly service charges, with additional revenue coming from late fees, storm applications and investment interest. The City controls the level of user charges and, with City Council approval, can adjust user charges as needed to meet financial objectives.

The financial plan can only confirm financial feasibility if it considers the total system costs of providing storm drainage services, both operating and capital. To meet these objectives, the following elements have been completed.

1. **Capital Funding Plan.** Identifies the total capital improvement plan obligations of the planning period. The plan defines a strategy for funding the capital improvement plan, including an analysis of available resources from rate revenues, existing reserves, system development charges, debt financing, and any special resources that may be readily available (e.g., grants, developer contributions). The capital funding plan impacts the financial plan through the use of debt financing (resulting in annual debt service) and the assumed rate revenue made available for capital funding.
2. **Financial Forecast.** Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the storm drainage system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity, along with testing for satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt. The plan also identifies the future adjustments required to fully fund all utility obligations in the planning period.

9.3.1.1 Capital Funding Plan

To properly evaluate future capital funding needs, capital costs were escalated by 3% annually to the year of planned spending. The capital improvement plan developed for this Plan identifies $26.5 million in escalated project costs over the 10-year planning horizon from 2024 to 2033. The 20-year period through 2043 includes $61.7 million in total escalated project costs.

A summary of the 10-year and 20-year capital improvement plans are shown in Table 9-3. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs.

Table 9-3. 10-Year and 20-Year Capital Improvement Plans

Year	Unescalated $	Escalated $
2024	$ 2,531,000	$ 2,531,000
2025	3,498,220	3,603,167
2026	6,257,780	6,638,879
2027	1,282,000	1,400,876
2028	1,659,000	1,867,219
2029	1,255,000	1,454,889
2030	1,620,000	1,934,365
2031	1,352,000	1,662,789
2032	2,065,000	2,615,880
2033	2,104,000	2,745,243
10-Year Total	**$ 23,624,000**	**$ 26,454,307**
2034 - 2043	23,073,000	35,209,528
20-Year Total	**$ 46,697,000**	**$ 61,663,835**

Table 9-4 provides more detail for the 10-year capital improvement plan.

Table 9-4. 10-Year Capital Improvement Plan (Escalated $)

Project	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Vegetative Waste Sorting Facility		$206,000								
SE 287th Street Stormwater Device		158,332	289,923							
2026 Local Street Preservation		157,075	485,362							
R Street SE Widening - 22nd Street SE to 33rd Street SE		303,850	938,897							
Storm Pipeline Extension Program		195,700	588,800	207,618	624,657	220,262	662,699	233,676	703,057	247,907
Street Utility Improvements	260,000	267,800	275,834	284,109	292,632	301,411	310,454	319,767	329,360	339,241
Frame & Grate Replacement	85,000	87,550	90,177	92,882	95,668	98,538	101,494	104,539	107,675	110,906
Storm Drainage Infrastructure Repair & Replacement Program	720,000	741,600	763,848	786,763	810,366	834,677	859,718	885,509	912,074	939,437
SE 284th Street West Bioswale Additions				29,504	43,895					
West Main Street Pump Station Upgrade	265,000	661,260	3,206,040							
Pump Station Level of Service Review									253,354	
Vintage Hills Swale Retrofit								119,298	215,351	
Storm Comprehensive Plan Update	400,000									
Underground Injection Wells Retrofit Program									95,008	97,858
Christa Ministries Facility Retrofit										1,009,894
Regional Growth Center Improvements	100,000									
R Street SE Preservation	320,000									
12th Street SE Water Main Improvements	16,000									
Arterial Preservation	215,000									
Jornada Park Access Improvements	100,000									
C Street SW Preservation (W Main to GSA signal)	50,000									
M Street NE Widening		824,000								
Total	$2,531,000	$3,603,167	$6,638,879	$1,400,876	$1,867,219	$1,454,889	$1,934,365	$1,662,789	$2,615,880	$2,745,243

9.4 Available Funding Assistance and Financing Resources

Feasible long-term capital funding strategies must be defined to ensure that adequate resources are available to fund the capital improvement plan identified in this Plan. In addition to the City's resources, such as accumulated cash reserves, capital revenues, and rate revenues designated for capital purposes, capital needs can be met from outside sources, such as grants, low-interest loans, and bond financing. The following is a summary of the City's internal and external resources.

9.4.1 City Resources

Resources appropriate for funding capital needs include accumulated cash in the capital fund, rate revenues designated for capital spending purposes, developer contributions, and capital-related charges such as system development charges. The first two resources will be discussed in the Fiscal Policies section of the Financial Forecast. Capital-related charges are discussed below.

9.4.1.1 System Development Charges

A connection charge, such as the City's SDC, refers to a one-time charge imposed on new customers as a condition of connecting to the storm drainage system. The purpose of the SDC is two-fold: (1) to promote equity between new and existing customers and (2) to provide a source of revenue to fund capital projects necessary for meeting growth. This revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. In the absence of a connection charge, growth-related capital costs would be borne in large part by existing customers. In 2024, the City charged all new customers an SDC of $1,759 per ESU, which is defined as 2,600 square feet of impervious surface area.

9.4.1.2 Local Facilities Charge

A utility local improvement district (ULID) is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities. Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

9.4.2 Outside Resources

This section outlines various grant, loan, and bond opportunities available to the City through federal and state agencies to fund the capital improvement plan identified in the Plan.

9.4.2.1 Grants and Low-Cost Loans

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of low-interest loans makes the effort of applying worthwhile.

The State of Washington's Department of Commerce maintains a document currently entitled "Funding Programs for Drinking Water and Wastewater Projects; Updated 3-5-2024," which contains details on government programs, eligibility requirements, and contact information, should the City wish to inquire about program offerings and eligibility requirements.

9.4.2.2 Bond Financing

General Obligation Bonds – General obligation (G.O.) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, G.O. bonds have relatively low interest rates and few financial restrictions. However, the authority to issue G.O. bonds is restricted in terms of the amount and use of the funds, as defined by the Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

RCW 39.36.020 states:

> *(2)(a)(ii) Counties, cities, and towns are limited to an indebtedness amount not exceeding one and one-half percent of the value of the taxable property in such counties, cities, or towns without the assent of three-fifths of the voters therein voting at an election held for that purpose.*
>
> *(b) In cases requiring such assent counties, cities, towns, and public hospital districts are limited to a total indebtedness of two and one-half percent of the value of the taxable property therein.*

While bonding capacity can limit the availability of G.O. bonds for utility purposes, these can sometimes play a valuable role in project financing. A utility rate savings may be realized through two avenues: the lower interest rate and related bond costs and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an ad valorem property tax levy.

Revenue Bonds – Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than G.O. bonds and require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The City agrees to satisfy these requirements by resolution as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing revenue bonds problematic.

9.4.3 Capital Financing Strategy

An ideal capital financing strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the City pursue these funding avenues but assume revenue bond financing to meet the needs that can't be met by available cash resources. The capital financing strategy developed to fund the capital improvement plan identified in this Plan assumes the following funding resources:

- Accumulated cash reserves.
- Transfers of excess cash (over minimum balance targets) from the operating fund.
- System development charge revenues.
- King County Opportunity Fund grant revenues.
- Interest earned on capital fund balances.

The majority, 83%, of projects are funded through cash resources. The remaining 17% are funded through a combination of system development charges and grants. No new debt is anticipated in the next 10-year or 20-year planning periods. Table 9-5 presents the 10-year and 20-year capital financing strategy.

Table 9-5. 10-Year and 20-Year Capital Financing Strategy

Year	Capital Expenditures Escalated	System Development Charge Revenue	Grant Funding	Cash / Reserve Funding	Total Financial Resources
2024	$ 2,531,000	$ 375,000	$ -	$ 2,156,000	$ 2,531,000
2025	3,603,167	362,335	-	3,240,832	3,603,167
2026	6,638,879	374,698	500,000	5,764,181	6,638,879
2027	1,400,876	387,482	-	1,013,394	1,400,876
2028	1,867,219	400,703	-	1,466,516	1,867,219
2029	1,454,889	414,375	-	1,040,514	1,454,889
2030	1,934,365	428,514	-	1,505,851	1,934,365
2031	1,662,789	443,135	-	1,219,655	1,662,789
2032	2,615,880	458,255	-	2,157,626	2,615,880
2033	2,745,243	473,890	-	2,271,353	2,745,243
Subtotal	**$ 26,454,307**	**$ 4,118,387**	**$ 500,000**	**$ 21,835,920**	**$ 26,454,307**
2034 - 2043	35,209,528	5,725,752	-	29,483,776	35,209,528
Total	**$ 61,663,835**	**$ 9,844,139**	**$ 500,000**	**$ 51,319,696**	**$ 61,663,835**

9.5 Financial Forecast

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by storm drainage service rates. The analysis incorporates operating revenues, M&O expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations. The objective of the financial forecast is to evaluate the sufficiency of the current level of rates. In addition to annual operating costs, the revenue needs also include debt covenant requirements and specific fiscal policies and financial goals of the City.

For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the City—cash needs must be met, and debt coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

Cash Test – The cash flow test identifies all known cash requirements for the City in each year of the planning period. Typically, these include M&O expenses, debt service payments, rate-funded system reinvestment funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the City are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified, and the rate increases necessary to make up the shortfalls are established.

Coverage Test – The coverage test is based on a commitment made by the City when issuing revenue bonds and some other forms of long-term debt. For the purposes of this analysis, revenue bond debt is assumed for any needed debt issuance. As a security condition of issuance, the City would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other expenditures; the only outlays with a higher lien are M&O expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. For example, a 1.00 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay M&O expenses, annual revenue bond debt service payments, and an additional 25% of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any purpose, including funding capital projects. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues.

In determining the annual revenue requirement, both the cash and coverage sufficiency tests must be met, and the test with the greatest deficiency drives the level of needed rate increase in any given year.

9.5.1 Current Financial Structure

The City maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible storm drainage system.

9.5.1.1 Fiscal Policies

A summary of the key financial policies employed by the City, as well as those recommended and incorporated in the financial program, are discussed below.

Operating Fund – Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower than expected revenue collections. Like other types of reserves, operating reserves also serve another purpose: they help smooth rate increases over time. Target funding levels for an operating reserve are generally expressed as a certain number of days of M&O expenses, with the minimum requirement varying with the expected revenue volatility. Industry practice for utility operating reserves ranges from 30 days (8%) to 120 days (33%) of M&O expenses, with the lower end more appropriate for utilities with stable revenue streams and the higher end more appropriate for utilities with significant seasonal or consumption-based fluctuations.

This financial plan targets a minimum balance in the Storm Drainage Utility operating fund equal to 60 days of M&O expenses.

Capital Fund – A utility capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve could also be used for other unanticipated capital needs, including capital project cost overruns. Industry practices range from maintaining a balance equal to 1% to 2% of fixed assets, an amount equal to a 5-year rolling average of capital improvement plan costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level of the City.

This financial plan targets a minimum balance in the Storm Drainage Utility capital fund equal to 1% of fixed assets.

Rate Stabilization Fund - A rate stabilization reserve is a restricted fund balance intended to be available to offset specific variations in revenues or expenses. For rate modeling, planned deposits into the fund would appear as an expense, and use of the reserve would rarely appear in rate

planning (only when analyzing adverse conditions). The reserve is established with specific rules and restrictions regarding contributions, withdrawals, and replenishment. These rules are generally constructed to minimize or mitigate rate impacts.

The City currently maintains a rate stabilization reserve for the Storm Drainage Utility but does not have a formal rate stabilization reserve policy. For modeling purposes, the study does not assume additional reserves are funded. Rather, the City will maintain the reserve at its current level.

System Reinvestment – System reinvestment funding promotes system integrity through ongoing repair and replacement of system infrastructure. Ideally, a detailed asset management plan would guide the level of rate funded system reinvestment. However, in absence of this level of effort, annual depreciation expense is commonly used as a measure of the decline in asset value associated with routine use of the system. Particularly for utilities that do not already have an explicit system reinvestment policy in place, implementing a funding level based on full depreciation expense could significantly impact rates. An alternative benchmark is annual depreciation expense net of debt principal payments on outstanding debt. This approach recognizes that customers are still paying for certain assets through the debt component of their rate and intends to avoid simultaneously charging customers for an asset and its future replacement. The specific benchmark used to set system reinvestment funding targets is a matter of policy that must balance various objectives, including managing rate impacts, keeping long-term costs down, and promoting "generational equity" (i.e., not excessively burdening current customers with paying for facilities that will serve a larger group of customers in the future).

The City is currently phasing in system reinvestment funding and is forecast to reach 67% of annual depreciation levels by 2033. With this phase-in strategy in place, the City is forecast to fund an average of $1.1 million in capital costs annually through rate revenues within the 10-year forecast period.

Debt Management – It is prudent to consider policies related to debt management as part of a broader utility financial policy structure. Debt management policies should be evaluated and formalized, including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City has two outstanding storm drainage revenue bonds, one of which will be fully repaid in 2030, with the second fully repaid by 2032. This forecast meets or exceeds the required revenue bond debt service coverage of 1.25.

9.5.2 Financial Forecast

The financial forecast is primarily based upon the City's budget through 2024 and takes into consideration other key factors and assumptions needed to develop a complete portrait of the City's annual Storm Drainage Utility financial obligations. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast.

- **Growth** – Rate revenue is escalated utilizing a 0.4% growth rate developed based on actual historical trends within the City.
- **Revenue** – The City has two general revenue sources: (1) storm drainage service charges (rate revenue) and (2) miscellaneous (non-rate) revenue. In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. For the purpose of this financial forecast, rate revenues are forecasted to increase with customer growth. Non-rate revenues are held constant throughout the forecast period, with the exception of interest earnings, which are calculated based on projected balances, assumed investment rates, and senior rebates, which increase with customer growth assumptions.

- **System Development Charge Revenue** – The existing system development charges are applied to the projected new connections to forecast revenue. Connection charges are forecasted to generate an average of $412,000 annually from 2024 through 2033. This equates to an average of 204 new ESUs per year. Connection charge revenue is directed towards annual capital needs.
- **Expenses** – M&O expense projections are based on the City's budget through 2024 with general cost inflation increases of 3%, labor cost inflation of 5% for 2025 and 2026, decreasing to 3% thereafter and benefit cost inflation increases of 12.5% for 2025 and 2026, decreasing to 5.5% per year thereafter. Budget figures were used for taxes through 2024. Future taxes are calculated based on forecasted revenues and prevailing tax rates.
- **Facilities GO Bond** - In order to construct a new facility for M&O for the City, the Storm Drainage Utility will fund part of a G.O. bond totaling approximately $38 million. Beginning in 2025, the Storm Drainage Utility's proportionate share of the bond is forecasted at $333,000 annually for the remainder of the 20-year forecast.
- **Existing Debt** – The Storm Drainage Utility has two outstanding revenue bond debt issues. The 2020 refunding bond has annual payments of $314,000 that end after 2030, with the 2013 revenue bond carrying payments of $343,000 annually, ending after 2032. The total annual existing debt service obligations begin 2024 at $659,000 and are completely repaid by 2033.
- **Future Debt** – No new debt is anticipated in the 10-year and 20-year forecast periods.
- **Transfers to Capital** – Operating fund balance above the minimum requirement is assumed to be available to fund capital projects and projected to be transferred to the capital fund each year, if needed. In total, the utility is forecast to fund $13 million in capital projects from excess operating fund cash within the 10-year forecast period.

Although the financial plan is completed through 2043, the rate strategy focuses on the shorter-term planning period of 2024 through 2033. It is recommended that the City revisit the proposed rates every 2 to 3 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates should be adjusted as needed.

Table 9-6 summarizes the annual revenue requirements based on the forecast of revenues, expenditures, fund balances, and fiscal policies.

Table 9-6. 10-Year Financial Forecast

Revenue Requirement	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenues										
Rate Revenues Under Existing Rates	$ 12,458,782	$ 12,508,618	$ 12,558,652	$ 12,608,887	$ 12,659,322	$ 12,709,959	$ 12,760,799	$ 12,811,843	$ 12,863,090	$ 12,914,542
Non-Rate Revenues	262,900	291,876	206,130	181,367	181,869	182,399	182,953	183,531	184,135	184,766
Total Revenues	**$ 12,721,682**	**$ 12,800,494**	**$ 12,764,782**	**$ 12,790,254**	**$ 12,841,191**	**$ 12,892,359**	**$ 12,943,752**	**$ 12,995,373**	**$ 13,047,225**	**$ 13,099,308**
Expenses										
Cash Operating Expenses	$ 10,828,608	$ 11,812,282	$ 12,353,297	$ 12,714,570	$ 13,093,018	$ 13,485,879	$ 13,893,762	$ 14,317,305	$ 14,757,174	$ 15,214,068
Existing Debt Service	659,447	659,311	657,169	657,253	658,401	656,328	655,274	342,972	342,888	-
New Debt Service	-	-	-	-	-	-	-	-	-	-
Rate Funded System Reinvestment	1,000,000	903,142	717,190	782,323	838,652	899,000	958,051	1,330,768	1,388,178	1,790,229
Total Expenses	**$ 12,488,055**	**$ 13,374,736**	**$ 13,727,656**	**$ 14,154,146**	**$ 14,590,070**	**$ 15,041,207**	**$ 15,507,087**	**$ 15,991,045**	**$ 16,488,240**	**$ 17,004,297**
Total Surplus (Deficiency)	**$ 233,628**	**$ (574,242)**	**$ (962,874)**	**$ (1,363,891)**	**$ (1,748,878)**	**$ (2,148,849)**	**$ (2,563,335)**	**$ (2,995,672)**	**$ (3,441,016)**	**$ (3,904,990)**
Annual Rate Adjustment		**6.75%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**
Cumulative Annual Rate Adjustment		**6.75%**	**9.95%**	**13.25%**	**16.65%**	**20.15%**	**23.75%**	**27.47%**	**31.29%**	**35.23%**
Rate Revenues After Rate Increase	$ 12,458,782	$ 13,352,949	$ 13,808,552	$ 14,279,700	$ 14,766,923	$ 15,270,770	$ 15,791,809	$ 16,330,626	$ 16,887,827	$ 17,464,039
Additional Taxes from Rate Increase	-	97,098	143,738	192,143	242,374	294,493	348,566	404,660	462,845	523,192
Net Cash Flow After Rate Increase	**$ 233,628**	**$ 172,992**	**$ 143,288**	**$ 114,778**	**$ 116,348**	**$ 117,469**	**$ 119,109**	**$ 118,451**	**$ 120,876**	**$ 121,315**
Coverage After Rate Increases	4.84	5.87	5.21	4.90	4.99	5.11	5.22	10.15	10.36	n/a

The financial forecast indicates that at existing rate levels the utility will become deficient in 2025 as growth in expenses outpaces growth in revenues and the utility phases in rate funded system reinvestment levels, reaching 67% of annual depreciation by 2033. The City has adopted a 6.75% increase for 2025, in order to resolve the remaining projected deficiency, rates will need to increase by 3% annually from 2026 through 2033.

9.5.2.1 City Funds and Reserves

Table 9-7 shows a summary of the projected operating fund and capital fund ending balances through 2033 based on the rate forecasts presented above. The operating fund is maintained at a minimum of 60 days of M&O expenses, and the capital fund balance continues to meet or exceed the minimum target of 1% of fixed assets in every year of the forecast.

Table 9-7. Ending Cash Balance Summary

Ending Fund Balances	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Operating Fund	$ 1,804,768	$ 1,968,714	$ 2,058,883	$ 2,119,095	$ 2,182,170	$ 2,247,646	$ 2,315,627	$ 2,386,218	$ 2,459,529	$ 2,535,678
Capital Fund	20,694,062	18,986,240	14,372,092	14,339,309	13,908,111	13,957,671	13,600,577	13,895,557	13,312,629	13,009,799
Total	$ 22,498,830	$ 20,954,954	$ 16,430,975	$ 16,458,404	$ 16,090,281	$ 16,205,318	$ 15,916,204	$ 16,281,774	$ 15,772,158	$ 15,545,477

9.6 Current and Projected Rates

9.6.1 Current Rates

The existing storm drainage rate is a monthly flat rate that is charged to each customer per ESU. Each single-family customer is considered one ESU. All non-single-family customers are charged based on the total amount of impervious surface area on-site. The average single family residential lot has 2,600 square feet of impervious surface area, so the total impervious surface area for a non-residential lot is divided by 2,600 to calculate the number of ESUs for that site. Table 9-8 shows the existing City of Auburn storm drainage rate schedule.

Table 9-8. Existing Schedule of Rates

Description	2024 Existing
Per ESU Rate	
Single Family	$ 18.09
Non-Single Family (NSF)	18.09
NSF w/Detention	15.57
NSF w/Retention	13.04
NSF w/Water Quality	16.64
NSF w/Detention & Water Quality	14.12
NSF w/Retention & Water Quality	11.59

9.6.2 Projected Rates

The financial forecast discussed above indicates the need for annual rate adjustments in order to satisfy all forecasted financial obligations. The City has adopted a 6.75% rate increase for 2025, with annual 3% increases forecasted from 2026 through 2033. Table 9-9 shows the projected rates with increases applied uniformly to all storm drainage classes.

Table 9-9. Proposed Storm Drainage Rates

Description	Existing	Proposed								
		2025	2026	2027	2028	2029	2030	2031	2032	2033
	Per ESU Rate									
Single Family	$ 18.09	$ 19.31	$ 19.89	$ 20.49	$ 21.10	$ 21.73	$ 22.38	$ 23.05	$ 23.74	$ 24.45
Non-Single Family (NSF)	18.09	19.31	19.89	20.49	21.10	21.73	22.38	23.05	23.74	24.45
NSF w/Detention	15.57	16.62	17.12	17.63	18.16	18.70	19.26	19.84	20.44	21.05
NSF w/Retention	13.04	13.92	14.34	14.77	15.21	15.67	16.14	16.62	17.12	17.63
NSF w/Water Quality	16.64	17.76	18.29	18.84	19.41	19.99	20.59	21.21	21.85	22.51
NSF w/Detention & Water Quality	14.12	15.07	15.52	15.99	16.47	16.96	17.47	17.99	18.53	19.09
NSF w/Retention & Water Quality	11.59	12.37	12.74	13.12	13.51	13.92	14.34	14.77	15.21	15.67

9.6.3 Affordability

A common affordability metric used by the EPA to measure the relative financial impact storm drainage rates have on a community as a whole considers whether rates exceed 2.5% of a community's median household income. The average median household income for the City was $87,406 between 2018 and 2022 according to the U.S. Census Bureau. The 2022 value is escalated based on the actual rate of inflation in 2023 of 4.31% and the 3% inflation rate used in the financial forecast to project the median household income in future years. Table 9-10 presents the City's monthly storm drainage bill, projected to 2033 and tested against the 2.5% monthly affordability threshold.

Table 9-10. Community Affordability Test

Year	Inflation	Median HH Income	2.5% Monthly Threshold	Projected Monthly Bill	% of Median HH Income
2022		$ 87,406			
2023	4.31%	91,173			
2024	3.00%	93,908	$ 195.64	$ 18.09	0.23%
2025	3.00%	96,726	201.51	19.31	0.24%
2026	3.00%	99,627	207.56	19.89	0.24%
2027	3.00%	102,616	213.78	20.49	0.24%
2028	3.00%	105,695	220.20	21.10	0.24%
2029	3.00%	108,866	226.80	21.73	0.24%
2030	3.00%	112,132	233.61	22.38	0.24%
2031	3.00%	115,495	240.62	23.05	0.24%
2032	3.00%	118,960	247.83	23.74	0.24%
2033	3.00%	122,529	255.27	24.45	0.24%

Applying the 2.50% test, the City's rates are forecasted to remain within the indicated affordability range through 2033.

9.7 Conclusion

The results of this analysis indicate that at existing rate levels the utility will be deficient beginning in 2025. To keep pace with expenses and continue to phase in rate-funded system reinvestment towards depreciation levels, the City has adopted a 6.75% rate increase in 2025. Forecasting into the future, a 3% annual rate increase will be required from 2026 through 2033. It is recommended that the City regularly review and update the key underlying assumptions that compose the multiyear financial plan to ensure that adequate revenues are collected to meet the City's total financial obligations.

10. Limitations

This document was prepared solely for the City of Auburn in accordance with professional standards at the time the services were performed and in accordance with the contract between City of Auburn and Parametrix dated March 16, 2022. This document is governed by the specific scope of work authorized by the City of Auburn; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the City of Auburn and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Appendix A

Western Washington Phase II NPDES MS4 Permit

Issuance Date:	July 1, 2024
Effective Date:	August 1, 2024
Expiration Date:	July 31, 2029

WESTERN WASHINGTON PHASE II MUNICIPAL STORMWATER PERMIT

National Pollutant Discharge Elimination System and
State Waste Discharge General Permit for discharges from
Small Municipal Separate Storm Sewer Systems
In Western Washington

State of Washington
Department of Ecology
Olympia, WA 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 *et seq.*

Until this Permit expires, is modified, or revoked, Permittees that have properly obtained coverage under this Permit are authorized to discharge to waters of the State in accordance with the special and general conditions which follow.

Vincent McGowan, P.E.
Water Quality Program Manager
Washington State Department of Ecology

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For document translation services, call Water Quality Reception at 360-407-6600.

Para publicaciones en español, por favor llame a la Recepción de Calidad del Agua al 360-407-6600.

[1] https://ecology.wa.gov/About-us/Accessibility-equity/Accessibility/

SPECIAL CONDITIONS

S1. PERMIT COVERAGE AREA AND PERMITTEES

A. Geographic Area of Permit Coverage

This Permit is applicable to owners or operators of regulated small Municipal Separate Storm Sewer Systems (MS4s) located west of the eastern boundaries of the following counties: Whatcom, Skagit, Snohomish, King, Pierce, Lewis, and Skamania.

1. For all cities required to obtain coverage under this Permit, the geographic area of coverage is the entire incorporated area of the city.
2. For all counties required to have coverage under this Permit, the geographic area of coverage is the urban areas and urban growth areas associated with permitted cities under the jurisdictional control of the county. The geographic area of coverage also includes any urban growth area contiguous to permitted urban areas under the jurisdictional control of the county.
3. For Whatcom County, the geographic area of coverage also includes the unincorporated Birch Bay urban growth area.

   For Thurston County, the geographic area of coverage also includes the unincorporated Yelm urban growth area.
4. For Secondary Permittees required to obtain coverage under this Permit, the minimum geographic area of coverage is all areas identified under S1.A.1 and S1.A.2. At the time of Permit coverage, the Washington State Department of Ecology (Ecology) may establish a geographic area of coverage specific to an individual Secondary Permittee.
5. All regulated small MS4s owned or operated by the Permittees named in S1.D.2.a(i), and (ii), and S1.D.2.b and located in another city or county area requiring coverage under this Permit, or the *Phase I Municipal Stormwater Permit* or the *Eastern Washington Phase II Municipal Stormwater Permit*, are also covered under this Permit.

B. Regulated Small Municipal Separate Storm Sewer Systems (MS4s)

All operators of regulated small MS4s are required to apply for and obtain coverage under this Permit or be permitted under a separate individual permit, unless waived or exempted in accordance with Section S1.C.

1. A regulated small MS4:
   a. Is a "Small MS4" as defined in the *Definitions and Acronyms* section at the end of this Permit; and
   b. Is located within, or partially located within, an urban area as defined by the latest decennial census conducted by the U.S. Census Bureau, or designated by Ecology pursuant to 40 CFR 123.35(b) or 40 CFR 122.26(f); and
   c. Discharges stormwater from the MS4 to a surface water of Washington State; and
   d. Is not eligible for a waiver or exemption under S1.C, below.
2. All other operators of MS4s, including special purpose districts, which meet the criteria for a regulated small MS4 shall obtain coverage under this Permit. Other operators of small MS4s may include, but are not limited to: flood control, or diking and drainage districts; schools, including universities; and correctional facilities that own or operate a small MS4 serving non-agricultural land uses.
3. Any other operators of small MS4s may be required by Ecology to obtain coverage under this Permit or an alternative NPDES permit if Ecology determines the small MS4 is a significant source of pollution to surface waters of the State. Notification of Ecology's determination that permit coverage is required will be through the issuance of an Administrative Order issued in accordance with Chapter 90.48 RCW.
4. The owner or operator of a regulated small MS4 may obtain coverage under this Permit as a Permittee, Co-Permittee, or Secondary Permittee as defined in S1.D.1, below.
5. Pursuant to 40 CFR 122.26(f), any person or organization may petition Ecology to require that additional small MS4s obtain coverage under this Permit. The process for petitioning Ecology is:
   a. The person or organization shall submit a complete petition in writing to Ecology. A complete petition shall address each of the relevant factors for petitions outlined on Ecology's website.
   b. In making its determination on the petition, Ecology may request additional information from either the petitioner or the entity that is the subject of the petition.
   c. Ecology will make a final determination on a complete petition within 180 days of receipt of the petition and inform both the petitioner and the MS4 of the decision, in writing.

d. If Ecology's final determination is that the candidate MS4 will be regulated, Ecology will issue an order to the operator of the MS4 requiring them to obtain coverage under this Permit. The order will specify:

   i. The geographic area of permit coverage for the MS4.

   ii. Any modified dates or deadlines for developing and implementing this Permit, as appropriate to the MS4, and for submitting their first annual report.

   iii. A deadline for the operator of the MS4 to submit a complete Notice of Intent (NOI, provided on Ecology's website) to Ecology.

C. Permit Waivers

Owners and operators of an otherwise regulated small MS4 are not required to obtain coverage under this Permit if:

1. The small MS4 is operated by:

   a. A federal entity, including any department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States.

   b. Federally recognized Indian Tribes located within Indian Country, including all trust or restricted lands within the 1873 Survey Area of the Puyallup Tribe of Indians.

   c. The Washington State Department of Transportation.

Or

2. The portions of the small MS4 located within the census defined urban area(s) serve a total population of less than 1000 people ***and*** a, b, and c, below ***all*** apply:

   a. The small MS4 is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES stormwater program.

   b. The discharge of pollutants from the small MS4 has not been identified as a cause of impairment of any water body to which the MS4 discharges.

   c. In areas where an EPA approved TMDL has been completed, stormwater controls on the MS4 have not been identified as necessary to meet wasteload allocations established in the TMDL that address the pollutant(s) of concern.

In determining the total population served, both resident and commuter populations shall be included. For example:

- For publicly operated school complexes including universities and colleges, the total population served would include the sum of the average annual student enrollment plus staff.
- For flood control, diking, and drainage districts, the total population served would include residential population and any non-residents regularly employed in the areas served by the small MS4.

D. Obtaining Coverage Under this Permit

All operators of regulated small MS4s are required to apply for and obtain coverage in accordance with this Section, unless waived or exempted in accordance with Section S1.C.

1. Unless otherwise noted, the term "Permittee" shall include a city, town, or county Permittee, New Permittee, Co-Permittee, Secondary Permittee, and New Secondary Permittee as defined below:
   a. "Permittee" is a city, town, or county owning or operating a regulated small MS4 applying and receiving a permit as a single entity.
   b. "New Permittee" is a city, town, or county that is subject to *the Western Washington Phase II Municipal Stormwater General Permit* and was not subject to the Permit prior to August 1, 2024.
   c. "Co-Permittee" is any owner or operator of a regulated small MS4 that is applying in a cooperative agreement with at least one other applicant for coverage under this Permit. Co-Permittees own or operate a regulated small MS4 located within or in proximity to another regulated small MS4.
   d. A "Secondary Permittee" is an operator of a regulated small MS4 that is not a city, town, or county. Secondary Permittees include special purpose districts and other MS4s that meet the criteria for a regulated small MS4 in S1.B, above.
   e. "New Secondary Permittee" is a Secondary Permittee that is covered under a Municipal Stormwater General Permit and was not covered by the Permit prior to August 1, 2024.
2. Operators of regulated small MS4s have submitted, or shall submit, to Ecology either a Notice of Intent (NOI) for Coverage under National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater General Permit or a Duty to Reapply - NOI provided on Ecology's Water Quality Permitting Portal (WQWebPortal).

a. The following Permittees and Secondary Permittees submitted a Duty to Reapply - NOI to Ecology prior to February 1, 2024:

   i. **Cities and towns:** Aberdeen, Algona, Anacortes, Arlington, Auburn, Bainbridge Island, Battle Ground, Bellevue, Bellingham, Black Diamond, Bonney Lake, Bothell, Bremerton, Brier, Buckley, Burien, Burlington, Camas, Centralia, Clyde Hill, Covington, Des Moines, DuPont, Duvall, Edgewood, Edmonds, Enumclaw, Everett, Federal Way, Ferndale, Fife, Fircrest, Gig Harbor, Granite Falls, Issaquah, Kelso, Kenmore, Kent, Kirkland, Lacey, Lake Forest Park, Lake Stevens, Lakewood, Longview, Lynden, Lynnwood, Maple Valley, Marysville, Medina, Mercer Island, Mill Creek, Milton, Monroe, Mountlake Terrace, Mount Vernon, Mukilteo, Newcastle, Normandy Park, Oak Harbor, Olympia, Orting, Pacific, Port Orchard, Port Angeles, Poulsbo, Puyallup, Redmond, Renton, Sammamish, SeaTac, Sedro-Woolley, Shelton, Shoreline, Snohomish, Snoqualmie, Steilacoom, Sumner, Tukwila, Tumwater, University Place, Vancouver, Washougal, and Woodinville.

   ii. **Counties:** Cowlitz, Kitsap, Thurston, Skagit, and Whatcom.

   iii. **Secondary Permittees:** Bainbridge Island School District #303, Bellingham School District, Bellingham Technical College, Cascadia College, Central Kitsap School District, Centralia College, Clark College, Consolidated Diking Improvement District #1 of Cowlitz County, Edmonds Community College, Evergreen College, Highline Community College, Kelso School District, Kent School District, Longview School District, Lower Columbia College, Port of Anacortes, Port of Bellingham, Port of Everett, Port of Olympia, Port of Skagit County, Port of Vancouver, Skagit Valley College, University of Washington Bothell, Washington State University Vancouver, Washington State Department of Enterprise Services (Capitol Campus), Washington Department of Corrections (Larch Corrections Center, Monroe Correctional Complex, Washington Corrections Center for Women, and Washington State Penitentiary), Western Washington University, and Whatcom Community College.

b. Operators of regulated small MS4s have submitted or shall submit to Ecology a "Notice of Intent (NOI) for Coverage under National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater General Permit" provided on Ecology's website before the effective date of this Permit, with the following exceptions:

   i. Operators of regulated small MS4s located in the Cities of Ridgefield and Yelm, and Sound Transit shall submit a NOI, or application, to Ecology no later than 30 days after the effective date of this Permit.

ii. Operators of regulated small MS4s listed in S1.D.2.a do not need to submit a new application to be covered under this Permit.

c. For operators of regulated small MS4s listed in S1.D.2.a, coverage under this Permit is automatic and begins on the effective date of this Permit, unless the operator chooses to opt out of this General Permit. Any operator of a regulated small MS4 that is opting out of this Permit shall submit an application for an individual MS4 permit in accordance with 40 CFR 122.33(b)(2)(ii) no later than the effective date of this Permit.

d. Operators of regulated small MS4s which want to be covered under this Permit as Co-Permittees shall each submit a NOI to Ecology.

e. Operators of regulated small MS4s which are relying on another entity to satisfy all of their permit obligations shall submit a NOI to Ecology.

f. Operators of small MS4s designated by Ecology pursuant to S1.B.3 of this Permit shall submit a NOI to Ecology within 120 days of receiving notification from Ecology that permit coverage is required.

3. Application Requirements

a. For NOIs submitted after the issuance date of this Permit, the applicant shall include a certification that the public notification requirements of WAC 173-226-130(5) have been satisfied. Ecology will notify applicants in writing of their status concerning coverage under this Permit within 90 days of Ecology's receipt of a complete NOI.

b. Each Permittee applying as a Co-Permittee shall submit a NOI provided on Ecology's website. The NOI shall clearly identify the areas of the MS4 for which the Co-Permittee is responsible.

c. Permittees relying on another entity or entities to satisfy one or more of their permit obligations shall notify Ecology in writing. The notification shall include a summary of the permit obligations that will be carried out by another entity. The summary shall identify the other entity or entities and shall be signed by the other entity or entities. During the term of the Permit, Permittees may terminate or amend shared responsibility arrangements by notifying Ecology, provided this does not alter implementation deadlines.

d. Secondary Permittees required to obtain coverage under this Permit, and the *Phase I Municipal Stormwater Permit* or the *Eastern Washington Phase II Municipal Stormwater Permit*, may obtain coverage by submitting a single NOI.

S2. AUTHORIZED DISCHARGES

A. Stormwater Discharges

This Permit authorizes the discharge of stormwater to surface waters and to groundwaters of the State from MS4s owned or operated by each Permittee covered under this Permit, in the geographic area covered pursuant to S1.A. These discharges are subject to the following limitations:

1. Discharges to groundwaters of the State through facilities regulated under the Underground Injection Control (UIC) program, Chapter 173-218 WAC, are not authorized under this Permit.
2. Discharges to groundwaters not subject to regulation under the federal *Clean Water Act* are authorized in this Permit only under state authorities, Chapter 90.48 RCW, the *Water Pollution Control Act*.

B. Non-Stormwater Discharges

This Permit authorizes discharges of non-stormwater flows to surface waters and to groundwaters of the State from MS4s owned or operated by each Permittee covered under this Permit, in the geographic area covered pursuant to S1.A, only under one or more of the following conditions:

1. The discharge is authorized by a separate NPDES or State Waste Discharge permit.
2. The discharge is from emergency firefighting activities. See Special Conditions S5.C.5, S6.D.3 to address non-stormwater discharges (e.g., discharges associated with cleanup after the emergency).
3. The discharge is from another illicit or non-stormwater discharge that is managed by the Permittee as provided in Special Condition S5.C.5 or S6.D.3.

These discharges are also subject to the limitations in S2.A.1 and S2.A.2, above.

C. Responsibilities and Liabilities

This Permit does not relieve entities that cause illicit discharges, including spills of oil or hazardous substances, from responsibilities and liabilities under state and federal laws and regulations pertaining to those discharges.

D. Compliance with State and Local Authorizations

Discharges from MS4s constructed after the effective date of this Permit shall receive all applicable state and local permits and use authorizations, including compliance with Chapter 43.21C RCW (the *State Environmental Policy Act*).

E. Indian Country

This Permit does not authorize discharges of stormwater to waters within Indian Country as defined in 18 U.S.C. §1151, or to waters subject to water quality standards of Indian Tribes, including portions of the Puyallup River and other waters on trust or restricted lands within the 1873 Survey Area of the Puyallup Tribe of Indians Reservation, except where authority has been specifically delegated to Ecology by the U.S. Environmental Protection Agency. The exclusion of such discharges from this Permit does not waive any rights the State may have with respect to the regulation of the discharges. Indian Country includes:

1. All land within any Indian Reservation notwithstanding the issuance of any patent and including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.
2. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
3. All off-reservation federal trust lands held for Native American Tribes.

   Puyallup Exception: Following the "Puyallup Tribes of Indians Land Settlement Act of 1989," 25 USC §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

S3. RESPONSIBILITIES OF PERMITTEES

A. Compliance with Conditions

Each Permittee covered under this Permit is responsible for compliance with the terms of this Permit for the regulated small MS4s that they own or operate. Compliance with (1) or (2) below is required as applicable to each Permittee, whether the Permittee has applied for coverage as a Permittee, Co-Permittee, or Secondary Permittee.

1. All city, town, and county Permittees are required to comply with all conditions of this Permit, including any appendices referenced therein, except for Special Condition S6 – *Stormwater Management Program for Secondary Permittees*.
2. All Secondary Permittees are required to comply with all conditions of this Permit, including any appendices referenced therein, except for Section S5 – *Stormwater Management Program for Cities, Towns, and Counties* and S8 – *Monitoring and Assessment*.

B. Reliance on Another Entity

Permittees may rely on another entity to satisfy one or more of the requirements of this Permit. Permittees that are relying on another entity to satisfy one or more of their permit obligations remain responsible for permit compliance if the other entity fails to implement permit conditions. Permittees may rely on another entity provided all the requirements of 40 CFR 122.35(a) are satisfied including, but not limited to:

1. The other entity, in fact, implements the Permit requirements.
2. The other entity agrees to take on responsibility for implementation of the Permit requirement(s) on the Permittee's behalf. This shall be indicated on the NOI or Annual Report.

S4. COMPLIANCE WITH STANDARDS

A. Prohibition of Discharge of Toxicants

In accordance with RCW 90.48.520, the discharge of toxicants to waters of the State of Washington which would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria is prohibited. The required response to such discharges is defined in Section S4.F, below.

B. Compliance with Standards

This Permit does not authorize a discharge which would be a violation of Washington State *Surface Water Quality Standards* (Chapter 173-201A WAC), *Groundwater Quality Standards* (Chapter 173-200 WAC), *Sediment Management Standards* (Chapter 173-204 WAC), or human health-based criteria in the *National Toxics Rule* (40 CFR 131.45). The required response to such discharges is defined in Section S4.F, below.

C. MEP Standard

The Permittee shall reduce the discharge of pollutants to the Maximum Extent Practicable (MEP).

D. AKART Standard

The Permittee shall use All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART) to prevent and control pollution of waters of the State of Washington.

E. Responsibilities of Permittees

In order to meet the goals of the *Clean Water Act*, and comply with S4.A, S4.B, S4.C, and S4.D, each Permittee shall comply with all of the applicable requirements of this Permit as identified in S3 – *Responsibilities of Permittees*.

F. Violations of Water Quality Standards and Adaptive Management

A Permittee remains in compliance with S4 despite any discharges prohibited by S4.A or S4.B, when the Permittee undertakes the following response toward long-term water quality improvement:

1. A Permittee shall notify Ecology in writing within 30 days of becoming aware, based on credible site-specific information that a discharge from the MS4 owned or operated by the Permittee is causing or contributing to a known or likely violation of Water Quality Standards in the receiving water. Written notification provided under this subsection shall, at a minimum, identify the source of the site-specific information, describe the nature and extent of the known or likely violation in the receiving water, and explain the reasons why the MS4 discharge is believed to be causing or contributing to the problem. For ongoing or continuing violations, a single written notification to Ecology will fulfill this requirement.
2. In the event that Ecology determines, based on a notification provided under S4.F.1 or through any other means, that a discharge from an MS4 owned or operated by the Permittee is causing or contributing to a violation of Water Quality Standards in a receiving water, Ecology will notify the Permittee in writing that an adaptive management response, outlined in S4.F.3, below, is required, unless:
    a. Ecology also determines that the violation of Water Quality Standards is already being addressed by a Total Maximum Daily Load (TMDL) or other enforceable water quality cleanup plan; or
    b. Ecology concludes the MS4 contribution to the violation will be eliminated through implementation of other permit requirements.
3. Adaptive Management Response
    a. Within 60 days of receiving a notification under S4.F.2, or by an alternative date established by Ecology, the Permittee shall review its Stormwater Management Program (SWMP) and submit a report to Ecology. The report shall include:
        i. A description of the operational and/or structural BMPs that are currently being implemented to prevent or reduce any pollutants that are causing or contributing to the violation of Water Quality Standards, including a qualitative assessment of the effectiveness of each Best Management Practice (BMP).
        ii. A description of potential additional operational and/or structural BMPs that will or may be implemented in order to apply AKART on a site-specific basis to prevent or reduce any pollutants that are causing or contributing to the violation of Water Quality Standards.

iii. A description of the potential monitoring or other assessment and evaluation efforts that will or may be implemented to monitor, assess, or evaluate the effectiveness of the additional BMPs.

iv. A schedule for implementing the additional BMPs including, as appropriate: funding, training, purchasing, construction, monitoring, and other assessment and evaluation components of implementation.

b. Ecology will, in writing, acknowledge receipt of the report within a reasonable time and notify the Permittee when it expects to complete its review of the report. Ecology will either approve the additional BMPs and implementation schedule or require the Permittee to modify the report as needed to meet AKART on a site-specific basis. If modifications are required, Ecology will specify a reasonable time frame in which the Permittee shall submit, and Ecology will review the revised report.

c. The Permittee shall implement the additional BMPs, pursuant to the schedule approved by Ecology, beginning immediately upon receipt of written notification of approval.

d. The Permittee shall include with each subsequent annual report a summary of the status of implementation and the results of any monitoring, assessment or evaluation efforts conducted during the reporting period. If, based on the information provided under this subsection, Ecology determines that modification of the BMPs or implementation schedule is necessary to meet AKART on a site-specific basis, the Permittee shall make such modifications as Ecology directs. In the event there are ongoing violations of water quality standards despite the implementation of the BMP approach of this Section, the Permittee may be subject to compliance schedules to eliminate the violation under WAC 173-201A-510(4) and WAC 173-226-180 or other enforcement orders as Ecology deems appropriate during the term of this Permit.

e. A TMDL or other enforceable water quality cleanup plan that has been approved and is being implemented to address the MS4's contribution to the Water Quality Standards violation supersedes and terminates the S4.F.3 implementation plan.

f. Provided the Permittee is implementing the approved adaptive management response under this Section, the Permittee remains in compliance with Special Condition S4, despite any on-going violations of Water Quality Standards identified under S4.A or B, above.

g. The adaptive management process provided under Section S4.F is not intended to create a shield for the Permittee from any liability it may face under 42 U.S.C. 9601 et seq. or Chapter 70.105D RCW.

G. Revoke and Reissue Permit

Ecology may modify or revoke and reissue this General Permit in accordance with G14 – *General Permit Modification and Revocation*, if Ecology becomes aware of additional control measures, management practices, or other actions beyond what is required in this Permit that are necessary to:

1. Reduce the discharge of pollutants to the MEP;
2. Comply with the state AKART requirements; or
3. Control the discharge of toxicants to waters of the State of Washington.

S5. STORMWATER MANAGEMENT PROGRAM FOR CITIES, TOWNS, AND COUNTIES

A. Stormwater Management Program General Requirements

Each Permittee shall develop and implement a Stormwater Management Program (SWMP). A SWMP is a set of actions and activities comprising the components listed in S5 and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to S7 – *Compliance with Total Maximum Daily Load Requirements* and S8 – *Monitoring and Assessment*. This Section applies to all cities, towns, and counties covered under this Permit (termed as "Permittee," including cities, towns, and counties that are Co-Permittees).

New Permittees subject to this Permit, as described in S1.D.1.b, shall fully meet the requirements in S5 as modified in footnotes below or as specified in an alternate schedule as a condition of coverage by Ecology. Permittees obtaining coverage after the issuance date of this Permit shall fully meet the requirements in S5 as specified in an alternate schedule as a condition of coverage by Ecology.

1. At a minimum, the Permittee's SWMP shall be implemented throughout the geographic area subject to this Permit as described in S1.A.[2]
2. Each Permittee shall prepare written documentation of the SWMP, called the SWMP Plan. The SWMP Plan shall be organized according to the program components in S5.C, or a format approved by Ecology and shall be updated at least annually for submittal with the Permittee's annual reports to Ecology (see S9 – *Reporting Requirements*). The SWMP Plan shall be written to inform the public of the planned SWMP activities for the upcoming calendar year, and shall include a description of:
    a. Planned activities for each of the program components included in S5.C.
    b. Any additional planned actions to meet the requirements of applicable TMDLs pursuant to S7– *Compliance with Total Maximum Daily Load Requirements*.
    c. Any additional planned actions to meet the requirements of S8 – *Monitoring and Assessment*.
3. The SWMP shall include an ongoing program for gathering, tracking, maintaining, and using information to evaluate SWMP development, implementation, and permit compliance and to set priorities.

[2] New Permittees shall fully develop and implement the SWMP in accordance with the schedules contained in this Section no later than March 31, 2029.

a. Each Permittee shall track the cost or estimated cost of development and implementation of each component of the SWMP and sources of funding. This information shall be provided with each Annual Report, no later than March 31, 2027. Permittees shall provide annual average costs (or estimates) to implement the SWMP and TMDL requirements.[3]

b. Each Permittee shall track the number of inspections, follow-up actions because of inspections, official enforcement actions, and types of public education activities as required by the respective program component. This information shall be included in the annual report.

4. Permittees shall continue implementation of existing stormwater management programs until they begin implementation of the updated stormwater management program in accordance with the terms of this Permit, including implementation schedules.

5. Coordination among Permittees

a. Coordination among entities covered under municipal stormwater NPDES permits may be necessary to comply with certain conditions of the SWMP. The SWMP shall include, when needed, coordination mechanisms among entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs, and projects within adjoining or shared areas, including:

i. Coordination mechanisms clarifying roles and responsibilities for the control of pollutants between physically interconnected MS4s covered by a Municipal Stormwater Permit.

ii. Coordinating stormwater management activities for shared water bodies, or watersheds among Permittees to avoid conflicting plans, policies, and regulations.

b. The SWMP shall include coordination mechanisms among departments within each jurisdiction to eliminate barriers to compliance with the terms of this Permit. Permittees shall include a written description of internal coordination mechanisms in the Annual Report due no later than March 31, 2026.

[3] New Permittees shall begin cost tracking as required in S5.A.3.a, no later than January 1, 2026.

B. Stormwater Management Program Standards

The SWMP shall be designed to reduce the discharge of pollutants from regulated small MS4s to the MEP, meet state AKART requirements, and protect water quality.

C. Stormwater Management Program Components

The SWMP shall include the components listed below. To the extent allowable under state or federal law, all components are mandatory for city, town, or county Permittees covered under this Permit.

1. Stormwater Planning

Each Permittee shall implement a Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

The minimum performance measures are:

a. Each Permittee shall continue to convene an inter-disciplinary team to inform and assist in the development, progress, and influence of this program.[4]

b. Coordination with long-range plan updates.

   i. Each Permittee shall describe how stormwater management needs and protection/improvement of receiving water health are (or are not) informing the long-range or comprehensive planning update processes and influencing policies and implementation strategies in their jurisdiction in the Annual Report, due March 31, 2027. The Annual Report shall describe the water quality and watershed protection policies, strategies, codes, and other measures intended to protect and improve local receiving water health through planning, considering stormwater management needs or limitations.

c. Low Impact Development (LID) code-related requirements.

   i. Permittees shall continue to require LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents, as needed.

      The intent shall be to make LID the preferred and commonly used approach to site development. The local development-related codes, rules, standards, or other enforceable documents shall be designed to

[4] New Permittees shall convene an interdisciplinary team no later than August 1, 2025.

minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, where feasible.

(a) Annually, each Permittee shall assess and document any newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs since local codes were updated in accordance with the 2013 Permit, and the measures developed to address the barriers. If applicable, the report shall describe mechanisms adopted to encourage or require implementation of LID principles or LID BMPs.

ii. By December 31, 2028, New Permittees shall review, revise, and make effective their local development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principles and LID BMPs. New Permittees shall conduct a similar review and revision process, and consider the range of issues, outlined in the following document: *Integrating LID into Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership, 2012).

New Permittees shall submit a summary of the results of the review and revision process with the annual report due no later than March 31, 2029. This summary shall be in the required format described in Appendix 5 and include, at a minimum, a list of the participants (job title, brief job description, and department represented), the codes, rules, standards, and other enforceable documents reviewed, and the revisions made to those documents which incorporate and require LID principles and LID BMPs. The summary shall include existing requirements for LID principles and LID BMPs in development-related codes. The summary shall be organized as follows:

(a) Measures to minimize impervious surfaces;

(b) Measures to minimize loss of native vegetation; and

(c) Other measures to minimize stormwater runoff.

iii. No later than December 31, 2028, adopt and implement tree canopy goals and policies to support stormwater management. Permittees shall consider how existing or future tree canopy can support stormwater management and water quality improvements in receiving waters. Establish a long-term (e.g. 5, 10 year or longer) goal of canopy, existing or future projection, to be used for stormwater management that is appropriate to the jurisdiction. Specific considerations for canopy for

stormwater management on Permittee-owned or operated lands shall include (but are not limited to):

(a) Maintaining or increasing canopy in overburdened communities.

(b) Maintaining existing mature canopy.

Document considerations, reasoning, and rationale for goals and policies.

d. Stormwater Management Action Planning (SMAP).[5] Permittees shall conduct a similar process and consider the range of issues outlined in the *Stormwater Management Action Planning Guidance* (Ecology, 2024; Publication no. 24-10-027) for one new priority catchment or additional actions for an existing SMAP.[6] A purpose of the SMAP is to support implementation in the Stormwater Management for Existing Development (SMED) Program with the identification of strategic investments through the identification of projects and actions.

i. Stormwater Management Action Plan (SMAP). No later than March 31, 2027, Permittees shall complete and submit a SMAP for at least one new high priority catchment area, or additional actions for an existing SMAP, that identifies all of the following:

(a) A description of the stormwater facility retrofits needed for the area, including the BMP types and preferred locations. Include projects that address transportation-related runoff from high traffic areas.

(b) Land management/development strategies and/or actions identified for water quality management.

(c) Focused, enhanced, or customized implementation of stormwater management actions related to Permit sections within S5, including:

- IDDE field screening;
- Prioritization of Source Control inspections;
- O&M inspections or enhanced maintenance; or
- Public Education and Outreach behavior change programs.

Identified actions shall support other specifically identified stormwater management strategies and actions for the basin overall, or for the catchment area in particular.

[5] New Permittees are exempt from S5.C.1.d. for this Permit term.
[6] City of Shelton shall follow the SMAP requirements outlined in Appendix 14.

(d) If applicable, identification of changes needed to local long-range plans to address SMAP priorities.

(e) A proposed implementation schedule and budget sources for:

- Short-term actions (i.e., actions to be accomplished within six years); and
- Long-term actions (i.e., actions to be accomplished within seven to 20 years).

(f) Actions in the SMAP that may benefit overburdened communities, including specifically vulnerable populations and highly impacted Communities.

(g) A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

2. Public Education and Outreach

The SWMP shall include an education and outreach program designed to:

- Build general awareness about methods to address and reduce impacts from stormwater runoff;
- Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts; and
- Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.

Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies to effect behavior change. If a Permittee chooses to adopt one or more elements of a regional program, the Permittee should participate in the regional group and shall implement the adopted element(s) of the regional program in the local jurisdiction.

The minimum performance measures are:

a. Each Permittee shall implement an education and outreach program. The program design shall be based on local or regional (or a combination of both) water quality information and priority audience characteristics to identify high priority audiences, subject areas, and/or BMPs. Based on the priority

audience's demographic, the Permittee shall consider delivering its selected messages in language(s) other than English, as appropriate to the priority audience.[7]

i. ***General awareness.*** To build general awareness, Permittees shall annually select, at a minimum, one priority audience and one subject area from either (a) or (b):

(a) *Priority audiences:* General public (including overburdened communities, school age children, college/university, or trade students) or businesses (including home-based, or mobile businesses). Subject areas:

- General impacts of stormwater on surface waters, including impacts from impervious surfaces.
- Low impact development (LID) principles and LID BMPs.

(b) *Priority audiences:* Engineers, contractors, developers, property owners/managers, or land use planners. Subject areas:

- Technical standards for stormwater site and erosion control plans.
- LID principles and LID BMPs.
- Stormwater treatment and flow control BMPs/facilities.
- Source control BMPs for building materials to reduce pollution to stormwater, including but not limited to stormwater pollution from PCB-containing materials.

(c) Permittees shall provide subject area information to the priority audience on an ongoing or strategic schedule.

ii. ***Behavior change.*** To affect behavior change, Permittees shall select, at a minimum, one priority audience and one BMP.

(a) *Priority Audiences:* Residents, landscapers, property managers/owners, developers, school age children, college/university, trade students, or businesses (including home-based or mobile businesses).

BMPs:

[7] New Permittees shall begin implementing the requirements of S5.C.2.a no later than August 1, 2027.

- Use and storage of: pesticides, fertilizers, and/or other household chemicals.
- Use and storage of: automotive chemicals, hazardous cleaning supplies, carwash soaps, and/or other hazardous materials.
- Prevention of illicit discharges.
- Yard care techniques protective of water quality.
- Carpet cleaning.
- Repair and maintenance BMPs for: vehicles, equipment, and/or home/buildings.
- Pet waste management and disposal.
- LID Principles and LID BMPs.
- Stormwater facility maintenance, including LID facilities.
- Dumpster and trash compactor maintenance.
- Litter and debris prevention.
- Sediment and erosion control.
- (Audience specific) Source control BMPs (refer to S5.C.8).
- (Audience specific) Locally important, municipal stormwater-related subject area.

(b) Social marketing campaign development. Based on the recommendation from 2024 evaluation and report, no later than July 1, 2025, each Permittee shall follow social marketing practices and methods and develop a campaign that is tailored to the community, including development of a program evaluation plan. Each Permittee shall:[8]

1. Develop a strategy and schedule to implement the existing campaign more effectively; or
2. Develop a strategy and schedule to expand the existing campaign to a new priority audience or BMPs; or

[8] No later than August 1, 2025, New Permittees shall follow social marketing practices and methods to develop a behavior change program that is tailored to the community per S5.C.2.a.ii(b).

3. Develop a strategy and schedule for a new priority audience and BMP behavior change campaign.

(c) Behavior change campaign implementation. No later than September 1, 2025, begin to implement the strategy developed in S5.C.2.a.ii.(b).[9]

(d) Behavior change campaign evaluation. No later than March 31, 2029, evaluate and submit report on:

1. The changes in understanding and adoption of behaviors resulting from the implementation of the strategy; and

2. Any planned or recommended changes to the campaign to be more effective; describe the strategies and process to achieve the results.

(e) Behavior change campaign adaptive management. Permittees shall use results of the evaluation to continue to direct effective methods and implementation of the ongoing behavior change program.

iii. ***Stewardship.*** Each Permittee shall provide, partner with, or promote stewardship opportunities to encourage residents or businesses to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and watershed habitat improvement. Permittees may provide, partner with, or promote stewardship opportunities created or organized by existing organizations (including non-Permittees).[10]

3. Public Involvement and Participation

Permittees shall provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate-structures or other similar activities. Each Permittee shall comply with applicable state and local public notice requirements when developing elements of the SWMP and SMAP.

The minimum performance measures are:

a. Permittees shall create opportunities for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and update of the Permittee's SMAP and

[9] No later than October 1, 2025, New Permittees shall begin to implement the strategy developed in S5.C.2.a.ii(b).
[10] New Permittees shall implement the stewardship requirements according to S5.C.2.a.iii no later than August 1, 2027.

SWMP.[11] Permittees shall document specific outreach measures for overburdened communities.

i. Annually, document specific public involvement and participation opportunities provided to overburdened communities and specifically, highly impacted communities.

ii. No later than December 31, 2026, document methods used to identify overburdened communities.

b. Each Permittee shall post on their website their SWMP Plan and the Annual Report, required under S9.A, no later than May 31 each year. All other submittals shall be available to the public upon request.

4. MS4 Mapping and Documentation

The SWMP shall include an ongoing program for mapping and documenting the MS4.[12]

The minimum performance measures are:

a. *Ongoing Mapping:* Each Permittee shall maintain mapping data for the features listed below:

i. Known MS4 outfalls and known MS4 discharge points.

(a) Map outfall size and material, where known.

ii. Receiving waters, other than groundwater.

iii. Stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee.

iv. Geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface waters.

v. Tributary conveyances to all known outfalls and discharge points with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. The following features or attributes (or both) shall be mapped:

(a) Tributary conveyance type, material, and size where known.

(b) Associated drainage areas.

[11]New Permittees shall develop and begin to implement requirements according to S5.C.3.a no later than August 1, 2025. New Permittees are exempt from SMAP this permit term.

[12]New Permittees shall meet the requirements to map the MS4 according to S5.C.4 no later than March 31, 2029, except where otherwise noted in this Section.

(c) Land use.

vi. Connections between the MS4 owned or operated by the Permittee and other municipalities or public entities.

vii. All connections to the MS4 authorized or allowed by the Permittee after February 16, 2007. [13,14]

viii. All known connections from the MS4 to a privately owned stormwater system.

b. *New Mapping.* Each Permittee shall:

i. No later than March 31, 2026, submit locations of all known MS4 outfalls according to the standard templates and format provided in the Annual Report. Report the size and material of the outfalls, where known.

ii. No later than December 31, 2026, using available, existing data, map tree canopy to support stormwater management on Permittee-owned or operated properties. Permittees shall develop and follow a methodology to intentionally identify canopy for stormwater management purposes, which may be updated annually or as needed.

iii. No later than March 31, 2028, implement a methodology to map and assess acreage of MS4 tributary basins to outfalls with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems that have stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee. Submit with the March 31, 2028 Annual Report a map(s) (.pdf) and table (.xlsx) with a breakdown of the MS4 tributary basins quantifying estimated acres managed or unmanaged by stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee.

iv. No later than December 31, 2028, using available, existing data map overburdened communities in relation to stormwater treatment and flow control BMPs/facilities, outfalls, discharge points, and tree canopy on Permittee-owned or operated properties.

c. The required format for mapping is electronic (e.g. Geographic Information System, CAD drawings, or other software that can map and store points,

[13]New Permittees shall meet the requirements of S5.C.4.a.vii after August 1, 2024, for all connections to the MS4 authorized after August 1, 2024.

[14]Permittees do not need to map the following residential connections: individual driveways, sump pumps, or roof downspouts.

lines, polygons, and associated attributes), with fully described mapping standards.

d. To the extent consistent with national security laws and directives, each Permittee shall make available to Ecology, upon request, available maps depicting the information required in S5.C.4.a through c, above.

e. Upon request, and to the extent appropriate, Permittees shall provide mapping information to federally recognized Indian Tribes, municipalities, and other Permittees. This Permit does not preclude Permittees from recovering reasonable costs associated with fulfilling mapping information requests by federally recognized Indian Tribes, municipalities, and other Permittees.

5. Illicit Discharge Detection and Elimination

The SWMP shall include an ongoing program designed to prohibit, prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4.[15]

The minimum performance measures are:

a. The program shall include procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges when they are suspected or identified. The program shall also include procedures for addressing pollutants entering the MS4 from an interconnected, adjoining MS4.

Illicit connections and illicit discharges shall be identified through, but not limited to, field screening, inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information, as appropriate.

b. Permittees shall inform public employees, businesses, and the public of hazards associated with illicit discharges and improper disposal of waste.

c. Each Permittee shall implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the Permittee's MS4 to the maximum extent allowable under state and federal law. The ordinance or other regulatory mechanism in effect as of the effective date of this Permit shall be revised, if necessary, to meet the requirements of this Section no later than July 1, 2027.

[15]New Permittees shall meet the requirements of S5.C.5 no later than August 1, 2026 except where otherwise noted in this Section.

i. *Allowable Discharges:* The regulatory mechanism does not need to prohibit the following categories of non-stormwater discharges:

(a) Diverted stream flows

(b) Rising groundwaters

(c) Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20))

(d) Uncontaminated pumped groundwater

(e) Foundation drains

(f) Air conditioning condensation

(g) Irrigation water from agricultural sources that is commingled with urban stormwater

(h) Springs

(i) Uncontaminated water from crawl space pumps

(j) Footing drains

(k) Flows from riparian habitats and wetlands

(l) Non-stormwater discharges authorized by another NPDES or State Waste Discharge permit

(m) Non-stormwater discharges from emergency firefighting activities in accordance with S2 Authorized Discharges

ii. *Conditionally allowable discharges:* The regulatory mechanism may allow the following categories of non-stormwater discharges only if the stated conditions are met:

(a) Discharges from potable water sources, including but not limited to water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.

(b) Discharges from lawn watering and other irrigation runoff, including from reclaimed water sources. These discharges shall be minimized

through, at a minimum, public education activities and water conservation efforts.

(c) Discharges from swimming pools, spas, and hot tubs. The discharges shall be dechlorinated/debrominated to a total residual concentration of 0.1 ppm or less, free from sodium chloride, pH-adjusted, and reoxygenated if necessary, volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Discharges shall be thermally controlled to prevent an increase in temperature of the receiving water. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.

(d) Street and sidewalk wash water and water used to control dust. The Permittee shall reduce these discharges through, at a minimum, public education activities and/or water conservation efforts. To avoid washing pollutants into the MS4 Permittees shall minimize the amount of street wash and dust control water used.

(e) Routine external building washdown that does not use detergents for buildings built or renovated before 1950 and after 1980. These discharges shall be reduced through, at minimum, public education activities and water conservation efforts.

Commercial, industrial, and multi-story residential structures constructed or renovated between the years 1950 and 1980 (i.e. those most likely to have PCB-containing building materials), shall be assessed for PCB-containing materials consistent with *How to find and address PCBs in building materials* (Ecology, 2024, Publication No. 22-04-024) prior to routine building washdown to the MS4. Structures confirmed or suspected to have PCB-containing materials shall not discharge washdown to the MS4.

Single-family residential buildings are exempt from PCB assessment prior to building washdown, for the purposes of this section. Structures built or renovated between 1950-1980 and determined to be without PCB-containing materials may conduct routine building washdown (without detergents) as described above.

(f) Other non-stormwater discharges. The discharges shall be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.

iii. The Permittee shall further address any category of discharges in (i) or (ii), above if the discharges are identified as significant sources of pollutants to waters of the State.

iv. The ordinance or other regulatory mechanism shall include escalating enforcement procedures and actions.

d. Each Permittee shall implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the Permittee's MS4.[16] The program shall include the following components:

i. Procedures for conducting investigations of the Permittee's MS4, including field screening and methods for identifying potential sources. These procedures may also include source control inspections.

The Permittee shall implement a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns. Screening for illicit connections may be conducted using *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual* (Herrera Environmental Consultants, Inc.; May 2020), or another methodology of comparable or improved effectiveness. The Permittee shall document the field screening methodology in the Annual Report.

(a) All Permittees shall complete field screening for an average of 12% of the MS4 each year.[17]

ii. A publicly listed and publicized hotline or other telephone number for public reporting of spills and other illicit discharges.

iii. An ongoing training program for all municipal field staff who, as part of their normal job responsibilities, might come into contact with or otherwise observe an illicit discharge and/or illicit connection to the MS4, on the identification of an illicit discharge and/or connection, and on the proper procedures for reporting and responding to the illicit discharge and/or connection. Follow-up training shall be provided, as needed, to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of the trainings provided and the staff trained.[18]

[16]New Permittees shall fully implement the requirements of S5.C.5.d no later than August 1, 2028.

[17]New Permittees shall complete S5.C.5.d.i requirements for field screening covering at least 40% of the MS4 within the Permittee's coverage area no later than December 31, 2028, and on average 12% each year thereafter.

[18]New Permittees shall develop and begin implementing the ongoing training program described in S5.C.5.d.iii no later than March 31, 2026.

e. Each Permittee shall implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the Permittee's MS4.[19] The program shall include:

i. Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the Permittee. Procedures shall address the evaluation of whether the discharge must be immediately contained and steps to be taken for containment of the discharge.

ii. Procedures for the post-emergency clean-up of firefighting activities:

(a) No later than December 31, 2026, the Permittee shall coordinate with firefighting agencies/departments that serve the areas that discharge to the MS4 to be notified when PFAS-containing AFFFs are used during emergency firefighting activities.

(b) No later than January 1, 2027, Permittee shall update and implement procedures to minimize discharges to the MS4 during post-emergency clean-up and disposal activities including, but not limited to, the immediate clean-up in all situations where PFAS-containing AFFFs have been used, diversions, and other measures that prevent discharges to the MS4. The Permittee is not expected to deploy control measures during an emergency.

iii. Procedures for tracing the source of an illicit discharge; including visual inspections and, when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures.

iv. Procedures for eliminating the discharge including notification of appropriate authorities (including owners or operators of interconnected MS4s), notification of the property owner, technical assistance, follow-up inspections, and use of the compliance strategy developed pursuant to S5.C.5.c.iv, including escalating enforcement and legal actions if the discharge is not eliminated.

v. Compliance with the provisions in (i)-(iv) above shall be achieved by meeting the following timelines:

[19]New Permittees shall fully develop and implement the requirements of S5.C.5.e no later than August 1, 2028.

(a) Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.

(b) Investigate (or refer to the appropriate agency with the authority to act) within 7 days, on average, any complaints, reports, or monitoring information that indicates a potential illicit discharge.

(c) Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.

(d) Upon confirmation of an illicit connection, use the compliance strategy in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.

f. Permittees shall train staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of the training provided and the staff trained.[20]

g. Recordkeeping: Each Permittee shall track and maintain records of the activities conducted to meet the requirements of this Section. In the Annual Report, each Permittee shall submit data for the illicit discharges, spills, and illicit connections including those that were found by, reported to, or investigated by the Permittee during the previous calendar year. The data shall include the information and format specified in Appendix 13 and WQWebIDDE. Each Permittee may either use their own system or WQWebIDDE for recording this data.

[20]New Permittees shall meet the requirements of S5.C.5.f no later than March 31, 2026.

6. Controlling Runoff from New Development, Redevelopment, and Construction Sites

Each Permittee shall implement and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment, and construction site activities. The program shall apply to private and public development, including transportation projects.[21]

The minimum performance measures are:

a. Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects.

No later than June 30, 2027, each Permittee shall adopt and make effective a local program, that meets the requirements of S5.C.6.b(i) through (iii), below, and shall apply to all applications[22] submitted:

i. On or after July 1, 2027.

ii. Prior to January 1, 2017, that have not started construction[23] by July 1, 2022.[24]

iii. Prior to July 1, 2022, that have not started construction by July 1, 2027.

iv. Prior to July 1, 2027, that have not started construction by July 1, 2032.

b. The ordinance or other enforceable mechanism shall include, at a minimum:

i. The Minimum Requirements, thresholds, and definitions in Appendix 1, or the 2019 Appendix 1 amended to include the changes identified in Appendix 10, or Phase I program approved by Ecology and amended to include Appendix 10, for new development, redevelopment, and construction sites. Adjustment and exceptions criteria equivalent to those in Appendix 1 shall be included. More stringent requirements may

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[21]For continuing Permittees, this means continuing to implement existing programs developed under previous permits until updates are made to meet the schedules defined. *New Permittees shall meet the requirements of S5.C.6 no later than June 30, 2027, except where otherwise specified in this Section.*

[22]In this context, "application" means, at a minimum a complete project description, site plan, and, if applicable, SEPA checklist. Permittees may establish additional elements of a completed application.

[23]In this context "started construction" means the site work associated with, and directly related to the approved project has begun. For example: grading the project site to final grade or utility installation. Simply clearing the project site does not constitute the start of construction. Permittees may establish additional requirements related to the start of construction.

[24]**For Lynden, Snoqualmie S5.C.6.a.ii is replaced with these dates**: Prior to January 1, 2018, that have not started construction by January 1, 2023. **For Aberdeen S5.C.6.a.ii is replaced with these dates**: Prior to July 1, 2018, that have not started construction by June 30, 2023. **Shelton S5.C.6.a.ii and iii is replaced with these dates:** Prior to January 1, 2023, which have not started construction by January 1, 2028.

be used, and/or certain requirements may be tailored to local circumstances through the use of Ecology-approved basin plans or other similar water quality and quantity planning efforts. Such local requirements and thresholds shall provide equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1.

ii. The local requirements shall include the following requirements, limitations, and criteria that, when used to implement the minimum requirements in Appendix 1 (or program approved by Ecology under the 2024 Phase I Permit), will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the State requirement under Chapter 90.48 RCW to apply AKART prior to discharge:

(a) Site planning requirements;

(b) BMP selection criteria.

(c) BMP design criteria.

(d) BMP infeasibility criteria.

(e) LID competing needs criteria.

(f) BMP limitations.

Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the state AKART requirements.

Permittees who choose to use the requirements, limitations, and criteria above in the *Stormwater Management Manual for Western Washington*, or a Phase I program approved by Ecology, may cite this choice as their sole documentation to meet this requirement.

iii. The legal authority, through the approval process for new development and redevelopment, to inspect and enforce maintenance standards for private stormwater facilities approved under the provisions of this Section that discharge to the Permittee's MS4.

c. The program shall include a permitting process with site plan review, inspection, and enforcement capability to meet the standards listed in (i) through (iv) below, for both private and public projects, using qualified personnel (as defined in *Definitions and Acronyms*). At a minimum, this program shall be applied to all sites that meet the minimum thresholds adopted pursuant to S5.C.6.b.i, above.

i. Review of all stormwater site plans for proposed development activities.

ii. Inspect, prior to clearing and construction, all permitted development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 – *Determining Construction Site Sediment Damage Potential*. As an alternative to evaluating each site according to Appendix 7, Permittees may choose to inspect all construction sites that meet the minimum thresholds adopted pursuant to S5.C.6.b.i, above.

iii. Inspect all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce, as necessary, based on the inspection.

iv. Each Permittee shall manage maintenance activities to inspect all stormwater treatment and flow control BMPs/facilities, and catch basins, in new residential developments at least twice per 12-month period with no less than 4 months between inspections, until 90% of the lots are constructed (or when construction has stopped and the site is fully stabilized), to identify maintenance needs and enforce compliance with maintenance standards as needed.

v. Inspect all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. Enforce, as necessary, based on the inspection.

vi. Compliance with the inspection requirements in (ii) through (v), above, shall be determined by the presence and records of an established inspection program designed to inspect all sites. Compliance shall be determined by achieving at least 80% of required inspections annually. The inspections may be combined with other inspections provided they are performed using qualified personnel.

vii. The program shall include a procedure for keeping records of inspections and enforcement actions by staff including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained.

viii. An enforcement strategy shall be implemented to respond to issues of non-compliance.

d. The program shall make available to representatives of proposed new development and redevelopment, as applicable: the link to the online *Construction Stormwater General Permit* Notice of Intent (NOI) form for construction activity, a link to the online *Industrial Stormwater General Permit* NOI form for industrial activity, and a link to the online registration requirements for Underground Injection Control (UIC) wells. Permittees shall continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.[25]

e. Each Permittee shall ensure that all staff whose primary job duties are implementing the program to Control Stormwater Runoff from New Development, Redevelopment, and Construction Sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing. Permittees shall document and maintain records of the training provided and the staff trained.[26]

7. Stormwater Management for Existing Development

Each Permittee shall implement a Program to control or reduce stormwater discharges to waters of the State from areas of existing development.[27] The Program shall aim to focus on strategic stormwater investments over longer planning timeframes.

The minimum performance measures are:

a. Permittees shall implement stormwater facility retrofits, or tailored SWMP actions that meet the criteria described in Appendix 12, using one or a combination of the following:

   i. Strategic stormwater investments identified in Stormwater Management Action Plan(s) (SMAPs, S5.C.1.d.), or similar stormwater planning process; and/or

   ii. Opportunistic stormwater investments identified by leveraging projects outside of SMAP areas to improve stormwater management and infrastructure.

[25]New Permittees shall meet the requirements of S5.C.6.d beginning no later than August 1, 2024.
[26]New Permittees shall meet the requirements of S5.C.6.e no later than December 31, 2027.
[27] New Permittees are exempt from this permit section.

b. With each Annual Report, each Permittee shall provide a list of planned, individual projects scheduled for funding or implementation during this Permit term for the purpose of meeting the assigned equivalent acreage in Appendix 12. This list shall include at a minimum the information and use the formatting specified in Appendix 12 (.xlsx file format).

c. No later than March 31, 2028, Permittees shall fully fund, start construction, or completely implement project(s) that meet the assigned equivalent acreage and submit documentation with the Annual Report (due on March 31, 2028) as described in Appendix 12.[28]

   i. Projects that started construction on or after January 1, 2023, may be included towards achieving the acres required.

   ii. Permittees may contribute to meeting an overall regional goal to satisfy this permit requirement as described in S5.C.7.d.

   iii. Permittees that completely implement stormwater facility retrofit projects by the expiration date of this Permit that will exceed the area required for this Permit term may apply the excess as a credit to be used for the next Permit term (e.g. 2029-2034 Permit term), not to exceed 50% of the next Permit's requirement.

   iv. Permittees shall report which projects may provide Tribal benefits and benefits to overburdened communities including specifically Vulnerable Populations and Highly Impacted Communities.

d. Permittees may collaborate to meet a regional goal.

   i. Each Permittee is required to manage at least 0.5 equivalent acres within their own jurisdiction but may receive acreage credit for contributing to meeting an overall regional goal outside their defined MS4 Permit coverage area. For Permittees assigned 0.5 acres, participation and in-kind services to regional collaboration projects may count as the contribution for this Permit term if there is regional agreement on the strategy.

   ii. Permittees may contribute to a regional goal, that is the sum of Phase II partners assigned acreage from Appendix 12. Projects may be implemented outside of Permit coverage areas to meet their individual requirement as part of a regional goal where benefits to receiving waters within the Permit coverage areas are identified and anticipated.

[28] See Appendix 12 for descriptions of project status types: fully fund, start construction, and completely implement.

e. Permittees shall report the amount of estimated or projected equivalent acres managed by stormwater facility retrofits for the next Permit term (e.g. 2029-2032). This report shall be submitted to Ecology no later than March 31, 2028.

8. Source Control Program for Existing Development

The Permittee shall implement a program to prevent and reduce pollutants in runoff from areas of existing development that discharge to the MS4. The program shall include application of source control BMPs, inspections, and enforcement.

The minimum performance measures are:

a. Permittees shall enforce ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (see Appendix 8 to identify pollutant generating sources). [29]

Permittees shall update and make effective the ordinance(s), or other enforceable documents, as necessary to meet the requirements of this Section no later than August 1, 2027.

The requirements of this subsection are met by using the source control BMPs in the SWMMWW, or a Phase I Program approved by Ecology. In cases where the manual(s) lack guidance for a specific source of pollutants, the Permittee shall work with the owner/operator to implement or adapt BMPs based on the best professional judgement of the Permittee.

Applicable operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, shall be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.8.d., below.

[29] No later than August 1, 2026, New Permittees shall adopt and make effective ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (see Appendix 8 to identify pollutant generating sources).

b. Permittees shall implement a program to identify publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4.[30] Permittees shall update the inventory at least once every 5 years. The inventory shall include:

   i. Businesses and/or sites identified based on the presence of activities that are pollutant generating (refer to Appendix 8); and

   ii. Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.

c. Permittees shall implement an inspection program, performed by qualified personnel, for sites identified pursuant to S5.C.8.a.i., above.[31]

   i. All identified sites with a business address shall be provided information about activities that may generate pollutants and the source control requirements applicable to those activities. This information shall be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time or spread out over the Permit term to allow for tailoring and distribution of the information during site inspections.

   ii. The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.

   iii. Each Permittee shall inspect 100% of sites identified through credible complaints.

   iv. Permittees may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.

[30] No later than August 1, 2027, New Permittees shall establish an inventory that follows this permit section.
[31] No later than January 1, 2028, New Permittees shall implement an inspection program for sites identified.

v. Annual Reporting of inspections shall be organized by business type or activities with potential to generate pollutants to the MS4. Standard Industrial Code (SIC), Major Group, and NAICS numbers may be provided for reference as noted in Appendix 8.

d. Permittees shall implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period as specified below:[32]

i. If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s), which may include phone calls, reminder letters, emails, or follow-up inspections.

ii. When a Permittee determines that a site has failed to adequately implement BMPs after a follow-up inspection(s) the Permittee shall take enforcement action as established through authority in its municipal codes or ordinances, or through the judicial system.

iii. Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records demonstrating an effort to bring sites into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.

iv. A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.

v. Application and enforcement of local ordinances at sites identified pursuant to S5.C.8.a.i., including sites with discharges authorized by a separate NPDES permit.

[32] No later than January 1, 2028, New Permittees shall implement a progressive enforcement policy as described in this permit section.

e. Permittees shall train staff who are responsible for implementing the source control program to conduct these activities.[33] The ongoing training program shall cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

9. Operations and Maintenance

Each Permittee shall implement and document a program to regulate maintenance activities and to conduct maintenance activities by the Permittee to prevent or reduce stormwater impacts.[34]

The minimum performance measures are:

a. Each Permittee shall implement maintenance standards that are as protective, or more protective, of facility function than those specified in the *Stormwater Management Manual for Western Washington,* or a Phase I program approved by Ecology. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard. No later than June 30, 2027, Permittees shall update their maintenance standards as necessary to meet the requirements of this Section.

   i. The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facility's required condition at all times between inspections. Exceeding the maintenance standard between inspections and/or maintenance is not a Permit violation.

   ii. Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:

      - Within 1 year for typical maintenance of facilities, except catch basins.
      - Within 6 months for catch basins.
      - Within 2 years for maintenance that requires capital construction of less than $25,000.

[33] New Permittees shall develop and implement a training program no later than December 31, 2027.
[34] New Permittees shall develop and implement the requirements of S5.C.9 no later than June 30, 2027 except where otherwise noted in this Section.

Circumstances beyond the Permittee's control include denial or delay of access by property owners, denial or delay of necessary Permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedance of the required timeframe, the Permittee shall document the circumstances and how they were beyond their control.

b. Maintenance of stormwater treatment and flow control BMPs/facilities regulated by the Permittee:

i. The program shall include provisions to verify adequate long-term O&M of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S5.C.6.c and shall be maintained in accordance with S5.C.9.a.

The provisions shall include:

(a) Implementation of an ordinance or other enforceable mechanism that:

- Clearly identifies the party responsible for maintenance in accordance with maintenance standards established under S5.C.9.a.
- Requires inspection of facilities in accordance with the requirements in (b), below.
- Establishes enforcement procedures.

(b) Annual inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4 and were permitted by the Permittee according to S5.C.6.c, including those permitted in accordance with requirements adopted pursuant to the 2007-2024 Ecology municipal stormwater permits, unless there are maintenance records to justify a different frequency. Inspections shall be conducted by qualified personnel or a qualified third party.

Permittees may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 – *Certification and Signature*.

ii. Compliance with the inspection requirements in (b), above, shall be determined by the presence and records of an established inspection program designed to inspect all facilities, and achieving at least 80% of required inspections annually.

iii. The program shall include a procedure for keeping records of inspections and enforcement actions by staff, qualified personnel, and qualified third parties, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained.

c. Maintenance of stormwater facilities owned or operated by the Permittee:

i. Each Permittee shall implement a program to annually inspect all municipally owned or operated stormwater treatment and flow control BMPs/facilities. Permittees shall implement appropriate maintenance action(s) in accordance with the adopted maintenance standards. The inspection program shall be implemented by qualified personnel.

Permittees may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 – *Certification and Signature*.

ii. Each Permittee shall spot check potentially damaged stormwater treatment and flow control BMPs/facilities after major storm events (24-hour storm event with a 10 year or greater recurrence interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control BMPs/facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

iii. Each Permittee shall continue to inspect all catch basins and inlets owned or operated by the Permittee by December 31, 2025 and every two years after.[35] Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the *Stormwater Management Manual for Western Washington.* Decant water shall be disposed of in accordance with Appendix 6 – *Street Waste Disposal*.

The following alternatives to the standard approach of inspecting all catch basins every two years may be applied to all or portions of the system:

(a) The catch basin inspection schedule of every two years may be changed as appropriate to meet the maintenance standards based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records for catch basins, the Permittee may substitute written statements to document a specific, less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experiences and shall be certified in accordance with G19 – *Certification and Signature*.

(b) Inspections every two years may be conducted on a "circuit basis" whereby 25% of catch basins and inlets within each circuit are inspected to identify maintenance needs. Include an inspection of the catch basin immediately upstream of any MS4 outfall, discharge point, or connections to public or private storm systems, if applicable. Clean all catch basins within a given circuit for which the inspection indicates cleaning is needed to comply with maintenance standards established under S5.C.9.a, above.

(c) The Permittee may clean all pipes, ditches, and catch basins and inlets within a circuit once during the Permit term. Circuits selected for this alternative must drain to a single point.

iv. Compliance with the inspection requirements in S5.C.9.c.i-iii, above, shall be determined by the presence of an established inspection program achieving at least 95% of required inspections.

[35] New Permittees shall inspect and, if needed, clean all catch basins and inlets owned or operated by the Permittee in accordance with the requirements of S5.C.7.c once during the permit term, to be completed no later than December 31, 2028 and every two years after.

d. Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. No later than December 31, 2027, document the practices, policies, and procedures. Lands owned or maintained by the Permittee include but are not limited to: streets; parking lots; roads; highways; buildings; parks; open space; road rights-of-way; maintenance yards; and stormwater treatment and flow control BMPs/facilities.

   The following activities shall be addressed:

   i. Pipe cleaning.

   ii. Cleaning of culverts that convey stormwater in ditch systems.

   iii. Ditch maintenance.

   iv. Street cleaning.

   v. Road repair and resurfacing, including pavement grinding.

   vi. Snow and ice control.

   vii. Utility installation.

   viii. Pavement striping maintenance.

   ix. Maintaining roadside areas, including vegetation management.

   x. Dust control.

   xi. Application of fertilizers, pesticides, and herbicides according to the instructions for their use including reducing nutrients and pesticides and using alternatives that minimize environmental impacts.

   xii. Sediment and erosion control.

   xiii. Landscape maintenance and vegetation disposal.

   xiv. Trash and pet waste management.

   xv. Building exterior cleaning and maintenance.

      (a) For Permittee-owned buildings built or renovated between 1950-1980, update policies, practices, or procedures to include Source Control BMPs to minimize PCBs from entering the MS4. Permittees shall not discharge washdown water to the MS4 if the building is confirmed or suspected to have PCB-containing materials.

   xvi. Preparing Permittee-owned buildings for renovation or demolition.

(a) Update policies, practices, or procedures to include Source Control BMPs for building materials to prevent PCBs from entering the MS4 in preparation for and during demolition and renovations.

e. No later than July 1, 2027, develop and implement a municipal street sweeping program to focus on priority areas and times during the year that would reasonably be expected to result in the maximum water quality benefits to receiving waters. The following program elements shall be included:

i. Priority areas: Apply street sweeping program to curbed municipal streets that discharge to outfalls and meet any of the following criteria:

(a) High traffic streets, such as arterials or collectors.

(b) Streets that serve commercial or industrial land use areas.

ii. Program timing: Sweep priority areas at least once between July and September each year and at least two additional times a year as determined by the Permittee to provide additional water quality benefits. For calendar year 2027, only one sweeping event is required between July and December.

(a) Compliance during this Permit term shall be determined by records of a sweeping program designed to sweep all priority areas identified and sweeping at least 90% of priority areas each sweeping event.

(b) Permittee may document reasoning for alternative sweeping timing and frequency based on local conditions (e.g., climate) and estimated pollutant deposition quantities. Documentation shall also be based on actual maintenance experience and be certified in accordance with G19 – *Certification and Signature*.

iii. Operational Procedures: Procedures to follow equipment design performance specifications to ensure that street sweeping equipment is operated at the proper design speed with appropriate verification, and that it is properly maintained.

iv. Street Waste Disposal: Dispose of sweeper waste material in accordance with Appendix 6 – *Street Waste Disposal*.

v. Reporting: No later than March 31, 2028, submit with the Annual Report the following information about the priority areas:

(a) Priority areas swept identified on a map (i.e. streets that are considered high traffic (estimated number of vehicles served/or arterials or collectors, and streets serving commercial or industrial land use).

(b) Sweeping date(s).

(c) Sweeping frequency.

(d) Type of sweeper.

(e) Total curb miles of priority areas and curb miles swept.

(f) Approximation of street waste solids removed for each sweeping event (indicate unit of measurement and wet or dry weight, where available).

f. Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under the *Industrial Stormwater General Permit* or another NPDES permit that authorizes stormwater discharges associated with the activity. SWPPPs shall include the following information, at a minimum:

i. A detailed description of the operational and structural BMPs in use at the facility and a schedule for implementation of additional BMPs when needed. BMPs selected shall be consistent with the *Stormwater Management Manual for Western Washington*, or a Phase I program approved by Ecology. The SWPPP shall be updated as needed to maintain relevancy with the facility.

ii. At minimum, annual inspections of the facility, including visual observations of discharges, to evaluate the effectiveness of the BMPs, identify maintenance needs, and determine if additional or different BMPs are needed. The results of these inspections shall be documented in an inspection report or check list.

iii. An inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.

iv. A site map showing the facility's stormwater drainage, discharge points, and areas of potential pollutant exposure.

v. A plan for preventing and responding to spills at the facility which could result in an illicit discharge.

g. Implement an ongoing training program for employees of the Permittee whose primary construction, operations, or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, street sweeper operation, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of training provided. The staff training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.

h. Maintain records of the activities conducted to meet the requirements of this Section.

S6. STORMWATER MANAGEMENT PROGRAM FOR SECONDARY PERMITTEES

A. Secondary Permittees and New Secondary Permittees Coverage

This Section applies to all Secondary Permittees and all New Secondary Permittees, whether coverage under this Permit is obtained individually or as a Co-Permittee with a city, town, county, or another Secondary Permittee.

New Secondary Permittees subject to this Permit shall fully meet the requirements of this Section as modified in the footnotes in S6.D below, or as established as a condition of coverage by Ecology.

1. To the extent allowable under state, federal or local law, all components are mandatory for each Secondary Permittee covered under this Permit, whether covered as an individual Permittee or as a Co-Permittee.
2. Each Secondary Permittee shall develop and implement a Stormwater Management Program (SWMP). A SWMP is a set of actions and activities comprising the components listed in S6 and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to S7 – *Compliance with Total Maximum Daily Load Requirements*. The SWMP shall be designed to reduce the discharge of pollutants from regulated small MS4s to the MEP and protect water quality.
3. Unless an alternate implementation schedule is established by Ecology as a condition of Permit coverage, the SWMP shall be developed and implemented in accordance with the schedules contained in this Section and shall be fully developed and implemented no later than four and one-half years from the initial Permit coverage date. Secondary Permittees that are already implementing some or all of the required SWMP components shall continue implementation of those components.
4. Secondary Permittees may implement parts of their SWMP in accordance with the schedule for cities, towns, and counties in S5, provided they have signed a memorandum of understanding or other agreement to jointly implement the activity or activities with one or more jurisdictions listed in S1.D.2.a or S1.D.2.b and submitted a copy of the agreement to Ecology.
5. Each Secondary Permittee shall prepare written documentation of the SWMP, called the SWMP Plan. The SWMP Plan shall be updated annually to include a description of program activities for the upcoming calendar year and shall be submitted with the Annual Report.

B. Coordination

Secondary Permittees shall coordinate stormwater-related policies, programs, and projects within a watershed and interconnected MS4s. Where relevant and appropriate, the SWMP shall coordinate among departments of the Secondary Permittee to ensure compliance with the terms of this Permit.

C. Legal Authority

To the extent allowable under state law and federal law, each Secondary Permittee shall be able to demonstrate that they can operate pursuant to legal authority which authorizes or enables the Secondary Permittee to control discharges to and from MS4s owned or operated by the Secondary Permittee.

This legal authority may be a combination of statutes, ordinances, permits, contracts, orders, interagency agreements, or similar instruments.

D. Stormwater Management Program for Secondary Permittees

The SWMP for Secondary Permittees shall include the following components:

1. Public Education and Outreach

Each Secondary Permittee shall implement the following stormwater education strategies:

a. Storm drain inlets owned or operated by the Secondary Permittee that are located in maintenance yards, in parking lots, along sidewalks, and at pedestrian access points shall be clearly labeled with a message similar to "Dump no waste – Drains to waterbody."[36]

   As identified during visual inspection and regular maintenance of storm drain inlets per the requirements of S6.D.3.d and S6.D.6.a.i, below, or as otherwise reported to the Secondary Permittee, any inlet having a label that is no longer clearly visible and/or easily readable shall be re-labeled within 90 days.

b. Each year beginning no later than three years from the initial date of Permit coverage, public ports, colleges, and universities shall distribute educational information to tenants and residents on the impact of stormwater discharges on receiving waters, and steps that can be taken to reduce pollutants in stormwater runoff. Distribution may be by hard copy or electronic means. Appropriate topics may include:

[36]New Secondary Permittees shall label all inlets as described in S6.D.1.a no later than four years from the initial date of permit coverage.

i. How stormwater runoff affects local water bodies.

ii. Proper use and application of pesticides and fertilizers.

iii. Benefits of using well-adapted vegetation.

iv. Alternative equipment washing practices, including cars and trucks that minimize pollutants in stormwater.

v. Benefits of proper vehicle maintenance and alternative transportation choices; proper handling and disposal of vehicle wastes, including the location of hazardous waste collection facilities in the area.

vi. Hazards associated with illicit connections and illicit discharges.

vii. Benefits of litter control of pet waste.

viii. Source control BMPs for building materials to reduce pollution to stormwater including, but not limited to, stormwater pollution from PCB-containing materials.

2. Public Involvement and Participation

Each year, no later than May 31, each Secondary Permittee shall:

a. Make the annual report available on the Permittee's website; and

b. Make available on the Permittee's website, the latest updated version of the SWMP Plan.

3. Illicit Discharge Detection and Elimination

Each Secondary Permittee shall:

a. From the initial date of Permit coverage, comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which the Secondary Permittee is located that govern non-stormwater discharges.

b. Implement appropriate policies prohibiting illicit discharges,[37] and an enforcement plan to ensure compliance with illicit discharge policies.[38] These policies shall address, at a minimum: illicit connections, non-stormwater discharges, including spills of hazardous materials, and improper disposal of pet waste and litter. Policies shall be revised, if necessary, to meet the requirements of this Section no later than July 1, 2027.

   i. *Allowable discharges*: The policies do not need to prohibit the following categories of non-stormwater discharges:

      (a) Diverted stream flows

      (b) Rising groundwaters

      (c) Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20))

      (d) Uncontaminated pumped groundwater

      (e) Foundation drains

      (f) Air conditioning condensation

      (g) Irrigation water from agricultural sources that is commingled with urban stormwater

      (h) Springs

      (i) Uncontaminated water from crawl space pumps

      (j) Footing drains

      (k) Flows from riparian habitats and wetlands

      (l) Discharges from emergency firefighting activities in accordance with S2 – *Authorized Discharges*

      (m) Non-stormwater discharges authorized by another NPDES or State Waste Discharge Permit

[37]New Secondary Permittees shall develop and implement appropriate policies prohibiting illicit discharges and identify possible enforcement mechanisms as described in S6.D.3.b no later than one year from the initial date of permit coverage.

[38]New Secondary Permittees shall develop and implement an enforcement plan as described in S6.D.3.b no later than 18 months from the initial date of permit coverage.

ii. *Conditionally allowable discharges*: The policies may allow the following categories of non-stormwater discharges only if the stated conditions are met and such discharges are allowed by local codes:

(a) Discharges from potable water sources including, but not limited to, water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4.

(b) Discharges from lawn watering and other irrigation runoff, including from reclaimed water sources. These discharges shall be minimized through, at a minimum, public education activities and water conservation efforts conducted by the Secondary Permittee and/or the local jurisdiction.

(c) Discharges from swimming pools, spas, and hot tubs. The discharges shall be dechlorinated/debrominated to a total residual concentration of 0.1 ppm or less, free from sodium chloride, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4. Discharges shall be thermally controlled to prevent an increase in temperature of the receiving water. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.

(d) Street and sidewalk wash water, water used to control dust. The Secondary Permittee shall reduce these discharges through, at a minimum, public education activities and/or water conservation efforts conducted by the Secondary Permittee and/or the local jurisdiction. To avoid washing pollutants into the MS4, the Secondary Permittee shall minimize the amount of street wash and dust control water used.

(e) Routine external building washdown that does not use detergents for buildings built before 1950 and after 1980. These discharges shall be reduced through, at minimum, public education activities or water conservation efforts, or both.

Commercial, industrial, and multi-story residential structures constructed or renovated between the years 1950 and 1980 (i.e. those most likely to have PCB containing building materials), shall be assessed for PCB-containing materials consistent with *How to Find PCBs in Building Materials* (Ecology, 2024; Publication No. 22-040-024) prior to routine building washdown to the MS4. Structures confirmed or suspected to have PCB-containing materials shall not discharge washdown water to the MS4. Structures built between 1950-1980, without PCB-containing materials, may proceed with routine building washdown (without detergents) as described above.

(f) Other non-stormwater discharges shall be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.

iii. The Secondary Permittee shall address any category of discharges in (i) or (ii), above, if the discharge is identified as a significant source of pollutants to waters of the State.

c. Maintain a storm sewer system map showing the locations of all known MS4 outfalls and discharge points, labeling the receiving waters (other than groundwater) and delineating the areas contributing runoff to each outfall and discharge point. Make the map (or completed portions of the map) available on request to Ecology and to the extent appropriate to other Permittees.

i. No later than December 31, 2026, the required format for mapping is an electronic format with fully described mapping standards.[39]

ii. No later than March 31, 2027, Permittees shall submit locations of all known MS4 outfalls according to the standard templates and format provided in the Annual Report. This reporting shall include the size and material of the outfalls.

d. Conduct field inspections and visually inspect for illicit discharges at all known MS4 outfalls and discharge points. Visually inspect at least one third (on average) of all known outfalls and discharge points each year beginning no later than two years from the initial date of Permit coverage. Implement procedures to identify and remove any illicit discharges. Keep records of inspections and follow-up activities.

[39]New Secondary Permittees shall meet the requirements of S6.D.3.c no later than four and one-half years from the initial date of permit coverage.

e. Implement a spill response plan that includes coordination with a qualified spill responder.[40]

f. No later than two years from initial date of Permit coverage, provide staff training or coordinate with existing training efforts to educate staff on proper BMPs for preventing illicit discharges, including spills. Train all Secondary Permittee staff who, as part of their normal job responsibilities, have a role in preventing such illicit discharges.

4. Construction Site Stormwater Runoff Control

From the initial date of Permit coverage, each Secondary Permittee shall:

a. Comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which the Secondary Permittee is located that govern construction phase stormwater pollution prevention measures.

b. Ensure that all construction projects under the functional control of the Secondary Permittee which require a construction stormwater permit obtain coverage under the NPDES *Construction Stormwater General Permit* or an individual NPDES permit prior to discharging construction related stormwater.

c. Coordinate with the local jurisdiction regarding projects owned or operated by other entities which discharge into the Secondary Permittee's MS4, to assist the local jurisdiction with achieving compliance with all relevant ordinances, rules, and regulations of the local jurisdiction(s).

d. Provide training or coordinate with existing training efforts to educate relevant staff in erosion and sediment control BMPs and requirements or hire trained contractors to perform the work.

e. Coordinate, as requested, with Ecology or the local jurisdiction to provide access for inspection of construction sites or other land disturbances which are under the functional control of the Secondary Permittee during land disturbing activities and/or construction period.

[40]New Secondary Permittees shall develop and implement a spill response plan as described in S6.D.3.e no later than four and one-half years from the initial date of permit coverage.

5. Post-Construction Stormwater Management for New Development and Redevelopment

From the initial date of Permit coverage, each Secondary Permittee shall:

a. Comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which the Secondary Permittee is located that govern post-construction stormwater pollution prevention measures.

b. Coordinate with the local jurisdiction regarding projects owned or operated by other entities which discharge into the Secondary Permittee's MS4 to assist the local jurisdiction with achieving compliance with all relevant ordinances, rules, and regulations of the local jurisdiction(s).

6. Pollution Prevention and Good Housekeeping for Municipal Operations

Each Secondary Permittee shall:

a. Implement a municipal operation and maintenance (O&M) plan to minimize stormwater pollution from activities conducted by the Secondary Permittee. The O&M Plan shall include appropriate pollution prevention and good housekeeping procedures for all of the following operations, activities, and/or types of facilities that are present within the Secondary Permittee's boundaries and under the functional control of the Secondary Permittee.[41] The O&M Plan Shall be updated, as needed, no later than July 1, 2027.

   i. *Stormwater collection and conveyance systems* including catch basins, stormwater pipes, open channels, culverts, and stormwater treatment and flow control BMPs/facilities. The O&M Plan shall address, at a minimum: scheduled inspections and maintenance activities including cleaning and proper disposal of waste removed from the system. Secondary Permittees shall properly maintain stormwater collection and conveyance systems owned or operated by the Secondary Permittee and annually inspect and maintain all stormwater facilities to ensure facility function.

   Secondary Permittees shall establish maintenance standards that are as protective or more protective of facility function than those specified in the *Stormwater Management Manual for Western Washington*. Secondary Permittees shall review their maintenance standards to ensure they are consistent with the requirements of this Section.

[41]New Secondary Permittees shall develop and implement the operation and maintenance plan described in S6.D.6.a no later than three years from initial date of permit coverage.

Secondary Permittees shall conduct spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities following major storm events (24-hour storm event with a 10-year or greater recurrence interval).

ii. *Roads, highways, and parking lots*. The O&M Plan shall address, at a minimum: deicing, anti-icing, and snow removal practices; snow disposal areas; material (e.g., salt, sand, or other chemical) storage areas; and all-season BMPs to reduce road and parking lot debris and other pollutants from entering the MS4.

iii. *Vehicle fleets*. The O&M Plan shall address, at a minimum: storage, washing, and maintenance of Secondary Permittee vehicle fleets; and fueling facilities. Secondary Permittees shall conduct all vehicle and equipment washing and maintenance in a self-contained covered building or in designated wash and/or maintenance areas.

iv. *External building maintenance*. The O&M Plan shall address, at a minimum: building exterior cleaning and maintenance including cleaning, washing, painting; maintenance and management of dumpsters; and other maintenance activities. For buildings owned by the Secondary Permittee and built or renovated between 1950 and 1980, the O&M Plan shall include building material assessment for PCBs consistent with *How to Find and Address PCBs in Building Materials* guidance (Ecology, 2024; Publication No. 22-040-024) prior to exterior building washdown to the MS4. Structures confirmed or suspected to have PCB-containing materials shall not discharge washdown water to the MS4.

v. *Preparing Permittee-owned buildings for renovation or demolition.* The O&M Plan shall address Source Control BMPs for building materials to prevent PCBs from entering the MS4 in preparation for and during demolition and renovations.

vi. *Parks and open space*. The O&M Plan shall address, at a minimum: proper application of fertilizer, pesticides, and herbicides; sediment and erosion control; BMPs for landscape maintenance and vegetation disposal; and trash and pet waste management.

vii. *Material storage facilities and heavy equipment maintenance or storage yards*. Secondary Permittees shall develop and implement a Stormwater Pollution Prevention Plan to protect water quality at each of these facilities owned or operated by the Secondary Permittee and not covered under the *Industrial Stormwater General Permit* or under another NPDES

permit that authorizes stormwater discharges associated with the activity.

viii. *Other facilities* that would reasonably be expected to discharge contaminated runoff. The O&M Plan shall address proper stormwater pollution prevention practices for each facility.

b. From the initial date of Permit coverage, Secondary Permittees shall also have permit coverage for all facilities operated by the Secondary Permittee that are required to be covered under the *Industrial Stormwater General Permit* or another NPDES permit that authorizes discharges associated with the activity.

c. The O&M Plan shall include sufficient documentation and records as necessary to demonstrate compliance with the O&M Plan requirements in S6.D.6.a(i) through (viii), above.

d. No later than three years from the initial date of Permit coverage, Secondary Permittees shall implement a program designed to train all employees whose primary construction, operations, or maintenance job functions may impact stormwater quality. The training shall address:

   i. The importance of protecting water quality.

   ii. The requirements of this Permit.

   iii. Operation and maintenance requirements.

   iv. Inspection procedures.

   v. Ways to perform their job activities to prevent or minimize impacts to water quality.

   vi. Procedures for reporting water quality concerns, including potential illicit discharges (including spills).

S7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

The following requirements apply if an applicable TMDL is approved for stormwater discharges from MS4s owned or operated by the Permittee. Applicable TMDLs are TMDLs which have been approved by EPA on or before the issuance date of this Permit or prior to the date that Ecology issues coverage under this Permit, whichever is later.

A. TMDL Specific Requirements

1. For applicable TMDLs listed in Appendix 2, affected Permittees shall comply with the specific requirements identified in Appendix 2. Each Permittee shall keep records of all actions required by this Permit that are relevant to applicable TMDLs within their jurisdiction. The status of the TMDL implementation shall be included as part of the annual report submitted to Ecology. Each annual report shall include a summary of relevant SWMP and Appendix 2 activities conducted in the TMDL area to address the applicable TMDL parameter(s).
2. For applicable TMDLs not listed in Appendix 2, compliance with this Permit shall constitute compliance with those TMDLs.

S8. MONITORING AND ASSESSMENT

A. Regional Status and Trends Monitoring

1. All Permittees that chose S8.A.2 Regional Status and Trends Monitoring Option in the *Phase II Western Washington Municipal Stormwater Permit*, August 1, 2019 – July 31, 2024, shall make a one-time payment into the Stormwater Action Monitoring (SAM) collective fund to implement regional small streams and marine nearshore areas status and trends monitoring in Puget Sound or, urban streams in the Lower Columbia River basin. This payment is due on or before December 1, 2024. Submit payment amount according to Section S8.D, below.
2. All City and County Permittees covered under the *Phase II Western Washington Municipal Stormwater Permit*, August 1, 2019 – July 31, 2024, except the Cities of Aberdeen and Centralia, shall notify Ecology in writing which of the following two options for regional status and trends monitoring (S8.A.2.a or S8.A.2.b) the Permittee chooses to carry out during this Permit term. The written notification with G19 signature is due to Ecology no later than December 1, 2024. Either option will fully satisfy the Permittee's obligations under this Section (S8.A.2). Each Permittee shall select a single option for this Permit term.

a. Make annual payments into a Stormwater Action Monitoring (SAM) collective fund to implement regional receiving water status and trends monitoring of either: small streams and marine nearshore areas in Puget Sound, or urban streams in Clark and Cowlitz Counties in the Lower Columbia River basin, depending on the Permittee's location. The annual payments into the collective fund are due on or before August 15 each year beginning in 2025. Submit payments according to Section S8.D, below.

Or

b. Conduct stormwater discharge monitoring per the requirements in Section S8.C.

B. Stormwater Management Program (SWMP) Effectiveness and Source Identification Studies

1. All Permittees that chose S8.B Effectiveness Studies Option in the *Phase II Western Washington Municipal Stormwater Permit,* August 1, 2019 – July 31, 2024, shall make a one-time payment into the collective fund for Stormwater Action Monitoring (SAM) to implement effectiveness studies and source identification studies. The payment is due on or before December 1, 2024. Submit payment according to Section S8.D, below.

2. All City and County Permittees covered under the *Phase II Western Washington Municipal Stormwater Permit*, August 1, 2019 – July 31, 2024, shall notify Ecology in writing which of the following two options (S8.B.2.a or S8.B.2.b) for effectiveness and source identification studies the Permittee chooses to carry out during this Permit term. The written notification with G19 signature is due to Ecology no later than December 1, 2024. Either option will fully satisfy the Permittee's obligations under this Section (S8.B.2). Each Permittee shall select a single option for this Permit term.

   a. Make annual payments into a SAM collective fund to implement effectiveness and source identification studies. The annual payments into the collective fund are due on or before August 15 each year beginning in 2025. Submit payments according to Section S8.D, below.

   Or

   b. Conduct stormwater discharge monitoring per the requirements in Section S8.C.

3. All Permittees shall provide information as requested for effectiveness and source identification studies that are under contract with Ecology as active Stormwater Action Monitoring (SAM) projects. These requests will be limited to records of SWMP activities and associated data tracked and/or maintained in accordance with S5 – *Stormwater Management Program for Cities, Towns, and Counties* and/or S9 – *Reporting Requirements*. A maximum of three requests during the Permit term from the SAM Coordinator will be transmitted to the Permittee's permit coordinator via Ecology's regional permit manager. The Permittee shall have 90 days to provide the requested information.

C. Stormwater Discharge Monitoring.

1. This Section applies only to Permittees who choose to conduct stormwater discharge monitoring per S8.A.2.b and/or S8.B.2.b in lieu of participation in the regional status and trends monitoring and/or effectiveness and source identification studies. These Permittees shall conduct monitoring in accordance with Appendix 9 and an Ecology-approved Quality Assurance Project Plan (QAPP) as follows:

   a. Permittees who choose the option to conduct stormwater discharge monitoring for either S8.A.2 or S8.B.2 shall monitor three independent discharge locations.

      Permittees who choose the option to conduct stormwater discharge monitoring for both S8.A.2 and S8.B.2 shall conduct this monitoring at a total of six locations; at least four locations shall be independent (one location may be nested in another basin).

   b. No later than February 1, 2025, each Permittee shall submit to Ecology a draft stormwater discharge monitoring QAPP for review and approval. The QAPP shall be prepared in accordance with the requirements in Appendix 9. The final QAPP shall be submitted to Ecology for approval as soon as possible following finalization, and before August 15, 2025 or within 60 days of receiving Ecology's comments on the draft QAPP (whichever is later).

   c. Flow monitoring shall begin no later than October 1, 2025, or within 30 days of receiving Ecology's approval of the final QAPP (whichever is later). Stormwater discharge monitoring shall be fully implemented no later than October 1, 2026.

   d. Data and analyses shall be reported annually in accordance with the Ecology-approved QAPP. Each Permittee shall enter into the Department's Environmental Information Management (EIM) database all water and solids concentration data collected pursuant to Appendix 9.

i. Within 60 days of completing the study, or no later than March 31, 2029, publish a final report with the results of the study and recommended future actions based on findings, include a summary of results.

D. Payments into the Stormwater Action Monitoring Collective Fund.

1. This Section applies to all Permittees who choose to make annual payments into the SAM collective funds for S8.A *Regional Status and Trends Monitoring* and/or S8.B *Effectiveness and Source Identification Studies*.
2. Permittees submitting payment for S8.A.1. or S8.B.1., payment amounts are listed in Appendix 11 of the WWA Phase II Municipal Stormwater Permit, August 1, 2019– July 31, 2024.
3. Each Permittee's S8.A.2.a and S8.B.2.a payment amounts are listed in Appendix 11 and in the invoices that will be sent to the Permittee approximately three months in advance of each payment due date. Mail payments according to the instructions in the invoice.

S9. REPORTING & RECORDKEEPING REQUIREMENTS

A. Annual Report Submittal

1. No later than March 31 of each year beginning in 2025, each Permittee shall submit an Annual Report. The reporting period for the first Annual Report will be from January 1, 2024, through December 31, 2024. The reporting period for all subsequent Annual Reports will be the previous calendar year unless otherwise specified.
2. Permittees shall submit Annual Reports electronically using Ecology's Water Quality Permitting Portal (WQWebPortal) available on Ecology's website.

B. Records Retention

Each Permittee is required to keep all records related to this Permit and the SWMP for at least five years after the expiration date of this Permit.

C. Records Available to the Public

Each Permittee shall make all records related to this Permit and the Permittee's SWMP available to the public at reasonable times during business hours. The Permittee will provide a copy of the most recent annual report to any individual or entity, upon request.

1. A reasonable charge may be assessed by the Permittee for making photocopies of records.
2. The Permittee may require reasonable advance notice of intent to review records related to this Permit.

D. Annual Report for Cities, Towns, and Counties

Each annual report shall include the following:

1. A copy of the Permittee's current Stormwater Management Program Plan (SWMP Plan), as required by S5.A.2.
2. Submittal of the annual report form as provided by Ecology pursuant to S9.A, describing the status of implementation of the requirements of this Permit during the reporting period.

3. Attachments to the annual report form including summaries, descriptions, reports, and other information as required, or as applicable, to meet the requirements of this Permit during the reporting period, or as a required submittal. Refer to Appendix 3 for annual report questions.[42]
4. If applicable, notice that the MS4 is relying on another entity to satisfy any of the obligations under this Permit.
5. Certification and signature pursuant to G19.D, and notification of any changes to authorization pursuant to G19.C.
6. A notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in the Permittee's geographic area of Permit coverage during the reporting period.

E. Annual Report for Secondary Permittees

Each annual report shall include the following:

1. A copy of the Permittee's current Stormwater Management Program Plan (SWMP Plan), as required by S6.A.2.
2. Submittal of the annual report form as provided by Ecology pursuant to S9.A, describing the status of implementation of the requirements of this Permit during the reporting period.
3. Attachments to the annual report form including summaries, descriptions, reports, and other information as required, or as applicable, to meet the requirements of this Permit during the reporting period. Refer to Appendix 4 for annual report questions.
4. If applicable, notice that the MS4 is relying on another entity to satisfy any of the obligations under this Permit.
5. Certification and Signature pursuant to G19.D, and notification of any changes to authorization pursuant to G19.C.
6. A notification of any jurisdictional boundary changes resulting in an increase or decrease in the Secondary Permittee's geographic area of Permit coverage during the reporting period.

[42]New Permittees refer to Appendix 5 for annual report questions.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this Permit shall be consistent with the terms and conditions of this Permit.

G2. PROPER OPERATION AND MAINTENANCE

The Permittee shall, at all times, properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by the Permittee for pollution control to achieve compliance with the terms and conditions of this Permit.

G3. NOTIFICATION OF DISCHARGE, INCLUDING SPILLS

If a Permittee has knowledge of a discharge, including spills, into or from a MS4 which could constitute a threat to human health, welfare, or the environment, the Permittee shall:

A. Take appropriate action to correct or minimize the threat to human health, welfare and/or the environment.

B. Notify the Ecology regional office and other appropriate spill response authorities immediately but in no case later than within 24 hours of obtaining that knowledge.

C. Immediately report spills or other discharges which might cause bacterial contamination of marine waters, such as discharges resulting from broken sewer lines and failing onsite septic systems, to the Ecology regional office and to the Washington State Department of Health, Shellfish Program.

D. Immediately report spills or discharges of oils or hazardous substances to the Ecology regional office and to the Washington Emergency Management Division at 1-800-258-5990.

G4. BYPASS PROHIBITED

The intentional bypass of stormwater from all or any portion of a stormwater treatment BMP whenever the design capacity of the treatment BMP is not exceeded, is prohibited unless the following conditions are met:

A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the *Clean Water Act* (CWA); and

B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated stormwater, or maintenance during normal dry periods.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

G5. RIGHT OF ENTRY

The Permittee shall allow Ecology, or an authorized representative of Ecology (including an authorized contractor acting as a representative of Ecology), upon the presentation of credentials and such other documents as may be required by law, to:

A. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this Permit;

B. To have access to, and copy at reasonable cost and at reasonable times, any records that shall be kept under the terms of the Permit;

C. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit;

D. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

G6. DUTY TO MITIGATE

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

G7. PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, or any exclusive privilege.

G8. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in the Permit shall be construed as excusing the Permittee from compliance with any other applicable federal, state, or local statutes, ordinances, or regulations.

G9. MONITORING

A. Representative Sampling

Samples and measurements taken to meet the requirements of this Permit shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

B. Records Retention

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least five years. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Ecology. On request, monitoring data and analysis shall be provided to Ecology.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates and times the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

D. Test Procedures

All sampling and analytical methods used to meet the monitoring requirements in this Permit shall conform to the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136, unless otherwise specified in this Permit or approved in writing by Ecology.

E. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year. Calibration records should be maintained for a minimum of three years.

F. Lab Accreditation

The Permittee shall ensure all monitoring data that it is required to submit to Ecology under this Permit is prepared by a laboratory registered or accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Flow, temperature, and settleable solids are exempt from this requirement. Conductivity, turbidity, and pH are also exempt from this requirement, unless the laboratory must be registered or accredited for any other parameter. Quick methods of field detection of pollutants are exempted from this requirement when the purpose of the sampling is identification and removal of a suspected illicit discharge.

G. Additional Monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this Permit by administrative order or Permit modification.

G10. REMOVED SUBSTANCES

With the exception of decant from street waste vehicles, the Permittee shall not allow collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to be resuspended or reintroduced to the MS4 or to waters of the State. Decant from street waste vehicles resulting from cleaning stormwater facilities may be reintroduced only when other practical means are not available and only in accordance with the *Street Waste Disposal* guidelines in Appendix 6. Solids generated from maintenance of the MS4 may be reclaimed, recycled, or reused when allowed by local codes and ordinances. Soils that are identified as contaminated pursuant to Chapter 173-350 WAC shall be disposed at a qualified solid waste disposal facility (see Appendix 6).

G11. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

G12. REVOCATION OF COVERAGE

The director may terminate coverage under this General Permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. Cases where coverage may be terminated include, but are not limited to the following:

A. Violation of any term or condition of this General Permit;

B. Obtaining coverage under this General Permit by misrepresentation or failure to disclose fully all relevant facts;

C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

D. A determination that the permitted activity endangers human health or the environment, or contributes significantly to water quality standards violations;

E. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090; and

F. Nonpayment of permit fees assessed pursuant to RCW 90.48.465.

Revocation of coverage under this General Permit may be initiated by Ecology or requested by any interested person.

G13. TRANSFER OF COVERAGE

This Permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

G14. GENERAL PERMIT MODIFICATION AND REVOCATION

This General Permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

A. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this General Permit;

B. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this General Permit;

C. A water quality management plan containing requirements applicable to the category of dischargers covered under this General Permit is approved;

D. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this General Permit are unacceptable; or

E. Changes in state law that reference this Permit.

G15. REPORTING A CAUSE FOR MODIFICATION OR REVOCATION

A Permittee who knows or has reason to believe that any activity has occurred, or will occur, which would constitute cause for modification or revocation and reissuance under General Condition G12, G14, or 40 CFR 122.62 shall report such plans, or such information, to Ecology so that a decision can be made on whether action to modify, or revoke and reissue, this Permit will be required. Ecology may then require submission of a new or amended application. Submission of such application does not relieve the Permittee of the duty to comply with this Permit until it is modified or reissued.

G16. APPEALS

A. The terms and conditions of this General Permit, as they apply to the appropriate class of dischargers, are subject to appeal within thirty days of issuance of this General Permit in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.

B. The terms and conditions of this General Permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within thirty days of the effective date of coverage of that discharger. Consideration of an appeal of General Permit coverage of an individual discharger is limited to the General Permit's applicability or non-applicability to that individual discharger.

C. The appeal of General Permit coverage of an individual discharger does not affect any other dischargers covered under this General Permit. If the terms and conditions of this General Permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

D. Modifications of this Permit are appealable in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC.

G17. PENALTIES

40 CFR 122.41(a)(2) and (3), 40 CFR 122.41(j)(5), and 40 CFR 122.41(k)(2) are hereby incorporated into this Permit by reference.

G18. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The Permittee shall apply for permit renewal at least 180 days prior to the specified expiration date of this Permit.

G19. CERTIFICATION AND SIGNATURE

All formal submittals to Ecology shall be signed and certified.

A. All permit applications shall be signed by either a principal executive officer or ranking elected official.

B. All formal submittals required by this Permit shall be signed by a person described, above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described, above, and submitted to Ecology; and
2. The authorization specifies either an individual or a position having responsibility for the overall development and implementation of the stormwater management program. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

C. Changes to authorization. If an authorization under condition G19.B.2 is no longer accurate because a different individual or position has responsibility for the overall development and implementation of the stormwater management program, a new authorization satisfying the requirements of condition G19.B.2 shall be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a formal submittal under this Permit shall make the following certification:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that Qualified Personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information

submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations."

G20. NON-COMPLIANCE NOTIFICATION

In the event a Permittee is unable to comply with any of the terms and conditions of this Permit, the Permittee shall:

A. Notify Ecology of the failure to comply with the permit terms and conditions in writing within 30 days of becoming aware that the non-compliance has occurred. The written notification shall include all of the following:

1. A description of the non-compliance, including dates.
2. Beginning and end dates of the non-compliance, and if the compliance has not been corrected, the anticipated date of correction.
3. Steps taken or planned to reduce, eliminate, or prevent reoccurrence of the non-compliance.

B. Take appropriate action to stop or correct the condition of non-compliance.

G21. UPSETS

Permittees shall meet the conditions of 40 CFR 122.41(n) regarding "Upsets." The conditions are as follows:

A. ***Definition***. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. ***Effect of an upset***. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (C) of this condition are met. Any determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, will not constitute final administrative action subject to judicial review.

C. ***Conditions necessary for demonstration of upset***. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset;
2. The permitted facility was at the time being properly operated;
3. The Permittee submitted notice of the upset as required in 40 CFR 122.41(l)(6)(ii)(B) (24-hour notice of noncompliance); and
4. The Permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate).

D. ***Burden of proof***. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G22. DUTY TO PROVIDE INFORMATION

The Permittee shall furnish to Ecology, within a reasonable time, any information which the Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Ecology upon request, copies of records required to be kept by this permit.

G23. OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Ecology, it shall promptly submit such facts or information.

G24. OTHER REQUIREMENTS OF 40 CFR

The other requirements of 40 CFR Part 122.41 and 40 CFR Part 122.42 are incorporated in this permit by reference.

DEFINITIONS AND ACRONYMS

This Section includes definitions for terms used in the body of the Permit and in all the appendices except Appendix 1. Terms defined in Appendix 1 are necessary to implement requirements related to Appendix 1.

40 CFR means Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

AKART means All Known, Available, and Reasonable methods of prevention, control, and Treatment. See also state *Water Pollution Control Act*, RCW 90.48.010 and RCW 90.48.520.

All Known, Available and Reasonable Methods of Prevention, Control and Treatment (AKART) refers to the state *Water Pollution Control Act*, RCW 90.48.010 and RCW 90.48.520.

Applicable TMDL means a TMDL which has been approved by EPA on or before the issuance date of this Permit, or prior to the date that Ecology issues coverage under this Permit, whichever is later.

Aqueous Film-Forming Foam (AFFF) is a type of foam used to fight liquid-fueled fires (i.e., those started by oil, gasoline, or other flammable liquids).

Beneficial Uses means uses of waters of the State which include, but are not limited to: use for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, recreation, generation of electric power and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the State.

Best Management Practices are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

BMP means Best Management Practice.

Bypass means the diversion of stormwater from any portion of a stormwater treatment facility.

Circuit means a portion of a MS4 discharging to a single point or serving a discrete area determined by traffic volumes, land use, topography, or the configuration of the MS4.

Component or **Program Component** means an element of the Stormwater Management Program listed in S5 - *Stormwater Management Program for Cities, Towns, and Counties*, S6 – *Stormwater Management Program for Secondary Permittees*, S7 – *Compliance with Total Maximum Daily Load Requirements*, or S8 – *Monitoring and Assessment*, of this Permit.

Conveyance System means that portion of the municipal separate storm sewer system designed or used for conveying stormwater.

Co-Permittee means an owner or operator of an MS4 which is in a cooperative agreement with at least one other applicant for coverage under this Permit. A Co-Permittee is an owner or operator of a regulated MS4 located within or in proximity to another regulated MS4. A Co-Permittee is only responsible for permit conditions relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1).

CWA means the federal *Clean Water Act* (formerly referred to as the federal *Water Pollution Control Act* or federal *Water Pollution Control Act Amendments of 1972*) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.).

Director means the Director of the Washington State Department of Ecology, or an authorized representative.

Discharge Point means the location where a discharge leaves the Permittee's MS4 through the Permittee's MS4 facilities/BMPs designed to infiltrate.

Entity means a governmental body, or a public or private organization.

EPA means the U.S. Environmental Protection Agency.

Fully Stabilized means the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) which prevents erosion.

General Permit means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

Groundwater means water in a saturated zone or stratum beneath the surface of the land or below a surface water body. Refer to Chapter 173-200 WAC.

Hazardous Substance means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or WAC 173-303-100.

Heavy Equipment Maintenance or Storage Yard means an uncovered area where any heavy equipment, such as mowing equipment, excavators, dump trucks, backhoes, or bulldozers are washed or maintained, or where at least five pieces of heavy equipment are stored on a long-term basis.

Highway means a main public road connecting towns and cities.

Hydraulically Near means runoff from the site discharges to the sensitive feature without significant natural attenuation of flows that allows for suspended solids removal. See Appendix 7- *Determining Construction Site Sediment Damage Potential* for a more detailed definition.

Hyperchlorinated means water that contains more than 10 mg/Liter chlorine.

Illicit Connection means any infrastructure connection to the MS4 that is not intended, permitted or used for collecting and conveying stormwater or non-stormwater discharges allowed as specified in this Permit (S5.C.5 and S6.D.3). Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the MS4.

Illicit Discharge means any discharge to a MS4 that is not composed entirely of stormwater or of non-stormwater discharges allowed as specified in this Permit (S5.C.5 and S6.D.3).

Impervious Surface means a non-vegetated surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or stormwater areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

Land Disturbing Activity means any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

LID means Low Impact Development.

LID BMP means Low Impact Development Best Management Practices.

LID Principles means land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff.

Low Impact Development (LID) means 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.

Low Impact Development Best Management Practices (LID BMP) means distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, vegetated roofs, minimum excavation foundations, and water re-use.

Material Storage Facilities means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Maximum Extent Practicable refers to paragraph 402(p)(3)(B)(iii) of the federal *Clean Water Act* which reads as follows: Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants.

MEP means Maximum Extent Practicable.

MS4 means Municipal Separate Storm Sewer System.

Municipal Separate Storm Sewer System means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of Washington State.
2. Designed or used for collecting or conveying stormwater.
3. Which is not a combined sewer.
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

5. Which is defined as "large" or "medium" or "small" or otherwise designated by Ecology pursuant to 40 CFR 122.26.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the federal *Clean Water Act*, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Native Vegetation means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest, and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas Fir, western hemlock, western red cedar, alder, big-leaf maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

New Development means land disturbing activities, including Class IV General Forest Practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development. Refer to Appendix 1 for a definition of hard surfaces.

New Permittee means a city, town, or county that is subject to the Western Washington Municipal Stormwater General Permit and was not subject to the permit prior to August 1, 2024.

New Secondary Permittee means a Secondary Permittee that is covered under a Municipal Stormwater General Permit and was not covered by the permit prior to August 1, 2024.

NOI means Notice of Intent.

Notice of Intent (NOI) means the application for, or a request for coverage under, a General Permit pursuant to WAC 173-226-200.

Notice of Intent for Construction Activity means the application form for coverage under the *Construction Stormwater General Permit*.

Notice of Intent for Industrial Activity means the application form for coverage under the *Industrial Stormwater General Permit*.

NPDES means National Pollutant Discharge Elimination System.

Outfall means a point source as defined by 40 CFR 122.2 at the point where a discharge leaves the Permittee's MS4 and enters a surface receiving waterbody or surface receiving waters. Outfall does not include pipes, tunnels, or other conveyances which connect segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts).

Overburdened Community means a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities.

"Vulnerable populations" means population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to:

(i) Adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and

(ii) Sensitivity factors, such as low birth weight and higher rates of hospitalization.

"Vulnerable populations" includes, but is not limited to:

- Racial or ethnic minorities;
- Low-income populations;
- Populations disproportionately impacted by environmental harms; and
- Populations of workers experiencing environmental harms.

"Highly impacted community" means a community designated by the Department of Health based on cumulative impact analyses or a community located in census tracts that are fully or partially on "Indian country" as defined in 18 U.S.C. Sec. 1151.

PCBs means Polychlorinated biphenyls.

Permittee unless otherwise noted, the term "Permittee" includes city, town, or county Permittee, Co-Permittee, New Permittee, Secondary Permittee, and New Secondary Permittee.

PFAS means Per and Polyfluoroalkyl Substances

Physically Interconnected means that one MS4 is connected to another storm sewer system in such a way that it allows for direct discharges to the second system. For example, the roads with drainage systems and municipal streets of one entity are physically connected directly to a storm sewer system belonging to another entity.

Project site means that portion of a property, properties, or rights-of-way subject to land disturbing activities, new hard surfaces, or replaced hard surfaces. Refer to Appendix 1 for a definition of hard surfaces.

QAPP means Quality Assurance Project Plan.

Qualified Personnel means someone who has professional training in the aspects of stormwater management for which they are responsible and are under the functional control of the Permittee. Qualified Personnel may be staff members, contractors, or trained volunteers with professional certification. Permittees may train and certify volunteers.

Qualified Third Party means someone who has professional training in the aspects of stormwater management for which they are responsible but are hired by private entities and not under the functional control of the Permittee. Qualified Third Parties may be contractors, or consultants.

Quality Assurance Project Plan means a document that describes the objectives of an environmental study and the procedures to be followed to achieve those objectives.

RCW means the Revised Code of Washington State.

Receiving Waterbody or **Receiving Waters** means naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or groundwater, to which a MS4 discharges.

Reclaimed water means water derived in any part from a wastewater with a domestic wastewater component that has been adequately and reliably treated to meet the requirements of Chapter 173-219 WAC, so that it can be used for beneficial purposes. Reclaimed water is not considered a wastewater.

Redevelopment means, on a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities. Refer to Appendix 1 for a definition of hard surfaces.

Regulated Small Municipal Separate Storm Sewer System means a Municipal Separate Storm Sewer System which is automatically designated for inclusion in the Phase II stormwater permitting program by its location within an Urban Area, or by designation by Ecology and is not eligible for a waiver or exemption under S1.C.

Runoff is water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also "**Stormwater**."

SAM means Stormwater Action Monitoring.

Secondary Permittee is an operator of a regulated small MS4 which is not a city, town or county. Secondary Permittees include special purpose districts and other public entities that meet the criteria in S1.B.

Sediment/Erosion-Sensitive Feature means an area subject to significant degradation due to the effects of construction runoff, or areas requiring special protection to prevent erosion. See Appendix 7 *Determining Construction Site Sediment Damage Potential* for a more detailed definition.

Shared Water Bodies means water bodies, including downstream segments, lakes and estuaries that receive discharges from more than one Permittee.

Significant Contributor means a discharge that contributes a loading of pollutants considered to be sufficient to cause or exacerbate the deterioration of receiving water quality or instream habitat conditions.

Small Municipal Separate Storm Sewer System means an MS4 that is not defined as "large" or "medium" pursuant to 40 CFR 122.26(b)(4) & (7) or designated under 40 CFR 122.26 (a)(1)(v).

Source Control BMP means a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. The SWMMWW separates source control BMPs into two types. Structural Source Control BMPs are physical, structural, or mechanical devices, or facilities, that are intended to prevent pollutants from entering stormwater. Operational BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater.

Stormwater means runoff during and following precipitation and snowmelt events, including surface runoff, drainage or interflow.

Stormwater Action Monitoring (SAM) is the regional stormwater monitoring program for Washington State. This means a stormwater-focused monitoring and assessment program consisting of these components: status and trends monitoring in small streams and marine nearshore areas, stormwater management program effectiveness studies, and source identification projects. The priorities and scope for SAM are set by a formal stakeholder group that selects the studies and oversees the program's administration.

Stormwater Associated with Industrial and Construction Activity means the discharge from any conveyance which is used for collecting and conveying stormwater, which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant, or associated with clearing, grading and/or excavation, and is required to have an NPDES permit in accordance with 40 CFR 122.26.

Stormwater Facility Retrofits means both: projects that retrofit existing treatment and/or flow control facilities; and new flow control or treatment facilities or BMPs that will address impacts from existing development.

Stormwater Management Program (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the MS4 to the MEP and to protect water quality, and comprising the components listed in S5 (for cities, towns, and counties) or S6 (for Secondary Permittees) of this Permit and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to S7 –*Compliance with TMDL Requirements*, and S8– *Monitoring and Assessment*.

Stormwater Treatment and Flow Control BMPs/Facilities means detention facilities, permanent treatment BMPs/facilities; and bioretention, vegetated roofs, and permeable pavements that help meet Appendix 1 Minimum Requirements #6 (treatment), #7 (flow control), or both.

Surface Waters includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the State of Washington.

SWMMWW or ***Stormwater Management Manual for Western Washington*** means the technical manual published by the Department of Ecology in 2024 (Publication No. 24-10-013, 2024*)*.

SWMP means Stormwater Management Program.

TMDL means Total Maximum Daily Load.

Total Maximum Daily Load (TMDL) means a water cleanup plan. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for seasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. The *Clean Water Act*, Section 303, establishes the water quality standards and TMDL programs.

Tributary Conveyance means pipes, ditches, catch basins, and inlets owned or operated by the Permittee and designed or used for collecting and conveying stormwater.

UGA means Urban Growth Area.

Urban Growth Area (UGA) means those areas designated by a county pursuant to RCW 36.70A.110.

Urban Area means urban areas with a population of 50,000 or more people. Urban Areas are designated by the U.S. Census Bureau based on the most recent decennial census.

Vehicle Maintenance or Storage Facility means an uncovered area where any vehicles are regularly washed or maintained, or where at least 10 vehicles are stored.

Water Quality Standards means *Surface Water Quality Standards*, Chapter 173-201A WAC, *Groundwater Quality Standards*, Chapter 173-200 WAC, and *Sediment Management Standards*, Chapter 173-204 WAC.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

Waters of the United States refers to the definition in 40 CFR 122.2.

Errata for 2024-2029 Municipal Stormwater Permits

Permits Issued on July 1, 2024 | Effective August 1, 2024

Phase I, and WWA Phase II Permit:

Appendix 11 was missing the label for Mount Vernon on page 3, in the row that displayed their population and costs for SAM contributions. The appendix was updated to include the city's name for clarity.

EWA Phase II Permit:

Appendix 8 was missing the label for Mount Vernon on page 4, in the row that displayed their population and costs for SAM contributions. The appendix was updated to include the city's name for clarity.

WWA Phase II Permit:

- Permit section S5.C.8.c and S5.C.8.d.v reference to "S5.C.8.a.i." should reference "S5.C.8.b."
- Permit Section S5.C.7.e refers to "(e.g.2029-2032)" this should reference "(e.g. 2029-2034)."
- Appendix 3, Question 31 references "(S5.C.2.b.iv)" this should be "(S5.C.4.b.iv)."

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APPENDIX 1 - Minimum Technical Requirements for New Development and Redevelopment

Section 1. Exemptions

The purpose of this section is to identify activities whose resulting surfaces may be considered "exempt" from the Minimum Requirements, even though those surfaces, per the definitions in **Section 2. Definitions Related to Minimum Requirements**, would be considered replaced hard surfaces or land disturbed.

Unless otherwise indicated in this section, the surfaces that result from the activities described below are exempt from the Minimum Requirements. Exempt surfaces do not need to be included when evaluating the Project Level Thresholds or TDA Level Thresholds as described in **Section 3. Applicability of the Minimum Requirements**.

The following list further defines how these exemptions may be used:

- A project may combine different types of exempt activities. If the project includes only exempt activities, then the whole project is exempt.
- If the "exempt" activity is part of, directly related to, or caused by a new development or redevelopment project, then it is not considered an exempt activity. It is considered part of the new development or redevelopment project.
- If an exempt activity requires making an ADA update per the federal Americans with Disabilities Act requirements, then the ADA update is considered part of the exempt activity, and the exemption applies to the surfaces disturbed for the ADA update. Note that this exemption does not extend to additional work, such as extending a sidewalk beyond what is necessary for the ADA update.

Forest Practice Activities

Forest practices regulated under Title 222 WAC, except for Class IV-General forest practices that are conversions from timberland to other uses, are exempt from the provisions of the Minimum Requirements.

Commercial Agriculture Activities

Commercial agriculture activities involving working the land for production are generally exempt. However, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt.

Oil and Gas Field Activities

Construction of drilling sites, waste management pits, and access roads, as well as construction of transportation and treatment infrastructure such as pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations are exempt. Operators are encouraged to implement and maintain Best Management Practices (BMPs) to minimize erosion and control sediment during and after construction activities to help ensure protection of surface water quality during storm events.

Pavement Maintenance Activities

Pavement maintenance activities include only targeted pavement repairs or maintenance. The limits of the exempt surfaces include only the area that must be disturbed to repair or maintain the pavement.

Pavement maintenance activities do not:

- change the characteristics of a roadway (e.g. changing a four-way intersection to a roundabout).
- increase the traffic capacity of a roadway or parking area (e.g. include restriping to add lanes or parking spaces).
- expand the area of coverage (i.e. add new hard surfaces).

The following pavement maintenance activities are exempt from all Minimum Requirements:

- pothole patching, square cut patching, or other targeted preservation work,
- overlaying (including grinding and overlaying, so long as base course is not exposed) existing asphalt or concrete pavement. Examples of overlay materials include bituminous surface treatment (BST or "chip seal"), asphalt, or concrete,
- shoulder grading,
- reshaping/regrading drainage systems (including adding curb/gutter and/or wedge curbs),
- crack sealing, and
- vegetation maintenance associated with the road right-of-way.

The following are not pavement maintenance activities, and are not exempt:

- Removing and replacing a pavement to base course or lower, or repairing the pavement base (except for pothole or square cut patching): These are considered replaced hard surfaces.
- Extending the pavement edge, or paving graveled shoulders: These are

considered new hard surfaces.

- Upgrading from dirt to gravel, a bituminous surface treatment ("chip seal"), asphalt, concrete, or permeable pavement; upgrading from gravel to chip seal, asphalt, concrete, or permeable pavement; or upgrading from chip seal to asphalt, concrete, or permeable pavement: These are considered new hard surfaces.

Underground Utility Activities

Underground utility activities include installing, maintaining, and/or upgrading an underground utility. The limits of the exempt surfaces include only the area disturbed by the trench work necessary for the underground utility work (including any over-excavating necessary for the utility trench).

For an underground utility activity to be exempt, it cannot be part of, directly related to, or caused by a new development or redevelopment project.

Underground utility activities must replace the ground surface with in-kind material or materials with similar runoff characteristics.

Underground utility activities are subject to only **4.2 Minimum Requirement #2: Construction Stormwater Pollution Prevention Plan (SWPPP)**.

Section 2. Definitions Related to Minimum Requirements

ADT

Average Daily Traffic

Arterial

A road or street primarily for through traffic. The term generally includes roads or streets considered collectors. It does not include local access roads which are generally limited to providing access to abutting property. See also RCW 35.78.010, RCW 36.86.070, and RCW 47.05.021.

Bioretention BMPs

Engineered stormwater facilities that provide Runoff Treatment by passing the stormwater through a specified soil profile (Bioretention Soil Mix, or BSM), and typically either retain or detain the treated stormwater for Flow Control. Bioretention facilities include a variety of plant material including trees, shrubs, grasses, and/or other herbaceous plants adapted to the local climate and soil moisture conditions. Bioretention is typically implemented as an LID practice, and

as such is typically sited to receive stormwater runoff from a small contributing area.

Certified Erosion and Sediment Control Lead (CESCL)

An individual who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (see **BMP C160: Certified Erosion and Sediment Control Lead**). A CESCL is knowledgeable in the principles and practices of erosion and sediment control. The CESCL must have the skills to assess site conditions and construction activities that could impact the quality of stormwater and, the effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. Certification is obtained through an Ecology approved erosion and sediment control course. Course listings are provided online at Ecology's website.

Commercial agriculture

Those activities conducted on lands defined in RCW 84.34.020(2), and activities involved in the production of crops or livestock for commercial trade. An activity ceases to be considered commercial agriculture when the area on which it is conducted is proposed for conversion to a nonagricultural use or has lain idle for more than five years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity.

Common plan of development or sale

A site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include:

1. phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g. a development where lots are sold to separate builders);
2. a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development;
3. projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and
4. linear projects such as roads, pipelines, or utilities.

If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Converted vegetation (areas)

The surfaces on a project site where native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation (e.g., Himalayan blackberry, scotch broom) are converted to lawn or landscaped areas, or where native vegetation is converted to pasture.

Effective impervious surface

Those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system. Impervious surfaces are considered ineffective if:

1. the runoff is fully dispersed in accordance with **BMP T5.30: Full Dispersion**;
2. residential roof runoff is infiltrated in accordance with **BMP T5.10A: Downspout Full Infiltration**; or
3. all runoff from the impervious surface is infiltrated (i.e. approved continuous runoff modeling methods indicate that the entire runoff file is infiltrated).

Erodible or leachable materials

Wastes, chemicals, or other substances that measurably alter the physical or chemical characteristics of runoff when exposed to rainfall. Examples include erodible soils that are stockpiled, uncovered process wastes, manure, fertilizers, oily substances, ashes, kiln dust, and garbage dumpster leakage.

Hard surface

An impervious surface, a permeable pavement, or a vegetated roof.

Highway

A main public road connecting towns and cities.

Impervious surface

A surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

- For purposes of determining whether the thresholds for application of Minimum Requirements are exceeded, open, uncovered retention or detention BMPs shall not be considered as impervious surfaces. Open, uncovered retention or detention BMPs shall be considered impervious surfaces for the purposes of runoff modeling.

- When an underdrain (not intended to infiltrate) is used below an artificial turf surface, that surface shall be considered (and modeled) as impervious surface.

Land disturbing activity

Any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land-disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

Low impact development (LID)

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.

Low Impact Development Best Management Practices (LID BMPs)

Distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration. LID BMPs include, but are not limited to:

- **BMP T7.30: Bioretention,**
- **BMP T5.14: Rain Gardens,**
- **BMP T5.15: Permeable Pavements,**
- **BMP T5.10A: Downspout Full Infiltration,**
- **BMP T5.10B: Downspout Dispersion Systems,**
- **BMP T5.10C: Perforated Stub-out Connections**
- **BMP T5.30: Full Dispersion,**
- **BMP T5.13: Post-Construction Soil Quality and Depth,**
- **BMP T5.19: Minimal Excavation Foundations,**
- **BMP T5.17: Vegetated Roofs**, and
- **BMP T5.20: Rainwater Harvesting**.

Low Impact Development (LID) Principles

Land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff.

Maintenance

Repair and maintenance includes activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type of structure, if the functioning characteristics of the original structure are not changed. One example is the replacement of a collapsed, fish blocking, round culvert with a new box culvert under the same span, or width, of roadway. Regarding stormwater facilities, maintenance includes assessment to ensure ongoing proper operation, removal of built-up pollutants (i.e. sediments), replacement of failed or failing treatment media, and other actions taken to correct defects as identified in the BMP design guidance within Volume V of the SWMMWW. See also Pavement Maintenance exemptions in **Section 1. Exemptions**.

Native vegetation

Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

New development

Land disturbing activities, including Class IV-general forest practices that are conversions from timberland to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development.

New hard surface

A surface that is:

- upgraded from dirt to gravel, a bituminous surface treatment ("chip seal"), asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure; or
- upgraded from gravel to chip seal, asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure; or
- upgraded from chip seal to asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure.

  Note that if asphalt or concrete has been overlaid by a chip seal, the existing condition should be considered as asphalt or concrete.

New impervious surface

A surface that is:

- changed from a pervious surface to an impervious surface (e.g. resurfacing by upgrading from dirt to gravel, a bituminous surface treatment ("chip seal"), asphalt, concrete, or an impervious structure); or
- upgraded from gravel to chip seal, asphalt, concrete, or an impervious structure; or
- upgraded from chip seal to asphalt, concrete, or an impervious structure.

  Note that if asphalt or concrete has been overlaid by a chip seal, the existing condition should be considered as asphalt or concrete.

On-site stormwater management BMPs

Development and mitigation techniques that serve to infiltrate, disperse, and retain stormwater runoff on a project site. As used in this appendix, a synonym for Low Impact Development BMPs.

Permeable pavement

Pervious concrete, porous asphalt, permeable pavers, or other forms of pervious or porous paving material intended to allow passage of water through the pavement section. It often includes an aggregate base that provides structural support and acts as a stormwater reservoir.

Pervious surface

Any surface material that allows stormwater to infiltrate into the ground. Examples include lawn, landscape, pasture, native vegetation areas, and permeable pavements.

Pollution-generating hard surface (PGHS)

Those hard surfaces considered to be a significant source of pollutants in stormwater runoff. See the listing of surfaces under pollution-generating impervious surface.

Pollution-generating impervious surface (PGIS)

Those impervious surfaces considered to be a significant source of pollutants in stormwater runoff. Such surfaces include those which are subject to any of the following:

- vehicular use (as further defined in this section).
- industrial activities (as further defined in the glossary of the SWMMWW).
- storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall.
- metal roofs unless they are coated with an inert, non-leachable material (e.g. baked-on enamel coating).
- roofs that are subject to venting significant amounts of dusts, mists, or fumes from manufacturing, commercial, or other indoor activities.

Pollution-generating pervious surface (PGPS)

Any pervious surface subject to any of the following:

- vehicular use (as further defined in this glossary).
- industrial activities (as further defined in the glossary of the SWMMWW).
- storage of erodible or leachable materials, wastes or chemicals, and that receive direct rainfall or run-on or blow-in of rainfall.
- use of pesticides and fertilizers.
- loss of soil.

Artificial turf is also considered to be PGPS.

Typical PGPS include permeable pavement subject to vehicular use, lawns and landscaped areas including: golf courses, parks, cemeteries, and sports fields (natural and artificial turf).

Pre-developed condition

The native vegetation and soils that existed at a site prior to the influence of Euro-American settlement. The pre-developed condition shall be assumed to be forested land cover unless reasonable, historic information is provided that indicates the site was prairie prior to settlement.

Project

Any proposed action to alter or develop a site; or the proposed action of a permit application or an approval that requires drainage review.

Project site

That portion of a property, properties, and right-of-way subject to land disturbing activities, new hard surfaces, or replaced hard surfaces.

Rain garden

A non-engineered shallow landscaped depression, with compost-amended native soils and adapted plants. The depression is designed to pond and temporarily store stormwater runoff from adjacent areas, and to allow stormwater to pass through the amended soil profile. See **BMP T5.14: Rain Gardens**.

Receiving waterbody or receiving waters

Naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or groundwater, to which a MS4 discharges.

Redevelopment

On a site that is already substantially developed (i.e. has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation, or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.

Replaced hard surface

For structures, the removal down to (i.e. exposing the top of) the foundation and replacement. For other hard surfaces, the removal down to (i.e. exposing the top of) bare soil or base course and replacement.

Replaced impervious surface

For structures, the removal down to (i.e. exposing the top of) the foundation and replacement. For other impervious surfaces, the removal down to (i.e. exposing the top of) bare soil or base course and replacement.

Site

The area defined by the legal boundaries of a parcel or parcels of land that is (are) subject to new development or redevelopment. For road projects, the length of the project site and the right-of-way boundaries define the site.

A Site may include multiple parcels and/or sections of right-of-way, if multiple parcels and/or sections of right-of-way are subject to the new development or redevelopment project.

Source control BMP

A structure or operation intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. The SWMMWW separates source control BMPs into two types: structural and operational.

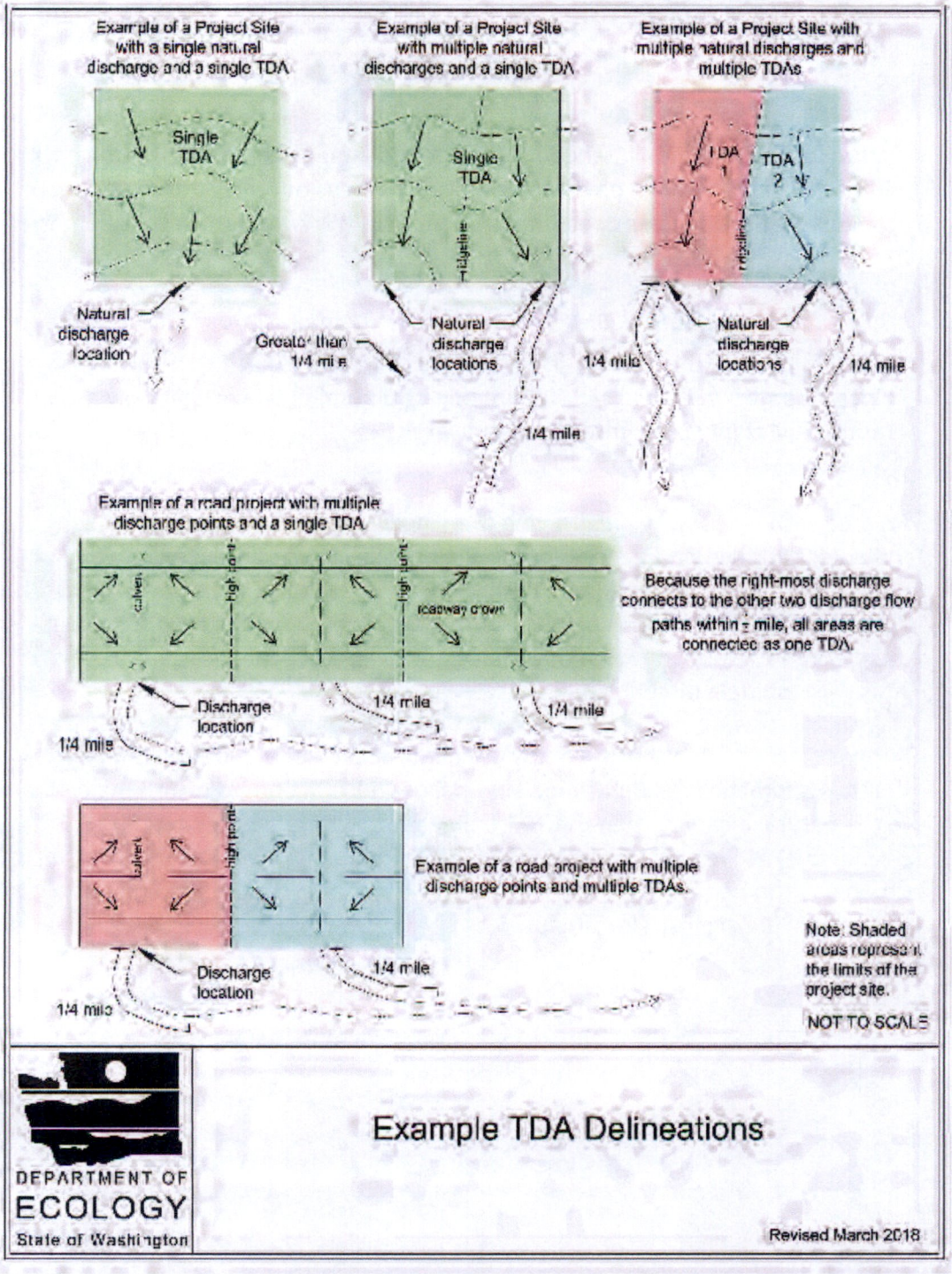
- *Structural Source Control BMPs* are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater.
- *Operational Source Control BMPs* are non-structural practices that prevent or reduce pollutants from entering stormwater.

Threshold Discharge Area

An area within a project site draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter mile downstream (as determined by the shortest flowpath). The examples in **Figure 1: Example TDA Delineations** below illustrate this definition. The purpose of this definition is to clarify how the thresholds of this appendix are applied to project sites with multiple discharge points.

If the project site does not currently discharge at the natural location and is such that it is impractical (as determined by the local jurisdiction) to return the discharge to the natural location, then the TDA delineation would be based on the discharge(s) at the existing location(s). An example of this case is a site in an ultra-urban environment, where fully built-out conveyance systems exist and are not in the natural (i.e. historic) locations.

Figure 1: Example TDA Delineations



Vehicular use

Regular use of an impervious or pervious surface by motor vehicles. The following are subject to regular vehicular use:

- roads,
- un-vegetated road shoulders,
- bike lanes within the traveled lane of a roadway,
- driveways,
- parking lots,
- unrestricted access fire lanes,
- vehicular equipment storage yards,
- railway lines, including light rail elevated and non-elevated guideways/tracks, and
- airport runways and other surfaces intended for movement and/or storage of aircraft.

The following are not considered subject to regular vehicular use:

- sidewalks not subject to drainage from roads for motor vehicles,
- paved bicycle pathways separated from and not subject to drainage from roads for motor vehicles,
- restricted access fire lanes, and
- infrequently used maintenance access roads.

Wetlands

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

Section 3. Applicability of the Minimum Requirements

3.1 Minimum Requirement Thresholds

Not all the Minimum Requirements apply to every new development or redevelopment project. The applicability varies depending on the project type and size. This section identifies thresholds that determine the applicability of the Minimum Requirements to projects. Use the flow charts in **Figure 2: Flow Chart for Determining Whether the Permittee Must Regulate the Project, Figure 3: Flow Chart for Determining Requirements for New Development**, and **Figure 4: Flow Chart for Determining Requirements for Redevelopment** to determine which of the Minimum Requirements apply. The Minimum Requirements themselves are presented in **Section 4. Minimum Requirements**.

Use the thresholds in **sections 3.2 and 3.3** at the time of application for a subdivision, plat, short plat, building permit, or other construction permit. The plat or short plat approval shall identify all stormwater BMPs that are required for each lot. For projects involving only land disturbing activities, (e.g. clearing or grading), the thresholds apply at the time of application for the permit allowing or authorizing that activity. Note the exemption in **Section 1. Exemptions** for forest practices other than Class IV General.

For projects that are implemented in incremental stages or phases as part of a common plan of development or sale, the thresholds below must be considered for the complete project at full build-out.

The Permittee may allow the Minimum Requirements to be met for an equivalent (flow and pollution characteristics) area. The equivalent area may be within the same TDA. If the equivalent area is outside the TDA, or off-site, the equivalent area must drain to the same receiving water and the guidance for equivalent facilities using in-basin transfers must be followed, as detailed in ***I-D.6 Regional Facility Area Transfers*** in the SWMMWW. The Permittee is responsible for maintaining tracking records for all area transfers approved by the Permittee.

Figure 2: Flow Chart for Determining Whether the Permittee Must Regulate the Project

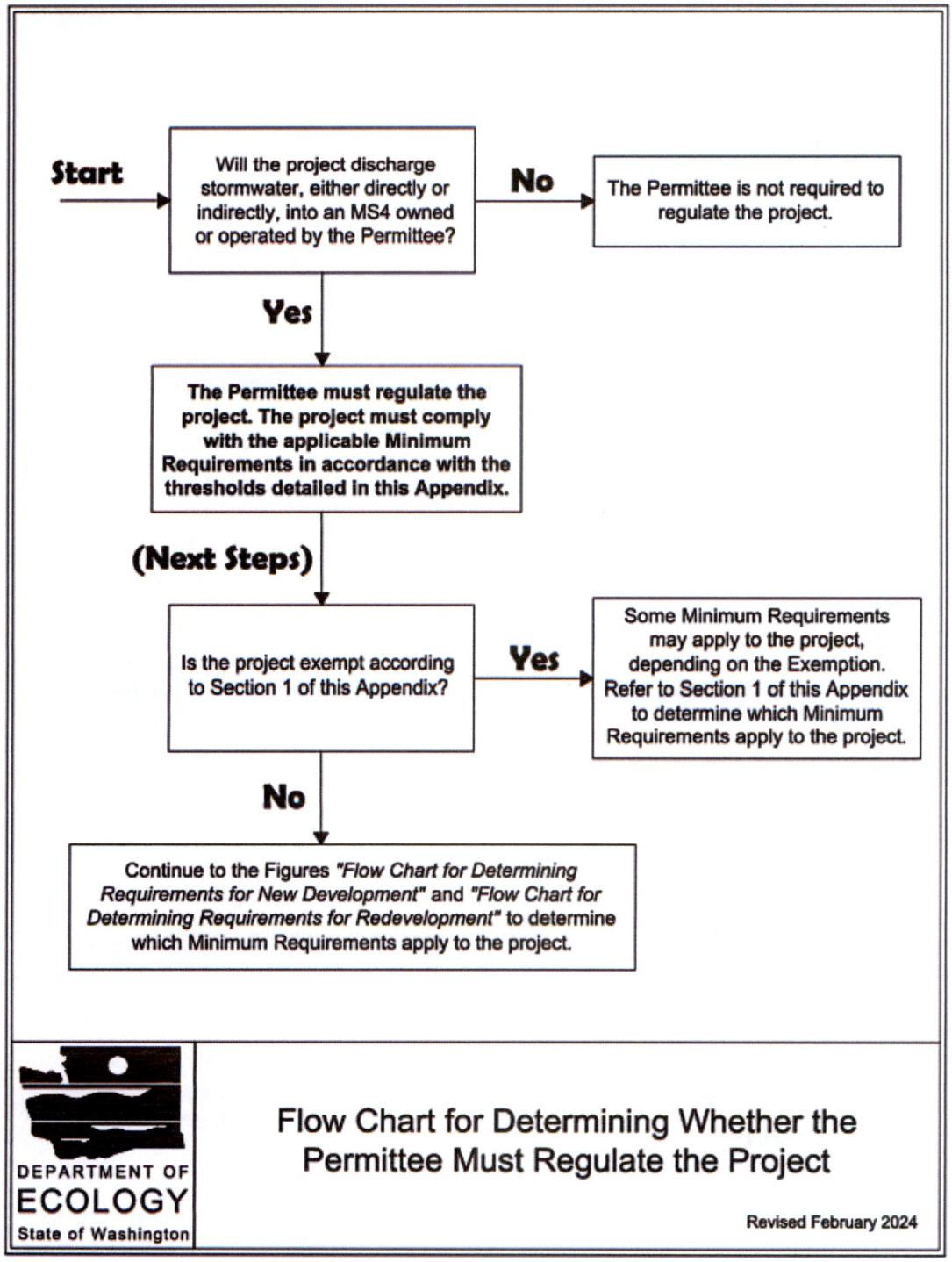


Figure 3: Flow Chart for Determining Requirements for New Development

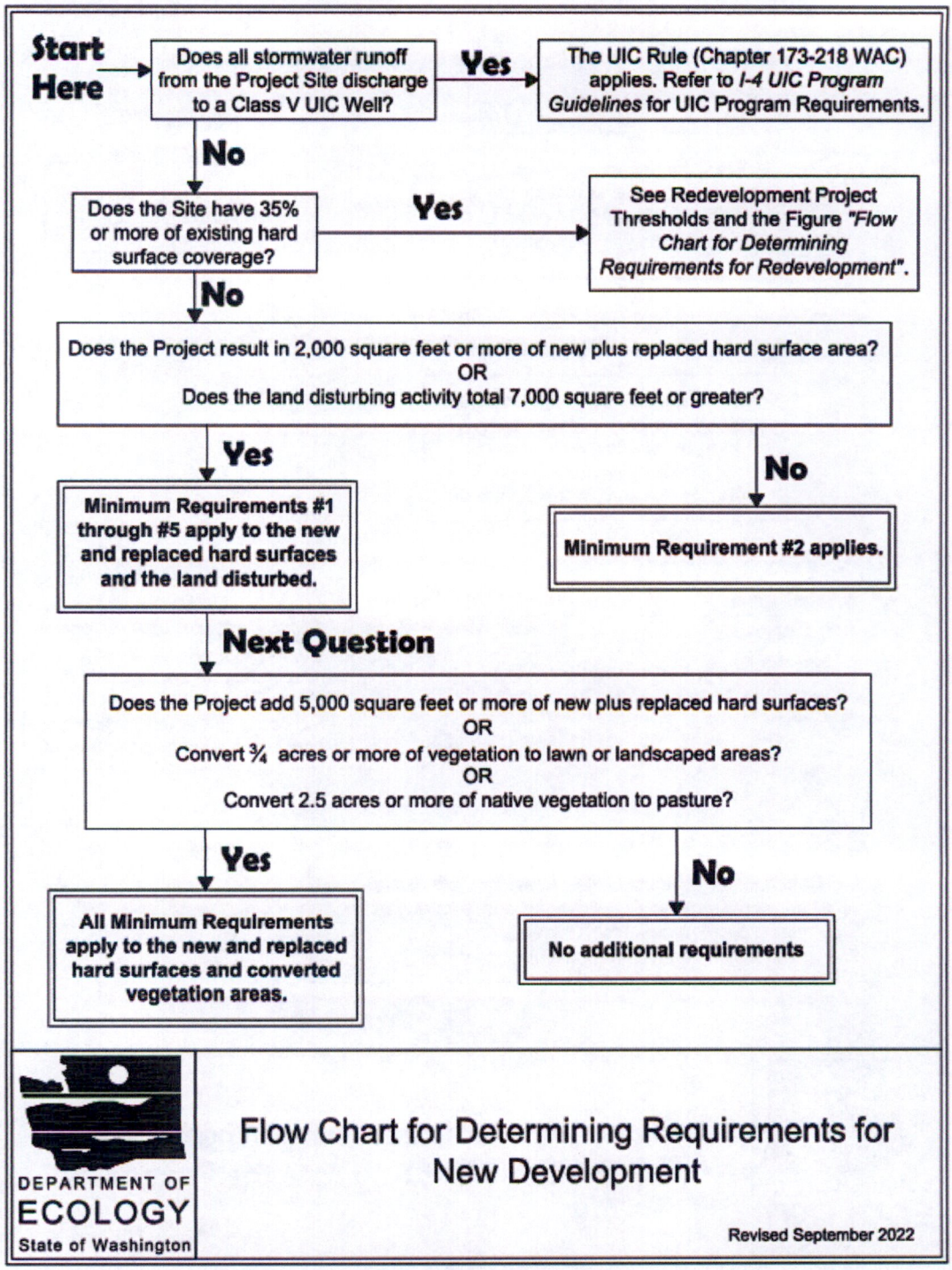
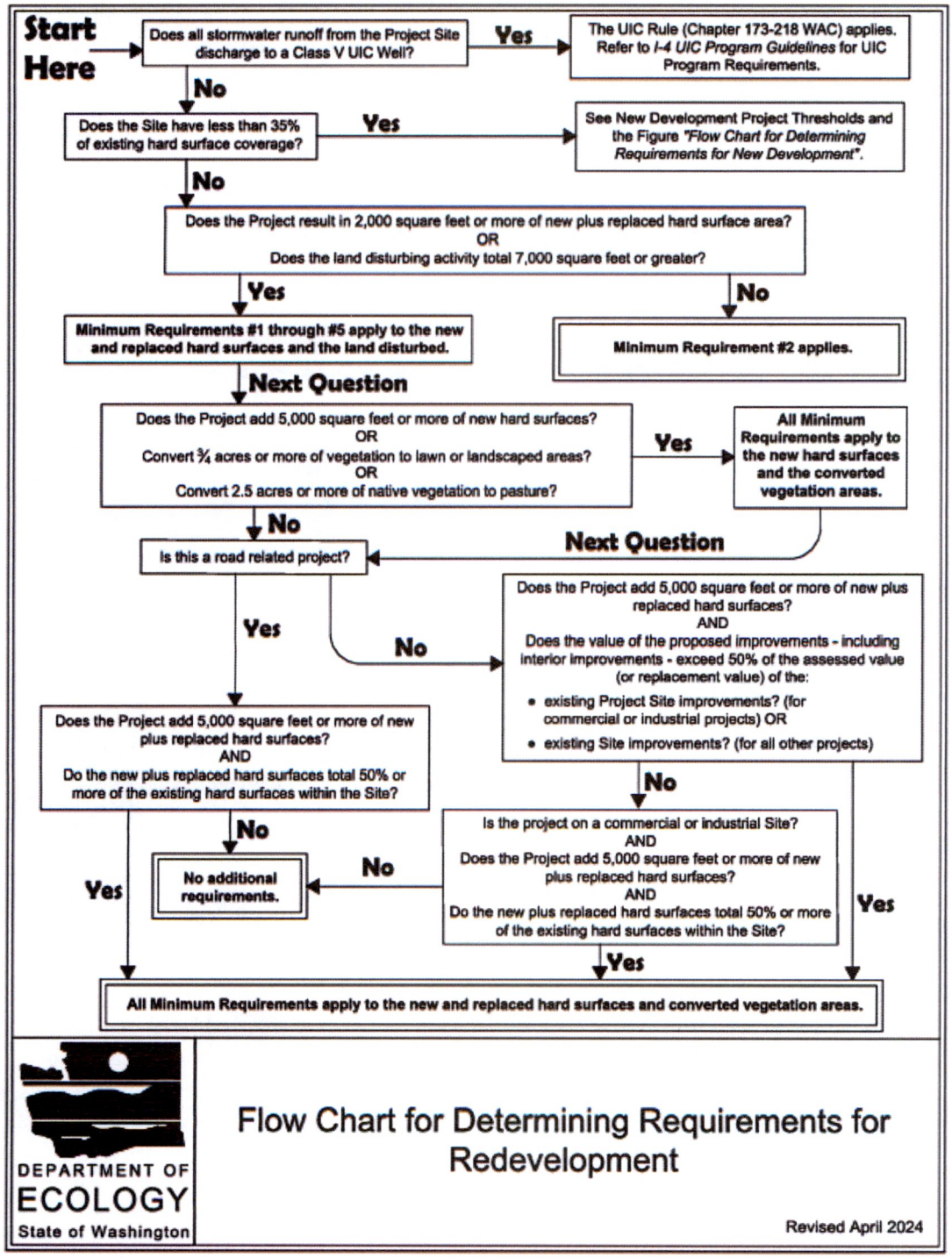


Figure 4: Flow Chart for Determining Requirements for Redevelopment



3.2 New Development Project Thresholds

All new development shall be required to comply with Minimum Requirement #2.

The following new development shall comply with Minimum Requirements #1 through #5 for the new and replaced hard surfaces and the land disturbed:

- Results in 2,000 square feet, or greater, of new plus replaced hard surface area, or
- Has land disturbing activity of 7,000 square feet or greater.

The following new development shall comply with all Minimum Requirements for the new and replaced hard surfaces and the converted vegetation areas:

- the Project adds 5,000 square feet, or more, of new plus replaced hard surface area, or
- Converts ¾ acres, or more, of vegetation to lawn or landscaped areas, or
- Converts 2.5 acres, or more, of native vegetation to pasture.

3.3 Redevelopment Project Thresholds

All redevelopment shall be required to comply with Minimum Requirement #2.

The following redevelopment shall comply with Minimum Requirements #1 through #5 for the new and replaced hard surfaces and the land disturbed:

- Results in 2,000 square feet, or more, of new plus replaced hard surface area, or
- Has land disturbing activity of 7,000 square feet or greater.

The following redevelopment shall comply with all Minimum Requirements for the new hard surfaces and converted vegetation areas:

- Adds 5,000 square feet or more of new hard surfaces or,
- Converts ¾ acres, or more, of vegetation to lawn or landscaped areas, or
- Converts 2.5 acres, or more, of native vegetation to pasture.

3.4 Additional Requirements for Redevelopment

Road-related projects shall comply with all Minimum Requirements for the new and replaced hard surfaces and the converted vegetation areas if:

- the Project adds 5,000 square feet or more of new plus replaced hard surfaces, and
- the new plus replaced hard surfaces total 50% or more of the existing hard surfaces within the Site.

Other types of redevelopment projects shall comply with all the Minimum Requirements for the new and replaced hard surfaces and the converted vegetation areas if either of the two thresholds below are crossed:

- Threshold 1:
  - the Project adds 5,000 square feet or more of new plus replaced hard surfaces, and
    - For commercial or industrial projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Project Site improvements.
    - For all other projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Site improvements.
- Threshold 2 (for commercial or industrial sites only):
  - the Project adds 5,000 square feet or more of new plus replaced hard surfaces, and
  - the new plus replaced hard surfaces total 50% or more of the existing hard surfaces within the Site.

The Permittee may exempt or institute a stop-loss provision for redevelopment projects from compliance with Minimum Requirement #5, #6, #7, and/or #8 as applied to the replaced hard surfaces if the Permittee has adopted a plan and a schedule that fulfills those requirements in regional facilities.

Section 4. Minimum Requirements

This Section describes the Minimum Requirements for stormwater management for new development projects and redevelopment projects. **Section 3. Applicability of the Minimum Requirements** should be consulted to determine which of the Minimum Requirements apply to any given project. **Figure 3: Flow Chart for Determining Requirements for New Development** and **Figure 4: Flow Chart for Determining Requirements for Redevelopment** should be consulted to determine whether the Minimum Requirements apply to new surfaces, replaced surfaces, or new and replaced surfaces.

4.1 Minimum Requirement #1: Preparation of a Stormwater Site Plan

All projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall prepare a Stormwater Site Plan for local jurisdiction review. Stormwater Site Plans shall use site-appropriate development principles, as required, and encouraged by local development codes, to retain native vegetation and minimize impervious surfaces to the extent feasible. Stormwater Site Plans shall be prepared in accordance with the guidance in ***III-3 Stormwater Site Plans*** in the SWMMWW.

4.2 Minimum Requirement #2: Construction Stormwater Pollution Prevention Plan (SWPPP)

Permittees may choose to allow compliance with this Minimum Requirement to be achieved for an individual site if the site is covered under and fully implementing the requirements of Ecology's *CONSTRUCTION STORMWATER GENERAL PERMIT - National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activity*.

All new development and redevelopment projects are responsible for preventing erosion and discharge of sediment and other pollutants into receiving waters.

Minimum Requirement Thresholds

Compliance requirements for this Minimum Requirement are as follows:

- Projects that meet either of the following thresholds must prepare a Construction Stormwater Pollution Prevention Plan (SWPPP) for local jurisdiction review:
  - result in 2,000 square feet or more of new plus replaced hard surface area, or
  - disturb 7,000 square feet or more of land,
- Projects below those thresholds (listed directly above) are not required to prepare a Construction SWPPP but must consider all of the Construction SWPPP Elements (listed below) and develop controls for all Construction SWPPP Elements that pertain to the project site.

General Requirements

The Construction SWPPP shall include a narrative and drawings. All BMPs shall be clearly referenced in the narrative and marked on the drawings. The Construction SWPPP narrative shall include documentation to explain and justify the pollution prevention decisions made for the project. Each of the 13 Construction SWPPP Elements (listed below) must be considered and included in the Construction SWPPP unless site conditions render the Element unnecessary and the exemption from that Element is clearly justified in the narrative of the SWPPP.

Clearing and grading activities for developments shall be allowed only if conducted pursuant to an approved site development plan (e.g. subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling. These permitted clearing and grading areas and any other areas required to preserve critical or sensitive areas, buffers, native growth protection easements, or tree retention areas (as may be required by local jurisdictions), shall be delineated on the site plans and the development site.

The Construction SWPPP shall be implemented beginning with initial land disturbance and until final stabilization. Sediment and Erosion control BMPs shall be consistent with the BMPs contained in ***II-4 Construction Stormwater BMPs*** in the SWMMWW.

Seasonal Work Limitations: From October 1 through April 30, land disturbing activities shall only be permitted if shown to the satisfaction of the local jurisdiction that turbid water will be prevented from leaving the site through a combination of the following:

1. Site conditions including existing vegetative coverage, slope, soil type and proximity to receiving waters; and
2. Limitations on activities and the extent of disturbed areas; and
3. Proposed erosion and sediment control measures.

Based on the information provided and/or local weather conditions, the local jurisdiction may expand or restrict the seasonal work limitations.

The following activities are exempt from the seasonal work limitations:

1. Routine maintenance and necessary repair of erosion and sediment control BMPs,
2. Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil, and
3. Activities where there is one hundred percent infiltration of stormwater runoff within the site in approved and installed erosion and sediment control facilities.

If erosion and sediment control requirements are not being met (i.e. turbid water is leaving the site), then the local jurisdiction shall require that the contractor maintain the existing BMPs or implement other BMPs as appropriate.

Construction SWPPP Elements

Element 1: Preserve Vegetation / Mark Clearing Limits

a. Before beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
b. Retain the duff layer, topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable.

Element 2: Establish Construction Access

a. Limit construction vehicle access and exit to one route, if possible.
b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking of sediment onto roads.
c. Locate wheel wash or tire baths on site if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
d. If sediment is tracked off site, clean the affected roadway(s) thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or picking up and transporting the sediment to a controlled sediment disposal area.
e. Conduct street washing only after sediment is removed in accordance with 2.d (above).
f. Control street wash wastewater by pumping back on site, or otherwise prevent it from discharging into systems tributary to waters of the State.

Element 3: Control Flow Rates

a. Protect properties and waterways downstream of construction sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site.
b. Where necessary to comply with 3.a (above), construct stormwater infiltration or detention BMPs as one of the first steps in grading. Ensure that detention BMPs function properly before constructing site improvements (e.g. impervious surfaces).
c. If permanent infiltration BMPs are used for temporary flow control during construction, protect these BMPs from sedimentation during the construction phase.

Element 4: Install Sediment Controls

Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum:

a. Construct sediment control BMPs (sediment ponds, traps, filters, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.

b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.

c. Direct stormwater runoff from disturbed areas through **BMP C241: Sediment Pond (Temporary)** or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP but must control flow rates per **Element 3: Control Flow Rates**.

d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.

e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.

f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

Element 5: Stabilize Soils

a. Stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

b. Control stormwater volume and velocity within the site to minimize soil erosion.

c. Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.

d. Soils must not remain exposed and unworked for more than the time periods set forth below to prevent erosion:
   - During the dry season (May 1 - September 30): 7 days
   - During the wet season (October 1 - April 30): 2 days

e. Stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.

f. Stabilize soil stockpiles from erosion, protect with sediment trapping measures, and where possible, locate away from storm drain inlets, waterways, and drainage channels.

g. Minimize the amount of soil exposed during construction activity.

h. Minimize the disturbance of steep slopes.

i. Minimize soil compaction and, unless infeasible, preserve topsoil.

Element 6: Protect Slopes

a. Design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).

b. Divert off-site stormwater (run-on) or groundwater away from slopes and disturbed areas with interceptor dikes, pipes and/or swales. Off-site stormwater should be managed separately from stormwater generated on site.

c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion. Temporary pipe slope drains must be sized to convey the flow rate calculated by one of the following methods:
   - Single Event Hydrograph Method: The peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm.

     OR

   - Continuous Simulation Method: The 10-year peak flow rate, as determined by an approved continuous runoff model with a 15-minute time step.

   The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "lawn" area.

d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.

e. Place check dams at regular intervals within constructed channels that are cut down a slope.

Element 7: Protect Drain Inlets

a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.

b. Clean or remove and replace storm drain inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).

Element 8: Stabilize Channels and Outlets

a. Design, construct, and stabilize all on-site conveyance channels to prevent erosion from the flow rate calculated by one of the following methods:

- Single Event Hydrograph Method: The peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm.

  OR

- Continuous Simulation Method: The 10-year peak flow rate, as determined by an approved continuous runoff model with a 15-minute time step.

The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "lawn" area.

b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

Element 9: Control Pollutants

Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. The project proponent must:

a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site, in a manner that does not cause contamination of stormwater.

b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume of the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.

c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.

d. Discharge wheel wash or tire bath wastewater to:
   - a separate on-site treatment system that prevents discharge to surface water, or
   - to the sanitary sewer, with local sewer district approval.

e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.

f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, recycled concrete stockpiles, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters.

g. Adjust the pH of stormwater if necessary to prevent violations of water quality standards.

h. Ensure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete truck drums onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of in a formed area awaiting

concrete where it will not contaminate surface or groundwater. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is prohibited. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

i. Obtain written approval from Ecology before using chemical treatment other than CO_2, dry ice, or food grade vinegar to adjust pH.

j. Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5 (su).

Element 10: Control Dewatering

a. Discharge foundation, vault, and trench dewatering water, which have similar characteristics to stormwater runoff at the site, into a controlled conveyance system before discharge to:
   i. A sediment control BMP (e.g. **BMP C240: Sediment Trap** or **BMP C241: Sediment Pond (Temporary)**);
   ii. Infiltration;
   iii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters;
   iv. Ecology-approved on-site chemical treatment or other suitable treatment technologies;
   v. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option; or
   vi. Use of a sedimentation bag that discharges to a ditch or swale for small volumes of localized dewatering.

b. Discharge clean, non-turbid dewatering water, such as well-point groundwater, to systems tributary to, or directly into surface waters of the State, as specified in **Element 8: Stabilize Channels and Outlets**, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment BMPs. Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.

c. Handle highly turbid or otherwise contaminated dewatering water separately from stormwater.

Element 11: Maintain BMPs

a. Maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to ensure continued performance of their intended function in accordance with BMP specifications.

b. Remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

Element 12: Manage the Project

a. Phase development projects to the maximum degree practicable and consider seasonal work limitations.

b. Inspect, maintain, and repair all BMPs as needed to ensure continued performance of their intended function.

c. Maintain, update, and implement the Construction SWPPP.

d. Projects that disturb one or more acres must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Project sites disturbing less than one acre may have a CESCL or a person without CESCL certification conduct inspections. By the initiation of construction, the Construction SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times.

Element 13: Protect Infiltration BMPs

The project proponent must protect existing and proposed infiltration BMPs during construction. The primary purpose of On-Site Stormwater Management (often referred to as Low Impact Development, or LID) is to reduce the disruption of the natural site hydrology through infiltration. BMPs used to meet **4.5 Minimum Requirement #5: On-Site Stormwater Management** (often called LID BMPs) are permanent facilities.

a. Protect all infiltration BMPs from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the infiltration BMPs. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the BMP must include removal of sediment and any sediment-laden soils within the BMP and replacing the removed soils with soils meeting the design specification.

b. Prevent compacting infiltration BMPs by excluding construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.

c. Control erosion and avoid introducing sediment from surrounding land uses onto **BMP T5.15: Permeable Pavement**. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements.

d. Permeable pavement fouled with sediments or no longer passing an initial infiltration test must be cleaned using procedures from the local stormwater manual or the manufacturer's procedures.

e. Keep all heavy equipment off existing soils under infiltration BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

4.3 Minimum Requirement #3: Source Control of Pollution

Following construction, all new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall apply all known, available, and reasonable Source Control BMPs.

Source Control BMPs shall be selected, designed, and maintained in accordance with ***III-1.1 Choosing Your Source Control BMPs*** and **Volume IV** of the SWMMWW.

4.4 Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall preserve and maintain natural drainage patterns to the maximum extent practicable at the site. Discharges from the Project Site shall occur at the natural location, to the maximum extent practicable.

The manner by which runoff is discharged from the Project Site must not cause a significant adverse impact to downstream receiving waters and downgradient properties, and should be addressed as part of the off-site analysis described in the SWMMWW.

All concentrated discharge locations (i.e. discharges from pipe systems, culverts, and ditches) must address energy dissipation. A project proponent who believes that energy dissipation should not be required must provide justification in the project's stormwater site plan.

4.5 Minimum Requirement #5: On-Site Stormwater Management

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall apply Stormwater Management BMPs in accordance with the following thresholds, standards, and lists to infiltrate, disperse, and retain stormwater runoff on site to the extent feasible without causing flooding or erosion impacts.

Compliance Options by Project Type

All projects that require Minimum Requirement #5 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) must employ Stormwater Management BMPs as detailed below. The compliance options for the project depend on the amount of improvements proposed, the location of the project, the size of the parcel the project is on, and whether or not the project is Flow Control exempt.

Each project must use a single compliance option (either the List Approach or the LID Performance Standard and **BMP T5.13: Post-Construction Soil Quality and Depth**). Use of both compliance options on a single project is not allowed.

Projects that Trigger Only Minimum Requirements #1 - #5

Projects that are not Flow Control exempt that trigger only Minimum Requirements #1 through #5 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) shall either:

- Use the LID BMPs from List #1 for all surfaces within each type of surface in List #1;

  or

- Use any Flow Control BMP(s) desired to achieve the LID Performance Standard and apply **BMP T5.13: Post-Construction Soil Quality and Depth** (if feasible).

Projects that Trigger Minimum Requirements #1 - #9

Projects that are not Flow Control exempt that trigger Minimum Requirements #1 through #9 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) have the compliance options shown in **Table 1: Minimum Requirement #5 Compliance Options for Projects Triggering Minimum Requirements #1 - #9.**

Table 1: Minimum Requirement #5 Compliance Options for Projects Triggering Minimum Requirements #1 - #9

Project Location and Parcel Size	Minimum Requirement #5 Compliance Options
Projects inside the UGA, on any size parcel	• Use the LID BMPs from List #2 for all surfaces within each type of surface in List #2; or • Use any Flow Control BMPs desired to achieve the LID Performance Standard and apply **BMP T5.13: Post-Construction Soil Quality and Depth** (if feasible).
Projects outside the UGA, on a parcel smaller than 5 acres	
Projects outside the UGA, on a parcel 5 acres or larger	Use any Flow Control BMPs desired to achieve the LID Performance Standard and apply **BMP T5.13: Post-Construction Soil Quality and Depth** (if feasible).
Note: This text refers to the Urban Growth Area (UGA) as designated under the Growth Management Act (GMA) (Chapter 36.70A RCW) of the State of Washington. If the project is located in a county that is not subject to planning under the GMA, the city limits shall be used instead.	

Flow Control Exempt Projects

Projects qualifying as Flow Control exempt in accordance with the **TDA Exemption** in **4.7 Minimum Requirement #7: Flow Control** shall either:

- Use the LID BMPs from List #3 for all surfaces within each type of surface in List #3;

  or

- Use any Flow Control BMP(s) desired to achieve the LID Performance Standard and apply **BMP T5.13: Post-Construction Soil Quality and Depth** (if feasible).

If the project has multiple TDAs, all TDAs must be Flow Control exempt per the **TDA Exemption** in **4.7 Minimum Requirement #7: Flow Control** for the project to use the options listed here.

Compliance Methods

LID Performance Standard

The LID Performance Standard compliance method for Minimum Requirement #5 requires modeling the proposed Flow Control BMPs to demonstrate the flow reduction as described below.

Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year peak flow to 50% of the 2-year peak flow. Refer to the **Flow Control Performance Standard** section in **4.7 Minimum Requirement #7: Flow Control** for information about the assignment of the pre-developed condition. Project sites that must also meet **4.7 Minimum Requirement #7: Flow Control** must match flow durations between 8% of the 2-year flow through the full 50-year flow.

Designers selecting this option cannot use **BMP T5.14: Rain Gardens** to achieve the LID Performance Standard. They may choose to use BMP T7.30: Bioretention to achieve the LID Performance Standard.

The List Approach

The List Approach compliance method for Minimum Requirement #5 requires evaluating the BMPs in **Table 2: The List Approach for MR5 Compliance**.

For each surface, evaluate the feasibility of the BMPs in the order listed for that type of surface, and use the first BMP that is considered feasible. The designer must document the site conditions and infeasibility criteria used to deem BMPs infeasible. Once a BMP is deemed feasible and used for a surface, no other BMP from the list is necessary for that surface.

If all BMPs in the list are infeasible, then the designer must document the site conditions and infeasibility criteria used to deem each BMP infeasible. This documentation will demonstrate compliance with Minimum Requirement #5.

Feasibility shall be determined by evaluation against:

- Design criteria, limitations, and infeasibility criteria identified for each BMP in **Volume V** of the SWMMWW; and
- Competing Needs Criteria as listed in ***I-3.4.5 MR5: On-Site Stormwater Management*** in the SWMMWW.

Table 2: The List Approach for MR5 Compliance

List #1 (For MR #1 - #5 Projects That Are Not Flow Control Exempt)	List #2 (For MR #1 - #9 Projects That Are Not Flow Control Exempt)	List #3 (For Flow Control Exempt Projects)
Surface Type: Lawn and Landscaped Areas		
BMP T5.13: Post-Construction Soil Quality and Depth	**BMP T5.13: Post-Construction Soil Quality and Depth**	**BMP T5.13: Post-Construction Soil Quality and Depth**
Surface Type: Roofs		
1. **BMP T5.30: Full Dispersion** or **BMP T5.10A: Downspout Full Infiltration**	1. **BMP T5.30: Full Dispersion** or **BMP T5.10A: Downspout Full Infiltration**	1. **BMP T5.10A: Downspout Full Infiltration**
2. **BMP T5.14: Rain Gardens** or **BMP T7.30: Bioretention Cells, Swales, and Planter Boxes**	2. **BMP T7.30: Bioretention Cells, Swales, and Planter Boxes**	2. **BMP T5.10B: Downspout Dispersion Systems**
3. **BMP T5.10B: Downspout Dispersion Systems**	3. **BMP T5.10B: Downspout Dispersion Systems**	3. **BMP T5.10C: Perforated Stub-out Connections**
4. **BMP T5.10C: Perforated Stub-out Connections**	4. **BMP T5.10C: Perforated Stub-out Connections**	
Surface Type: Other Hard Surfaces		
1. **BMP T5.30: Full**	1. **BMP T5.30: Full**	**BMP T5.12: Sheet Flow**

<table>
<tr><th>List #1

(For MR #1 - #5 Projects That Are Not Flow Control Exempt)</th><th>List #2

(For MR #1 - #9 Projects That Are Not Flow Control Exempt)</th><th>List #3

(For Flow Control Exempt Projects)</th></tr>
<tr><td>Dispersion</td><td>Dispersion</td><td rowspan="4">Dispersion

or

BMP T5.11: Concentrated Flow Dispersion</td></tr>
<tr><td>2. BMP T5.15: Permeable Pavement
or
BMP T5.14: Rain Gardens
or
BMP T7.30: Bioretention Cells, Swales, and Planter Boxes</td><td>2. BMP T5.15: Permeable Pavement</td></tr>
<tr><td>3. BMP T5.12: Sheet Flow Dispersion
or
BMP T5.11: Concentrated Flow Dispersion</td><td>3. BMP T7.30: Bioretention Cells, Swales, and Planter Boxes</td></tr>
<tr><td></td><td>4. BMP T5.12: Sheet Flow Dispersion
or
BMP T5.11: Concentrated Flow Dispersion</td></tr>
<tr><td colspan="3">Notes for using the List Approach:

1. Size BMP T5.14: Rain Gardens and BMP T7.30: Bioretention used in the List Approach to have a minimum horizontal projected surface area below the overflow which is at least 5% of the area draining to it.
2. When the designer encounters BMP T5.15: Permeable Pavement in the List Approach, it is not a requirement to pave these surfaces. Where pavement is proposed, it must be permeable to the extent feasible unless BMP T5.30: Full Dispersion is employed.</td></tr>
</table>

4.6 Minimum Requirement #6: Runoff Treatment

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall apply Runoff Treatment BMPs in accordance with the following thresholds, standards, and requirements to remove pollutants from stormwater runoff.

TDA Thresholds

Each TDA within a project that requires Minimum Requirement #6 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) must be reviewed to determine if Runoff Treatment BMPs are required for the TDA to be in compliance with Minimum Requirement #6.

Note that it is possible for a project that triggers the thresholds for Minimum Requirement #6, per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements,** to not need Runoff Treatment BMP(s) in one or more individual TDAs to be in compliance with Minimum Requirement #6. If a TDA does not trigger either of the TDA thresholds for Runoff Treatment BMPs, then the designer must document the areas within the TDA used to determine that neither of the TDA thresholds are met. This documentation will demonstrate compliance with Minimum Requirement #6 for the TDA.

When assessing a TDA against the following thresholds, only consider the types of surfaces (e.g. new hard surfaces, replaced hard surfaces, converted vegetation areas) that are subject to Minimum Requirement #6, per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**.

The following TDAs require construction of Runoff Treatment BMPs. If a TDA meets either of the following thresholds, Runoff Treatment BMPs are required. The project proponent must demonstrate that the TDA does not meet either of the following thresholds for Runoff Treatment BMPs to not be required for that TDA.

- TDAs that have a total of 5,000 square feet or more of pollution-generating hard surface (PGHS), or
- TDAs that have a total of 3/4 of an acre or more of pollution-generating pervious surfaces (PGPS) – not including permeable pavements, and from which there will be a surface discharge in a natural or man-made conveyance system from the site.

Runoff Treatment Performance Goal Thresholds

1. Oil Control

Oil Control BMPs are required for areas that typically generate high concentrations of oil due to high traffic turnover or the frequent transfer of oil. These types of areas include:

- An area of a commercial or industrial site subject to an expected average daily traffic (ADT) count equal to or greater than 100 vehicles per 1,000 square feet of gross building area, or 300 total trip ends per day.
- An area of a commercial or industrial site subject to petroleum storage and transfer in excess of 1,500 gallons per year, not including routinely delivered heating oil.
- An area of a commercial or industrial site subject to parking, storage, or maintenance of 25 or more vehicles that are over 10 tons gross weight (trucks, buses, trains, heavy equipment, etc.).
- A road intersection with a measured ADT count of 25,000 vehicles or more on the main roadway and 15,000 vehicles or more on any intersecting roadway, excluding projects proposing primarily pedestrian or bicycle use improvements.

2. Phosphorus Treatment

Phosphorus Treatment BMPs are required for projects (or portions of projects) within watersheds that have been determined by the local jurisdiction (e.g. through a lake management plan), Ecology (e.g. through a TMDL waste load allocation), or the USEPA to be sensitive to phosphorus and are being managed to control phosphorus. The following are examples of sources that the local jurisdiction can use for determining whether a water body is sensitive to phosphorus:

- Those waterbodies reported under section 303(d) of the Clean Water Act, where designated uses are not supported due to phosphorous or other water quality criteria related to excessive phosphorus. This information can be viewed on Ecology's Water Quality Atlas at the following web address:

  https://apps.ecology.wa.gov/waterqualityatlas/wqa/map

- Those listed in Washington State's Nonpoint Source Assessment required under section 319(a) of the Clean Water Act due to nutrients.
- A locally adopted plan that contains requirements, recommendations, or policies indicating that a particular receiving water is sensitive to phosphorus

3. Metals Treatment

Metals Treatment BMPs are required for the types of project sites listed below that:

a. discharge directly to fresh waters designated for aquatic life use or that have an existing aquatic life use; or
b. discharge to conveyance systems that are tributary to fresh waters designated for aquatic life use or that have an existing aquatic life use; or
c. infiltrate stormwater within ¼ mile of a fresh water designated for aquatic life use or that has an existing aquatic life use.

The types of project sites are:

- Sites subject to industrial activities,
- Commercial project sites,
- Multifamily residential project sites, and
- High ADT roads as follows:
    - Within Urban Growth Areas:
        - Roads with an ADT of 7,500 or greater.
    - Outside of Urban Growth Areas:
        - Roads with an ADT of 15,000 or greater
- Light rail elevated and non-elevated guideways/tracks
- Other project sites that are anticipated to generate a high pollutant loading, including:
    - Parking areas as follows:
        - Commercial or industrial areas: All on-street parking areas.
        - Areas other than commercial or industrial areas: On-street parking areas on streets with an expected total ADT of ≥ 7,500.
        - Parking areas with an expected trip end count ≥ 40 vehicles per 1,000 sf of gross building area.
        - Parking areas with ≥ 100 expected trip ends per day.
    - Fueling stations
    - Transit center bus stops

The following areas of the above-listed project sites do not require Metals Treatment BMPs:

- Areas that discharge directly, or indirectly through a municipal separate storm sewer system, to a water listed in ***Appendix III-A: Basic Treatment Receiving Waters*** in the SWMMWW.

- Landscaped areas of industrial, commercial, and multi-family project sites that do not involve any other pollution-generating sources (e.g. industrial activities, customer parking, storage of erodible or leachable material, wastes, or chemicals).
- Parking lots of industrial and commercial project sites, dedicated solely to parking of employees' private vehicles that do not involve any other pollution-generating sources (e.g. industrial activities, customer parking, storage of erodible or leachable material, wastes, or chemicals).

For TDAs with a mix of land use types, Metals Treatment BMPs are required when the runoff from the areas subject to the Metals Treatment Performance Goal comprises 50% or more of the total runoff from the TDA.

4. Basic Treatment

Areas that must provide Phosphorus Treatment BMPs or Metals Treatment BMPs do NOT have to provide additional Basic Treatment BMPs to meet the Basic Treatment Performance Goal.

If Phosphorus Treatment BMPs or Metals Treatment BMPs are not provided, Basic Treatment BMPs are required.

Runoff Treatment BMP Sizing

Size Runoff Treatment BMPs for the entire area that drains to them, even if some of those areas are not pollution-generating or were not included in the Project Thresholds decisions (see **Section 3. Applicability of the Minimum Requirements**) or the TDA Thresholds decisions of this Minimum Requirement.

Runoff Treatment BMPs are sized by using either a volume (the Water Quality Design Volume) or a flow rate (the Water Quality Design Flow Rate), depending on the Runoff Treatment BMP selected. Refer to the selected Runoff Treatment BMP to determine whether the BMP is sized based on a volume or a flow rate. See below for details about the Water Quality Design Volume and the Water Quality Design Flow Rate used to size Runoff Treatment BMPs.

Water Quality Design Volume

The Water Quality Design Volume may be calculated by either of the following methods:

- *Continuous Simulation Method:* Using an approved continuous runoff model, the Water Quality Design Volume shall be the simulated daily volume that represents the upper limit of the range of daily volumes that accounts for 91% of the entire runoff volume over a multi-decade period of record.
- *Single Event Hydrograph Method:* The Water Quality Design Volume shall be the volume of runoff predicted by the Natural Resource Conservation Service (NRCS) curve number equations (as detailed in ***III-2.3 Single Event Hydrograph Method*** in the SWMMWW). The precipitation depth used in the equations shall be as predicted from a 24-hour storm with a 6-month return frequency (a.k.a., 6-month, 24-hour storm).

Water Quality Design Flow Rate

The Water Quality Design Flow Rate is dependent on the location of the Runoff Treatment BMP relative to Detention BMP(s):

- *Upstream of Detention BMPs or when there are no Detention BMPs:* The Water Quality Design Flow Rate shall be the flow rate at or below which 91% of the total runoff volume, as estimated by an approved continuous runoff model, will be treated.

  Ecology has assigned design criteria for Runoff Treatment BMPs to achieve the BMP's Runoff Treatment Performance Goal (e.g. Basic Treatment Performance Goal, Metals Treatment Performance Goal, etc.) at the Water Quality Design Flow Rate. At a minimum, 91% of the total runoff volume, as estimated by an approved continuous runoff model, must pass through Runoff Treatment BMP(s) at or below the approved hydraulic loading rate for the BMP(s).

- *Downstream of Detention BMPs:* The Water Quality Design Flow Rate shall be the full 2-year release rate from the Detention BMP.

Runoff Treatment BMP Selection, Design, and Maintenance

Runoff Treatment BMPs shall be:

- Selected in accordance with the process identified in ***III-1.2 Choosing Your Runoff Treatment BMPs*** in the SWMMWW,
- Designed in accordance with the design criteria in **Volume V** of the SWMMWW, and

- Maintained in accordance with the maintenance criteria in **Volume V** of the SWMMWW.

Additional Requirements

The (direct or indirect) discharge of untreated stormwater from pollution-generating hard surfaces to groundwater must not be authorized by the Permittee, except for infiltration or dispersion of runoff through LID BMPs per **The List Approach** in **4.5 Minimum Requirement #5: On-Site Stormwater Management**.

4.7 Minimum Requirement #7: Flow Control

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall apply Flow Control BMPs in accordance with the following thresholds, standards, and requirements to reduce the impacts of stormwater runoff from hard surfaces and land cover conversions.

TDA Exemption

Flow Control is not required for TDAs that discharge directly to, or indirectly through an MS4 to a water listed in ***Appendix I-A: Flow Control Exempt Receiving Waters*** in the SWMMWW, subject to all of the following restrictions:

- Direct discharge to the exempt receiving water does not result in the diversion of drainage from any perennial stream classified as Types 1, 2, 3, or 4 in the State of Washington Interim Water Typing System, or Types "S", "F", or "Np" in the Permanent Water Typing System, or from any category I, II, or III wetland.
- If flow splitters or conveyance elements are applied to route natural runoff volumes from the TDA to any downstream Type 5 stream or category IV wetland, then:
    - Design of the flow splitters or conveyance elements must be based on approved continuous simulation modeling analysis. The design must assure that flows delivered to Type 5 stream reaches will approximate, but in no case exceed, durations ranging from 50% of the 2-year to the 50-year peak flow.
    - Flow splitters or conveyance elements that deliver flow to category IV wetlands must also be designed using approved continuous simulation modeling to preserve pre-project wetland hydrologic conditions unless specifically waived or exempted by regulatory agencies with permitting jurisdiction.
- The TDA must be drained by a conveyance system that is comprised entirely of manmade conveyance elements (e.g. pipes, ditches, outfall protection).

- The conveyance system must extend to the ordinary high-water mark of the exempt receiving water (or the mean higher high-water mark for tidally influenced exempt receiving waters). To avoid construction activities in sensitive areas, an alternative to extending the conveyance system to the ordinary high-water mark is to ensure that flows are properly dispersed before reaching the buffer zone of the sensitive or critical area.
- The conveyance system between the TDA and the exempt receiving water shall have sufficient hydraulic capacity (per local jurisdiction conveyance sizing requirements) to convey discharges from future build-out conditions (under current zoning) from contributing areas of the Site, and the existing condition from contributing off-site areas.
- Any erodible elements of the manmade conveyance system must be adequately stabilized to prevent erosion under the conditions noted above.

Note that Ecology does not consider newly constructed or reconstructed stream channels to be manmade conveyance elements.

Permittees may petition Ecology to exempt projects in additional areas. A petition must justify the proposed exemption based upon a hydrologic analysis that demonstrates that the potential stormwater runoff from the exempted area will not significantly increase the erosion forces on the stream channel nor have near field impacts. See ***Appendix I-A: Flow Control Exempt Receiving Waters*** in the SWMMWW for details

TDA Thresholds

Each TDA within a project that requires Minimum Requirement #7 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) must be reviewed to determine if Flow Control BMPs are required for the TDA to be in compliance with Minimum Requirement #7.

Note that it is possible for a project that triggers the thresholds for Minimum Requirement #7, per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements,** to not need Flow Control BMP(s) in one or more individual TDAs to be in compliance with Minimum Requirement #7. If a TDA does not trigger any of the TDA thresholds for Flow Control BMPs, then the designer must document the areas within the TDA used to determine that none of the TDA thresholds are met. This documentation will demonstrate compliance with Minimum Requirement #7 for the TDA.

When assessing a TDA against the following thresholds, only consider the types of surfaces (e.g. new hard surfaces, replaced hard surfaces, converted vegetation areas) that are subject to Minimum Requirement #7, per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**.

The following TDAs require construction of Flow Control BMPs to achieve the Flow Control Performance Standard. If a TDA meets any of the following thresholds, Flow Control BMPs are required. The project proponent must demonstrate that the TDA does not meet any of the following thresholds for Flow Control BMPs to not be required for that TDA.

- TDAs that have a total of 10,000 square feet or more of effective impervious surfaces, or
- TDAs that convert ¾ acres or more of native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture, and from which there is a surface discharge in a natural or man-made conveyance system from the TDA, or
- TDAs that through a combination of effective hard surfaces and converted vegetation areas cause a 0.15 cubic feet per second (cfs) or greater increase in the 100-year flow frequency as estimated using an approved continuous simulation model and 15-minute time steps.

  The 0.15 cfs increase should be a comparison of the post project runoff to the existing condition runoff. For the purpose of applying this threshold, the existing condition is either the pre-project land cover, or the land cover that existed prior to the first issue date of the Municipal Stormwater Permit to the local jurisdiction.

Flow Control Performance Standard

Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow. The pre-developed condition to be matched shall be a forested land cover unless:

- Reasonable, historic information is provided that indicates the site was prairie prior to settlement (modeled as pasture in the approved continuous simulation model); or,
- The drainage area of the immediate stream and all subsequent downstream basins have had at least 40% total impervious area (TIA) since 1985. ***Figure I-3.4: Basins with 40% Total Impervious Area as of 1985*** in the SWMMWW depicts those areas which meet this criterion.

  In this case, the pre-developed condition to be matched shall be the existing land cover condition. Where basin-specific studies determine a stream channel to be unstable, even though the above criterion is met, the pre-developed condition assumption shall be the "historic" land cover condition, or a land cover condition commensurate with achieving a target flow regime identified by an approved basin study.

Alternative Flow Control Performance Standard

An alternative Flow Control Performance Standard may be established through application of watershed-scale hydrologic modeling and supporting field observations. Possible reasons for an alternative Flow Control Performance Standard include:

- Establishment of a stream–specific threshold of significant bedload movement other than the assumed 50% of the 2-year peak flow;
- Zoning and Land Clearing Ordinance restrictions that, in combination with an alternative Flow Control Performance Standard, maintain or reduce the naturally occurring erosive forces on the stream channel; or
- A duration control standard is not necessary for protection, maintenance, or restoration of designated and existing beneficial uses or Clean Water Act compliance.

See the SWMMWW for details on how an Alternative Flow Control Performance Standard may be established.

Additional Requirement

Flow Control BMPs shall be selected in accordance with ***III-1.3 Choosing Your Flow Control BMPs*** and designed and maintained in accordance with **Volume V** of the SWMMWW.

4.8 Minimum Requirement #8: Wetlands Protection

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall include Stormwater Management BMPs in accordance with the following thresholds, standards, and requirements to reduce the impacts of stormwater runoff to wetlands.

TDA Thresholds

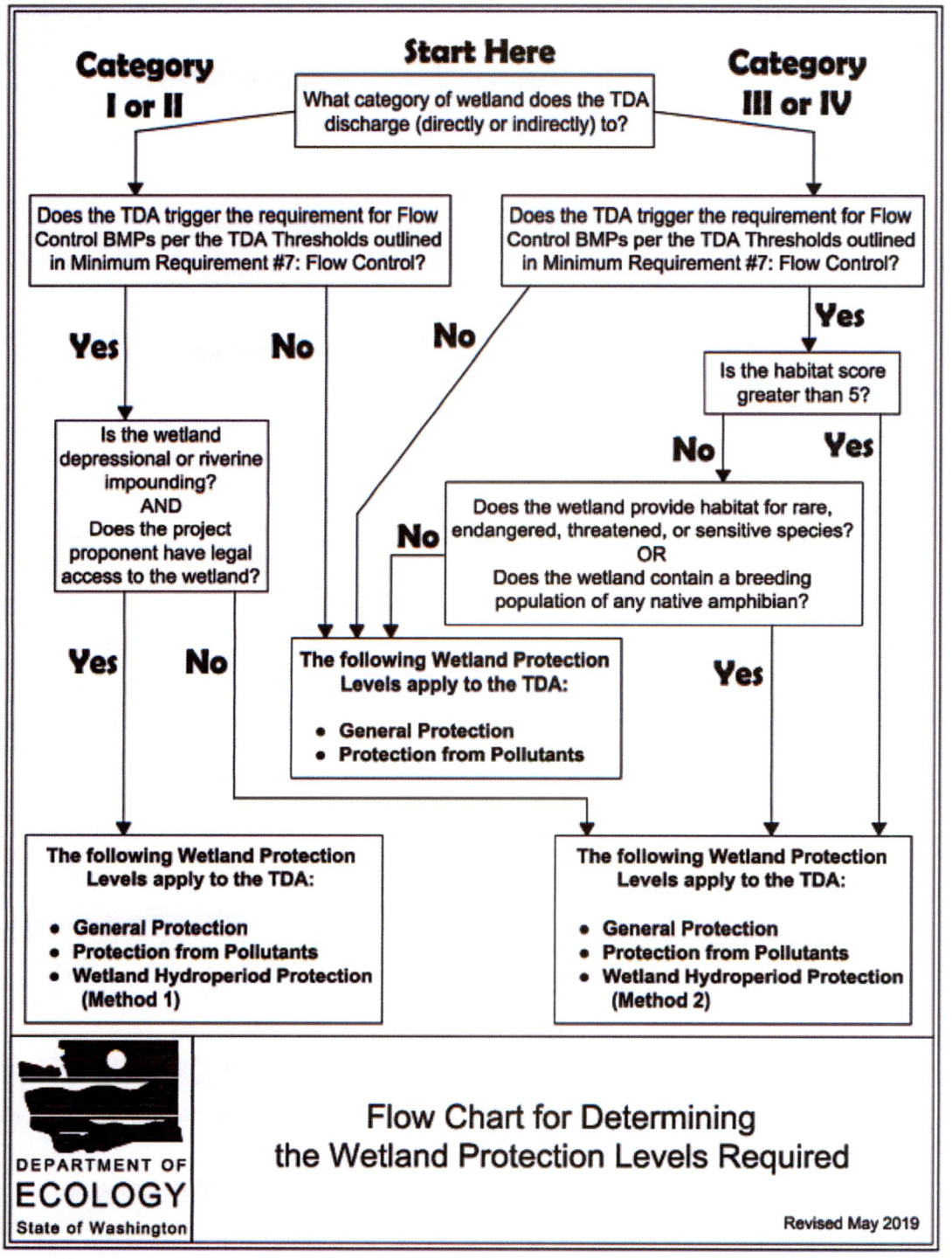
This Minimum Requirement applies only to TDAs whose stormwater discharges into a wetland, either directly or indirectly through a conveyance system.

Each TDA within a project that requires Minimum Requirement #8 (per the Project Thresholds in **Section 3. Applicability of the Minimum Requirements**) must be reviewed to determine what Level(s) of Wetland Protection must be applied to the TDA to comply with Minimum Requirement #8. The Level(s) of Wetland Protection that must be applied are dependent upon:

- The category of wetland that the TDA is discharging to,
- Whether or not the TDA triggers the requirement for Flow Control BMPs per the **TDA Thresholds** in **4.7 Minimum Requirement #7: Flow Control,**
- Whether or not the wetland is a depressional or impounded wetland,
- Whether or not the project proponent has legal access to the wetland,
- The wetland habitat score,
- Whether or not the wetland provides habitat for rare, endangered, threatened, and/or sensitive species, and
- Presence of a breeding population of native amphibians.

Refer to **Figure 5: Flow Chart for Determining Wetland Protection Level Requirements** to determine what Level(s) of Wetland Protection must be applied to comply with Minimum Requirement #8.

Figure 5: Flow Chart for Determining Wetland Protection Level Requirements



Levels of Wetland Protection

The following Levels of Wetland Protection are further explained in ***Appendix I-C: Wetland Protection Guidelines*** in the SWMMWW.

General Protection

General Protection includes general practices that benefit wetlands of all types.

Protection from Pollutants

Protection from Pollutants includes measures to protect the wetland from pollutants in stormwater runoff. Measures of protection include Construction Stormwater BMPs, Source Control BMPs, LID practices and principles, and Runoff Treatment BMPs.

Wetland Hydroperiod Protection

Wetland Hydroperiod Protection includes measures to avoid excessive hydrologic alteration of existing wetlands from development. There are two methods within Wetland Hydroperiod Protection:

- Method 1: Monitoring and Wetland Stage Modeling

  This method requires data collection specific to the wetland, as well as continuous simulation modeling to demonstrate that the proposed project will not negatively alter the wetland hydrology.

- Method 2: Site Discharge Modeling

  This method requires continuous simulation modeling of the runoff from the TDA to demonstrate that the changes in total discharge volume to the wetland will remain similar to the pre-development condition.

Additional Requirements

Stormwater Management BMPs shall not be built within a wetland or its buffer, except for:

- Necessary conveyance systems as approved by the Permittee; or
- As allowed in ***I-C.6 Compensatory Mitigation of Wetlands*** in the SWMMWW.

4.9 Minimum Requirement #9: Operation and Maintenance

All new development and redevelopment projects meeting the Project Thresholds in **Section 3. Applicability of the Minimum Requirements** shall create an operation and maintenance (O&M) manual for all BMPs used to meet **4.6 Minimum Requirement #6: Runoff Treatment, 4.7 Minimum Requirement #7: Flow Control**, and/or **4.8 Minimum Requirement #8: Wetlands Protection**.

The O&M manual shall identify:

- Maintenance requirements that are consistent with the provisions in **Volume V** of the SWMMWW, and
- The party (or parties) responsible for the operation, maintenance, and long-term funding source(s).

For private facilities approved by the Permittee, a copy of the O&M manual shall be retained on site or within reasonable access to the site and shall be transferred with the property to the new owner. For public facilities, a copy of the O&M manual shall be retained in the appropriate department.

A log of maintenance activity that indicates what actions were taken shall be kept and be available for inspection by the local government.

Section 5. Adjustments

Adjustments to the Minimum Requirements may be granted by the Permittee provided that written findings of fact are prepared that address the following:

- The adjustment provides substantially equivalent environmental protection.
- Based on sound Engineering practices, the objectives of safety, function, environmental protection, and facility maintenance are met.

Section 6. Exceptions

Exceptions to the Minimum Requirements may be granted by the Permittee following legal public notice of an application for an exception, legal public notice of the Permittee's decision on the application, and written findings of fact that document the Permittee's determination to grant an exception. Permittees shall keep records, including the written findings of fact, of all local exceptions to the Minimum Requirements.

The Permittee may grant an exception to the Minimum Requirements if such application imposes a severe and unexpected economic hardship. To determine whether the application imposes a severe and unexpected economic hardship on the project applicant, the Permittee must consider and document, with written findings of fact, the following:

- The current (pre-project) use of the Site, and
- How the application of the Minimum Requirement(s) restricts the proposed use of the Site compared to the restrictions that existed prior to the adoption of the Minimum Requirements; and
- The possible remaining uses of the Site if the exception were not granted; and
- The uses of the Site that would have been allowed prior to the adoption of the Minimum Requirements; and
- A comparison of the estimated amount and percentage of value loss as a result of the Minimum Requirements versus the estimated amount and percentage of value loss as a result of requirements that existed prior to adoption of the Minimum Requirements; and
- The feasibility for the owner to alter the project to apply the Minimum Requirements.

In addition, any exception must meet the following criteria:

- The exception will not increase risk to the public health and welfare, nor be injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and
- The exception is the least possible exception that could be granted to comply with the intent of the Minimum Requirements.

Section 7. Altering the Minimum Requirements with Basin Plans

Basin Plans provide a mechanism by which the performance standards in the Minimum Requirements can be evaluated and refined based on an analysis of a basin or watershed. Basin Plans may be used to develop control strategies to address impacts from future development and to correct specific problems whose sources are known or suspected. Basin Plans can be effective at addressing both long-term cumulative impacts of pollutant loads and short-term acute impacts of pollutant concentrations, as well as hydrologic impacts to streams, wetlands, and groundwater resources.

Basin Plans may be used by the Permittee to revise the default standards of the following Minimum Requirements:

- **4.5 Minimum Requirement #5: On-Site Stormwater Management,**
- **4.6 Minimum Requirement #6: Runoff Treatment,**
- **4.7 Minimum Requirement #7: Flow Control**, and/or
- **4.8 Minimum Requirement #8: Wetlands Protection**.

For a Basin Plan to serve as a means of revising the standards of one or more of the Minimum Requirements listed above, the following conditions must be met:

- The Basin Plan must be formally adopted by all jurisdictions with responsibilities under the plan; and
- All ordinances or regulations called for by the Basin Plan must be in effect; and
- The Basin Plan must be reviewed and approved by Ecology.

Basin Plans may also be used to demonstrate an equivalent level of Runoff Treatment, Flow Control, and/or wetland protection through the construction and use of regional stormwater facilities.

Basin Plans will require the use of continuous runoff computer models and field work to verify and support the models. Permittees who are considering the use of Basin Plans to revise the default standards of one or more of the Minimum Requirements are encouraged to contact Ecology early in the planning stage.

Some examples of how Basin Plans can alter the Minimum Requirements are given in within the guidance for each Minimum Requirement in the SWMMWW. See ***I-3.4 Minimum Requirements (MRs)*** in the SWMMWW.

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APPENDIX 2 – TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

Additional Permit requirements are based on applicable TMDLs in accordance with Special Condition S7 – Compliance with Total Maximum Daily Load Requirements

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Name of TMDL	WRIA 1 - NOOKSACK RIVER WATERSHED BACTERIA TMDL
Document(s) for TMDL	*Nooksack River Watershed Bacteria Total Maximum Daily Load*, June 2000, Ecology Publication No. 00-10-036. https://fortress.wa.gov/ecy/publications/publications/0010036.pdf *Nooksack River Watershed Bacteria Total Maximum Daily Load Detailed Implementation Plan*, January 2002, Ecology Publication No. 01-10-060. https://fortress.wa.gov/ecy/publications/publications/0110060.pdf
Location of Original 303(d) Listings	WA-01-1010, WA-01-1012, WA-01-1014, WA-01-1015, WA-01-1016, WA-01-1110, WA-01-1111, WA-01-1115, WA-01-1116, WA-01-1117, WA-01-1118, WA-01-1119, WA-01-1120, WA-01-1125, AR42TO, BX84LO, UZ70KA, LLPL
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to the Nooksack River and its tributaries, Fishtrap Creek, Bertrand Creek, Double Ditch drain, Duffner Ditch, Bender road ditch, between Nugents Corner and Marine Drive.
Parameter(s)	Fecal Coliform
EPA Approval Date	August 8, 2000
MS4 Permittee	Phase II Permit: City of Ferndale WAR04-5552 Phase II Permit: City of Lynden WAR04-5719

CITY OF FERNDALE

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach:

Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting in the Annual Report.

CITY OF LYNDEN

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach:

Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting in the Annual Report.

Name of TMDL	WRIA 1 - LAKE WHATCOM WATERSHED TOTAL PHOSPHORUS AND BACTERIA TMDL
EPA Approved Document(s) for TMDL	*Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads. Volume 1 (Water Quality Study Findings)*, November 2008, Ecology Publication No. 08-03-024 https://fortress.wa.gov/ecy/publications/summarypages/0803024.html *Volume 2 (Water Quality Improvement Report and Implementation Strategy)* November 2014 revised February 2016, Ecology Publication No. 13-10-012
Location of Original 303(d) Listings	Whatcom Lake 5846 and 8621 (WA-01-9170) Austin Creek 9719 Anderson Creek 39036 Brannian Creek 45603 Smith Creek 39145 Olsen Creek 45589 (WA-01-3150) Carpenter Creek 45604 Euclid Creek 45618 Silver Beach Creek 45633 (WA-01-3120) Mill Wheel Creek 45652 Euclid Creek 48035
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the City of Bellingham and Whatcom County
Parameter(s)	Total Phosphorus, Fecal Coliform Bacteria
EPA Approval Date	April 7, 2016
MS4 Permittee	City of Bellingham WAR04-5550 Whatcom County WAR04-5557

CITY OF BELLINGHAM & WHATCOM COUNTY

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that

a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach:

Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

All permanent stormwater treatment facilities/BMPs within the TMDL area that treat phosporus shall be inspected and maintained in accordance with the requirements of S5.C.9.b and S5.C.9.c; reduced inspection frequency options do not apply.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream accessible sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting in the Annual Report.

Administration

a. By March 31, 2028, the City and the County shall submit a draft update of the "Lake Whatcom Implementation" tasks as developed under the previous permit term. The updated draft will include actions for the next permit term that build upon 2024-2029 implementation tasks. The City and the County shall finalize the Lake Whatcom Implementation tasks for 2029-2034 and submit with the March 31, 2029 Annual Report.

b. Include in the Annual Report the phosphorus reduction activities based on the current accepted TMDL reassessment model and the 2024-2029 "Lake Whatcom Implementation" tasks.

Name of TMDL	WRIA 3 – PADILLA BAY FRESHWATER TRIBUTARIES FECAL COLIFORM BACTERIA TOTAL MAXIMUM DAILY LOAD
Document(s) for TMDL	Padilla Bay Freshwater Tributaries Fecal Coliform Bacteria Total Maximum Daily Load Report - Water Quality Improvement Report and Implementation Plan (20-10-036) https://apps.ecology.wa.gov/publications/documents/2010036.pdf
Location of Original 303(d) Listings	Big Indian Slough (45711) No Name Slough (7158) Joe Leary Slough (16410) Joe Leary Slough (39607) Joe Leary Slough (39608)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	December 22nd, 2020
MS4 Permittee	Phase II Permit: Skagit County (WAR045556), City of Burlington (WAR045551)

SKAGIT COUNTY & CITY OF BURLINGTON

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach:

Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting in the Annual Report.

Name of TMDL	WRIA 5 – STILLAGUAMISH RIVER
EPA Approved Document(s) for TMDL	*Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) – Submittal Report*, May 2005, Ecology Publication No. 05-10-044. https://fortress.wa.gov/ecy/publications/publications/0510044.pdf *Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) – Water Quality Implementation Plan*, June 2007, Ecology Publication No. 07-10-033. https://fortress.wa.gov/ecy/publications/documents/0710033.pdf
Location of Original 303(d) Listings	QJ28UC, HD76OJ, JU33JU, GH05SX, IJ55EP, VJ74AO, 390KRD, OT80TY, QE93BW, ZO73WL, WO38NV, SN06ZT, LU17DC
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to fresh or marine waters within Water Resource Inventory Area (WRIA) 5
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	June 21, 2005
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Arlington

SNOHOMISH COUNTY & CITY OF ARLINGTON

Actions Required

Business Inspections:

Each Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, each Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach:

Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting in the Annual Report.

Name of TMDL	WRIA 7 – SNOHOMISH RIVER TRIBUTARIES
EPA Approved Document(s) for TMDL	*Water Quality Assessment of Tributaries to the Snohomish River and Nonpoint Source Pollution TMDL*, September 1997, Ecology Publication No. 97-334. https://fortress.wa.gov/ecy/publications/SummaryPages/97334.html *Snohomish River Tributaries Fecal Coliform Total Maximum Daily Load Submittal Report*, June 2001, Ecology publication No. 00-10-087. https://fortress.wa.gov/ecy/publications/summarypages/0010087.html *Lower Snohomish River Tributaries Fecal Coliform Bacterial Total Maximum Daily Load: Detailed Implementation Plan*, June 2003, Ecology Publication No. 03-10-031. https://fortress.wa.gov/ecy/publications/documents/0310031.pdf
Location of Original 303(d) Listings	WA-07-1012, WA-07-015, WA-07-1052, WA-07-1163WA-07-1163, WA-07-1030 and WA-07-040
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to the WASWIS segment number, and all upstream tributaries within the jurisdiction of the Permittee and within the geographic area covered by this Permit contributing to waterbodies: Allen Creek, YT94RF: Quilceda Creek, TH58TS: French Creek, XZ24XU: Woods Creek, FZ74HO: Pilchuck River, NF79WA: Marshland Watershed, XW79FQ.
Parameter	Fecal Coliform
EPA Approval Date	August 9, 2001
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Granite Falls, Lake Stevens, Monroe, Snohomish, Marysville, Arlington, Everett

SNOHOMISH COUNTY

Actions Required

Business Inspections:

Each Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, each Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Targeted Illicit Connection and Illicit Discharge Detection and Elimination:

During each permit term, Permittees shall use their available data (such as land use data, age of infrastructure, information on type of business activities, and water quality sampling results) to identify at least one high priority area (such as a tributary or a stream segment) that will be the target of a bacteria focused IC/IDDE effort. Sampling of stormwater shall be conducted as part of the Permittee's Targeted IC/IDDE efforts to focus investigations on municipal stormwater contributions of bacteria to receiving waters. For the purposes of Targeted IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4, and/or outfalls. Permittees shall annually screen for bacteria sources by inspecting and taking grab samples (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

No later than December 31, 2025, each Permittee shall have a written plan and include documentation of how the high priority area was selected and include a preliminary sampling schedule and locations. For Permittees with multiple TMDL areas, the plan may include rationale for staggering the implementation in the identified high priority areas. Documentation shall be submitted with the Annual Report due by March 31, 2026. Begin implementing the plan and schedule no later than January 1, 2026, and implement annually within the high priority area through December 31, 2028. For Permittees implementing a staggered schedule, implementation may be extended to June 30, 2029. Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, all

sampling locations, and sampling results shall be annually documented in TMDL reporting in the Annual Report. Sampling methodology must include collecting grab samples (or documenting no flow) during the critical period if a critical period is identified in the TMDL.

CITY OF GRANITE FALLS, LAKE STEVENS, MONROE, SNOHOMISH, MARYSVILLE, EVERETT AND ARLINGTON

Actions Required

Business Inspections:

Each Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, each Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources when at the drainage circuit's most downstream accessible sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing a grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be annually documented in TMDL reporting as required in the Permittees' Annual Report.

Name of TMDL	WRIA 8 - NORTH CREEK
EPA Approved Document(s) for TMDL	*North Creek Watershed: Total Maximum Daily Load Evaluation for Fecal Coliform Bacteria*, June 2001, Ecology Publication No. 01-03-020. https://fortress.wa.gov/ecy/publications/summarypages/0103020.html *North Creek Fecal Coliform Total Maximum Daily Load Submittal Report*, June 2002, Ecology publication No. 02-10-020. https://fortress.wa.gov/ecy/publications/summarypages/0210020.html *North Creek Fecal Coliform Bacteria Total Maximum Daily Load: Detailed Implementation Plan*, October 2003, Ecology Publication No. 03-10-047. https://fortress.wa.gov/ecy/publications/SummaryPages/0310047.html
Location of Original 303(d) Listings	WA-08-1065
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the North Creek segment of WASWIS SM74QQ.
Parameter	Fecal Coliform
EPA Approval Date	August 2, 2002
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Everett, Bothell, Mill Creek

SNOHOMISH COUNTY & EVERETT, BOTHELL & MILL CREEK

Actions Required

Business Inspections: Each Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (e.g., dog and horse) use and the potential for pollution to stormwater.

Targeted Illicit Connection and Illicit Discharge Detection and Elimination (IDDE): During each permit term, Permittees shall use their available data (such as land use data, age of infrastructure, information on type of business activities, and water quality sampling results) to identify at least one high priority area (such as a tributary or a stream segment) that will be the focus of a bacteria targeted IC/IDDE effort. Sampling of stormwater shall be conducted as part of the Permittee's Targeted IDDE to focus investigations on municipal stormwater contributions of bacteria to receiving waters. For the purposes of Targeted IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4 and/or outfalls. Annually Permittees shall screen for bacteria sources by taking grab samples (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow the Permittee's own adopted IDDE Procedures to conduct source tracing if bacteria levels and/or observations trigger a response (see IDDE annual for bacteria trigger levels).

No later than December 31, 2025, each Permittee shall prepare a written plan and include documentation of how the high priority area was selected and include a preliminary sampling schedule and locations. For Permittees with multiple TMDL areas, the plan may include rationale for staggering the implementation in the identified high priority areas. Documentation shall be submitted with the Annual Report due by March 31, 2026. Permittees shall begin implementing the plan and schedule no later than January 1, 2026. Targeted IC/IDDE shall be implemented annually within the high priority area through December 31, 2028. For Permittees implementing a staggered schedule, implementation may be extended to June 30, 2029. Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be documented annually in TMDL reporting as required in the Permittee's Annual Report. Sampling methodology must include collecting grab samples (or document no flow) during the critical period, if a critical period is identified in the TMDL.

Name of TMDL	WRIA 8 - SWAMP CREEK
EPA Approved Document(s) for TMDL	*Swamp Creek Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Improvement Report and Implementation Plan*, June 2006, Ecology Publication No. 06-10-021. https://fortress.wa.gov/ecy/publications/publications/0610021.pdf
Location of Original 303(d) Listings	WA-08-1060
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the Swamp Creek segment of WASWIS GJ57UL.
Parameter	Fecal Coliform
EPA Approval Date	August 16, 2006
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Everett, Bothell, Lynnwood, Brier, Mountlake Terrace, Kenmore

SNOHOMISH COUNTY & CITY OF EVERETT, BOTHELL, LYNWOOD, BRIER, MOUNT LAKE TERRACE & KENMORE

Actions Required

Business Inspections: Each Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (e.g., dog and horse) use and the potential for pollution to stormwater.

Targeted Illicit Connection and Illicit Discharge Detection and Elimination: During each permit term, Permittees shall use their available data (such as land use data, age of infrastructure, information on type of business activities, and water quality sampling results) to identify at least one high priority area (such as a tributary or a stream segment) that will be the focus of a targeted IC/IDDE effort. Sampling of stormwater shall be conducted as part of the Permittee's Targeted IC/IDDE efforts to focus investigations on municipal stormwater contributions of bacteria to receiving waters. For the purposes of Targeted IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4 and/or outfalls. Permittees shall screen for bacteria sources annually by inspecting and taking grab samples (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

No later than December 31, 2025, each Permittee shall prepare a written plan and include documentation of how the high priority area was selected and include a preliminary sampling schedule and locations. For Permittees with multiple TMDL areas, the plan may include rationale for staggering the implementation in the identified high priority areas. Documentation shall be submitted with the Annual Report due by March 31, 2026. Permittees shall begin implementing the plan and schedule no later than January 1, 2026. Targeted IC/IDDE shall be implemented annually within the high priority area through December 31, 2028. For Permittees implementing a staggered schedule, implementation may be extended to June 30, 2029. Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be documented annually in TMDL reporting as required in the Permittee's Annual Report. Sampling methodology must include collecting grab samples (or document no flow) during the critical period, if a critical period is identified in the TMDL.

Name of TMDL	WRIA 8 - BEAR-EVANS WATERSHED
Document(s) for TMDL	*Bear-Evans Watershed Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Improvement Report*, June 2008, Ecology Publication No. 08-10-026. https://fortress.wa.gov/ecy/publications/documents/0810026.pdf *Bear-Evans Watershed Temperature, Dissolved Oxygen and Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Implementation Plan*, March 2011, Ecology Publication No. 11-10-024. https://fortress.wa.gov/ecy/publications/documents/1110024.pdf
Location of Original 303(d) Listings	Bear Creek (EW54VY, BA64JJ, WR69YU)) Cottage Lake Creek (NO74J5) Unnamed Tributary to Bear Creek (EU47RU) Evans Creek (MI67EG)
Area Where TMDL Requirements Apply	Bear Creek and Evans Creek watersheds (includes Cottage Lake watershed)
Parameter	Fecal Coliform
EPA Approval Date	August 11, 2008
MS4 Permittee	Phase I: King County Phase II: No actions identified for Phase II Permittees

KING COUNTY

Actions Required

Business Inspections: The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: The Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: The Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (e.g., dog and horse) use and the potential for pollution to stormwater.

Illicit Discharge Detection and Elimination: When conducting IDDE field screening during normal course of business (as required by S5.C.9.c for Phase I Permittees) in a TMDL area, the Permittee shall obtain a grab sample to screen for bacteria sources at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. The Permittee shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be documented annually in TMDL reporting in the Annual Report.

Name of TMDL	WRIA 8 - ISSAQUAH CREEK BASIN WATER CLEANUP PLAN FOR FECAL COLIFORM BACTERIA
EPA Approved Document(s) for TMDL	*Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria: Total Maximum Daily Load Submittal Report*, June 2004, Ecology Publication No. 04-10-055. https://fortress.wa.gov/ecy/publications/documents/0410055.pdf
Location of Original 303(d) Listings	Issaquah Creek, TF310B (WA-08-1110) North Fork Issaquah Creek, CZ80NC (WA-08-1110) Tibbetts Creek, MB51QQ, EA48LQ (WA-08-1115)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal Coliform Bacteria
EPA Approval Date	October 1, 2004
MS4 Permittee:	Phase I Permit: King County Phase II Permit: City of Issaquah, WAR04-5518

KING COUNTY & CITY OF ISSAQUAH

Actions Required

Business Inspections: Each Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (e.g., dog and horse) use and the potential for pollution to stormwater.

Illicit Discharge Detection and Elimination: When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees and IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be documented annually in TMDL reporting as required in the Permittees' Annual Report.

Name of TMDL	WRIA 8 - LITTLE BEAR CREEK FECAL COLIFORM WATER QUALITY IMPROVEMENT PROJECT
Document(s) for TMDL	*Little Bear Creek Fecal Coliform Total Maximum Daily Load (Water Cleanup Plan),* May 2005, Ecology Publication No. 05-10-034. https://fortress.wa.gov/ecy/publications/publications/0510034.pdf
Location of Original 303(d) Listings	Little Bear Creek, UT96KR (WA-08-1085).
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 1, 2005
MS4 Permittee:	Phase I Permit: Snohomish County Phase II Permit: City of Woodinville, WAR04-5545

SNOHOMISH COUNTY & CITY OF WOODINVILLE

Actions Required

Business Inspections: Each Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (e.g., dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/Illicit Discharge Detection and Elimination: When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees shall obtain a grab sample to screen for bacteria sources at the drainage circuit's most downstream sampling location if there is water flow. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining and processing grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results (including documenting no flow) shall be documented annually in TMDL reporting in the Annual Report.

Name of TMDL	WRIA 10 – LOWER WHITE RIVER PH TMDL
Document(s) for TMDL	*Lower White River (LWR) pH Total Maximum Daily Load – Technical Analysis and TMDL Allocations*, Ecology Publication No. 2-10-011 https://apps.ecology.wa.gov/publications/documents/2210011.pdf
Location of Original 303(d) Listings	White River, multiple locations 7524, 7525, 7526
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	pH[1]
EPA Approval Date	January 2023
MS4 Permittees	Phase I Permit: King County, Pierce County Phase II Permit: Auburn, Algona, Buckley, Enumclaw, Pacific, Sumner

KING AND PIERCE COUNTIES AND ASSOCIATED CITIES

Actions Required

1. MS4 Mapping: No later than March 31, 2029:
    a. The Permittee shall ensure all known piped MS4 outfalls that they own or operate, which discharge to the Lower White River or its primary tributaries within the TMDL implementation area, are mapped and documented.[2, 3]
    b. The Permittee shall map all tributary conveyances to their piped MS4 outfalls identified in (1)(a), if not already mapped.
2. Illicit Discharge Detection and Elimination:

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[1] This TMDL sets soluble reactive phosphorus (SRP) allocations in order to limit periphyton growth and meet the numeric water quality criteria for pH in the White River.

[2] The screening program is limited to "piped outfalls" owned or operated by the Permittee, which means only MS4 outfalls that are made of pipe material (e.g., corrugated metal, concrete, etc.) require screening; it does not include open pervious outfalls, such as ditches.

[3] The TMDL implementation area is the contributing drainage area to the White River between RM 3.6 and RM 28 where phosphorus management practices are necessary to meet allocations for discharges to the river and the TMDL load capacity of the river itself. Primary tributaries to the Lower White River within the TMDL area include Boise Creek, Second Creek, Pussyfoot Creek, Bowman Creek, and Government Canal.

a. No later than October 31, 2028, the Permittee shall screen all known piped MS4 outfalls that they own or operate, which discharge to the Lower White River and its primary tributaries, within the TMDL implementation area.
    i. For at least one dry season within this permit cycle, the Permittee shall screen piped MS4 outfalls once a month, from May 1st – October 31st, for the presence of a discharge. All piped MS4 outfalls may be screened within the same year or divided into groups and screened over multiple years.
    ii. Document MS4 outfall screening results. If no discharge is found during outfall screening by October 31, 2028, the Permittee may plan to reduce this screening to once in May and again once in October, or as close to these months as practicable, during low flow tier conditions (i.e. <900 cfs), for future permit cycles.
    iii. Actively controlled stormwater discharges (e.g., pump stations, batch treatment systems) are included in the screening program, but they have slightly different sampling requirements as described in (2)(b)(iii).
b. If a discharge at the piped MS4 outfall is present and estimated to be more than 2.24 gallons per minute, the Permittee shall collect an end-of-pipe sample for soluble reactive phosphorus (SRP) analysis.
    i. Sampling is restricted to May 1st - October 31st when there is little to no rain locally (<0.2" rainfall in past 48 hours).
    ii. Sampling is restricted to when the daily average flow in the White River is lower than 2000 cfs (USGS gage 12100490 at R Street near Auburn).
    iii. For all actively controlled municipal stormwater discharges (e.g., pump stations, batch treatment systems), no later than October 31, 2028, monthly sample events must be scheduled for dates/times when discharge is known to occur within the May 1-October 31 period. If monthly sampling meets any of the SRP requirements in section (2)(d)(i) through (iv) in the one season sampled during this permit cycle, the Permittee may plan to reduce screening to once in May and once in October, or as close to these months as practicable, for future permit cycles.
c. If any stormwater outfall samples collected during the critical period and analyzed for SRP concentrations exceed the values in (2)(c)(i) and (ii) below, the Permittee shall begin source tracing for SRP sources to the MS4[4]. Any sample exceedances of the SRP values in (2)(c)(i) and (ii) below are not a violation of this Permit. Analytical methods should follow approved methods as listed in this Permit's Appendix 9, Stormwater Discharge Monitoring, and 40 CFR Section 136.3 for ortho-phosphate (parameter #44 in Table 1B). Standard Method 4500-P G-2011 (for ortho-phosphate) is recommended for obtaining reporting limits needed for (c)(i) and (ii) below.

[4] WLAs apply during the critical period from May 1st to October 31st.

i. 7.5 ug/L of SRP (when the daily average White River flow is less than 900 cfs at USGS gage 12100490) or,
ii. 79 ug/L of SRP (when the daily average river flow is between 900 cfs and 2000 cfs at USGS gage 12100490) or,
iii. The load of SRP is less than the WLA assigned to the Permittee.

d. Permittees are meeting TMDL requirements, and no additional source tracing is required, if MS4 outfall screening and sampling results find any one of the following:

i. There is no discharge or, where it is not feasible to measure flow, there is no visible or measurable surface velocity (i.e., stagnant water).
ii. The flow of any discharge is less than 0.005 cfs (2.24 gallons per minute).
iii. The flow of any discharge is less than 0.9 cfs (400 gpm) and the concentration of discharge is less than 7.5 ug/L of SRP (when the daily average White River flow is less than 900 cfs at USGS gage 12100490) or less than 79 ug/L of SRP (when the daily average river flow is between 900 cfs and 2000 cfs at USGS gage 12100490) during the critical period.
iv. The flow of any discharge is greater than 0.9 cfs (400 gpm) and the load of SRP is less than the WLAs as assigned to the Permittee. The Permittee may calculate a load only if none of the above (2)(d)(i) through (iii) conditions apply.

e. The Permittee may discontinue MS4 outfall screening and sampling at outfalls where the following applies:

i. The Permittee screens all known piped MS4 outfalls owned or operated by the Permittee as described in section (2)(a) every month within the dry season, for two consecutive years in a row, and both years show these MS4 outfalls meeting requirements in section (2)(d).

3. Controlling runoff from new development and redevelopment:
   a. No later than July 1, 2026, Pierce and King Counties shall require Phosphorus Treatment BMPs as described in Ecology's Stormwater Management Manual for Western Washington or an equivalent manual approved by Ecology for all new development and redevelopment projects within the TMDL implementation area that require Minimum Requirement #6, Runoff Treatment.
   b. No later than June 30, 2027, the cities of Auburn, Algona, Buckley, Enumclaw, Pacific and Sumner shall require Phosphorus Treatment BMPs as described in Ecology's Stormwater Management Manual for Western Washington or an equivalent manual approved by Ecology for all new development and redevelopment projects within the TMDL implementation area that require Minimum Requirement #6, Runoff Treatment.

Name of TMDL	WRIA 10 - PUYALLUP WATERSHED WATER QUALITY IMPROVEMENT PROJECT
Document(s) for TMDL	*Puyallup River Watershed Fecal Coliform Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan*, June 2011, Ecology Publication No. 11-10-040. https://fortress.wa.gov/ecy/publications/publications/1110040.pdf
Location of Original 303(d) Listings	Puyallup River 16712, 7498, White River 16711, 16708, 16709, Clear Creek 7501, Swan Creek 7514, Boise Creek 16706, Deer Creek 45616, Salmon Creek 45601, Unnamed Creek (Tributary to the Puyallup River) 45688
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	September 2011
MS4 Permittee	Phase I Permit: King County, Pierce County Phase II Permit: Auburn, Bonney Lake, Edgewood, Enumclaw, Puyallup, Sumner

CITY OF AUBURN

Actions Required

Business Inspections:

Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach:

Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Permittee shall maintain pet waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Discharge Detection and Elimination

Designate areas discharging via MS4 to the TMDL area as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

CITY OF BONNEY LAKE

Actions Required

- Designate areas discharging via MS4 to Fennel Creek as high priority areas for illicit discharge detection and elimination.
- No later than July 31, 2029, complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins, and implement the schedule and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Fennel Creek.
- The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

CITY OF EDGEWOOD

Actions Required

- Designate areas discharging via the MS4 to Jovita Creek as high priority areas for illicit discharge detection and elimination.
- Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges

found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Jovita Creek.

- The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

CITY OF ENUMCLAW

Actions Required

- Designate areas discharging via the MS4 to:
  - Boise Creek from creek mile 1.7 to 1.0.
  - The flume and laterals approximately 1 mile north of the confluence with the mainstem, north of SE 456th Street, between Highway 410 to the west and Watson Street N. to the east.

  These locations are high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to the abovementioned receiving waters.

  The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

- Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. Commercial animal handling areas are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered composting facilities (definition in accordance with Chapter 173-350 WAC). Implement an ongoing inspection program to re-inspect facilities or areas with bacteria source control problems at least every three years.
- Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- Install and maintain animal waste education signage and/or pet waste bag dispenser stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and where stormwater runoff can enter the MS4.

KING COUNTY

Actions Required

Business Inspections:

Permittee shall continue their ongoing inspection programs for facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities). If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

Public Education and Outreach:

Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance:

Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution of stormwater.

Illicit Discharge Detection and Elimination

When conducting IDDE-related field screening under S5.C.9 of the Phase I Permit, King County shall screen for bacteria sources in any MS4 sub-basins which discharge to surface waters in the TMDL area. Implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit connections and illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

PIERCE COUNTY

Actions Required

- Designate areas discharging via the MS4 to Swan Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city

owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Swan Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

- Designate areas discharging via the MS4 to Salmon Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Salmon Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.
- Designate areas discharging via the MS4 to Alderton Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Alderton Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.
- Designate areas discharging via the MS4 to Fennell Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Fennell Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

CITY OF PUYALLUP

Action Required

Designate areas discharging via the MS4 to Deer Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Deer Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

CITY OF SUMNER

Action Required

Designate areas discharging via the MS4 to Salmon Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible drainage access point that discharge to Salmon Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and stormwater sampling results.

Name of TMDL	WRIA 10 - CLARKS CREEK FECAL COLIFORM TMDL
Document(s) for TMDL	*Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Improvement Report)*, May 2008, Ecology Publication No. 07-10-110. https://fortress.wa.gov/ecy/publications/documents/0710110.pdf *Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Implementation Plan)*, December 2009, Ecology Publication No. 09-10-081. https://apps.ecology.wa.gov/publications/documents/0910081.pdf
Location of Original 303(d) Listings	Clarks Creek 7497, 7501, Meeker Creek 7508, 7507
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	June 4, 2008
MS4 Permittee	Phase II Permit: Puyallup

CITY OF PUYALLUP

Actions Required

- **Education and Outreach**: No later than July 1, 2026, conduct public education and outreach activities to increase awareness of proper pet waste management and other fecal bacterial pollution problems, such as the negative impacts of waterflow feeding.
- **IDDE**: Designate areas discharging via MS4 to Meeker Creek and Clarks Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2029, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit connections and illicit discharges found. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible

drainage access point that discharge to Meeker and Clarks Creeks. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

- **Operations and Maintenance**:
    - No later than June 30, 2027, install and maintain pet waste education signage and bag dispenser stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial dog use and where stormwater runoff can enter the MS4 and discharge to surface waters.
    - If a concentrated waterfowl presence is found at a city-owned stormwater pond during routine inspection, the Permittee shall implement waterfowl deterrence measures where appropriate (e.g., signage to discourage feeding, landscaping to discourage waterfowl presence). If a city-owned stormwater pond has a concentrated Canada geese presence, where feasible and as needed, periodically pick up and dispose of geese droppings in the garbage during routine facility maintenance completed per S5.C.9.c of this Permit.

Name of TMDL	WRIA 10 - CLARKS CREEK DISSOLVED OXYGEN AND SEDIMENT TOTAL MAXIMUM DAILY LOAD
Document(s) for TMDL	*Clarks Creek Dissolved Oxygen and Sediment Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan*, December 2014, Ecology Publication No. 14-10-030. https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process/Directory-of-improvement-projects/Clarks-Creek
Location of Original 303(d) Listings	Clarks Creek 35407 47590 47591 47592 Meeker Creek 7510 47578 47579 Rody Creek 47593 Silver Creek
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Dissolved Oxygen and Sediment
EPA Approval Date	May 27, 2015
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Puyallup

PIERCE COUNTY

Actions Required

1. The Permittee shall operate, inspect, and maintain the water quality improvement projects (WQIPs) prescribed in the Permittee's TMDL Restoration Plan (hereafter, the July 2022 Plan).[5] The July 2022 Plan estimated that existing WQIPs reduce the annual average sediment load by approximately 38.8 tons per year (29 percent of the TMDL target) and treat or remove approximately 13.7 million gallons (MG) of stormwater runoff per year based on the critical (October 21, 2003) storm event (46 percent of the TMDL target).[6] The Permittee shall apply crediting methodologies described in the July 2022 Plan, or an Ecology accepted updated Plan, to estimate the annual sediment load removal and the annual stormwater volume treated or removed by each WQIP. Any updates to the July 2022 Plan shall comply with the WLAs in the TMDL and align with previous Ecology Plan approvals.

[5] "TMDL Restoration Plan" means Pierce County's Clarks Creek Restoration Plan, July 2022 Update. Ecology reviewed and accepted the municipal stormwater permit components of the TMDL Restoration Plan, as revised in 2022, as communicated in our letter dated August 2, 2022, Re: Clarks Creek Restoration Plan, Updated July 1, 2021.

[6] Existing WQIPs are stormwater treatment facilities/BMPs constructed and operational after October 21, 2003. These include treatment facilities/BMPs implemented through retrofit or redevelopment.

2. Permittee shall operate, inspect, and maintain existing WQIPs in the updated five-year Plan (2024-2029); and construct, operate, inspect, and maintain new WQIPs in this updated Plan. The updated 2024-2029 Plan takes effect when Ecology accepts it. Ecology reserves the right to require changes to the updated Plan. The Permittee shall implement a project delivery program to meet the estimated annual average sediment load reduction and stormwater volume treated or reduced targets identified in this updated Plan. The municipal stormwater permit components and WQIPs in the July 2022 Plan remain in effect until Ecology accepts these components and WQIPs in the Permittee's 2024-2029 Plan.

3. No later than November 1, 2028, the Permittee shall submit an updated Plan (2029-2034) that includes existing and proposed WQIPs for the next five-year TMDL reporting period estimated to begin August 1, 2029. The updated Plan shall include sediment load reduction and stormwater volume treated or removed credit estimated for each WQIP, and it shall identify the 75 percent compliance milestone for the sediment WLA and the 75 percent compliance milestone for the stormwater volume treated/removed credit estimates for all existing and proposed WQIPs. Estimates of sediment load reduction and stormwater volumes treated or removed by each stormwater BMP and facility shall be consistent with the TMDL WLAs for Dissolved Oxygen Deficit (DOD) and sediment. The Permittee shall include anticipated project schedules, construction timelines, estimated costs, and funding strategies, where available, for proposed WQIPs in their updated Plan (2029-2034). Ecology reserves the right to require changes to the updated Plan.

4. The Permittee shall submit a reporting ledger to Ecology that quantifies the annual sediment load reduction (tons) credits and stormwater volume treated or removed (MG) credits awarded to all operational WQIPs during calendar years (CYs) 2023 and 2024 by March 31, 2025. The Permittee shall submit an updated reporting ledger annually thereafter by March 31st for CYs 2025 through 2028. This ledger serves as the reporting instrument to track each year's WLA compliance credits as they relate to the Permittee's assigned numeric WLAs. Stormwater retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) and stormwater volume treated/removed (MG) credits for each year the project was inspected, maintained, and determined to be operational. All WQIPs must be inspected, maintained, and determined to be operational to receive annual sediment load reduction and stormwater volume treated or removed credits.

5. The Permittee shall inspect WQIPs annually at a minimum during May, June, or July to assess whether the facilities are functioning as designed. If the Permittee's inspection records show a stormwater facility or BMP is in functional disrepair and is not operational, then the Permittee has 90 days from the time of the inspection to complete the corrective actions necessary to restore the BMP's functionality to receive annual pollution reduction credit for that facility/BMP for the reporting year. The Permittee will not receive sediment load reduction and stormwater volume treated or removed credit for a facility or BMP that has not received the corrective actions necessary to restore functionality within 90 days of the inspection. The Permittee's BMP inspection pertains to the calendar year for which the BMP credits are awarded. WQIPs/BMPs that exceed maintenance standards must perform required maintenance in accordance with schedules identified under S5.C.10.

6. Public Education and Outreach: The Permittee shall conduct public education and outreach activities that increase awareness among residents of the sources of polluted runoff affecting Clarks Creek and its tributaries.

CITY OF PUYALLUP

Actions Required

1. The Permittee shall operate, inspect, and maintain the water quality improvement projects (WQIPs) prescribed in the Permittee's TMDL Retrofit Plan (hereafter, the December 2022 Plan).[7] The December 2022 Plan estimated the existing and new WQIPs to be implemented by July 31, 2024, will reduce the annual average sediment load by approximately 52.95 tons per year (32 percent of the TMDL target) and treat or remove approximately 22.75 million gallons (MG) of stormwater runoff per year based on the critical (October 21, 2003) storm event (98 percent of the TMDL target).[8] The Permittee shall apply crediting methodologies described in the December 2022 Plan, or an Ecology accepted updated Plan, to estimate the annual sediment load removal and the annual stormwater volume treated or removed by each WQIP. Any updates to the December 2022 Plan shall comply with the WLAs in the TMDL and align with previous Ecology Plan approvals.

2. The Permittee shall operate, inspect, and maintain existing WQIPs in the updated five-year Plan (2024-2029); and construct, operate, inspect, and maintain new WQIPs in this updated Plan. The updated 2024-2029 Plan takes effect when Ecology accepts it. Ecology reserves the right to require changes to the updated Plan. The Permittee shall implement a project delivery program to meet the estimated annual average sediment load reduction and stormwater volume treated or reduced targets identified in this updated Plan. The municipal stormwater permit components and WQIPs in the December 2022 Plan remain in effect until Ecology accepts these components and WQIPs in the Permittee's 2024-2029 Plan.

3. No later than November 1, 2028, the Permittee shall submit an updated Plan (2029-2034) that includes existing and proposed WQIPs for the next five-year TMDL reporting period estimated to begin August 1, 2029, and the sediment load reduction and stormwater volume treated or removed credit estimated for each WQIP. Estimates of sediment load reduction and stormwater volumes treated or removed by each stormwater BMP and facility shall be consistent with the TMDL WLAs for Dissolved Oxygen Deficit (DOD) and sediment. The goal is to achieve TMDL reductions needed to meet WLAs by 2034. The Permittee shall include anticipated project schedules, construction timelines, estimated costs, and funding strategies, where available, for proposed WQIPs in their updated Plan (2029-2034). Ecology reserves the right to require changes to the updated Plan.

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[7] "TMDL Retrofit Plan" means the Clarks Creek Retrofit Plan Update, Prepared for City of Puyallup, WA, Revised December 2022, by Brown and Caldwell. Ecology reviewed and accepted the municipal stormwater permit components of the TMDL Retrofit Plan in December 2022, as conditioned in our letter dated December 19, 2022, Re: Clarks Creek Retrofit Plan, Revised December 2022.

[8] Existing WQIPs are stormwater treatment facilities/BMPs constructed and operational after October 21, 2003. These include treatment facilities/BMPs implemented through retrofit or redevelopment.

4. The Permittee shall submit a reporting ledger to Ecology that quantifies the annual sediment load reduction (tons) credits and stormwater volume treated or removed (MG) credits awarded to all operational WQIPs during calendar years (CYs) 2023 and 2024 by March 31, 2025. The Permittee shall submit an updated reporting ledger annually thereafter by March 31st for CYs 2025 through 2028. This ledger serves as the reporting instrument to track each year's WLA compliance credits as they relate to the Permittee's assigned numeric WLAs. Stormwater retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) and stormwater volume treated/removed (MG) credits for each year the project was inspected, maintained, and determined to be operational. All WQIPs must be inspected, maintained, and determined to be operational to receive annual sediment load reduction and stormwater volume treated or removed credits.

5. The Permittee shall inspect WQIPs annually at a minimum during May, June, or July to assess whether the facilities are functioning as designed. If the Permittee's inspection records show a stormwater facility or BMP is in functional disrepair and is not operational, then the Permittee has 90 days from the time of the inspection to complete the corrective actions necessary to restore the BMP's functionality to receive annual pollution reduction credit for that facility/BMP for the reporting year. The Permittee will not receive sediment load reduction and stormwater volume treated or removed credit for a facility or BMP that has not received the corrective actions necessary to restore functionality within 90 days of the inspection. The Permittee's BMP inspection pertains to the calendar year for which the BMP credits are awarded. WQIPs/BMPs that exceed maintenance standards must perform required maintenance in accordance with schedules identified under S5.C.9.

6. Street Sweeping Program: The Permittee can only include sediment load reduction credit for its street sweeping program under an Ecology-approved QAPP.[9] The Permittee shall not credit sediment removal from sweeping until their pilot study on sweeping is completed and their updated 2024-2029 Plan takes effect.

7. Public Education and Outreach: The Permittee shall conduct public education and outreach activities that increase awareness among residents of the sources of polluted runoff affecting Clarks Creek and its tributaries.

[9] Ecology approved the City of Puyallup's Clarks Creek Street Sweeping Study Quality Assurance Project Plan (QAPP), Prepared by Brown and Caldwell on January 20, 2022.

Name of TMDL	WRIA 10 - SOUTH PRAIRIE CREEK WATER QUALITY IMPROVEMENT PROJECT
Document(s) for TMDL	*South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Submittal Report*, June 2003, Ecology Publication No. 03-10-055. https://fortress.wa.gov/ecy/publications/publications/0310055.pdf *South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Detailed Implementation Plan*, July 2006, Ecology Publication No. 06-10-018. https://fortress.wa.gov/ecy/publications/documents/0610018.pdf
Location of Original 303(d) Listings	South Prairie Creek VC19MO (WA-10-1085), Wilkeson Creek NX07HW (WA-10-1087)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	August 6, 2003
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Buckley

PIERCE COUNTY

Actions Required

- Designate areas discharging via the MS4 to Tributary 1 upstream of SR162 as high priority areas for illicit discharge detection and elimination. No later than July 31, 2029, complete IDDE screening for bacteria sources in 100% of these sub-basins and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit connections and illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). IDDE screening for bacteria sources includes the inspection of county owned MS4 outfalls that are safely accessible, or the next safely accessible upstream drainage access point that

discharge to creeks in the TMDL area. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

- Designate areas discharging via the MS4 upstream of SR165 along Spiketon Road, Mundy Loss Road, and Spiketon Ditch Road as high priority areas for illicit discharge detection and elimination. No later than July 31, 2029, complete IDDE screening for bacteria sources in 100% of these sub-basins and implement the schedules and activities identified in S5.C.9 of the Phase I Permit, in response to any illicit connections and illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). IDDE screening for bacteria sources includes the inspection of county owned MS4 outfalls that are safely accessible, or the next safely accessible upstream drainage access point that discharge to creeks in the TMDL area. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

CITY OF BUCKLEY

Action Required

Designate areas discharging via the MS4 to Spiketon Creek as high priority areas for illicit discharge detection and elimination. No later than July 31, 2029, complete IDDE screening for bacteria sources in 100% of these sub-basins and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit, in response to any illicit connections and illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible upstream drainage access point that discharge to Spiketon Creek. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

Name of TMDL	WRIA 11 - NISQUALLY RIVER BASIN WATER QUALITY IMPROVEMENT PROJECT
EPA Approved Document(s) for TMDL	*Nisqually Watershed Bacteria and Dissolved Oxygen Total Maximum Daily Load (Water Cleanup Plan): Submittal Report*, May 2005, Ecology Publication No. 05-10-040. https://fortress.wa.gov/ecy/publications/documents/0503002.pdf *Nisqually River Basin Fecal Coliform Bacteria and Dissolved Oxygen Total Maximum Daily Load: Water Quality Implementation Plan (WQIP)*, June 2007, Ecology Publication No. 07-10-016. https://fortress.wa.gov/ecy/publications/documents/0710016.pdf
Location of Original 303(d) Listings	Nisqually Reach 390KRD (WA-PS-0290), Nisqually River OE72JI (WA-11-1010), McAllister Creek LD26OX (WA-11-2000), Ohop Creek MW64EV (WA-11-1024), Red Salmon Creek NoID (WA-PS-0290)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	August 5, 2005
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Thurston County

PIERCE COUNTY

Action Required

- Designate areas discharging via the MS4 to Ohop Creek and Lynch Creek as high priority areas for illicit discharge detection and elimination. No later than July 31, 2029, complete IDDE screening for bacteria sources in 100% of these sub-basins and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit connections and illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). IDDE screening for bacteria sources includes the inspection of county owned MS4 outfalls that

are safely accessible, or the next safely accessible upstream drainage access point that discharge to Ohop and Lynch Creeks. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.

THURSTON COUNTY

Action Required

- Annually implement the following best management practices for reducing fecal coliform bacteria in areas discharging to the Nisqually Reach and McAllister Creek via the MS4 in accordance with S5.C.2 and S5.C.9 of the Western Washington Phase II Permit:
  - Reach households in the targeted watersheds through mailings, door hangers, etc. to increase awareness of the sources of bacteria pollution.
  - Adequately maintain vegetation around stormwater facilities, ditches, and ponds.
  - Install and maintain pet waste education signage and bag dispenser stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial dog use, and where stormwater runoff can enter the MS4 and discharge to surface waters and/or marine shorelines.
  - Distribute pet waste stations (i.e., bag dispensers and educational signage) for installation in residential neighborhood locations where people commonly walk their dogs and stormwater runoff can enter the MS4 and discharge to surface waters and/or marine shorelines.

Name of TMDL	WRIA 13 - HENDERSON INLET WATERSHED FECAL COLIFORM BACTERIA WATER QUALITY IMPROVEMENT PROJECT
Document(s) for TMDL	*Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Temperature Total Maximum Daily Load Study*, March 2006, Ecology Publication No. 06-03-012. https://fortress.wa.gov/ecy/publications/documents/0603012.pdf *Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, and pH Total Maximum Daily Load: Water Quality Improvement Report Implementation Strategy*, October 2006, Ecology Publication No. 06-10-058. https://fortress.wa.gov/ecy/publications/documents/0610058.pdf *Henderson Inlet Watershed Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Implementation Plan*, July 2008, Ecology Publication No. 08-10-040. https://fortress.wa.gov/ecy/publications/documents/0810040.pdf
Location of Original 303(d) Listings	Henderson Inlet (WA-13-0010), Dobbs Creek (WA-13-1400), Sleepy Creek (WA-13-1700), Woodard Creek (WA-13-1600), Woodland Creek (WA-13-1500)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen, pH, Temperature
EPA Approval Date	January 8, 2007
MS4 Permittee	Phase II Permit: Lacey, Olympia, Thurston County

THURSTON COUNTY

Actions Required

1. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.6 of the Western Washington Phase II Permit:

a. Require phosphorus control for new and redevelopment projects that discharge via the MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6: Runoff Treatment of the Western Washington Phase II Permit.

2. Annually implement the following best management practices for reducing fecal coliform in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.2 of the Western Washington Phase II Permit.
   a. Continue offering public education and outreach efforts for fecal coliform reduction such as brochures, signage, and pet waste stations to homeowner associations.
3. Annually produce a report that details all actions completed as part of Appendix 2 requirements.

CITY OF LACEY

Actions Required

1. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.2 of the Western Washington Phase II Permit:
   a. Continue the Private Stormwater Facilities Maintenance Program, providing commercial and residential stormwater facility/BMP owners educational resources for facility function and maintenance requirements.
   b. Offer bacteria pollution reduction brochures, signage, and pet waste stations to homeowners associations.
   c. Maintain pet waste bag dispenser units in city parks.
   d. Install educational signage at City facilities/property.
   e. Submit a summary of actions completed with each annual report.
2. Implement the Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility in accordance with the illicit discharge detection and elimination efforts and activities identified in S5.C.5 of the Western Washington Phase II Permit.
   a. Continue to use the Fecal Coliform Wet Weather Sampling Plan. The sampling program shall establish a regularly scheduled sampling schedule (at least two times per year), during the wet season (November through April), specific sampling locations, sampling protocols, parameters, analytical methods, and timelines for implementation.
   b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
   c. Submit a summary of sampling and investigations with each annual report.

3. Continue to communicate with the City of Olympia to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2024, in accordance with S5.C.5 of the Western Washington Phase II Permit.
   a. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
   b. Submit a summary of efforts with sampling, investigation, and enforcement actions taken with the annual reports.
4. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.9 of the Western Washington Phase II Permit:
   a. Continue re-vegetation and nuisance vegetation management along Woodland Creek and its tributaries. Submit a summary of actions completed with each annual report.

CITY OF OLYMPIA

Actions Required

1. Annually implement the following BMPs in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.6 of the Western Washington Phase II Permit:
   a. Require phosphorus control for new and redevelopment projects that discharge via MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6: Runoff Treatment of the Western Washington Phase II Permit.
2. Continue to communicate with the City of Lacey to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2024 in accordance with S5.C.5 Illicit Discharge Detection and Elimination of the Western Washington Phase II Permit.
   a. Continue fecal coliform sampling. The sampling program shall require at least one sampling event during the wet season (November through April) in each of Year 1 and Year 3 of the permit cycle. The sampling program shall also require specific sampling locations, sampling protocols, parameters, analytical methods, and timelines for implementation.
   b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
   c. Submit a summary of efforts with sampling, investigation and enforcement actions taken with each annual report.

Name of TMDL	WRIA 13 - DESCHUTES RIVER WATERSHED
Document(s) for TMDL	*Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Technical Report: Water Quality Study Findings.* Ecology Publication No. 12-03-008. https://fortress.wa.gov/ecy/publications/documents/1203008.pdf *Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load: Water Quality Improvement and Implementation Plan.* Ecology Publication No. 15-10-012. https://fortress.wa.gov/ecy/publications/documents/1510012.pdf
Location of Original 303(d) Listings	Deschutes River 6576 7590 48710 48711 48712 48713 48714 48715 48717 48718 9439 7588 7592 7593 7595 48720 48721 48724 48726. Huckleberry Creek 3757. Reichel Creek 48666. Tempo Lake Outlet 48696. Unnamed Creek (Trib to Deschutes River) 7591. Unnamed Spring (Trib to Deschutes River) 48923. Black Lake Ditch 48733 48734 48735. Percival Creek 42321 48249 48727 48729.
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Temperature
EPA Approval Date	Temperature approved: June 29, 2018
MS4 Permittee	Phase II Permit: Thurston County, Olympia, Lacey, Tumwater

Cities of Olympia; Lacey; Tumwater; and Thurston County

Actions Required

- Annually report on temperature reduction measures in the watershed.

Name of TMDL	WRIA 13 – BUDD INLET
Document(s) for TMDL	*Budd Inlet Dissolved Oxygen Total Maximum Daily Load* Publication No. 22-10-012. Budd Inlet Total Maximum Daily Load for Dissolved Oxygen (wa.gov)
Location of Original 303(d) Listings	Budd Inlet (inner): 5852, 5853, 5862, 5863, 5864. Budd Inlet (outer): 7582, 7583, 7584, 7585, 7586, 7587, 10188, 81727
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Dissolved Oxygen
EPA Approval Date	Approved:December 16, 2022
MS4 Permittee	Phase II Permit: Thurston County, Olympia, Lacey, Tumwater

CITY OF OLYMPIA, LACEY, TUMWATER, & THURSTON COUNTY

Actions required

- No later than March 31, 2025, annually report on municipal stormwater BMPs implemented (in addition to those already required by S5 of the permit) since the effective date of this permit (August 1, 2024) to help control nutrients for areas discharging to Budd Inlet via the MS4.
- No later than December 31, 2027, begin using existing data to conduct spatial analysis of nutrient loading from the MS4. This analysis shall consider land use sources of nutrients, existing municipally owned/operated BMPs, and privately owned BMPs regulated by the Permit that provide management of nutrients and which drain to and are discharged from the MS4.
- No later than August 1, 2028, develop and implement priority BMPs to minimize the transport of nutrients via the MS4.
- Designate areas discharging via the MS4 to Budd Inlet as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for nutrient sources in 100% of these areas by July 31, 2029, and implement the schedules and activities

identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found.

- For the actions described above, prioritize work and implementation actions within areas identified as priorities by the TMDL that are within the applicable jurisdiction, including East Bay Drive, West Bay Drive and Deschutes Parkway, tributaries draining directly to Budd Inlet, with extra emphasis on Schneider Creek, Ellis Creek, Mission Creek, Moxlie Creek, Percival Creek, Black Lake, and Black Lake Ditch.

Name of TMDL	**WRIA 14 - OAKLAND BAY, HAMMERSLEY INLET, AND SELECTED TRIBUTARIES FECAL COLIFORM TMDL**
Document(s) for TMDL	*Oakland Bay, Hammersley Inlet, and Selected Tributaries Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Improvement Report)*, June 2011, Ecology Publication No. 11-10-039. https://apps.ecology.wa.gov/publications/SummaryPages/1110039.html
Location of Original 303(d) Listings	Campbell Creek 24239 7596 Uncle John Creek 40618 Malaney Creek 24237 Goldsborough Creek 6659 Shelton Creek 6660 Inner Shelton Harbor 6658 Oakland Bay 39857 39861 39862 39872 45159 45215 53164 Hammersley Inlet/mouth of Mill Creek 39800 Hammersley Inlet 39801 39803 39804 39810 45220 45915 53178
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	August 18, 2011
MS4 Permittee	Phase II Permit: Shelton

CITY OF SHELTON

Actions Required

- Designate areas discharging via MS4 to Goldsborough Creek, Inner Shelton Harbor, and Oakland Bay as high priority areas for illicit discharge detection and elimination and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit. IDDE screening for bacteria sources includes the inspection of city owned MS4 outfalls that are safely accessible, or the next safely accessible upstream drainage access point that discharge to Goldsborough Creek, Inner Shelton Harbor, and Oakland Bay. Bacterial screening results shall be included in annual reporting submitted to Ecology. Each annual report's TMDL summary shall include, where applicable, qualitative, and quantitative information about IDDE field screening activities for bacteria sources, including source identification and elimination activities and sampling results.
- Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- Install and maintain animal waste education signage and/or pet waste bag dispenser stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use where stormwater runoff can enter the MS4 and discharge to surface waters and/or marine shorelines.

Name of TMDL	WRIA 15 - SINCLAIR AND DYES INLETS FECAL COLIFORM BACTERIA TOTAL MAXIMUM DAILY LOAD
Document(s) for TMDL	*Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL) Water Quality Implementation Plan*, In Draft, Ecology Publication No. 11-10-051. https://fortress.wa.gov/ecy/publications/publications/1110051.pdf
Location of Original 303(d) Listings	Dyes Inlet & Port Washington Narrows (WA-15-0020) Gorst Creek (WA-15-4000) Blackjack Creek (WA-15-4200) Annapolis Creek (WA-15-4400) Beaver Creek (WA-15-4900) Clear Creek (WA-15-5000) Barker Creek (WA-15-5100) Sinclair Inlet (WA-15-0040)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 5, 2012
MS4 Permittee	Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546

CITY OF BAINBRIDGE ISLAND

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees are shall screen for bacteria sources when at the drainage circuit's most downstream sampling location. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be annually documented in TMDL reporting as required in the Permittees' Annual Report.

CITY OF BREMERTON

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees are shall screen for bacteria sources when at the drainage circuit's most downstream sampling location. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be annually documented in TMDL reporting as required in the Permittees' Annual Report.

CITY OF PORT ORCHARD

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees are shall screen for bacteria sources when at the drainage circuit's most downstream sampling location. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct

source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be annually documented in TMDL reporting as required in the Permittees' Annual Report.

KITSAP COUNTY

Actions Required

Business Inspections:

The Permittee shall inspect facilities with SIC Industry Group no. 074, 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities) as part of their ongoing inspection program identified in S5.C.8. If the Permittee determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the Permittee shall re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement action.

Public Education and Outreach: Each Permittee shall include public education and outreach activities that increase awareness of bacterial pollution problems and promote proper pet waste management as a BMP under General Awareness.

Operations and Maintenance: Each Permittee shall maintain Pet Waste collection stations at Permittee owned or operated lands that are reasonably expected to have domestic animal (dog and horse) use and the potential for pollution to stormwater.

Illicit Connection/ Illicit Discharge Detection and Elimination:

When conducting IDDE field screening during normal course of business (as required by S5.C.5.d for Phase II Permittees, and IC/IDDE as required by S5.C.9.c for Phase I Permittees) in a TMDL area, Permittees are shall screen for bacteria sources when at the drainage circuit's most downstream sampling location. For the purposes of IC/IDDE, stormwater quality sampling is defined as obtaining grab samples of stormwater within the conveyance system of the MS4, at discharge points, and/or outfalls (if there is flow) at each drainage circuit's most downstream accessible sampling location. Permittees shall follow their adopted IDDE Procedures to conduct source tracing efforts if bacteria levels and/or observations trigger a response (see IDDE guidance manual for bacteria trigger levels).

Qualitative and quantitative information about the source identification and elimination activities, including procedures followed, sampling locations, and results shall be annually documented in TMDL reporting as required in the Permittees' Annual Report.

Name of TMDL	WRIA 22 - GRAYS HARBOR/CHEHALIS WATERSHED FECAL COLIFORM BACTERIA TOTAL MAXIMUM DAILY LOAD
Document(s) for TMDL	*Grays Harbor/Chehalis Watershed Fecal Coliform Bacteria Total Maximum Daily Load Submittal Report*, December 2001, Ecology Publication No. 01-10-025. https://fortress.wa.gov/ecy/publications/documents/0110025.pdf *Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria Monitoring to Characterize Water Quality in Urban Stormwater Drains*, October 2010, Ecology Publication No. 10-10-066. https://fortress.wa.gov/ecy/publications/documents/1010066.pdf
Location of Original 303(d) Listings	Outer Grays Harbor (WA-22-0020), Inner Grays Harbor (WA-22-030), Inner Grays Harbor (WA-22-0030), Chehalis River (WA-22-4040)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee's municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	December 2002
MS4 Permittee	Phase II Permit: Aberdeen

CITY OF ABERDEEN

Actions Required

1. Implement the schedules and activities identified in S5.C.2 of the Western Washington Phase II Permit. Continue to implement the Public Education and Outreach and Involvement Plan (Plan). The Plan shall target the reduction of fecal coliform pollution by increasing public awareness, effecting behavior changes and shall include: goals, target audiences, messages, format, distribution, and evaluation methods.
    a. The Plan shall include at least the following elements:
        i. Target the residents of the three high priority water bodies identified under the 2024-2029 Permit.

ii. Reach households in targeted watersheds through mailings, door hangers, or similar outreach tools.

iii. Reach 4-6th grade students.

b. Continue program which notifies residents, in a timely manner, when bacteria pollution that poses a public health concern (such as a wastewater overflow) reaches the MS4.

c. Conduct two public education surveys gauging 4-6th grade student knowledge of general stormwater knowledge, the sources of bacteria and preventing bacteria pollution. One survey should measure resident's knowledge of bacteria pollution before outreach and the other should measure knowledge and likelihood of action after outreach.

d. Continue to implement the City's stream team program and work cooperatively with Grays Harbor Stream Team.

e. Maintain pet waste bag dispenser units and explanatory signs in public areas with dog usage.

f. Maintain an inventory of sources that have potential for bacteria runoff such as manure-composting facilities, stables, and kennels.

i. Continue to use the City's targeted manure management educational plan for such facility owners. Send one letter annually that outlines compliance requirements. Maintain a resource webpage on the City's website. Submit a summary of actions completed with each annual report.

2. Designate areas discharging to the MS4 urban drains identified in the TMDL, as the highest priority areas for illicit discharge detection and elimination routine field screening efforts and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit. Field screening and source tracing methodology (see S5.C.5.d) must be consistent with the *Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria Monitoring to Characterize Water Quality in Urban Stormwater Drains,* October 2010.

a. Enforce the City's regulatory mechanism to control pet waste.

b. Designate areas discharging via MS4 to the following discharge points: 501-ABDN, 510-MST, and 514-MST as high priority areas for illicit discharge detection and elimination efforts.

i. Complete field screening and implement the schedules and priority area for illicit discharge detection and elimination field screening identified in S5.C.5 of the Western Washington Phase II Permit. Investigation must include activities for both the dry season (May through October) and the wet season (November through April).

ii. Conduct twice monthly wet weather sampling of the discharge points 501-ABDN, 510-MST, and 514-MST to determine if specific discharges from Aberdeen's MS4 exceed the water quality criteria for fecal coliform bacteria.

- Data shall be collected for two wet seasons.
- Data shall be collected in accordance with an Ecology-approved QAPP.
- Samples must be analyzed using an Ecology accredited lab.
- If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 – *Illicit Discharge Detection and Elimination* of the Western Washington Phase II Permit.
- Data shall be submitted to Ecology in an approved format with the annual reports.

APPENDIX 3 - Annual Report Questions for Cities, Towns, and Counties

Permittees are required to submit the following information in an online annual report form, or an alternative format provided by Ecology if requested, pursuant to Special Condition S9.

Reporting Requirements and SWMP

1. **Attach** a map of any annexations, incorporations, or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period, per S9.D.6.
2. **Attach** updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)
3. Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.
    a. What was the annual expenditure or estimate to develop and implement the SWMP this reporting period?
    b. What was the annual expenditure or estimate to develop and implement Appendix 2 TMDL requirements, if applicable?
    c. What were your source(s) of funding for the stormwater program?
4. Continued to coordinate among departments within the jurisdiction for permit compliance. (S5.A.5.b)
    a. **Attach** a written description of internal coordination mechanisms. (S5.A.5.b) no later than March 31, 2026
5. If applicable, identify other entities relied on to satisfy any of the obligations under the Permit. (S9.D.4)

Stormwater Planning

6. Continue to convene an interdisciplinary team to inform and assist in the development, progress, and influence of the stormwater planning program? (S5.C.1.a.)

Coordination with long-range plan updates

7. List the relevant land use planning efforts that have taken place in your jurisdiction (land use plans that are used to accommodate growth, stormwater management, or transportation). (S5.C.1.b.i. – Required by March 31, 2027.)
8. List of stormwater capital projects (currently in or slated for future design and construction) that resulted from this planning. (S5.C.1.b.i. – Required by March 31, 2027.)

9. Describe watershed protection measures associated with stormwater management and land use planning actions that resulted from this planning. (S5.C.1.b.i. – Required by March 31, 2027.)

10. Were land acquisitions identified (or are planning ahead for) that are useful for stormwater facilities to: accommodate growth or to better serve an existing developed area? (S5.C.1.b.i. – Required by March 31, 2027.)

    a. If yes, for what purpose?

11. Updates to goals and policies related to investment in stormwater management facilities/BMPs? (yes/no) (S5.C.1.b.i. – Required by March 31, 2027)

    a. If yes, briefly describe.

Low impact development code-related requirements

12. Continue to design and implement local development-related codes, rules, standards, or other enforceable documents to minimize impervious surfaces, native vegetation loss, and stormwater runoff, where feasible? See S5.C.1.c.i. (Required annually)

13. From the assessment described in S5.C.1.c.i.(a), did you identify any administrative or regulatory barriers to implementation of LID Principles or LID BMPs? (Required annually)

    a. If yes, describe the barrier(s) and the measures taken to address them. (S5.C.1.c.i.(a))

14. Adopted and implemented tree canopy goals and policies to support stormwater management. (S5.C.1.c.iii; December 31, 2028)

    a. **Attach** goals and policies and documented considerations, reasoning, and rationale for tree canopy goals and policies.

Stormwater Management Action Planning

15. Shelton Only: Developed a watershed inventory as outlined in Appendix 14? (Submitted by March 31, 2027)

    a. **Attach** watershed inventory as described in S5.C.1.d.i.

16. Shelton Only: Developed a receiving water prioritization method and process as described in Appendix 14? (Required by June 30, 2027)

    a. **Attach** receiving water priority ranking process as described in Appendix 14.

17. Shelton Only: Developed a Stormwater Action Plan (SMAP) for at least one high priority area? (Appendix 14, March 31, 2028)

    a. **Attach** SMAP(s).

18. Developed a Stormwater Management Action Plan (SMAP) for at least one new high priority area or additional actions for an existing SMAP? (S.5.C.1.d.i; Required by March 31, 2027)

    a. **Attach** SMAP(s).

Education and Outreach

19. Did you choose to adopt one or more elements of a regional program? (S5.C.2)

    a. If yes, list the elements, and the regional program.

20. **Attach** a description of general awareness efforts conducted, including your priority audiences and subject areas, per S5.C.2.a.i.

21. Developed a behavior change campaign that is tailored to the community in accordance with S5.C.2.a.ii(b)? (Required no later than July 1, 2025)

    a. **Attach** the strategy and schedule developed in accordance with S5.C.2.a.ii.(b).

22. Began implementing strategy outlined in S.5.C.2.a.ii(b). (S5.C.2.a.ii(c)) – Required by September 1, 2025)

23. **Attach** the report developed in accordance with S5.C.2.a.ii.(d), which evaluated the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any planned or recommended changes to the program in order to be more effective. (Required to submit no later March 31, 2029)

24. Provided, partnered, or promoted stewardship opportunities to encourage resident participation in activities such as those described in S5.C.2.a.iii.

    a. **Attach** a list of stewardship opportunities.

Public Involvement and Participation

25. Describe in *Comments* field the opportunities created for the public to participate in the decision-making processes involving the development, implementation, and updates of the Permittee's SWMP and the SMAP.

    a. Describe specific public involvement and participation opportunities provided to overburdened communities and specifically, highly impacted communities. (S5.C.3.a.i)

    b. Document methods used to identify overburdened communities. (No later than December 31, 2026, S5.C.3.a.ii)

26. Posted the updated SWMP Plan and latest annual report on your website no later than May 31 of each year? (S5.C.3.b)
    a. List the website address in *Comments* field.

MS4 Mapping and Documentation

27. Maintained an electronic map of the MS4 including the requirements listed in S5.C.4.?
28. **Attach** file with all known outfall locations, size, and materials no later than March 31, 2026, in accordance with S5.C.4.b.i. The data shall be in one of the following formats:
    - ESRI file geodatabase template[1] (feature class in a .gdb).
    - Shapefile template[2]
    - ArcGIS Online template (sharing template a or b via ArcGIS Online).
    - Excel template[3]
29. No later than December 31, 2026, mapped tree canopy to support stormwater management on Permittee-owned or operated properties, using available, existing data (S5.C.4.b.ii).
30. Mapped and assessed acreage of MS4 tributary basins to 24-inch outfalls (or equivalent) that have stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee per S5.C.4.b.iii (no later than March 31, 2028).
    a. **Attach** map of the MS4 tributary basins (.pdf file format).
    b. **Attach** a table with a breakdown of MS4 tributary basins quantifying estimated acres managed or unmanaged by stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee (.xlsx file format).
31. No later than December 31, 2028, use available, existing data to map overburdened communities in relation to stormwater treatment and flow control BMPs/facilities, outfalls, discharge points, and tree canopy on Permittee-owned or operated properties. (S5.C.2.b.iv)

Illicit Discharge Detection and Elimination

32. Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. (S5.C.5.b)
    a. Describe actions in *Comments* field. (S5.C.5.b)

[1] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.gdb.zip
[2] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.shape.zip
[3] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.excel.xlsx

33. Continued to implement an ordinance or other regulatory mechanism to effectively prohibit stormwater, illicit discharges, as described in S5.C.5.c.

34. Updated an ordinance or other regulatory mechanism, if necessary, to effectively prohibit non-stormwater, illicit discharges, as described in S5.C.5.c. Required no later than July 1, 2027.

35. Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.5.d.i.

    a. Cite field screening methodology in *Comments* field.

36. Percentage of MS4 coverage area screened in the reporting year per S5.C.5.d.i.(a). (Required to screen 12% on average each year.)

    a. Cite field screening techniques used to determine percent of MS4 screened.

37. Describe how you publicized a hotline telephone number for public reporting of spills and other illicit discharges in the *Comments* field (S5.C.5.d.ii).

38. Implemented an ongoing illicit discharge training program for all municipal field staff, per S5.C.5.d.iii.

39. Implemented an ongoing program to characterize, trace, and eliminate illicit discharges, including spills and illicit discharges, into the MS4, per S5.C.5.e.

    a. No later than December 31, 2026, coordinated with firefighting agencies/departments to be notified when PFAS-containing AFFFs are used, per S5.C.5.e.ii.(a)?

    b. No later than January 1, 2027, updated procedures to minimize discharge of PFAS-containing AFFFs during post-emergency clean-up, per S5.C.5.e.ii.(b)?

40. Implemented an ongoing illicit discharge training program for all staff responsible for implementing the procedures and program described in S5.C.5.f.

41. **Attach** a report with data describing the actions taken to characterize, trace, and eliminate each illicit discharge reported to, or investigated by, the Permittee, as described in S5.C.5.g. The submittal must include all of the applicable information and must follow the instructions, timelines, and format described in Appendix 13.

Controlling Runoff from New Development, Redevelopment, and Construction Sites

42. Continued to implement an ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites, per the requirements of S5.C.6.b.i-iii.

43. Updated ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites, per the requirements of S5.C.6.b.i-iii. (Required no later than June 30, 2027)

- **a.** Cite code reference in *Comments* field.

44. Does the ordinance or other enforceable mechanism follow a Phase I program approved by Ecology (S5.C.6.b.i)?

- **a.** If yes, state the title of the Stormwater Management Manual and which Phase I Program.

45. Number of adjustments granted to the Minimum Requirements in Appendix 1. (S5.C.6.b.i and Section 5 of Appendix 1)

- **a.** Number of adjustments granted to Minimum Requirement #5?

46. Number of exceptions granted to the Minimum Requirements in Appendix 1. (S5.C.6.b.i and Section 6 of Appendix 1)

- **a.** Number of exceptions granted to the Minimum Requirements #5?

47. Reviewed *Stormwater Site Plans* for all proposed development activities that meet the thresholds adopted pursuant to S5.C.6.b.i. (S5.C.6.c.i)

- **a.** Number of site plans reviewed during the reporting period.

48. Inspected, prior to clearing and construction, permitted development sites, per S5.C.6.c.ii

49. Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls, per S5.C.6.c.iii.

- **a.** Number of construction sites inspected, per S5.C.6.c.iii.
- **b.** Inspected stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments at least twice per 12-month period with no less than 4 months between inspections, per S5.C.6.c.iv?

50. Inspected all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.6.c.v)

51. Verified a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities prior to final approval and occupancy being granted. (S5.C.6.c.v)

52. Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects, per S5.C.6.c.ii-iv). (S5.C.6.c.viii)

53. Achieved at least 80% of scheduled construction-related inspections. (S5.C.6.c.vi)

54. Made online links to Ecology's *Construction Stormwater General Permit* Notice of Intent, the *Industrial Stormwater General Permit* Notice of Intent, and the registration requirements for Underground Injection Control (UIC) available to representatives of proposed new development and redevelopment? (S5.C.6.d)

55. All staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites including permitting, plan review, construction site inspections, and enforcement are trained to conduct these activities. (S5.C.6.e)

Stormwater Management for Existing Development

56. **Attach** a list of projects that are fully funded, started, completed and/or scheduled for implementation during this permit term for the purpose of meeting S5.C.7.b, with the information and formatting specified in Appendix 12. **Attach** an updated list annually. (S5.C.7.b,)

Source Control Program for Existing Development

57. Updated inventory to identify institutional, commercial and industrial properties which have the potential to generate pollutants to the Permittee's MS4 per S5.C.8.b? (Required at least once every five years)

    a. Number of total sites identified for the inventory.

58. **Attach** a summary of actions taken to implement the source control program, per S5.C.8.a-d.

59. **Attach** a list of inspections, per S5.C.8.c.v, organized by the business category, noting the number of times each business was inspected and if enforcement actions were taken, per S5.C.8.d.

60. Implemented an ongoing source control training program, per S5.C.8.e?

Operations and Maintenance

61. Implemented maintenance standards that are as protective, or more protective, of facility function than those specified in the *Stormwater Management Manual for Western Washington,* or a Phase I program approved by Ecology, per S5.C.9.a.?

62. Updated maintenance standards specified in *Stormwater Management Manual for Western Washington,* or a Phase I program approved by Ecology, per S5.C.9.a? (Required no later than June 30, 2027)

63. Applied a maintenance standard for a facility or facilities which do not have maintenance standards specified in the *Stormwater Management Manual for Western Washington*?

- **a.** If so, note in the *Comments* field what kinds of facilities are covered by this alternative standard. (S5.C.9.a)

64. Verified that maintenance was performed per the schedule in S5.C.9.a.ii, when an inspection identified an exceedance of the maintenance standard.

- **a.** **Attach** documentation of maintenance time frame exceedances that were beyond the Permittee's control.

65. Implemented an ordinance, or other enforceable mechanisms, to verify long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities regulated by the Permittee per S5.C.9.b.i(a)?

66. Inspected stormwater treatment and flow control BMPs/facilities regulated by the Permittee, per S5.C.9.b.i(b).

- **a.** Are you using a reduced stormwater treatment and flow control BMPs/facilities inspection frequency?
- **b.** If using a reduced inspection frequency on stormwater facilities regulated by the Permittee for the first time during this permit cycle, **attach** documentation per S5.C.9.b.i.(b).

67. Achieved at least 80% of required inspections to verify adequate long-term O&M. (S5.C.9.b.ii)

68. Annually inspected municipally owned or operated stormwater treatment and flow control BMPs/facilities, as per S5.C.9.c.i.

- **a.** Number of known stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee.
- **b.** Number of facilities inspected during the reporting period.
- **c.** Number of facilities for which maintenance was performed during the reporting period.

69. If using a reduced inspection frequency, **attach** documentation per S5.C.9.c.i.

70. Conducted spot checks and inspections of potentially damaged stormwater facilities after major storms as per S5.C.9.c.ii.

71. Inspected catch basins owned or operated by the Permittee every two years or used an alternative approach? (S.5.C.9.c.iii)

- **a.** Number of known catch basins and inlets?
- **b.** Number of catch basins and inlets inspected during the reporting period?
- **c.** Number of catch basins and inlets cleaned during the reporting period?

72. **Attach** documentation of alternative catch basin inspection approach for those owned or operated by the Permittee, if used, per S5.C.9.c.iii.

73. Implemented practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.9.d)

74. Updated documented practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.9.d –No later than December 31, 2027)

- **a.** Cite documentation in *Comments.*

75. No later than July 1, 2027, developed and implemented a municipal street sweeping program to focus on priority areas and times during the year that would reasonably be expected to result in the maximum water quality benefits to receiving waters (S5.C.9.e, required to report beginning March 31, 2028).

76. **Attach** documentation if implementing an alternative sweeping timing and frequency based on local conditions. (S5.C.9.e.ii.b.)

77. Document the following information for the sweeping program's priority areas (S5.C.9.e.v, Beginning no later than March 31, 2028):

- **a.** **Attach** priority areas swept on a map
- **b.** Sweeping dates
- **c.** Sweeping frequency
- **d.** Type of sweeper
- **e.** Total curb miles of priority areas and curb miles swept
- **f.** Approximation of street waste solids removed for each sweeping event, with unit of weight and wet or dry weight, where available.

78. Disposed of sweeper waste material in accordance with Appendix 6- *Street Waste Disposal* (S5.C.9.e.iv)?

79. Implemented a *Stormwater Pollution Prevention Plan* (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under an NPDES permit that covers stormwater discharges associated with the activity. (S5.C.9.f)

80. Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.9.g)

Compliance with Total Maximum Daily Load Requirements

81. Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A)

    a. List any requirements that were not met.

82. For TMDLs listed in Appendix 2: **Attach** a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s). (S7.A)

Monitoring and Assessment

83. Submitted payment for cost-sharing for Stormwater Action Monitoring (SAM) status and trends monitoring no later than December 1, 2024 (S8.A.1); and no later than August 15 of each subsequent year. (S8.A.2.a)

84. Notified Ecology in writing by December 1, 2024, which option you selected: S8.A.2.a, or S8.A.2.b.

85. Submitted payment for cost-sharing for SAM effectiveness and source identification studies no later than December 1, 2024 (S8.B.1); and no later than August 15 of each subsequent year. (S8.B.3.a)

86. Notified Ecology by December 1, 2024, which option you selected: S8.B.2.a, or S8.B.2.b.

87. If conducting stormwater discharge monitoring in accordance with S8.C.1, submitted a QAPP to Ecology no later than February 1, 2025? (S8.C.1.b and Appendix 9)

88. If conducting stormwater discharge monitoring in accordance with S8.C.1, **attach** a data and analysis report, per S8.C.1.d and Appendix 9. (Due annually beginning March 31, 2026)

General Conditions and Compliance with Standards

89. Notified Ecology in accordance with G3 of any discharge into or from the Permittee's MS4 which could constitute a threat to human health, welfare, or the environment. (G3)

90. Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment, per G3.A.

91. Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)

92. If requested, submitted an *Adaptive Management Response* report in accordance with S4.F.3.a.

93. **Attach** a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)

94. Notified Ecology of the failure to comply with permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)

95. Number of non-compliance notifications (G20) provided in reporting year. List permit conditions described in non-compliance notification(s) in *Comments* field.

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APPENDIX 4 – Annual Report Questions for Secondary Permittees

Permittees are required to submit annual reports online or in a format provided by Ecology, upon request, pursuant to Permit condition S9.

S6.D Stormwater Management Program

1. **Attach** a map of any jurisdictional boundary changes resulting in an increase or decrease in the Secondary Permittee's geographic area of coverage during the reporting period. (Required annually, S9.E.6)
2. **Attach** updated annual Stormwater Management Program Plan (SWMP Plan). (S6.A.2)
3. If applicable, identify other entities relied on to satisfy any of the obligations under the Permit. (S9.E.4)

S6.D.1 Public Education and Outreach

4. Labeled all storm drain inlets owned or operated by the Secondary Permittee that are located in maintenance yards, in parking lots, along sidewalks, and at pedestrian access points. (New Secondary Permittees – Required no later than four years from initial date of Permit coverage, S6.D.1.a)
5. Re-labeled all storm drain inlets with labels when no longer clearly visible and/or easily readable within 90 days. (Required no later than four years from initial date of Permit coverage, S6.D.1.a)
6. (***Public ports, colleges, and universities only***) Distributed educational information to tenants and residents about the impact of stormwater discharges on receiving waters and steps that can be taken to reduce pollutants in stormwater runoff. (Required no later than three years from initial date of Permit coverage, S6.D.1.b)

S6.D.2 Public Involvement and Participation

7. Made the annual report and SWMP Plan available on website. (Required annually no later than May 31, S6.D.2.a and b.)

S6.D.3 Illicit Discharge Detection and Elimination

8. Complied with all relevant ordinances, rules, and regulations of the local jurisdiction(s) that govern non-stormwater discharges. (Required after initial date of Permit coverage, S6.D.3.a)

9. Implemented policies to prohibit illicit discharges and identified enforcement mechanisms. (New Secondary Permittees – Required no later than one year from initial date of Permit coverage, S6.D.3.b)

10. Updated policies to prohibit illicit discharges and identified enforcement mechanisms. (Required no later than July 1, 2027, S6.D.3.b)

11. Implemented an enforcement plan to ensure compliance with policies to prohibit illicit discharges. (New Secondary Permittees – Required no later than 18 months from initial date of Permit coverage, S6.D.3.b)

12. Developed and maintained a map of the storm sewer system showing all known storm drain outfalls, receiving waters, and areas contributing runoff to each outfall. (New Secondary Permittees – Required no later than four and one half years from initial date of Permit coverage, S6.D.3.c)

13. Maintained an electronic map of the MS4 showing all known storm drain outfalls, receiving waters, and areas contributing runoff to each outfall. Made the map available on request to Ecology or others. (Required by December 31, 2026; S6.D.3.c)

14. Submitted locations of all known MS4 outfalls, including size and material, (S5.D.3.c.ii. March 31, 2027). The data shall be in one of the following formats and templates:
    - ESRI file geodatabase template[1] (feature class in a .gdb)
    - Shapefile template[2]
    - ArcGIS Online template (sharing template a or b via ArcGIS Online)
    - Excel template[3]

15. Conducted field inspections and visually inspected for illicit discharges at approximately one third of all known MS4 outfalls. (Required no later than two years from initial date of Permit coverage, S6.D.3.d)

16. Implemented procedures to identify and remove illicit discharges. (Required no later than two years from initial date of Permit coverage, S6.D.3.d)

17. **Attach** a summary of each illicit discharge discovered and actions taken to eliminate each of the discharges. (S6.D.3.d).

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[1] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.gdb.zip
[2] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.shape.zip
[3] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.excel.xlsx

18. Implemented a spill response plan that includes coordination with a qualified spill responder. (Required no later than four and one-half years from initial date of Permit coverage, S6.D.3.e)

19. Provided staff training or coordinated with existing training to educate staff on proper BMPs for preventing illicit discharges, including spills, as described in S6.D.3.f. (Required no later than two years from initial date of Permit coverage)

S6.D.4 Construction Site Stormwater Control

20. Complied with all relevant ordinances, rules, and regulations of the local jurisdiction(s) that govern construction phase stormwater pollution prevention activities, if applicable. (Required after initial date of Permit coverage, S6.D.4.a)

21. Ensured that all applicable construction projects under the functional control of the Secondary Permittee obtained NPDES Permit coverage. (Required after initial date of Permit coverage, S6.D.4.b)

22. Coordinated with local jurisdictions on construction projects owned or operated by other entities that discharge into Secondary Permittee's MS4, as per S6.D.4.c. (Required after initial date of Permit coverage)

23. Provided training for relevant staff in erosion and sediment control BMPs and requirements or hired trained contractors to perform the work for all construction projects owned and operated by the Secondary Permittee. (Required after initial date of permit coverage, S6.D.4.d)

24. Provided access, as requested, for inspection of construction sites under the control of the Secondary Permittee during the land disturbing activity and/or construction period. (Required after initial date of Permit coverage, S6.D.4.e)

S6.D.5 Post-Construction Stormwater Management for New Development and Redevelopment

25. Complied with all relevant ordinances, rules, and regulations of the local jurisdiction(s) that govern post-construction stormwater pollution prevention activities, including proper operation and maintenance of the MS4. (Required after initial date of Permit coverage, S6.D.5.a)

26. Coordinated with local jurisdiction regarding projects owned or operated by other entities which discharge into the Secondary Permittee's MS4. (Required after initial date of Permit coverage, S6.D.5.b)

S6.D.6 Pollution Prevention and Good Housekeeping for Municipal Operations

27. Implemented an Operation and Maintenance program. (New Secondary Permittees – Required no later than three years from initial date of Permit coverage, S6.D.6.a)

28. Updated O&M Plan, as needed, no later than July 1, 2027 (S6.D.6.a).

29. Established and implemented maintenance standards for stormwater collection and conveyance systems, as described in S6.D.6.a.i. (New Secondary Permittees – Required no later than three years from initial date of Permit coverage.)

30. Conducted spot checks of potentially damaged stormwater treatment and flow control BMPs/facilities after major storms. (New Secondary Permittees – Required no later than three years from initial date of Permit coverage, S6.D.6.a.i)

31. Developed and implemented a Stormwater Pollution Prevention Plan (SWPP) for material storage areas, heavy equipment maintenance or storage yards not covered by another NPDES Permit that authorizes stormwater discharges associated with the activity. (New Secondary Permittees – Required no later than three years from initial date of Permit coverage, S6.D.6.a.viii)

32. Have NPDES Permit coverage for *Industrial Stormwater General Permit* for all applicable industrial facilities operated by the Permittee, or another NPDES Permit that authorizes surface water discharges associated with the activity. (Required after initial date of Permit coverage, S6.D.6.b)

33. Implemented a program designed to train staff to carry out the Operations and Maintenance plan as described in S6.D.6.d. (Required no later than three years from initial date of Permit coverage)

S7. Compliance with Total Maximum Daily Load Requirements

34. Is there an approved Total Maximum Daily Load (TMDL) applicable to stormwater discharges from a MS4 owned or operated by the Permittee? (S7)

35. Complied with the specific requirements identified in Appendix 2. (S7.A)

36. **Attach** status report of TMDL implementation. (S7.A)

General Conditions

37. Notified Ecology of the failure to comply with the Permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)

38. Notified Ecology immediately in cases where the Permittee becomes aware of a discharge into or from the Permittee's MS4 which may constitute a threat to human health, welfare, or the environment. (G3)

39. Took appropriate action to correct or minimize discharges into or from the MS4 which could constitute a threat to human health, welfare, or the environment. (G3.A)

S4 Compliance with Standards

40. If applicable, **attach** a summary of the status of implementation of any actions taken pursuant to S4.F, and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)

APPENDIX 5 – Annual Report Questions for New Permittees

New Permittees that are Cities, Towns, or Counties are required to submit the following information in an online annual report form, or an alternative format provided by Ecology, upon request, pursuant to Special Condition S9.

Reporting Requirements and SWMP

1. **Attach** annual Stormwater Management Program Plan (SWMP). (Required no later than March 31, 2029, S5.A.2)
2. **Attach** a notification of any annexations, incorporations, or boundary changes resulting in an increase or decrease in the Permittee's geographic area of Permit coverage during the reporting period per S9.D.6.
3. Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of developing and implementing the SWMP. (Required to begin no later than January 1, 2026)
4. Provide a breakdown of average annual costs (or estimates) to implement the SWMP and permit programs (S5.A.3.a, required to be submitted no later than March 31, 2027):
    a. What was the annual expenditure or estimate to develop and implement the SWMP this reporting period?
    b. What was the annual expenditure or estimate to develop and implement Appendix 2 TMDL requirements, if applicable?
    c. What were your source(s) of funding for the stormwater program?
5. Coordinated among departments within the jurisdiction to eliminate barriers to Permit compliance. (S5.A.5.b)
    a. **Attach** a written description of internal coordination mechanisms. (Required no later than March 31, 2026, S5.A.5.b)
6. If applicable, identify other entities relied on to satisfy any of the obligations under the Permit. (S9.D4).

Stormwater Planning

7. Have you convened an interdisciplinary team to inform and assist in the development, progress, and influence of the stormwater planning program? (Required by August 1, 2025, S.5.C.1.a)

Coordination with Long-range Plan Updates

8. List the relevant land use planning efforts that have taken place in your jurisdiction (i.e., land use plans that are used to accommodate growth, stormwater management, or transportation). (S5.C.1.b.i.- Required by March 31, 2027)

9. List of stormwater capital projects (currently in or slated for future design and construction) that resulted from this planning. (S5.C.1.b.i – Required by March 31, 2027)

10. Describe watershed protection measures associated with stormwater management and land use planning actions that resulted from this planning. (S5.C.1.b.i– Required by March 31, 2027)

11. Were land acquisitions identified (or are planning ahead for) that are useful for stormwater facilities to accommodate growth or to better serve an existing developed area? (S5.C.1.b.i– Required by March 31, 2027,)

    a. If yes, for what purpose?

12. Updates to goals and policies related to investment in stormwater management facilities/BMPs? (yes/no) (S5.C.1.b.i– Required by March 31, 2027)

    a. If yes, briefly describe in *Comments*.

Low Impact Development Code-related Requirements

13. Reviewed, revised and made effective the low impact development-related enforceable documents per S5.C.1.c.ii. (Required by December 31, 2028)

    a. **Attach** a summary of the LID review and revision process that includes the requirements listed in S.5.C.1.c.ii. (Required no later than March 31, 2029)

14. Adopted and implemented tree canopy goals and policies to support stormwater management and water quality improvement in receiving waters. (S5.C.1.c.iii; December 31, 2028)

Education and Outreach

15. **Attach** a description of general awareness efforts conducted per S5.C.2.a.i, including what, if any, regional program you are participating in. (Required to begin no later than August 1, 2027)

16. Developed a behavior change program that is tailored to the community in accordance with S5.C.2.a.ii.(c)? (Required no later than August 1, 2025)

    a. **Attach** the strategy and schedule developed in accordance with S5.C.2.a.ii(c).

17. Began implementing strategy outlined in S.5.C.2.a.ii.(c). (Required by October 1, 2025)

18. Provided stewardship opportunities (or partnered with others) to encourage resident participation. (Required to begin no later than August 1, 2027, S5.C.2.a.iii)

Public Involvement and Participation

19. Describe in *Comments* field the opportunities created for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and updates of the Permittee's SWMP. (Required to begin no later than August 1, 2025, S5.C.3.a)

20. Describe specific public involvement opportunities provided to overburdened communities. (S5.C.3.a.i)

21. Document methods used to identify overburdened communities. (No later than December 31, 2026, S5.C.3.a.ii)

22. Posted the updated SWMP Plan and latest annual report on your website no later than May 31. List the website address in *Comments* field. (Required to begin posting no later than May 31, 2026, S5.C.3.b)

MS4 Mapping and Documentation

23. Developed a map of the MS4 that includes the requirements listed in S5.C.4. (Required no later than March 31, 2029)

24. Met the requirements of S5.C.4.a.vii for all connections to the MS4 authorized after August 1, 2024. (Required to begin no later than August 1, 2024)

25. No later than March 31, 2027, submitted locations of all known MS4 outfalls, including size and material, in accordance with S5.D.4.b.i. The data shall be in one of the following formats:
    - ESRI file geodatabase template[1] (feature class in .gdb)
    - Shapefile template[2]
    - ArcGIS Online template (sharing template a or b via ArcGIS Online)
    - Excel template[3]

Illicit Discharge Detection and Elimination

26. Informed public employees, businesses, and the general public of hazards associated with illicit discharges, per S.5.C.5.b? (Required no later than August 1, 2026)
27. Adopted and implemented an ordinance or other regulatory mechanism to effectively prohibit illicit discharges, per the requirements in S5.C.5.c.i-iv. (Required no later than August 1, 2026)
    a. Cite reference for ordinance or other regulatory mechanism to meet this requirement in *Comments* field.
28. Developed and implemented procedures for conducting illicit discharge investigations in accordance with S5.C.5.d.i? Cite methodology used in the *Comments* sections. (Required no later than August 1, 2028)
29. Screened the MS4 within coverage area each year in accordance with S5.C.5.d.i.(a) (Required to screen 40% no later than December 31, 2028; 12% on average each year, thereafter)
30. How are you publicizing your hotline? (Required to be available no later than August 1, 2026, S5.C.5.d.ii)
31. Developed and implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.5.d.iii. (Required to begin no later than March 31, 2026)
32. Developed and implemented a program to characterize, trace, and eliminate illicit discharges into the MS4 found by or reported to the Permittee. (Required no later than August 1, 2028, S5.C.5.e)
33. Trained municipal illicit discharge detection staff to conduct illicit discharge detection and elimination activities referenced in S5.C.5.f. (Required no later than March 31, 2026)

[1] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.gdb.zip
[2] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.shape.zip
[3] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4GP.Mapoutfall.prelim.excel.xlsx

34. **Attach** a report with data describing the actions taken to characterize, trace, and eliminate each illicit discharge reported to, or investigated by, the Permittee, as described in S5.C.5.g. The submittal must include all of the applicable information and must follow the instructions, timelines, and format described in Appendix 13.

Controlling Runoff from New Development, Redevelopment and Construction Sites

35. Developed and implemented a program to reduce pollutants in stormwater runoff to the MS4 from new development, redevelopment and construction site activities. (Required no later than June 30, 2027, S5.C.6)

36. Adopted and implemented an ordinance or other enforceable mechanism to address runoff from new development, redevelopment and construction sites per the requirements of S5.C.6.a. (Required no later than June 30, 2027)

    a. Cite the jurisdiction code reference used to meet this requirement in *Comments* field.

37. Number of exceptions granted to the minimum requirements in Appendix 1. (Required March 31, 2028, S5.C.6.b.i and Section 6 of Appendix 1)

38. Number of adjustments granted to the minimum requirements in Appendix 1. (Required March 31, 2028, S5.C.6.b.i and Section 6 of Appendix 1)

39. Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.6.b.ii. (Required no later than June 30, 2027, S5.C.6.c.i)

    a. Number of site plans reviewed during the reporting period.

40. Inspected, prior to clearing and construction, all permitted development sites, per S5.C.6.c.ii. (Required no later than June 30, 2027)

41. Inspected all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. (Required no later than June 30, 2027, S5.C.6.c.iii)

    a. Inspected new residential stormwater treatment and flow control BMPs/facilities and catch basins at least twice per 12-month period, with no less than 4 months between inspections, per S5.C.6.c.iv, to identify maintenance needs and enforce compliance with maintenance standards.

42. Number of enforcement actions taken during the reporting period based on construction phase inspections at new development and redevelopment projects. (Required no later than June 30, 2027, S5.C.6.c.ii-iv)

43. Inspected all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of stormwater facilities. (Required no later than June 30, 2027, S5.C.6.c.v)

44. Verified a maintenance plan is completed, and responsibility for maintenance is assigned for projects. (Required no later than June 30, 2027, S5.C.6.c.v)

45. Achieved at least 80% of scheduled construction-related inspections. (Required no later than June 30, 2027, S5.C.6.c.vi)

46. Made Ecology's Construction Stormwater General Permit *Notice of Intent* and Industrial Stormwater General Permit *Notice of Intent* available to representatives of proposed new development and redevelopment? (Required no later than August 1, 2024, S5.C.6.d)

47. All staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites are trained to conduct these activities? (Required no later than December 31, 2027, S5.C.6.e)

Source Control Program for Existing Development

48. Adopted ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities, per S.5.C.8.a. (Required by August 1, 2026)

- **a.** Cite ordinance in *Comments* field.

49. Established an inventory per S5.C.8.b. (Required by August 1, 2027)

- **a.** Number of total sites identified for the inventory.

50. Implemented an inspection program, per S5.C.8.c. (Required by January 1, 2028)

51. Implemented a progressive enforcement policy, per S5.C.8.d. (Required by January 1, 2028)

52. **Attach** a summary of actions taken to implement the Source Control program, per S5.C.8.d.iii (March 31, 2029)

- **a.** **Attach** a list of inspections, per S5.C.8.d, organized by the business category, noting the amount of times each business was inspected, and if enforcement actions were taken.

53. Implemented a Source Control training program, per S5.C.8.e. (December 31, 2027)

Operation and Maintenance

54. Developed and implemented maintenance standards as protective, or more protective, of facility function as those specified in the *Stormwater Management Manual for Western Washington*. (Required no later than June 30, 2027, S5.C.9.a)

55. Applied a maintenance standard for a facility or facilities which do not have maintenance standards specified in the *Stormwater Management Manual for Western Washington*. (Required to report, if applicable, no later than June 30, 2027, S5.C.9.a)

- **a.** Note in the *Comments* field what kinds of facilities are covered by this alternative maintenance standard.

56. Verified that maintenance was performed per the schedule in S5.C.9.a.ii when an inspection identified an exceedance of the maintenance standard. (June 30, 2027)

- **a.** **Attach** documentation of any maintenance delays.

57. Implemented an ordinance or other enforceable mechanisms to verify long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities regulated by the Permittee, per S5.C.9.b.i?

58. Annually inspected stormwater treatment and flow control BMPs/facilities regulated by the Permittee, per S5.C.9.b.i(b).

- **a.** If using reduced inspection frequency for the first time during this permit cycle, **attach** documentation, per S5.C.9.b.i(b).

59. Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.9.b.ii)

60. Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (Required no later than June 30, 2027, S5.C.9.c.i)

- **a.** Number of municipally owned or operated stormwater treatment and flow control BMPs/facilities.
- **b.** Number of facilities inspected during the reporting period.
- **c.** Number of facilities for which maintenance was performed during the reporting period.

61. **Attach** documentation of a reduced stormwater treatment and flow control BMPs/facilities inspection frequency as per S5.C.9.c.i. (Required, if applicable)

62. Conducted spot checks and inspections of potentially damaged stormwater facilities after major storms. (Required no later than June 30, 2027, S5.C.9.c.ii)

63. Inspected all municipally owned or operated all catch basins and inlets owned or operated by the Permittee at least once every two years, or used an alternative approach. (Required no later than December 31, 2028, S5.C.9.c.iii)

- **a.** Number of known catch basins.
- **b.** Number of catch basins inspected.
- **c.** Number of catch basins cleaned.

64. **Attach** documentation of alternative catch basin inspection approach, if used. (Required, if applicable, S5.C.9.c.iii)

65. Developed and implemented practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (Required no later than December 31, 2027, S5.C.9.d)

66. No later than July 1, 2027, developed and implemented a municipal street sweeping program to focus on priority areas and times during the year that would reasonably be expected to result in the maximum water quality benefits to receiving waters (S5.C.9.e, required to report beginning March 31, 2028).

67. Attach documentation if implementing an alternative sweeping timing and frequency, based on local conditions (S5.C.9.e.ii.b.)

- **a.** **Attach** priority areas swept on a map
- **b.** Sweeping dates
- **c.** Sweeping frequency
- **d.** Type of sweeper
- **e.** Total curb miles of priority areas and curb miles swept
- **f.** Approximation of street waste solids removed for each sweeping event, with unit of weight and wet or dry weight, where available.

68. Disposed of sweeper waste material in accordance with Appendix 6- Street Waste Disposal (S5.C.9.e.iv)?

69. Developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit, as described in (Required no later than June 30, 2027, S5.C.9.f)

70. Developed and implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (Required no later than June 30, 2027, S5.C.9.g)

Compliance with Total Maximum Daily Load Requirements

71. Complied with the Total Maximum Daily Load (TMDL) - specific requirements identified in Appendix 2, if applicable. (S7.A)

a. List and requirements that were not met.

72. For TMDLs listed in Appendix 2, **attach** a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter. (S7.A.1)

General Conditions and Compliance with Standards

73. Notified Ecology in accordance with G3 of any discharge into or from the Permittee's MS4 which could constitute a threat to human health, welfare, or the environment. (G3)

74. Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment, per G3.A.

75. Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)

76. If requested, submitted an *Adaptive Management Response* report in accordance with S4.F.3.a.

77. **Attach** a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period? (S4.F.3.d)

78. Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance? (G20)

79. Number of non-compliance notifications (G20s) provided in reporting year. List Permit conditions described in non-compliance notification(s) in *Comments* field.

APPENDIX 6 – Street Waste Disposal

Street Waste Liquids General Procedures

Street waste collection should emphasize retention of solids in preference to liquids. Street waste solids are the principal objective in street waste collection and are substantially easier to store and treat than liquids.

Street waste liquids require treatment before their discharge. Street waste liquids, which include, but are not limited to, eductor and street sweeping truck decant and drainage from piles and containers, usually contain high amounts of suspended and total solids and absorbed metals. Treatment requirements depend on the discharge location.

Discharges to sanitary sewer and storm sewer systems must be approved by the entity responsible for operation and maintenance of the system. Ecology will not generally require waste discharge permits for discharge of stormwater decant to sanitary sewers or to stormwater treatment BMPs constructed and maintained in accordance with Ecology's *Stormwater Management Manual for Western or Eastern Washington,* as appropriate.

The following order of preference, for disposal of liquid from collection of street waste and water removed from stormwater treatment BMPs, is ***required***.

1. **Discharge of street waste decant liquids to a municipal sanitary sewer connected to a Publicly Owned Treatment Works (POTW) is the *preferred disposal option*.** Discharge to a municipal sanitary sewer requires the approval of the sewer authority. Approvals for discharge to a POTW will likely contain pretreatment, quantity, and location conditions to protect the POTW.

2. **Discharge of street waste decant liquids may be allowed into a Basic or Metals Runoff Treatment BMP, if option 1 is not available.** Street waste liquid may be discharged back into the storm sewer system under the following conditions only when ***all*** of the following apply:
   - The preferred disposal option of discharge to sanitary sewer is not reasonably available;
   - The liquid comes from street waste only. Do not send liquids decanted from sanitary wastes to stormwater BMPs;
   - The discharge is to a Basic or Metals Runoff Treatment BMP. If pretreatment does not remove visible sheen from oils, the Runoff Treatment BMP must be able to prevent the discharge of oils causing a visible sheen;

- The discharge from the eductor or sweeper truck is as near to the inlet of the Runoff Treatment BMP as is practical, to minimize contamination or recontamination of the collection system;
- The storm sewer system owner/operator has granted approval and has determined that the Runoff Treatment BMP will accommodate the increased loading. Pretreatment conditions to protect the Runoff Treatment BMP may be issued as part of the approval process. Following local pretreatment conditions is a requirement of this Permit; and
- Ecology must approve in advance flocculants for the pretreatment of street waste liquids. The liquids must be non-toxic under the circumstances of use. If the owner/operator adds flocculants to street waste liquids, they must follow the requirements of BMP C250/C250E: Construction Stormwater Chemical Treatment and BMP C251/251E: Construction Stormwater Filtration.

The reasonable availability of sanitary sewer discharge will be determined by the Permittee, by evaluating such factors as distance, time of travel, load restrictions, and capacity of the Runoff Treatment BMP.

3. **Operators may temporarily place portable tanks (e.g. Baker Tanks) near where sweeping is taking place to temporarily hold water and solids from the sweeper**. Transfer this water/solid mixture to the decant facility at a later time.
4. **Operators may discharge liquids removed from the street while sweeping during rain events, if the designated decant facility is a distance away (i.e., travel time would significantly impact the amount of sweeping).** When sweeping during rain events, the sweeper will fill with water quickly.

   Discharge to Wastewater Collection System: Operators may discharge water from eductor or sweeper trucks to the wastewater collection system through manholes located in the street that is swept with approval from the Sewer Authority. The method used to move water from the sweeper to the wastewater collection system should be developed by the Sewer Authority.

   Discharge to Stormwater Collection System: Operators may discharge clear decanted water to the stormwater collection system for the roadway being swept when all of the conditions listed below apply. Operators cannot deposit decanted water into a collection system different from the system for the roadway being swept. Conditions to discharge:

   - The catch basin receiving the decanted water already receives runoff from the swept street.
   - The water entering the sweeper storage tank is runoff from the street and not water placed on the street by a water truck or the sweeper during the sweeping operation.

- The sweeper stays in place for a minimum of 15 minutes at the discharge location to allow solids to settle prior to decanting the water from the storage tank.
- The operator places an appropriately sized catch basin filter in the catch basin or a filter sock attached to the end of the outlet hose allowing for a slow release of water. Remove the catch basin filter or filter sock following its use.
- The operator stops discharging liquids to the catch basin when there is a concentration of solids leaving the tank.
- The storm sewer system owner/operator shall approve the discharge.

5. **Operators may return water removed from stormwater ponds, vaults, and oversized catch basins to the storm sewer system.** Stormwater ponds, vaults, and oversized catch basins contain substantial amounts of liquid, which hampers the collection of solids and poses problems if the removed waste must be hauled away from the site. Water removed from these facilities may be discharged back into the pond, vault, or oversized catch basin provided:
   - Clear water removed from a stormwater treatment structure may be discharged directly to a down gradient cell of a treatment pond or into the storm sewer system.
   - Turbid water may be discharged back into the structure it was removed from if:
     - The removed water has been stored in a clean container (eductor truck, Baker tank, or other appropriate container or facility used specifically for handling stormwater or clean water); ***and***
     - There will be no discharge from the pond, vault, or oversized catch basin for at least 24 hours.
   - The discharge must be approved by the storm sewer system owner/operator.

Street Waste Solids

Soils generated from maintenance of the MS4 may be reclaimed, recycled or reused when allowed by local codes and ordinances. Street Wastes are defined in Chapter 173-350 WAC[1]. Soils that are identified as contaminated, pursuant to Chapter 173-350 WAC, shall be disposed of at a qualified solid waste disposal facility.

Typically, the County Health Department produces permits for disposal of solid waste and not Ecology. Ecology's authority does not extend to actual disposal of street waste material.

[1] https://apps.leg.wa.gov/wac/default.aspx?cite=173-350

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APPENDIX 7 – Determining Construction Site Sediment Damage Potential

The following rating system allows objective evaluation of a particular development site's potential to discharge sediment. Permittees may use the rating system below or develop alternative process designed to identify site-specific features which indicate that the site must be inspected prior to clearing and construction. Any alternative evaluation process must be documented and provide for equivalent environmental review.

Step 1 is to determine if there is a sediment/erosion sensitive feature downstream of the development site. If there is such a site downstream, complete Step 2, assessment of hydraulic nearness. If there is a sediment/erosion sensitive feature and it is hydraulically near the site, go to Step 3 to determine the construction site sediment transport potential.

STEP 1 – Sediment/Erosion Sensitive Feature Identification

Sediment/erosion sensitive features are areas subject to significant degradation due to the effect of sediment deposition or erosion. Special protection must be provided to protect them. Sediment/erosion sensitive features include but are not limited to:

i. Salmonid bearing fresh water streams and their tributaries or freshwater streams that would be Salmonid bearing if not for anthropogenic barriers;
ii. Lakes;
iii. Category I, II, and III wetlands;
iv. Marine near-shore habitat;
v. Sites containing contaminated soils where erosion could cause dispersal of contaminants; and
vi. Steep slopes (25% or greater) associated with one of the above features.

Identify any sediment/erosion sensitive features, and proceed to Step 2. If there are none, the assessment is complete.

STEP 2 – Hydraulic Nearness Assessment

Sites are hydraulically near a feature if the pollutant load and peak quantity of runoff from the site will not be naturally attenuated before entering the feature. The conditions that render a site hydraulically near to a feature include, but are not limited to, the following:

i. The feature or a buffer to protect the feature is within 200 feet downstream of the site.
ii. Runoff from the site is tight-lined to the feature or flows to the feature through a channel or ditch.

A site is not hydraulically near a feature if one of the following takes place to provide attenuation before runoff from the site enters the feature:

i. Sheet flow through a vegetated area with dense ground cover
ii. Flow through a wetland not included as a sensitive feature
iii. Flow through a significant shallow or adverse slope, not in a conveyance channel, between the site and the sensitive feature.

Identify any of the sediment/erosion sensitive features from Step 1 that are hydraulically near the site, and proceed to Step 3. If none of the sediment/erosion sensitive features are hydraulically near the site, the assessment is complete.

STEP 3 – Construction Site Sediment Transport Potential

Using the worksheet below, determine the total points for each development site. Assign points based on the most critical condition that affects 10% or more of the site.

If soil testing has been performed on site, the results should be used to determine the predominant soil type on the site. Otherwise, soil information should be obtained from the county soil survey to determine Hydrologic Soil Group (Table of Engineering Index Properties for step 1.D) and Erosion Potential (Table of Water Features for step 1.E).

When using the county soil survey, the dominant soil type may be in question, particularly when the site falls on a boundary between two soil types or when one of two soil types may be present on a site. In this case, the soil type resulting in the most points on the rating system will be assumed unless site soil tests indicate that another soil type dominates the site.

Use the point score from Step 3 to determine whether the development site has a high potential for sediment transport off of the site.

Total Score	**Transport Rating**
<100	Low
≥100	High

A high transport rating indicates a higher risk that the site will generate sediment contaminated runoff.

Construction Site Sediment Transport Potential Worksheet

A. Existing slope of site (average, weighted by aerial extent): Points

2% or less 0

>2-5% 5

>5-10% 15

>10-15% 30

>15% 50

B. Site Area to be cleared and/or graded:

<5,000 sq. ft. 0

5,000 sq. ft. – 1 acre 30

>1 acres 50

C. Quantity of cut and/or fill on site:

<500 cubic yards 0

500 – 5,000 cubic yards 5

>5,000 – 10,000 cubic yards 10

>10,000 – 20,000 cubic yards 25

>20,000 cubic yards 40

D. Runoff potential of predominant soils (Soil Conservation Service):

Hydrologic soil group A 0

Hydrologic soil group B 10

Hydrologic soil group C 20

Hydrologic soil group D 40

E. Erosion Potential of predominant soils (Unified Classification System):

GW, GP, SW, SP soils 0

Dual classifications (GW-GM, GP-GM, GW-GC,

GP-GC, SW-SM, SW-SC, SP-SM, SP-SC) 10

GM, GC, SM, SC soils 20

ML, CL, MH, CH soils 40

F. Surface or Groundwater entering site identified and intercepted1:

Yes 0

No 25

G. Depth of cut or height of fill >10 feet:

Yes 25

No 0

H. Clearing and grading will occur in the wet season (October 1 – May 1):

Yes 50

No 0

TOTAL POINTS ..... _____

[1] If no surface or ground water enters the site, assign 0 points.

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APPENDIX 8 – Businesses and Activities that are Potential Sources of Pollutants

Use this appendix to help identify businesses and/or activities with potential outdoor pollutant-generating sources that discharge to the MS4 and should be included in the Permittee's source control inventory, developed pursuant to S5.C.8.b.ii. The Standard Industrial Code (SIC), Major Group, and NAICS numbers are provided for reference. Permittees may include additional outdoor pollutant-generating sources that are located within their jurisdictions.

Group Description	SIC Major Group	SIC Industry Group No.	NAICS Major Group
Support Activities for Animal Production		074, 075	1152xx,
Construction of Buildings	15		236
Heavy and Civil Engineering Construction	16		237
Specialty Trade Contractors	17		238
Beverage, Food, and Tobacco Manufacturing	20		311, 312
Wood Product Manufacturing	24		321
Paper Manufacturing	26		3221xx, 3222xx
Printing and Related Support Activities	27		323
Chemical Manufacturing	28		325
Petroleum and Coal Products Manufacturing	29		3241xx
Plastics and Rubber Product Manufacturing	30		326
Leather and Allied Product Manufacturing	31		316
Nonmetallic Mineral Product Manufacturing	32		327
Primary Metal Manufacturing	33		331
Fabricated Metal Product Manufacturing	34		332
Machinery, Computer, and Electronic Product manufacturing	35		333, 334
Electrical Equipment, Appliance, and Component Manufacturing	36		335
Transportation Equipment Manufacturing	37		336
Rail Transportation	40		482

Group Description	SIC Major Group	SIC Industry Group No.	NAICS Major Group
Transit and Ground Passenger Transportation	41		485
Truck Transportation and Warehousing	42		484, 493
Support Activities for Transportation		473, 474, 478	4881xx, 4882xx, 4884xx, 4889xx,
Utilities	49		2211xx
Wholesale Trade – Durable Goods		501, 503, 505, 506, 507, 509	423140, 423930, 423110, 4233xx, 4237xx, 4238xx,
Wholesale Trade – Nondurable Goods		514, 515, 516, 517, 518, 519	424930, 4244xx, 4246xx, 4247xx, 4248xx,
Building Materials, Hardware, Garden Supplies Dealers		521, 523, 526	444
Food and Beverage Stores	54		445
Automotive Dealers and Gasoline Service Stations	55		441, 447
Food Services and Drinking Places	58		722
Rental and Leasing Services		735	5321xx, 5324xx
Repair and Maintenance	75		811192, 8111xx, 8112xx, 8113xx, 8114xx,
Ambulatory Health Care Services and Hospitals		806, 807	621910,
Educational Services	82		6111xx, 6112xx, 6113xx, 6115xx
Museums, Historical Sites, and Similar Institutions		842	712

APPENDIX 9 – Stormwater Discharge Monitoring

This Appendix applies to Phase I and II Permittees with requirements pursuant to Special Condition S8.C – Stormwater Discharge Monitoring.

Stormwater discharge monitoring is intended to characterize stormwater runoff quantity and quality at a limited number of locations in a manner that allows analysis of loadings and changes in conditions over time and generalization across the Permittee's jurisdiction.

QAPP PREPARATION

Permittees shall prepare a Quality Assurance Project Plan (QAPP). The QAPP shall be developed by qualified staff or contractors with experience in applying Ecology or U.S. Environmental Protection Agency (EPA) QAPP Guidelines. General Ecology guidelines can be found at https://ecology.wa.gov/ and in the *Quality Assurance Project Plan Guidance*, Special Condition S8.D, *Phase I Municipal Stormwater Permit,* December 2010 (Ecology Publication no. 10-10-075, https://apps.ecology.wa.gov/publications/documents/1010075.pdf).

A stormwater discharge monitoring QAPP shall be submitted to Ecology in accordance with the deadlines in S8.C. The QAPP shall describe field collection methods and sample preparation methods appropriate to each group of analytes, reporting limits, and field conditions.

Permittees are responsible for maintaining an up-to-date approved QAPP for stormwater discharge monitoring. Significant changes shall be reviewed by Ecology and reflected in a revised QAPP. Significant changes include, but are not limited to:

- Land disturbing activities over 10 acres in size within the sampled drainage area;
- Relocating a monitoring station;
- Introducing new sampling equipment;
- Unanticipated back water conditions, base flow, or tidal influences; and
- Changes in laboratories, analytical methods, or reporting limits.

Permittees continuing their stormwater monitoring discharge programs from prior permits are required to update their QAPP to reflect the changes of this Appendix and extend the timeframe. Locations, methodology, and laboratory techniques previously approved by Ecology should be discussed in the QAPP.

DISCHARGE MONITORING LOCATION SELECTION

Stormwater monitoring discharge monitoring locations shall have mapped tributary conveyance systems and drainage areas and be suitable for permanent installation and operation of flow-weighted composite sampling equipment. Additional monitoring location selection guidance and information about how to estimate a rainfall to runoff relationship is available in *Standard Operating Procedure for Automatic Sampling for Stormwater Monitoring*, WQP002, https://apps.ecology.wa.gov/publications/SummaryPages/1810024.html.

Permittees may identify a discharge monitoring location upstream in the conveyance system (*i.e.*, up- gradient of the outfall) in order to achieve the desired land use, to accommodate the installation of sampling equipment, and/or to avoid or minimize back water or tidal interference.

The QAPP shall describe each stormwater discharge monitoring location and associated drainage basin in detail. The QAPP must describe how each discharge monitoring location was selected, the size of the drainage basin, and the percentage of area in the drainage basin representing the following land uses: high density residential, low density residential, commercial, industrial, agriculture, and transportation right-of-way. Table A9-1, below, provides characteristics to consider for some of these land uses. However, density definitions can vary from jurisdiction to jurisdiction and may be defined locally in codes and comprehensive plans. Report the residential density definitions used if they differ from these.

Table A9-1 Land Use Selection Characteristics

Land use category	Characteristics
High density residential	4 dwelling units per acre or greater
Medium to high density residential	2 to 4 dwelling units per acre
Low density residential	1 to 2 dwelling units per acre
Commercial	Includes multi-family residential
Industrial	Not predominated by one facility with a few operators

FLOW MONITORING

Discharge monitoring locations must be evaluated for a rainfall to runoff relationship in order to ensure that the discharge monitoring location will receive enough runoff for sufficient sample volume. This rainfall to runoff relationship will also assist in programming the automatic sampling equipment. In order to establish the rainfall to runoff relationship, one year of continuous flow recording (including base flow and all storm events) is necessary.

MONITORING FREQUENCY

Permittees shall sample each stormwater discharge monitoring location according to the frequency described below. Documented good faith efforts with good professional practice by the Permittee which do not result in collecting a successful sample for the full number of required storms may be considered as contributing toward compliance with this requirement.

For each location, the Permittee shall sample and analyze a minimum of eleven (11) qualifying storm events per water year. Qualifying storm event sampling must be distributed throughout the year, approximately reflecting the distribution of rainfall between the wet and dry seasons (with a goal of 60- 80% of the samples collected during the wet season and a goal of 20-40% of the samples collected in the dry season).

Ecology may approve a reduced sampling frequency if the Permittee provides a statistical analysis demonstrating that monitoring and reporting goals can be met with fewer samples.

QUALIFYING STORM EVENT CRITERIA

The wet season is from October 1 through April 30. A qualifying wet season storm event is defined as follows when all of these conditions apply:

- Rainfall volume: 0.20" minimum, no fixed maximum;
- Rainfall duration: No fixed minimum or maximum;
- Antecedent dry period: Less than or equal to 0.05" rain in the previous 6 hours, unless more time is needed to return to baseflow at the sampling point; and
- Inter-event dry period: 6 hours.

The dry season is from May 1 through September 30. A qualifying dry season storm event is defined as follows when all of these conditions apply:

- Rainfall volume: 0.20" minimum, no fixed maximum;
- Rainfall duration: No fixed minimum or maximum;
- Antecedent dry period: less than or equal to 0.02" rain in the previous 24 hours; and
- Inter-event dry period: 6 hours.

TYPES OF SAMPLING

Storm events shall be sampled using flow-weighted composite sampling techniques. Automatic samplers shall be programmed to begin sampling as early in the runoff event as practical and to continue sampling past the longest estimated time of concentration for the tributary area. Refer to *Standard Operating Procedure for Automatic Sampling for Stormwater Monitoring,* WQP002, https://apps.ecology.wa.gov/publications/SummaryPages/1810024.html.

For storm events lasting less than 24 hours, samples shall be collected for at least 75% of the storm event hydrograph. For storm events lasting longer than 24 hours, samples shall be collected for at least 75% of the hydrograph of the first 24 hours of the storm.

Each composite sample shall be targeted to contain at least 10 aliquots. Composite samples with 7 to 9 aliquots are acceptable if they meet the other sampling criteria and help achieve a representative balance of wet season/dry season events and storm sizes.

Continuous flow recording of all storm events (not just sampled storm events) is necessary for at least one complete water year to establish a baseline rainfall/runoff relationship. Ongoing continuous flow monitoring is required for each of the sampled storm events as necessary to properly conduct the flow- weighted composite sampling. Precipitation data shall be collected from the nearest rain gauge reporting at least hourly rainfall amounts.

Grab samples are necessary for some parameters (Table A9-2) and shall be collected early in the storm event. Refer to *Standard Operating Procedure for Grab Sampling for Stormwater Monitoring,* WQP001, https://apps.ecology.wa.gov/publications/SummaryPages/1810023.html.

Stormwater solids samples shall be collected twice per water year at each stormwater discharge monitoring location, or in the vicinity of each stormwater monitoring location. Ecology may approve reducing this requirement to a once per year frequency if the Permittee provides evidence demonstrating that insufficient material is present in the conveyance. In-line conveyance system locations are the target for stormwater solids sampling (e.g., catch basin sumps), not receiving waters nor BMPs where soils could be inadvertently sampled. Use of in-line traps or similar collection system is needed for stormwater solids sampling; refer to *Standard Operating Procedure for Collection of Stormwater Solids using In-Line Traps,* WQP003, https://apps.ecology.wa.gov/publications/SummaryPages/1810025.html. The QAPP will need to specify the sampling approach for the selected sampling sites.

PARAMETERS

Flow-weighted composite samples shall be analyzed for the following parameters utilizing an Ecology- or EPA-accredited laboratory and the methods and reporting limits as provided in table A9-2 or otherwise approved by Ecology.

- Conventional parameters;
- Methylene blue activating substances (MBAS);
- Nutrients;
- Metals; and
- Organics:
  - Polycyclic aromatic hydrocarbons (PAHs)
  - Pesticides
  - Phthalates

If the volume of the stormwater sample collected from a qualifying storm is insufficient to allow analysis for all of the parameters listed above, the sample shall be analyzed for as many parameters as possible in the following priority order: (1) metals and hardness; (2) conductivity; (3) TSS; (4) nutrients; (5) organics: PAHs, phthalates, insecticide, and herbicides; (6) BOD_5; and (7) remaining conventional parameters. If insufficient sample exists to run the next highest priority pollutant, that analysis may be bypassed, and analyses run on lower priority pollutants in accordance with the remaining priority order to the extent possible. Parameters that are below reporting limits after two years of data may be dropped from the analysis.

Grab samples shall be analyzed for the following parameters utilizing an Ecology- or EPA-accredited laboratory and the methods and reporting limits listed in Table A9-2 at the end of this Appendix.

- Fecal coliform bacteria; and
- Total petroleum hydrocarbons – diesel fraction

Stormwater solids samples shall be analyzed for the following parameters utilizing an Ecology- or EPA- accredited laboratory and the methods and reporting limits listed in table A9-3 or otherwise approved by Ecology.

- Conventional parameters;
- Metals;
- Organics:
  - Pesticides
  - PAHs
  - Phthalates
  - Phenolics
  - Polychlorinated biphenyls (PCBs)
  - Polybrominated diphenyl ethers (PBDEs)
  - Total petroleum hydrocarbon – diesel fraction (TPH-Dx)

If the stormwater solids sample volume is insufficient to analyze for all of the parameters listed below, the sample shall be analyzed for as many parameters as possible in the following priority order: (1) conventional parameters; (2) metals; (3) TPH-Dx; (4) Phenolics; (5) PAHs and phthalates; (6) pesticides; (7) PBDEs; and (8) PCBs. If insufficient sample exists to run the next highest priority pollutant, that analysis may be bypassed, and analyses run on lower priority pollutants in accordance with the remaining priority order to the extent possible. Additional samples shall be collected if insufficient sample exists from a single sample to run all of the organic pollutants listed above. A visual, qualitative determination of grain size shall be reported for all stormwater solids samples (in addition to the quantitative analysis for all samples with sufficient volume). Parameters that are below reporting limits after two years of data may be dropped from the analysis.

RECORDKEEPING AND REPORTING

An "Annual Stormwater Discharge Monitoring Report" shall be submitted with each Annual Report beginning in 2025. Each report shall summarize all monitoring data collected during the preceding water year (October 1 – September 30). The first annual monitoring report submitted will include data from a partial water year. Each report shall integrate data from earlier years into the analysis of results, as appropriate. Permittees continuing their stormwater monitoring discharge programs at the same locations will continue summarizing data from prior permit periods.

ANNUAL MONITORING REPORTS

Annual Stormwater Discharge Monitoring Reports shall provide all monitoring data collected during the preceding water year (October 1 – September 30). Concentration data shall be provided in the same units that are specified for Reporting Limits in Tables A9-2 and A9-3. Flow data shall be provided in gallons per minute. Loading data for each water year shall be provided in total pounds and in pounds per acre. Annual Stormwater Discharge Monitoring Reports shall consist of a narrative report, an Excel spreadsheet with concentration data (summary statistics: minimum, maximum, mean, median and standard deviation), pollutant loading calculations, and a submittal to Ecology's Environmental Information Management (EIM) database for applicable data. For the Annual Stormwater Discharge Monitoring Report to be considered on time, the EIM data submission process must be initiated before April 1 of each relevant year and completed by June 15 of each relevant year.

The report shall include:

- A brief summary of each monitored drainage basin (full details of the monitoring drainage basin shall be in the QAPP), including any changes within the contributing drainage area or changes to the monitoring station that could affect hydrology and/or pollutant loading.
- A description of each flow-weighted composite and grab sampled storm event, including:
  - General summary about storm event criteria, including:
    - Precipitation data (in inches) including antecedent dry period and rainfall distribution throughout the event;
    - Flow and hydrograph data including sampled and total runoff time periods and volumes;
    - Total number of qualifying storm events captured and analyzed at each monitoring location;
    - Distribution of storms collected between wet and dry seasons (permit goals include 60-80% of storms during the wet season and 20-40% of storms during the dry season); and
    - Logistical problems associated with any storm event criterion.
  - A hyetograph and a hydrograph for each sampled storm event. Include properly labeled graphs that display the following:
    - Date of the storm event;

    - Time of day versus precipitation information;
    - Time versus flow rate (in gallons per minute);
    - Time versus aliquot collection; and
    - Display the total duration of the storm event, not just the duration when samples were collected (remember your pollutant load calculation must include flow for the entire storm event, not just the water quality sampled portion).
  - A summary of (or in the graph) the total runoff volume in gallons.
  - A rainfall/runoff relationship table used to estimate the un-sampled storm events (when water quality samples were not collected). This is used for future estimations of annual and seasonal loads.
  - Whether or not any chemicals were removed from the list of analysis due to two years of non-detect data.
  - A brief summary with storm event dates where insufficient volumes were collected. Include the parameters analyzed.
- A description of the stormwater solids sampling event, including:
  - Timeframe for the sampling event.
  - A summary of stormwater solids sampling (including dates) where insufficient volumes were collected. Include the parameters analyzed.
  - Whether or not any chemicals were removed from the list of analysis due to two years of non-detect data.
- Event Mean Concentrations (EMCs).
- The wet and dry season pollutant loads and annual pollutant load based on water year for each discharge monitoring location expressed in total pounds, and pounds per acre. The loadings must take into account potential pollutant load from base flow. Loadings shall be calculated following *Standard Operating Procedure for Calculating Pollutant Loads for Stormwater Discharges, WQP004* https://apps.ecology.wa.gov/publications/SummaryPages/1810026.html. Pollutant loading calculations and reporting are required only for the nutrients, metals, and organics parameters in stormwater. Include the following:
  - For storm events where water quality samples were collected, the load in pounds per day for each parameter for each sampled storm event, include date of storm events.
  - An estimated seasonal pollutant load for each parameter at each discharge monitoring location. This is calculated using all storm events (when water quality samples were collected and when samples were not collected).
  - A total annual pollutant load (wet season load + dry season load) for each parameter (include estimated events).
  - The rainfall/runoff relationship including your pollutant load estimates for un-sampled events.
  - Note that if any data is unavailable to effectively estimate your rainfall to runoff relationship due to an incomplete water year, submit this information in the next year's stormwater monitoring report.

- Quality Assurance/Quality Control information for each successfully sampled qualifying storm event at each discharge monitoring location and solids sample collection event at each discharge monitoring location, including:
  - A narrative summary of your field and laboratory verification, validation results and quality control checks performed.
  - A narrative analysis of your field and laboratory quality control sample results and how they compare with your data quality objectives/indicators in your QAPP.
  - Corrective actions reported/taken.
- An explanation and discussion of results from each successfully sampled qualifying storm event at each discharge monitoring location and solids sample collection event collected at each discharge monitoring location, including:
  - A statistical analysis of the event means concentrations for each parameter and a narrative description of significant findings from this analysis.
  - Any conclusions based on data from this study including analyses of previously collected data from these discharge monitoring locations.
- A description of activities currently taking place or planned within the monitoring station's drainage area that may have affected or may potentially affect future monitoring results.

If the Permittee monitors any pollutant more frequently at the stormwater discharge monitoring locations, the results of this monitoring shall be included in the annual monitoring report reflecting the water year in which the monitoring occurred.

After three (3) water years of data, the Annual Monitoring Report shall include:

- Trend analyses;
- An evaluation of the data as it applies to the Stormwater Management Program (SWMP); and
- Any stormwater management activities the Permittee has identified that can be implemented or adjusted to respond to this data.

LABORATORY METHODS

The Permittee's stormwater discharge monitoring program shall use the following analytical methods or other methods approved by the U.S. Environmental Protection Agency or Ecology with similar reporting limits unless alternative methods are approved by Ecology. Any alternative method proposed by a Permittee must have a similar reporting limit, or must be justified as adequate for the likely, expected range of concentrations. Permittees are not guaranteed approval of alternative methods or reporting limits.

In cases where smaller volumes of water are expected to be collected, or to save analytical costs, Permittees may propose that some of the analyses be optimized for specific parameters or groups. The Permittee must, in consultation with a qualified chemist, define the exact volumes and optimization steps and include them in the QAPP.

The QAPP shall identify Ecology- or EPA-approved methods with appropriate reporting limits. An individual sample that could not be run at a reporting limit because of matrix interference or other such reasons would not be called into question for compliance purposes. All results shall be reported. This includes positive detections between the method detection limit (MDL) and the reporting limit (RL), with the appropriate lab qualifier, and the non-detected concentrations at the value of the MDL or lower limit of quantitation (LLOQ) with the appropriate lab qualifier of "U" for undetected at that concentration. Non-detections must be reported and analyzed in the dataset. Results must be evaluated and censored for blank contamination (e.g., organic parameters should consider a censor threshold of less than 5x the laboratory blank contamination). All data gathering and data handling approaches should be explained in the QAPP.

Table A9-2 Analytical Procedures in Stormwater

Analyte	Method in Water	Method Detection Limit Target[a]	Reporting Limit or Lower Limit of Quantitation (LLOQ)[b]
Conventional Parameters			
Total suspended solids[c]	SM2540B or SM2540D		1.0 mg/L
Turbidity	EPA Method 180.1 or SM2130B		± 0.2 NTU
Conductivity	EPA Method 120.1 or SM2510B		± 1 µmhos/cm
Chloride	EPA Method 300.0, EPA Method 325.2, or SM4110B or SM4500 Cl-B, SM4500 Cl-C, SM4500 Cl-D, SM4500 Cl- EPAHS		0.2 mg/L
BOD5	SM5210B		2.0 mg/L
pH	EPA Method 150.2 or SM4500H+ B		0.2 units
Hardness as CaCO3	EPA Method 200.7, SM2340B(ICP), SM2340C (titration), or SM3120B		1.0 mg/L
Methylene blue activated substances (MBAS)	CHEMetrics Colorimetric or SM5540C		0.025 mg/L
Bacteria			
Fecal Coliform	SM9221E		Specified in method -

Analyte	Method in Water	Method Detection Limit Target[a]	Reporting Limit or Lower Limit of Quantitation (LLOQ)[b]
			sample aliquot dependent
E.coli (freshwater)	SM9221 B, SM9221 F, SM9223 B		Specified in method - sample aliquot dependent
Enterococci (marine)	EPA Method 1600, SM9230 B, SM9230 C, SM9230D		Specified in method - sample aliquot dependent
Nutrients			
Orthophosphate as P	EPA Method 365.3, EPA Method 365.1, SM4500-P E, SM4500-P F, or SM4500- P G	0.003 mg/L	0.01 mg/L
Total phosphorus as P	EPA Method 365.3, EPA Method 365.4, or SM4500-P-B followed by SM4500-P E or P F	0.003 mg/L	0.01 mg/L
Total Kjeldahl nitrogen as N or Total Nitrogen	EPA Method 351.2, EPA Method 351.1, SM4500 Norg-B, SM4500 Norg-C, SM4500 NH3-D, SM4500 NH3-G, SM4500 NH3-E, SM4500 NH3-F, SM4500 NH3-G, SM4500 NH3-H, SM4500 N-B, SM4500 N-C, SM4500 N-E		0.3 mg/L
Ammonia as N	SM4500 NH3-D, SM4500 NH3-G, SM4500 NH3-E, SM4500 NH3-F, SM4500 NH3-G, or SM4500 NH3-H		0.02 mg/L
Nitrate-Nitrite as N	EPA Method 353.2, SM4500 - $NO3^-$ E, SM4500 -$NO3^-$ F, or SM4500 -$NO3^-$ H		0.1 mg/L
Metals			

Analyte	Method in Water	Method Detection Limit Target[a]	Reporting Limit or Lower Limit of Quantitation (LLOQ)[b]
Total zinc	EPA Method 200.8 or SM 3125B		5.0 µg/L
Dissolved zinc	EPA Method 200.8 or SM 3125B		1.0 µg/L
Total lead, copper and cadmium	EPA Method 200.8 or SM 3125B		0.1 µg/L, 0.5 µg/L, and 0.2 µg/L
Dissolved lead, copper, and cadmium	EPA Method 200.8 or SM 3125B	0.05, 0.02, and 0.03 µg/L	0.1 µg/L
Organics			
PAHs[d]	EPA Method 8270D SIM or EPA 8270E SIM		0.1 µg/L
Pesticides: Bifenthrin (pyrethroid insecticide) and dichlobenil (herbicide)	EPA Method 8270D SIM, EPA 8270E SIM, or EPA Method 625.1	0.02 µg/L	0.05 µg/L
Phthalates[e]	EPA Method 8270D SIM or EPA 8270E SIM	0.5 µg/L	1 µg/L
Petroleum Hydrocarbons			
NWTPH-Dx (diesel, heavy oil, and summed total)	Ecology, 1997	0.1 mg/L	0.25-0.5 mg/L

NA – Not applicable
SM – Standard Methods
SIM – Selective Ion Monitoring mode

a. If a value is not present in this column, then the target MDL is not published or not different from reporting limit target.
b. The QAPP shall identify Ecology- or EPA-approved methods with appropriate reporting limits. An individual sample that could not be run at a reporting limit because of matrix interference or other such reasons would not be called into question for compliance purposes.
c. Research results indicate that errors may be introduced by decanting a subsample, care and use of tools like a funnel splitter may help.
d. Polycyclic aromatic hydrocarbons (PAH), total and these individual compounds: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, and retene. Report the individual compound concentrations, and their summed total.
e. Phthalates, total and these individual compounds: bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, di-n-octyl phthalate, dibutyl phthalate, and diethyl phthalate. Report the individual compound concentrations, and their summed total.

Table A9-3 Analytical Procedures in Stormwater Solids

Analyte	Method for Solid/Sediment	Reporting Limit or LLOQ[a]
Conventional Parameters		
Percent solids	SM 2540G	0.1 %
Total organic carbon	Puget Sound Estuary Protocols (PSEP 1997), SM5310B, SM5310C, SM5310D, or EPA Method 9060	0.1%
Grain size	Sieve and Pipette (ASTM 1997), ASTM F312-97, ASTMD422, or PSEP 1986/2003	Not Applicable
Total phosphorus	EPA Method 365.3, EPA Method 365.4, SM4500 P E, or SM4500 P F	0.01 mg/kg
Total volatile solids	EPA Method 160.4 or SM2540G	0.1%
Analyte	**Method for Solid/Sediment**	**Reporting Limit or LLOQ[a]**
Metals, dry weight		
Total zinc	EPA Method 200.8, EPA Method 6010D, EPA Method 6020B, or SM3125B	5.0 mg/kg
Total lead	EPA Method 200.8, EPA Method 6010D, EPA Method 6020B, or SM 3125B	0.1 mg/kg
Total copper	EPA Method 200.8, EPA Method 6010D, EPA Method 6020B, or SM 3125B	0.1 mg/kg
Total cadmium	EPA Method 200.8, EPA Method 6010D, EPA Method 6020B, or SM 3125B	0.1 mg/kg
Organics, dry weight		
Pesticides: Bifenthrin and dichlobenil	EPA Method 8270D, EPA 8270E, or EPA Method 1660	1.0 µg/kg
PAHs[b]	EPA Method 8270D or EPA 8270E SIM	70 µg/kg
Phthalates[c]	EPA Method 8270D or EPA 8270E SIM	70 µg/kg Except di-n-octlyphthalate (250 µg/kg)
Phenolics[d]	EPA Method 8270D or EPA 8270E SIM	660 µg/kg

PCBs[e]	EPA Method 608.3 or EPA Method 8082A	0.195 µg/kg or 5-20 ng/kg
PBDEs[f]	EPA Method 1614	5-10 ng/kg Except PBDE 209: (200 ng/kg)
Petroleum Hydrocarbons		
TPH-Dx (diesel, heavy oil, and summed total)	Ecology, 1997 or EPA Method 8015B	25-100 mg/kg

NA – Not applicable

SM – Standard Methods

SIM – Selective Ion Monitoring mode

a. The QAPP shall identify Ecology- or EPA-approved methods with appropriate reporting limits. An individual sample that could not be run at a reporting limit because of matrix interference or other such reasons would not be called into question for compliance purposes.
b. Polycyclic aromatic hydrocarbon (PAH) compounds, total and these individual compounds: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, and retene. Report the individual compound concentrations, and their summed total.
c. Phthalates: bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, di-n-octyl phthalate, dibutyl phthalate, and diethyl phthalate. Report the individual compound concentrations, and their summed total.
d. Phenolics: pentachlorophenol, p-cresol, and o-cresol. Report the individual compound concentrations.
e. PCBs. EPA Methods 608.3 or EPA Method 8082A for Aroclors: 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, 1268 are suitable starting points for stormwater solids characterization. If a more sensitive congener analysis is conducted (EPA Method 8082A or EPA Method 1668C) then those individual compound concentrations should also be reported in the annual report.
f. Polybrominated diphenyl ethers (PBDEs): congener numbers 47, 49, 66, 71, 99, 100, 138, 153, 154, 183, 184, 191, and 209. Report the individual compound concentrations, and their summed total.

REFERENCES

ASTM. 1997. *Standard test methods for determining sediment concentration in water samples. Method D 3977.* American Society for Testing and Materials, Philadelphia, PA.

PSEP. 1986. *Recommended Protocols for measuring conventional sediment variables in Puget Sound.* Prepared by Tetra Tech, Inc. for U.S. Environmental Protection Agency and Puget Sound Water Quality Authority. Tetra Tech Inc., Bellevue, WA.

Ecology, 1997. *Analytical Methods for Petroleum Hydrocarbons*. Washington State Department of Ecology, Toxics Cleanup Program. Olympia, WA. Publication No. 97-602.

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APPENDIX 10 – Equivalent Programs for Runoff Controls for New and Redevelopment and Construction Sites

Ecology determined that the following list shall be used to amend any enforceable documents, including codes, ordinances, director's rules, public rules and/or manuals, to be functionally equivalent to Appendix I in the *Western Washington Phase II Municipal Stormwater Permit* (effective August 1, 2024) and the required portions of Ecology's 2024 *Stormwater Management Manual for Western Washington.*

1. **Redevelopment Project Level Thresholds:** The "Project Level" thresholds for applying the Minimum Requirements to redevelopment projects have been updated.

    - Project Level - Redevelopment Thresholds / Road Related Projects

      The updated threshold for road related projects states that all Minimum Requirements apply to the new and replaced hard surfaces and converted vegetation areas if the project adds 5,000 square feet of new plus replaced hard surfaces AND the new plus replaced hard surfaces total 50% or more of the existing hard surfaces on the Site (underline shows the new language).
    - Project Level - Redevelopment Thresholds / Commercial or Industrial Projects

      The updates include a new threshold for commercial or industrial Sites. The new threshold states that all Minimum Requirements apply to the new and replaced hard surfaces and converted vegetation areas if the Project adds more than 5,000 square feet of new plus replaced hard surfaces AND the new plus replaced hard surfaces total 50% or more of the existing hard surfaces within the Site.

    See **Section 3** of Appendix 1.

2. **Project Exemptions:** The text describing the exemptions from Minimum Requirements has been updated to ensure that the project scope does not exceed the intention of these limited exemptions.

    See **Section 1** of Appendix 1.

3. **Wetland Hydroperiod Protection Method 2:** The hydroperiod protection requirements for Criteria 2 in Method 2 have been updated. The updates include an increase from 15% to 20% allowable monthly discharge volume deviations during October, November, and December, and an "allowable exception" for summer months.

    See **I-C.4 Wetland Hydroperiod Protection** in the 2024 SWMMWW.

4. **Definitions Related to Minimum Requirements:** Multiple definitions related to the Minimum Requirements have been updated for statewide consistency and/or to reflect updated requirements.

An example of a term with an updated definition to reflect an updated requirement is "vehicular use". The definition for "vehicular use" has been updated to identify Light Rail tracks (both elevated and non-elevated) as a pollution generating impervious surface.

See **Section 2** of Appendix 1.

5. **Runoff Treatment Performance Goal Thresholds:** Some thresholds for Runoff Treatment BMP types (i.e. basic, metals, oil, and/or phosphorus) have been updated for statewide consistency and/or to reflect updated requirements.

   An example of an edit to the Runoff Treatment Performance Goal Thresholds that reflects an updated requirement is identifying Light Rail guideways as a Site type that requires metals treatment.
   See **Section 4.6** of Appendix 1.

6. **Source Control BMPs - PCB Edits:** The following Source Control BMPs have been updated to include guidance for preventing pollution from PCBs in building materials:

   - S424 BMPs for Roof / Building Drains at Manufacturing and Commercial Buildings
   - S431 BMPs for Washing and Steam Cleaning Vehicles / Equipment / Building Structures
   - S438 BMPs for Construction Demolition
   - S451 BMPs for Building Repair, Remodeling, Painting, and Construction

   See **Volume IV** in the 2024 SWMMWW.

7. **Bioretention:** The guidance within **BMP T7.30: Bioretention** has been updated to include the option to use the High Performance Bioretention Soil Mix (HPBSM). The design guidance was also updated to clarify the design infiltration rate to use for all three bioretention soil mix options.

   See **BMP T7.30: Bioretention** in the 2024 SWMMWW.

Appendix 11 - Annual contribution amounts for Stormwater Action Monitoring Collective Funds

Western Washington

Permittee *Permittees are grouped by County and listed alphabetically*	**Population used for cost allocation** [1]	**Annual amount for S8.A**	**Annual amount for S8.B**
Clallam			
Port Angeles	20,200	$5,050	$7,474
Clark			
Unincorporated	237,650	$78,425	$87,931
Battle Ground	21,780	$7,187	$8,059
Camas	27,250	$8,993	$10,083
Vancouver	197,600	$65,208	$73,112
Washougal	17,390	$5,739	$6,434
Cowlitz			
Unincorporated	13,059	$4,309	$4,832
Kelso	12,720	$4,198	$4,706
Longview	37,780	$12,467	$13,979
Grays Harbor			
Aberdeen	17,040	N/A	$6,305
Island			
Oak Harbor	24,760	$6,190	$9,161
King			
Unincorporated	248,160	$62,040	$91,819
Algona	3,300	$825	$1,221
Auburn	88,750	$22,188	$32,838
Bellevue	153,900	$38,475	$56,943
Black Diamond	6,145	$1,536	$2,274
Bothell	48,940	$12,235	$18,108
Burien	52,490	$13,123	$19,421
Clyde Hill	3,110	$778	$1,151
Covington	21,200	$5,300	$7,844
Des Moines	33,160	$8,290	$12,269
Duvall	8,320	$2,080	$3,078
Enumclaw	12,910	$3,228	$4,777
Federal Way	101,800	$25,450	$37,666
Issaquah	40,950	$10,238	$15,152
Kenmore	24,090	$6,023	$8,913
Kent	137,900	$34,475	$51,023
Kirkland	93,570	$23,393	$34,621
Lake Forest Park	13,620	$3,405	$5,039

Permittee *Permittees are grouped by County and listed alphabetically*	**Population used for cost allocation** [1]	**Annual amount for S8.A**	**Annual amount for S8.B**
Maple Valley	28,920	$7,230	$10,700
Medina	2,915	$729	$1,079
Mercer Island	25,780	$6,445	$9,539
Newcastle	13,560	$3,390	$5,017
Normandy Park	6,790	$1,698	$2,512
Pacific	7,270	$1,818	$2,690
Port of Seattle	20,196	$5,049	$7,473
Redmond	75,270	$18,818	$27,850
Renton	107,500	$26,875	$39,775
Sammamish	68,150	$17,038	$25,216
SeaTac	31,910	$7,978	$11,807
Seattle	762,500	$190,625	$282,125
Shoreline	60,320	$15,080	$22,318
Snoqualmie	14,490	$3,623	$5,361
Tukwila	22,620	$5,655	$8,369
Woodinville	13,450	$3,363	$4,977
Kitsap			
Unincorporated	55,271	$13,818	$20,450
Bainbridge Island	25,060	$6,265	$9,272
Bremerton	45,220	$11,305	$16,731
Port Orchard	16,400	$4,100	$6,068
Poulsbo	12,180	$3,045	$4,507
Lewis			
Centralia	18,360	N/A	$6,793
Mason			
Shelton	10,430	$2,608	$3,859
Pierce			
Unincorporated	440,800	$110,200	$163,096
Bonney Lake	22,990	$5,748	$8,506
Buckley	5,315	$1,329	$1,967
DuPont	10,180	$2,545	$3,767
Edgewood	13,520	$3,380	$5,002
Fife	11,130	$2,783	$4,118
Fircrest	7,215	$1,804	$2,670
Gig Harbor	12,540	$3,135	$4,640
Lakewood	63,800	$15,950	$23,606
Milton	8,695	$2,174	$3,217
Orting	9,055	$2,264	$3,350
Port of Tacoma	20,196	$5,049	$7,473
Puyallup	43,260	$10,815	$16,006

Permittee *Permittees are grouped by County and listed alphabetically*	**Population used for cost allocation** [1]	**Annual amount for S8.A**	**Annual amount for S8.B**
Steilacoom	6,790	$1,698	$2,512
Sumner	10,800	$2,700	$3,996
Tacoma	220,800	$55,200	$81,696
University Place	35,420	$8,855	$13,105
Skagit			
Unincorporated	11,396	$2,849	$4,217
Burlington	9,800	$2,450	$3,626
Anacortes	17,880	$4,470	$6,616
Mount Vernon*	35,500	$8,875	$13,135
Sedro-Woolley	12,590	$3,148	$4,658
Snohomish			
Unincorporated	371,915	$92,979	$137,609
Arlington	21,260	$5,315	$7,866
Brier	6,590	$1,648	$2,438
Edmonds	42,980	$10,745	$15,903
Everett	113,300	$28,325	$41,921
Granite Falls	4,705	$1,176	$1,741
Lake Stevens	40,700	$10,175	$15,059
Lynnwood	38,740	$9,685	$14,334
Marysville	72,380	$18,095	$26,781
Mill Creek	21,510	$5,378	$7,959
Monroe	19,700	$4,925	$7,289
Mountlake Terrace	22,070	$5,518	$8,166
Mukilteo	21,590	$5,398	$7,988
Snohomish	10,200	$2,550	$3,774
Thurston			
Unincorporated	55,887	$13,972	$20,678
Lacey	58,180	$14,545	$21,527
Olympia	56,370	$14,093	$20,857
Tumwater	26,360	$6,590	$9,753
Whatcom			
Unincorporated	18,942	$4,736	$7,009
Bellingham	93,910	$23,478	$34,747
Ferndale	15,970	$3,993	$5,909
Lynden	16,150	$4,038	$5,976
WSDOT			
Lower Columbia	37,780	$12,467	N/A
Puget Sound	137,900	$34,475	N/A

*Mount Vernon name added 7/3/24 .

Permittee *Permittees are grouped by County and listed alphabetically*	**Population used for cost allocation** [1]	**Annual amount for S8.A**	**Annual amount for S8.B**
Totals	5,302,795	$ 1,419,123[3]	$1,976,984

[1] Populations are based on Office of Financial Management data for 2022, accessed in April 2023. The derivation of the populations used to calculate the cost allocations for Phase II counties, Ports of Seattle and Tacoma, and WSDOT are explained in the permit fact sheet.

[2] The first S8.A and S8.B payments are not due until the second year of permit (2025) for Shelton in Mason County. These were new permittees/permit coverage areas in the 2019- 2024 Western Washington Phase II permit.

[3] The total annual S8.A amount for Lower Columbia is $198,993 and the total annual S8.A amount for Puget Sound is $1,220,130. These pooled funding contributions will be managed in separate accounts.

Eastern Washington

Permittee *Permittees are grouped by County and listed alphabetically*	**Population used for cost allocation** [1]	**Annual amount for S8.B**
Asotin County		
Unincorporated	20,000	$7,400
Asotin	1,220	$451
Clarkston	7215	$2,670
Benton County		
Kennewick	85320	$31,568
Richland	62220	$23,021
West Richland	17410	$6,442
Chelan County		
Unincorporated	5395	$1,996
Wenatchee	35650	$13,191
Douglas County	16509	$6,108
East Wenatchee	14180	$5,247
Franklin County		
Pasco	80180	$29,667
Grant County		
Moses Lake	26040	$9,635
Kittitas County		
Ellensburg	20940	$7,748
Spokane County		
Unincorporated	64879	$24,005
Spokane	230900	$85,433
Spokane Valley	107100	$39,627
Walla Walla County		
Unincorporated	2944	$1,089
College Place	9855	$3,646
Walla Walla	34020	$12,587
Whitman County		
Pullman	32790	$12,132
Yakima County		
Unincorporated	17984	$6,654
Selah	8365	$3,095
Sunnyside	16500	$6,105
Union Gap	6640	$2,457
Yakima	98200	$36,334
Totals	1,022,456	$378,308

[1] Populations are based on Office of Financial Management data for 2022, accessed in April 2023. The derivation of the populations used to calculate the cost allocations for Phase II counties are explained in the permit fact sheet. Since Asotin County unincorporated UGA population is not available, Ecology used Local information (NOI).

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APPENDIX 12 –Stormwater Management for Existing Development Program Reporting

Each Permittee shall implement a Stormwater Management for Existing Development (SMED) Program to control or reduce stormwater discharges to waters of the state from areas of existing development.[1] The Program shall aim to focus on strategic stormwater investments over longer planning timeframes.

This Appendix describes project criteria, assigned area required to be managed by Permittees, and reporting SMED requirements associated with Permit Section S5.C.7.

Permittee Assignment of Equivalent Acres

Permittees are required to fully fund, start construction, or completely implement projects that meet the assigned equivalent acres listed in Table 1. Equivalent acres are calculated as described below and is intended to be a measure that compares the project area and BMPs with Appendix 1 standards for LID, flow control, or runoff treatment BMPs where appropriate.

Table 1: Assigned Equivalent Acres according to population for Phase II Permittees.

PERMITTEE	POPULATION[2]	ASSIGNED EQUIVALENT ACRES BASED ON 8 ACRES/50,000 POP.
CITY OF MEDINA	2,915	0.5
CITY OF CLYDE HILL	3,110	0.5
CITY OF ALGONA	3,300	0.5
CITY OF GRANITE FALLS	4,705	0.8
CITY OF BUCKLEY	5,315	0.9
CITY OF BLACK DIAMOND	6,145	1
CITY OF BRIER	6,590	1.1
CITY OF STEILACOOM	6,790	1.1
CITY OF NORMANDY PARK	6,790	1.1
CITY OF FIRCREST	7,215	1.2
CITY OF PACIFIC	7,270	1.2
CITY OF DUVALL	8,320	1.3
CITY OF MILTON	8,695	1.4
CITY OF ORTING	9,055	1.4
CITY OF BURLINGTON	9,800	1.6
CITY OF DUPONT	10,180	1.6

[1] New Permittees are exempt from this permit section.
[2] Populations are based on Office of Financial Management data for 2022, accessed in April 2023.

PERMITTEE	POPULATION[2]	ASSIGNED EQUIVALENT ACRES BASED ON 8 ACRES/50,000 POP.
CITY OF SNOHOMISH	10,200	1.6
CITY OF SHELTON	10,430	1.7
CITY OF SUMNER	10,800	1.7
CITY OF FIFE	11,130	1.8
COUNTY OF SKAGIT	11,396	1.8
CITY OF POULSBO	12,180	1.9
CITY OF GIG HARBOR	12,540	2
CITY OF SEDRO-WOOLLEY	12,590	2
CITY OF KELSO	12,720	2
CITY OF ENUMCLAW	12,910	2.1
COUNTY OF COWLITZ	13,059	2.1
CITY OF WOODINVILLE	13,450	2.2
CITY OF EDGEWOOD	13,520	2.2
CITY OF NEWCASTLE	13,560	2.2
CITY OF LAKE FOREST PARK	13,620	2.2
CITY OF SNOQUALMIE	14,490	2.3
CITY OF FERNDALE	15,970	2.6
CITY OF LYNDEN	16,150	2.6
CITY OF PORT ORCHARD	16,400	2.6
CITY OF ABERDEEN	17,040	2.7
CITY OF WASHOUGAL	17,390	2.8
CITY OF ANACORTES	17,880	2.9
CITY OF CENTRALIA	18,360	2.9
COUNTY OF WHATCOM	18,942	3
CITY OF MONROE	19,700	3.2
CITY OF PORT ANGELES	20,200	3.2
CITY OF COVINGTON	21,200	3.4
CITY OF ARLINGTON	21,260	3.4
CITY OF MILL CREEK	21,510	3.4
CITY OF MUKILTEO	21,590	3.5
CITY OF BATTLE GROUND	21,780	3.5
CITY OF MOUNTLAKE TERRACE	22,070	3.5
CITY OF TUKWILA	22,620	3.6
CITY OF BONNEY LAKE	22,990	3.7

PERMITTEE	POPULATION[2]	ASSIGNED EQUIVALENT ACRES BASED ON 8 ACRES/50,000 POP.
CITY OF KENMORE	24,090	3.9
CITY OF OAK HARBOR	24,760	4
CITY OF BAINBRIDGE ISLAND	25,060	4
CITY OF MERCER ISLAND	25,780	4.1
CITY OF TUMWATER	26,360	4.2
CITY OF CAMAS	27,250	4.4
CITY OF MAPLE VALLEY	28,920	4.6
CITY OF SEATAC	31,910	5.1
CITY OF DES MOINES	33,160	5.3
CITY OF UNIVERSITY PLACE	35,420	5.7
CITY OF MOUNT VERNON	35,500	5.7
CITY OF LONGVIEW	37,780	6
CITY OF LYNNWOOD	38,740	6.2
CITY OF LAKE STEVENS	40,700	6.5
CITY OF ISSAQUAH	40,950	6.6
CITY OF EDMONDS	42,980	6.9
CITY OF PUYALLUP	43,260	6.9
CITY OF BREMERTON	45,220	7.2
CITY OF BOTHELL	48,940	7.8
CITY OF BURIEN	52,490	8.4
COUNTY OF KITSAP	55,271	8.8
COUNTY OF THURSTON	55,887	8.9
CITY OF OLYMPIA	56,370	9
CITY OF LACEY	58,180	9.3
CITY OF SHORELINE	60,320	9.7
CITY OF LAKEWOOD	63,800	10.2
CITY OF SAMMAMISH	68,150	10.9
CITY OF MARYSVILLE	72,380	11.6
CITY OF REDMOND	75,270	12
CITY OF AUBURN	88,750	14.2
CITY OF KIRKLAND	93,570	15
CITY OF BELLINGHAM	93,910	15
CITY OF FEDERAL WAY	101,800	16.3
CITY OF RENTON	107,500	17.2

PERMITTEE	POPULATION[2]	ASSIGNED EQUIVALENT ACRES BASED ON 8 ACRES/50,000 POP.
CITY OF EVERETT	113,300	18.1
CITY OF KENT	137,900	22.1
CITY OF BELLEVUE	153,900	24.6
CITY OF VANCOUVER	197,600	25

SMED Stormwater Investments

Permit section S5.C.7.a states:

Permittees shall implement stormwater facility retrofits, or tailored SWMP actions that meet the criteria described in Appendix 12, using one or a combination of the following:

i. *Strategic stormwater investments identified in Stormwater Management Action Plan(s) (SMAPs, S5.C.1.d.), or similar stormwater planning process; and/or*

ii. *Opportunistic stormwater investments identified by leveraging projects outside of SMAP areas to improve stormwater management and infrastructure.*

The following describes the eligible project types for SMAP and Opportunistic stormwater investment to be used to meet the assigned acreage in Table 1, how to calculate credit to project types, and a standard reporting method.

Stormwater Management Action Plan - background

During the 2019 Permit term, where applicable, Permittees were required to develop a Stormwater Management Action Plan (SMAP) for a high priority catchment area.

The SMAP is required to identify:

1. A description of the stormwater facility retrofits needed for the area, including the BMP types and preferred locations.
2. Land management/development strategies and/or actions identified for water quality management.
3. Focused, enhanced, or customized implementation of stormwater management actions related to permit sections within S5, including:
    a. IDDE field screening,
    b. Prioritization of Source Control inspections,
    c. O&M inspections or enhanced maintenance, or
    d. Public Education and Outreach behavior change programs.

Identified actions shall support other specifically identified stormwater management strategies for the basin overall, or for the catchment area in particular.

- If applicable, identification of changes needed to local long-range plans, to address SMAP priorities.
- A proposed implementation schedule and budget sources for:
  - Short-term actions (i.e., actions to be accomplished within six years), and
  - Long-term actions (i.e., actions to be accomplished within seven to 20 years).
- A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

Opportunistic stormwater investments – background

Aimed at encouraging eligible project types to improve stormwater management infrastructure. These projects do not need to be included in an SMAP to help address the stormwater runoff issues in the area. This is intended to drive stormwater investment wherever feasible and needed. This provision is modeled after the Phase I SMED Program (formerly named Structural Stormwater Control (SSC)), including the list of eligible project types. Opportunistic projects are stormwater projects planned or leveraged outside of the SMAP planning area that meet project eligibility as described below.

SMAP Project Types

Stormwater Facility Retrofits

Stormwater facility retrofits means both projects that retrofit existing treatment and/or flow control facilities and new flow control or treatment facilities or BMPs that will address impacts from existing development. SMAPs were intended to identify the needed flow control or runoff treatment BMP types and preferred locations. BMPs or project types included in this section match the Opportunistic Project types for stormwater facility retrofits:

New Flow Control Facilities

Flow control facilities need not be regional. These facilities do not have to meet the "standard flow control requirement" (refer to Appendix 1, Section 4.7) but they shall be new facilities designed to control stormwater flow from existing development. Project proponents that don't follow design criteria from the SWMMWW, or equivalent manual, should be prepared to provide additional project details at Ecology's request to support calculations for equivalent area. Qualifying projects in this category will be compared against the Flow Control Standard (Minimum Requirement #7).

New Runoff Treatment Facilities

Runoff treatment facilities include facilities that provide oil control, phosphorus treatment, enhanced (dissolved metals) treatment, and basic treatment. Facilities in this category do not have to meet runoff treatment requirements (e.g., treat 91% of the average annual runoff) but they shall be new facilities that provide a treatment benefit for existing development. Project proponents that don't follow design criteria from the SWMMWW, or equivalent manual, should be prepared to provide additional project details at Ecology's request to support calculations for equivalent area. Qualifying

projects in this category will be compared against the Runoff Treatment Standard (Minimum Requirement #6).

New LID BMPs

These facilities are consistent with the lists of On-Site Stormwater Management BMPs of Minimum Requirement 5 and reduce the volume of runoff by infiltrating runoff from the small, more frequent storms. Qualifying new LID BMP projects result in the reduction or prevention of hydrologic changes through use of on-site (e.g., infiltration, dispersion, evapotranspiration, rainwater harvesting) stormwater management BMPs. Qualifying projects in this category will be compared against the LID Performance Standard (Minimum Requirement #5).

Retrofitting of Existing Treatment and/or Flow Control Facilities

Retrofitting is expected to occur on previously constructed stormwater facilities that, if modified, would provide additional hydrologic or runoff treatment benefits. For example, Ecology considers the retrofit of a stormwater pond to provide a settling area and more storage, a retrofit to a stormwater facility.

Land Management/Development Strategies

SMAPs may include identification of lands to protect or conserve from impervious surface conversions or native vegetation removal, and the strategic means for providing the needed protection, which could be addressed via purchase or zoning or land use policy changes, to name a few options. SMAP may also include other zoning or land use policy changes deemed necessary to prevent the water body from maintaining its current designated uses.

Focused, Enhanced, or Customized Stormwater Management Actions

SMAP may include implementation of focused, enhanced, or customized implementation of stormwater management actions related to the following Permit provisions within S5.C in addition to the other required SMAP actions:

- Focused or more frequent IDDE field screening;
- Prioritization of Source Control inspections;
- O&M inspections or enhanced maintenance of facilities you own or operate;
- Maintenance that requires capital construction of more than $25,000; and/or
- Public Education and Outreach behavior change programs to support SMAP actions for the receiving water overall, or for the catchment area in particular.

Opportunistic Stormwater Investments

Below is a listing of eligible opportunistic project types, outside of SMAPs, that Permittees may implement to receive credits toward managed acres. Project types listed as 2-8 are non-structural BMPs that will receive limited credit for this permit term.

Project Types

(1) Stormwater facility retrofits (as described above):

a. New flow control facility

b. New runoff treatment facility (or treatment and flow control facility)

c. New LID BMPs

d. Retrofit of existing treatment and/or flow control facility

(2) Maintenance with capital construction costs ≥ $25,000

This project type applies to maintenance or repair projects that improve the hydrologic or treatment performance of stormwater facilities. This project type is directly related to Operations and Maintenance Program requirements at S5.C.9.a.ii. which reflects that maintenance projects, including repairs, which require capital construction ≥ $25,000 are not subject to the required 2-year window for completing the maintenance. These projects typically compete with the other types of retrofit projects for limited capital construction funding. Ecology intends that these projects be reflected in the SMED program to provide a comprehensive view of MS4 maintenance activities and requirements. Permittees may develop criteria for identifying maintenance projects that reach the capital construction cost threshold on an area-wide or system-wide basis as part of the project prioritization process. A maintenance project that removes sediment from an existing pond to re-establish the original design volume, will qualify under this project type.

(3) Property Acquisition for Water Quality and/or Flow Control Benefits

This category excludes the purchase of property for the siting of a stormwater facility. Instead, purchase of a likely development site to permanently prevent it from being developed would qualify under this category. This category includes forest protection and conservation easements. Riparian habitat acquisition qualifies under this project type. Property used for dispersion does not qualify under this project type; it is considered a New LID BMP.

(4) Restoration of Riparian Buffers

This project type describes planting and restoring of riparian buffers above the ordinary high watermark that can reduce the discharge of pollutants and reduce impacts to waters of the state by protecting or restoring hydrologic capacity.

(5) Restoration of Forest Cover

This project type describes planting and restoring of forest cover that can reduce the discharge of pollutants and reduce impacts to waters of the state by protecting or restoring hydrologic capacity.

(6) Floodplain Reconnection Projects on Water Bodies That Are Not Flow Control Exempt Per Appendix 1

Qualifying floodplain reconnection projects will provide flow reduction and runoff treatment benefits.

(7) Permanent Removal of Impervious Surfaces

This project type describes permanent removal of impervious surfaces and replacement with pervious vegetated surfaces meeting BMP T5.13 or trees that promote infiltration, dispersion, and uptake by plants or reduce the amount of pollution generating impervious surfaces.

(8) Sweeping and line cleaning

Sweeping and line cleaning shall be documented to be in addition to the requirements established in S5.C.9 Operation and Maintenance.

Non-Qualifying Project Types

1. Projects that do not have a nexus with the current MS4 or do not prevent future MS4 impacts.
2. Projects that occur within the receiving water do not qualify, including but not limited to:
    a. In-channel habitat and stream restoration
    b. Fish barrier removal
    c. Stabilization of down cutting
    d. In-stream culvert replacement
    e. Mitigation projects otherwise required to compensate for problems caused by excessive stormwater runoff peak flows and geomorphologically significant flows

How to Calculate Equivalent Acres

Use this section to determine how to credit project types to meeting the assigned Equivalent Acres in Table 1. Counties may implement projects outside of Permit coverage areas to meet their assignment where benefits to receiving waters within the Permit coverage are identified and anticipated.

Stormwater Facility Retrofits

Use the following procedures to calculate the areas managed by stormwater facility retrofits. These may be SMAP or Opportunistic projects. A single project may be eligible to gain equivalent area credit for LID, Runoff Treatment, and Flow Control, based on the water quality benefits provided by the project.

How to Calculate Area for Small Projects under 1 Acre

Small stormwater facility retrofit projects can receive equivalent acres through a simpler calculation, by determining the total area (in acres) draining to the project.

This procedure only applies to projects whose total basin area is one (1.0) acre or less. Projects with basin areas larger than 1 acre must follow the Equivalent Area Calculation process for each appropriate BMP type.

LID Performance Standard Equivalent Area Process

1. Determine the total area (in acres) draining to the project. This is called the "full basin" in these steps.
2. Run the Western Washington Hydrology Model (WWHM, 2012), or other approved continuous simulation model, to determine if the BMP meets the LID Performance Standard for the full basin area.
    - If the project meets the LID Performance Standard, the Equivalent Area equals the area draining to the BMP.
    - If the project uses Full Dispersion functionally equivalent to BMP T 5.30 in Chapter 5 of Volume V of the *Stormwater Management Manual for Western Washington*, the Equivalent Area equals the area draining to the BMP.
3. If the project does not meet the LID Performance Standard for the full basin use the Western Washington Hydrology Model (WWHM 2012), or other approved continuous simulation model to calculate the infiltration area of the BMP required to meet the LID Performance Standard Requirement (refer to Permit Appendix 1, Section 4.5) (e.g., match developed discharge durations to applicable pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year peak flow up to 50% of the 2-year peak flow). Identify the area available for infiltration in the new facility. This is the "required" New/Redevelopment infiltration area for a new BMP project, or the "required" area added through a project that retrofits an existing BMP.
4. Determine the infiltration area provided by the project under consideration. This is the "actual" infiltration area.
5. Divide the actual infiltration area (4) by required New/Redevelopment infiltration area (3) to get the LID Benefit ratio.
6. Multiply the LID Benefit ratio (5) by the full basin area (1) to get LID Equivalent area. The equivalent area cannot be greater than the full basin area.

Runoff Treatment Equivalent Area Process

1. Determine the total area (in acres) draining to the project. This is called the "full basin" in these steps.
2. Use an approved continuous simulation model to determine the required New/Redevelopment Runoff Treatment flow (cfs) or Volume (ac-ft) for the full basin using WWHM 2012.
3. Determine the flow rate or volume provided by the project. This is the "actual" runoff treatment flow rate or volume of a new BMP project, or the "actual" flow rate or volume added through a project that retrofits an existing BMP.
4. Divide the actual flow rate or volume (3) by the full basin required flow rate or volume (2) to get the Runoff Treatment Benefit ratio.

5. Multiply the Runoff Treatment Benefit ratio (4) by the full basin area (1) to get the MR #6 Runoff Treatment Equivalent area. The equivalent area cannot be greater than the full basin area.

Flow Control Equivalent Area Process

1. Determine the total area (in acres) draining to the project. This is called the "full basin" in these steps. This area can include basins upstream of the new pond that are upstream of other retention/detention facilities if there is a series of facilities that work together to control stormwater flows.
2. Use an approved continuous simulation model, to calculate the amount of retention/detention storage required to meet the Standard Flow Control Requirement (refer to Permit Appendix 1, Section 4.7) (e.g., match developed discharge durations to applicable pre-developed durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow) for the full basin.
3. Identify the volume of retention/detention at the overflow installed for the project (ac-ft). This is the "actual" retention/detention volume of a new BMP project, or the "actual" volume added through a project that retrofits an existing BMP.
4. Divide the actual retention/detention volume (3) by the full basin required New/Redevelopment retention/detention volume (2) to get the Flow Control Benefit ratio. If the ratio is greater than 1.0, use 1.0 as your Flow Control Benefit ratio.
5. Multiply the Flow Control Benefit ratio (4) by the full basin area (1) to get the Flow Control Equivalent area. The equivalent area cannot be greater than the full basin area.

SMAP: Land Management/Development Strategies and Focused, Enhanced, Custom SWMP (Non-structural BMPs)

Permittees that continue to engage in or complete these project types may receive 25% of their assigned equivalent acres from Table 1 by implementing one or both project types. For each of these project types, Permittees shall document actions taken, planned, and estimated/anticipated stormwater benefits of actions each reporting year.

For land management or development strategies, Permittees must document the process to develop, adopt or implement (or both) the strategy. Permittees must describe and document the public process, meetings, and method of implementation.

Focused, Enhanced, Custom SWMP actions shall be actions applied to the SMAP area and exceeds the requirements described in the respective program Permit section. For example, a behavior change program applied to the SMAP area must be in addition to another behavior change campaign being implemented during the same permit term.

Opportunistic project types (non-structural)

Permittees that implement these project types may receive up to 25% of the assigned equivalent acres. Actions above the 25% may still be reported, but will not receive credit. For these project types, the total project area is multiplied by the factor shown below.

Table 2: Non-structural project type multipliers

Project type	Project type factor
Maintenance with capital construction costs ≥ $25,000	0.5 times the acres served by the maintenance activity
Property acquisition	0.5 times acres acquired
Restoration of riparian buffer	0.35 times acres restored
Restoration of forest cover	0.25 times acres restored
Floodplain reconnection projects	0.10 times acres reconnected
Removal of impervious surfaces	1.0 times sq. ft of impervious surface removed
Sweeping and line cleaning	0.1 times curb miles swept 0.01 times the linear feet of lines cleaned

Street Sweeping Programs – Permittees may include street sweeping area, only if they are above and beyond the sweeping requirements in S5.C.9 Operations and Maintenance. They must be designed, executed, and documented to have the following characteristics:

- Only using a high efficiency sweeper.
- Only street sweeping routes from applicable MS4 service areas can be used to support runoff treatment benefit calculations.
- Qualifying street sweeping program is based on curb miles or acres swept (as documented through broom use and tracking of parked cars, vegetation, and other conditions that prevent the sweeper from reaching the edge of the roadway) and frequency of sweeping that is in addition to the street sweeping requirements in S5.C.9 Operations and Maintenance Program.

Stormdrain Line Cleaning Programs – Equivalent Area is based solely on linear-feet cleaned during the specified time. Line cleaning of the same section of stormwater conveyance pipe within a 5-year permit cycle does not qualify. Portions of lines that were inaccessible during line cleaning cannot be included in the calculation. If line cleaning is used to comply with S5.C.9 Catch Basin Inspection Alternative (c), it cannot be counted here.

How to Calculate Credit for Regional Collaboration

If a regional collaborative project reaches a cross-jurisdictional agreement or committed funding stage (but doesn't yet meet 'fully funded'), Phase II permittees may receive up to 25 percent of their assigned acreage credit from these collaborative projects. Once a project is complete, the Permittee will receive credit for their individual assignment. Document actions taken, planned, and estimated/anticipated stormwater benefits.

Instructions for Appendix 12 Reporting

Each year, City and County Permittees must submit an updated list of SMED projects to Ecology with their Annual Reports. The submittal shall be in .xlsx (Excel) file and include the information in this Appendix. This section provides additional information and instructions for Permit section S5.C.7.

Annual Reporting of projects provides the opportunity to track and report progress. Fill in all values as completely as possible each year. In subsequent years, Permittees should update the values for each project and add projects to new rows, as needed. You may remove projects that are cancelled or otherwise will not be used toward achieving the defined level of effort (as expressed in equivalent acres as shown in Table 1). Projects that were started on or after January 1, 2023, and are fully funded, started construction, completed, or regional collaboration by March 31, 2028, may be included.

Enter project status of stormwater facility retrofits on separate lines.

Report the following:

Project List & Project Name

Permittees shall assign each project its own row. Project names may change over time. If a project name changes, include a note or parenthetical that ties the new name to the old name. Maintenance actions with a recurring event frequency over multiple years must be named uniquely for each year (*e.g.*, Sweeping for WQ 2025).

Project Type

Project type shall be reported as described in this Appendix, distinguish between SMAP and opportunistic project types, stormwater facility retrofit type or non-structural project type.

SMAP land management/development strategies or Focused, Enhanced, or Customized SWMP actions must be fully described, including completed and anticipated actions.

Transportation-related Project Type

Describe how a project is transportation related and addressing high traffic areas. Describe in Comments how high traffic is determined locally. Note here whether the project is managing stormwater from road surfaces or other transportation-related surfaces.

Status

Report the status of the project type as follows:

- Fully Funded is for stormwater facility retrofit projects that are at or beyond design report stage and there is a documented source of funding and commitment to complete the project during the next permit cycle by March 31, 2028. Design Report Stage means project feasibility is established, BMP(s) are selected and their location(s) identified, site lay-out established, project cost developed, and proposed schedule is created.

- The started construction stage is for stormwater retrofit facilities that have begun a construction activities.
- Complete/Implementation stage is for completed stormwater facility retrofit projects, for SMAP land management/development strategies or Focused, enhanced, or customized SWMP actions, fully executed property purchases, implemented maintenance actions (as described herein), and completed restoration projects. A restoration project is not considered completed until any maintenance warranty times established with the construction contract have been completed, or vegetation establishment can be verified.
- For tracking purposes, update the status of projects for each yearly submittal.

Latitude/Longitude

If your project has multiple locations, include a Lat/Long for each location and describe the reason why in an explanatory note. Report Lat/Long in decimal degrees to six decimal places, and include the Geographic Coordinate System (e.g., WGS84). Maintenance actions that cover a geographic area shall provide zip codes for the area addressed and attach a map with the final reporting period.

Receiving Waterbody Name

List the waterbody to which the stormwater from the project discharges. If a receiving water body is unnamed, also include the name of the water body that the unnamed creek/lake is a tributary. Also indicate if the stormwater from the project is infiltrated wholly or partially to groundwater.

Cost Estimate

Estimate total project costs and update costs over the course of the project where known.

Where known, include local/state/federal funding sources by percentage in the 'Comments' field. Once a project is complete, the comments should reflect the accurate funding source distribution. For projects still underway, you may want to include an explanatory note to distinguish between funding sources that are secured and funding sources that you estimate.

Basin Area

Enter the total area served by the stormwater retrofit facility project (e.g., the full basin area). For stormwater facilities, this is the catchment area contributing runoff to the facility, including upstream facilities working as a system.

If the project serves an area under one acre, enter the total area for the basin. There are more detailed instructions in the "How to Calculate Area for Small Projects Under One Acre".

LID Equivalent Area

For each stormwater retrofit facility project that you expect to result in a hydrologic benefit for small storms, use the LID Performance Standard Equivalent Area process described in the section titled 'How to Calculate Equivalent Area.'

Runoff Treatment (RT) Equivalent Area

For each stormwater retrofit facility project that you expect to result in a runoff treatment benefit (e.g., TSS, dissolved Copper, dissolved Zinc, or Total Phosphorus), calculate Runoff Treatment Equivalent Area as described in the section titled, "How to Calculate Equivalent Area."

Flow Control (FC) Equivalent Area

For each stormwater retrofit facility project that you expect to result in a hydrologic benefit for larger storms, use the Flow Control Equivalent Area process described in the section titled 'How to Calculate Equivalent Area'.

Non-structural or Regional Collaboration Project Area

For opportunistic non-structural project types, that are not a stormwater retrofit facility, report the area for the relevant project type, up to 25% of assigned acreage:

- The area purchased or otherwise conserved or restored.
- For line cleaning projects, this is the line miles cleaned.
- For street sweeping projects, enter the amount for curb miles or acres swept.

Specify the units used for any area. For street sweeping, one curb mile for an 8.25 ft wide sweep from the curb would cover an area equal to one acre. If you use curb miles as the unit, but your sweeper width is different than this, specify the sweeper width.

For non-structural SMAP projects, report 25% of assigned acreage if implementing SMAP: Land Management/Development Strategies and/or Focused, Enhanced, Custom SWMP actions.

Permittees may receive a maximum of 50% of their assigned acreage for implementing opportunistic and SMAP non-structural project types this permit term.

For regional collaboration, report 25% of assigned acreage when a regional collaborative project reaches a cross-jurisdictional agreement, or committed funding stage, but doesn't yet meet 'fully funded.' This may only be applied one time per permit term.

Tribal benefits

Identify Project types that intend to provide stormwater management benefits to tribal waters or resources.

Overburdened Communities

Identify Project types that intend to provide stormwater management benefits to overburdened communities including specifically Vulnerable Populations and Highly Impacted Communities.

Total Equivalent Acres

Provide the calculated value of the Equivalent Acres for each Project type. For Project types receiving a percentage of the assigned acres, provide the total acres based on the calculation.

If the project provides benefits for standard flow control and/or runoff treatment, and/or LID, calculate equivalent areas for each benefit. **The Equivalent Acres for LID, runoff treatment, and flow control can be totaled.** For example, a bioretention facility would get equivalent acres for LID, based on the LID performance standard, Runoff Treatment Equivalent Acres for the amount that infiltrates through the bioretention soil media, and Flow Control Equivalent Acres based on the amount that does not overflow.

Opportunistic non-structural projects in addition to 25% (acreage, and project type)

Report opportunistic non-structural project which exceeds the 25% limit. These projects will not receive credit but may still be reported.

Completed Stormwater Facility Retrofit Acreage in excess to be applied for next permit term

Stormwater facility retrofit projects which are completely implemented by the expiration date of this Permit that will exceed the area required for this Permit term may apply the excess as a credit to be used for the next Permit term (e.g. 2029-2034 Permit term), not to exceed 50% of the next Permit's requirement.

Stormwater facility retrofits planning and projections

Report the amount of estimated or projected equivalent acres managed by stormwater facility retrofits for the next Permit term (e.g. 2029-2032).

Comments

This section can also be used to note any other information you feel is relevant, that is not addressed in other columns.

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APPENDIX 13 – IDDE Reporting Data and Format

Permittees are required to submit the following information with the online annual report form, pursuant to Special Condition S9.A.

This is the complete list of information that all Permittees are required to report for each IDDE incident found, reported to, or investigated by the Permittee. Each Permittee may use either their own system or the WQWebIDDE form for recording this data.

The form is *required* for reporting, unless you are using your own tracking system.

If using your own tracking system, this information must be provided in an electronic format that follows the data schema provided at the end of this document and is easily transferred to a database. For annual reports due on March 31, 2025, a .xml submittal that follows the schema is required.

A complete report will include a separate entry (even if left blank) for every line below and must use the precise verbiage and spelling below. For all incidents where the answer to #6 is no, #7-12 are not required. All dates are in MM/DD/YYYY format.

1. Jurisdiction name and permit number
2. Date incident discovered or reported to you
3. Date of beginning your response
4. Date of end of your response
5. How was the incident discovered or reported to you? *(select **all** that apply)*
    - Pollution hotline (phone, web, app)
    - Direct report to your staff
    - Staff referral
    - Other agency referral
    - ERTS referral
    - Business inspection
    - Construction inspection
    - MS4 inspection or screening
    - Other *(Explanation required)*

6. Discharge to MS4? *(select **one**)*
    - Yes – notified Ecology
    - Yes – notified DOH and Ecology
    - Yes – did not notify
    - Yes – allowable or conditionally allowable
    - No – none found
    - No – cleaned up before reached MS4
    - No – discharge to Underground Injection Control (UIC) well
    - Unknown
    - Other *(Explanation required)*
7. Incident Location
    - Address/Intersection
    - City
    - Zip *(optional)*

    And/Or
    - Latitude
    - Longitude
8. Pollutants Identified *(select **all** that apply)*
    - Unconfirmed, unspecified, or not identified
    - Fuel and/or vehicle related fluids
    - Food-related oil/grease
    - Sediment/soil
    - Solid waste/trash
    - Sewage/septage/pet waste/human waste
    - Other wastewater
    - Paint
    - Firefighting foam
    - Soap or cleaning chemicals
    - Other *(Explanation required)*

9. Source or Cause *(select **all** that apply)*

- Unconfirmed, unspecified, or not identified
- Vehicle-related business
- Food-related business
- Landscape-related business
- Mobile business
- Construction activity
- Other commercial/industrial activity
- Vehicle collision
- Other accident/spill
- Intentional dumping
- Illicit connection
- Other *(Explanation required)*

10. Source tracing approach(es) used *(select **all** that apply)*

- Not applicable
- Observation (color/sheen/turbidity/floatables/odor)
- Map analysis
- Dye, smoke, or pressure testing
- Field indicator measurements
- Analytical laboratory indicators
- Other *(Explanation required)*

11. Correction/elimination methods used *(select **all** that apply)*

- Clean-up
- Education/technical assistance
- Add or modify operational source control BMP
- Add or modify structural source control BMP
- Add or modify treatment BMP
- Enforcement
- Referred to other agency or department
- Other *(Explanation required)*

12. Field notes, explanations, and/or other comments

IDDE XML Schema Document (IDDE.xsd)

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:annotation>
    <xs:documentation>
      The documentation for each element will start with the question as stated in
the online form, and implementation details will follow.
    </xs:documentation>
  </xs:annotation>
  <xs:element name="IDDEEvents" type="IDDEEvents" />

  <xs:complexType name="IDDEEvents">
    <xs:annotation>
      <xs:documentation>
        A list of IDDEs.
      </xs:documentation>
      <xs:documentation>
        Ecology's IDDE processing can handle an empty list
      </xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:element maxOccurs="unbounded" name="IDDEEvent" type="IDDEEvent" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="IDDEEvent">
    <xs:annotation>
      <xs:documentation>
        One particular IDDE event
      </xs:documentation>
      <xs:documentation>
```

```
        Everything in the IDDE form is in this type.
      </xs:documentation>
    </xs:annotation>
    <xs:all>
      <xs:element maxOccurs="1" minOccurs="1" name="Jurisdiction">
        <xs:annotation>
          <xs:documentation>
            1. Jurisdiction name and permit number
          </xs:documentation>
          <xs:documentation>
            Report the full 9 character Permit Number (ex: WAR043000), Jurisdiction
name is redundant and displayed for the sake of the user on the web.
          </xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:length value="9"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="IncidentId">
        <xs:annotation>
          <xs:documentation>
            No Question: Incident ID
          </xs:documentation>
          <xs:documentation>
            This is a unique ID code for all IDDEs on your permit, but not globally
unique.  The usual sequence counting from 1 works very well.

            WQWebIDDE uses the time and username to create this value (ex:
190702174507842WQWebPortal) when an IDDE is started.

            If omitted, IDDE processing can't identify IDDEs to update and will
simply insert all IDDEs as fresh records for reporting.
```

```
          </xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:maxLength value="30"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="DateReported"
type="SqlDate">
        <xs:annotation>
          <xs:documentation>
            2. Date incident discovered or reported to you
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true"
name="DateResponseBegin" type="SqlDate">
        <xs:annotation>
          <xs:documentation>
            3. Date of beginning your response
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="DateResponseEnd"
type="SqlDate">
        <xs:annotation>
          <xs:documentation>
            4. Date of end of your response
          </xs:documentation>
        </xs:annotation>
```

```
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Discovereds"
type="Discovered">
        <xs:annotation>
          <xs:documentation>
            5. How was the incident discovered or reported to you?
          </xs:documentation>
          <xs:documentation>
            Select all that apply, explain if "Other"
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="MS4Discharge"
type="Discharge">
        <xs:annotation>
          <xs:documentation>
            6. Discharge to MS4?
          </xs:documentation>
          <xs:documentation>
            Select one, explain if "Other"
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Location"
type="Location">
        <xs:annotation>
          <xs:documentation>
            7. Incident Location
          </xs:documentation>
          <xs:documentation>
```

```
            At least one form of location is required.  Entering both is allowed and
acceptable.  Enter a street address or nearest intersection in the Address element,
it is not going to be verified to be a mailing address.

          </xs:documentation>

        </xs:annotation>

      </xs:element>

      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Pollutants"
type="Pollutant">

        <xs:annotation>

          <xs:documentation>

            8. Pollutants Identified

          </xs:documentation>

          <xs:documentation>

            Select all that apply, explain if "Other"

          </xs:documentation>

        </xs:annotation>

      </xs:element>

      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Sources"
type="Source">

        <xs:annotation>

          <xs:documentation>

            9. Source or cause

          </xs:documentation>

          <xs:documentation>

            Select all that apply, explain if "Other"

          </xs:documentation>

        </xs:annotation>

      </xs:element>

      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Traces"
type="Trace">

        <xs:annotation>

          <xs:documentation>
```

```
            10. Source tracing approach(es) used
          </xs:documentation>
          <xs:documentation>
            Select all that apply, explain if "Other"
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Corrections"
type="Correction">
        <xs:annotation>
          <xs:documentation>
            11. Correction/elimination methods used
          </xs:documentation>
          <xs:documentation>
            Select all that apply, explain if "Other"
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element maxOccurs="1" minOccurs="0" nillable="true" name="Notes"
type="xs:string">
        <xs:annotation>
          <xs:documentation>
            12. Field notes, explanations, and/or other comments
          </xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:all>
  </xs:complexType>

  <xs:simpleType name="SqlDate">
    <xs:annotation>
```

```
    <xs:documentation>
      xs:date limited to SQL Server's operating range
    </xs:documentation>
  </xs:annotation>
  <xs:restriction base="xs:date">
    <xs:minInclusive value="1753-01-01" />
    <xs:maxInclusive value="9999-12-31" />
  </xs:restriction>
</xs:simpleType>

<xs:complexType name="Discharge">
  <xs:annotation>
    <xs:documentation>
      Responses for Question 6, Discharge to MS4?
    </xs:documentation>
  </xs:annotation>
  <xs:choice>
    <xs:element name="YesNotifiedECY" type="YesNotifiedECYDischarge">
      <xs:annotation>
        <xs:documentation>
          Yes - notified Ecology
        </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="YesNotifiedDOH" type="YesNotifiedDOHDischarge">
      <xs:annotation>
        <xs:documentation>
          Yes - notified DOH and Ecology
        </xs:documentation>
      </xs:annotation>
```

```
</xs:element>
<xs:element name="YesNoNotice" type="YesNoNoticeDischarge">
  <xs:annotation>
    <xs:documentation>
      Yes - did not notify
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="YesAllowable" type="YesAllowableDischarge">
  <xs:annotation>
    <xs:documentation>
      Yes - allowable or conditionally allowable
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="NoNoneFound" type="NoNoneFoundDischarge">
  <xs:annotation>
    <xs:documentation>
      No - none found
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="NoCleanedUp" type="NoCleanedUpDischarge">
  <xs:annotation>
    <xs:documentation>
      No - cleaned up before reached MS4
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="NoToUIC" type="NoToUICDischarge">
```

```
      <xs:annotation>
        <xs:documentation>
          No - discharge to Underground Injection Control (UIC) well
        </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Unknown" type="UnknownDischarge">
      <xs:annotation>
        <xs:documentation>
          Unknown
        </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Other" type="OtherDischarge">
      <xs:annotation>
        <xs:documentation>
          Other
        </xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:choice>
</xs:complexType>

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    <xs:element maxOccurs="unbounded" name="Discovered">
      <xs:complexType>
        <xs:sequence>
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            <xs:annotation>
```

```
            <xs:documentation>
              Explain
            </xs:documentation>
            <xs:documentation>
              Required if the chosen type's xs:appinfo is Explain
            </xs:documentation>
          </xs:annotation>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="type" type="DiscoveredType"/>
    </xs:complexType>
  </xs:element>
 </xs:sequence>
</xs:complexType>

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 <xs:all>
  <xs:element maxOccurs="1" minOccurs="0" name="Address" type="AddressType" />
  <xs:element maxOccurs="1" minOccurs="0" name="LatLong" type="LatLongType" />
 </xs:all>
</xs:complexType>

<xs:complexType name="Pollutant">
 <xs:sequence>
  <xs:element maxOccurs="unbounded" name="Pollutant">
   <xs:complexType>
    <xs:sequence>
     <xs:element maxOccurs="1" minOccurs="0" name="Explain" type="xs:string">
      <xs:annotation>
       <xs:documentation>
```

```
            Explain
          </xs:documentation>
          <xs:documentation>
            Required if the chosen type's xs:appinfo is Explain
          </xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="type" type="PollutantType"/>
  </xs:complexType>
 </xs:element>
</xs:sequence>
</xs:complexType>

<xs:complexType name="Source">
 <xs:sequence>
  <xs:element maxOccurs="unbounded" name="Source">
   <xs:complexType>
    <xs:sequence>
     <xs:element maxOccurs="1" minOccurs="0" name="Explain" type="xs:string">
      <xs:annotation>
       <xs:documentation>
        Explain
       </xs:documentation>
       <xs:documentation>
        Required if the chosen type's xs:appinfo is Explain
       </xs:documentation>
      </xs:annotation>
     </xs:element>
    </xs:sequence>
```

```
        <xs:attribute name="type" type="SourceType"/>
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    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="Trace">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="Trace">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="1" minOccurs="0" name="Explain" type="xs:string">
            <xs:annotation>
              <xs:documentation>
                Explain
              </xs:documentation>
              <xs:documentation>
                Required if the chosen type's xs:appinfo is Explain
              </xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="type" type="TraceType"/>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="Correction">
  <xs:sequence>
```

```
    <xs:element maxOccurs="unbounded" name="Correction">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="1" minOccurs="0" name="Explain" type="xs:string">
            <xs:annotation>
              <xs:documentation>
                Explain
              </xs:documentation>
              <xs:documentation>
                Required if the chosen type's xs:appinfo is Explain
              </xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="type" type="CorrectionType"/>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="YesNotifiedECYDischarge">
  <xs:annotation>
    <xs:documentation>
      Discharge reached MS4, Notified Ecology
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="YesNotifiedDOHDischarge">
  <xs:annotation>
```

```
    <xs:documentation>
      Discharge reached MS4, Notified Departments of Ecology and Health
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="YesNoNoticeDischarge">
  <xs:annotation>
    <xs:documentation>
      Discharge reached MS4, Did not notify Ecology
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="YesAllowableDischarge">
  <xs:annotation>
    <xs:documentation>
      Discharge reached MS4, but it was allowable
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="NoNoneFoundDischarge">
  <xs:annotation>
    <xs:documentation>
      No discharge found
    </xs:documentation>
  </xs:annotation>
</xs:complexType>
```

```
<xs:complexType name="NoCleanedUpDischarge">
  <xs:annotation>
    <xs:documentation>
      Discharge cleaned up and did not reach MS4
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="NoToUICDischarge">
  <xs:annotation>
    <xs:documentation>
      Discharge to Underground Injection Control (UIC) well
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="UnknownDischarge">
  <xs:annotation>
    <xs:documentation>
      Unknown if discharge reached MS4
    </xs:documentation>
  </xs:annotation>
</xs:complexType>

<xs:complexType name="OtherDischarge">
  <xs:annotation>
    <xs:documentation>
      Something else happened, tell us what
    </xs:documentation>
    <xs:appinfo>
```

```
        Explain
      </xs:appinfo>
    </xs:annotation>
    <xs:sequence>
      <xs:element maxOccurs="1" minOccurs="0" name="Explain" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>

  <xs:simpleType name="DiscoveredType">
    <xs:annotation>
      <xs:documentation>
        Responses for Question 5, How was this incident discovered or reported to
you?
      </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:enumeration value="0">
        <xs:annotation>
          <xs:documentation>
            Pollution hotline (phone, web, app)
          </xs:documentation>
        </xs:annotation>
      </xs:enumeration>
      <xs:enumeration value="1">
        <xs:annotation>
          <xs:documentation>
            Direct report to your staff
          </xs:documentation>
        </xs:annotation>
      </xs:enumeration>
```

```
<xs:enumeration value="2">
  <xs:annotation>
    <xs:documentation>
      Staff referral
    </xs:documentation>
  </xs:annotation>
</xs:enumeration>
<xs:enumeration value="3">
  <xs:annotation>
    <xs:documentation>
      Other agency referral
    </xs:documentation>
  </xs:annotation>
</xs:enumeration>
<xs:enumeration value="4">
  <xs:annotation>
    <xs:documentation>
      ERTS referral
    </xs:documentation>
  </xs:annotation>
</xs:enumeration>
<xs:enumeration value="5">
  <xs:annotation>
    <xs:documentation>
      Business inspection
    </xs:documentation>
  </xs:annotation>
</xs:enumeration>
<xs:enumeration value="6">
  <xs:annotation>
```

```
          <xs:documentation>
            Construction inspection
          </xs:documentation>
        </xs:annotation>
      </xs:enumeration>
      <xs:enumeration value="7">
        <xs:annotation>
          <xs:documentation>
            MS4 inspection or screening
          </xs:documentation>
        </xs:annotation>
      </xs:enumeration>
      <xs:enumeration value="8">
        <xs:annotation>
          <xs:documentation>
            Other
          </xs:documentation>
          <xs:appinfo>
            Explain
          </xs:appinfo>
        </xs:annotation>
      </xs:enumeration>
    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="AddressType">
    <xs:annotation>
      <xs:documentation>
        Responses for Question 7. Incident Location
      </xs:documentation>
```

```
  </xs:annotation>
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="0" name="Address" type="xs:string">
      <xs:annotation>
        <xs:documentation>
          Address/Intersection
        </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element maxOccurs="1" minOccurs="0" name="City" type="xs:string">
      <xs:annotation>
        <xs:documentation>
          City
        </xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element maxOccurs="1" minOccurs="0" name="PostalCode" type="xs:string">
      <xs:annotation>
        <xs:documentation>
          Zip
        </xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="LatLongType">
  <xs:annotation>
    <xs:documentation>
      Latitude Longitude pair.
```

```
      </xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:element name="Latitude" type="LatNumber">
        <xs:annotation>
          <xs:documentation>
            Latitude
          </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Longitude" type="LongNumber">
        <xs:annotation>
          <xs:documentation>
            Longitude
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APPENDIX 14 – Stormwater Management Action Planning for New Permittees

Stormwater Management Action Planning[1] (SMAP). Permittees shall conduct a similar process and consider the range of issues outlined in the *Stormwater Management Action Planning Guidance* (Ecology, 2024; Publication no. 24-10-027). Permittees may rely on another jurisdiction to meet all or part of SMAP requirements at a watershed-scale, provided a SMAP is completed for at least one priority catchment located within the Permittee's jurisdiction.

1. **Receiving Water Assessment**. Permittees shall document and assess existing information related to their local receiving waters and contributing area conditions to identify which receiving waters are most likely to benefit from stormwater management planning.

   By March 31, 2027, Permittees shall submit a watershed inventory and include a brief description of the relative conditions of the receiving waters and the contributing areas. The watershed inventory shall be submitted as a table with each receiving water name, its total watershed area, the percent of the total watershed area that is in the Permittee's jurisdiction, and the findings of the stormwater management influence assessment for each basin. Indicate which receiving waters will be included in the prioritization process. Include a map of the delineated basins with references to the watershed inventory table.

   a) Identify which basins are expected to have a relatively low Stormwater Management Influence for SMAP. See the guidance document for definition and description of this assessment. Basins having relatively low expected Stormwater Management Influence for SMAP do not need to be included in 2-3.

2. **Receiving Water Prioritization**. Informed by the assessment of receiving water conditions in 1), above, and other local and regional information, Permittees shall develop and implement a prioritization method and process to determine which receiving waters will receive the most benefit from implementation of stormwater facility retrofits, tailored implementation of SWMP actions, and other land/development management actions (different than the existing new and redevelopment requirements). The retrofits and actions shall be designed to:

   a) conserve, protect, or restore receiving waters through stormwater and land management strategies that act as water quality management tools,

   b) reduce pollutant loading, and

   c) address hydrologic impacts from existing development as well as planned for and expected future buildout conditions.

[1] New Permittees are exempt from S5.C.1.d. for this permit term.

No later than June 30, 2027, document the prioritized and ranked list of receiving waters.

d) The Permittee shall document the priority ranking process used to identify high priority receiving waters. The Permittee may reference existing local watershed management plan(s) as source(s) of information or rationale for the prioritization.

e) The ranking process shall include the identification of high priority catchment area(s) for focus of the Stormwater Management Action Plan (SMAP) in (3), below.

3. **Stormwater Management Action Plan (SMAP).** No later than March 31, 2028, Permittees shall develop a SMAP for at least one high priority catchment area from (2), above, that identifies all of the following:

   a) A description of the stormwater facility retrofits needed for the area, including the BMP types and preferred locations. Include projects that address transportation-related runoff from high traffic areas.

   b) Land management/development strategies and/or actions identified for water quality management.

   c) Focused, enhanced, or customized implementation of stormwater management actions related to permit sections within S5, including:

      (1) IDDE field screening,

      (2) Prioritization of Source Control inspections,

      (3) O&M inspections or enhanced maintenance, or

      (4) Public Education and Outreach behavior change programs.

      (5) Identified actions shall support other specifically identified stormwater management strategies and actions for the basin overall, or for the catchment area.

   d) If applicable, identification of changes needed to local long-range plans, to address SMAP priorities.

   e) A proposed implementation schedule and budget sources for:

   f) Short-term actions (i.e., actions to be accomplished within six years), and

   g) Long-term actions (i.e., actions to be accomplished within seven to 20 years).

4. Actions in the SMAP that may benefit overburdened communities, including specifically Vulnerable Populations and Highly Impacted Communities.

5. A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

Appendix B

Hydrologic and Hydraulic Modeling Analysis

Brown AND Caldwell

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Seattle, WA 98101-2310

T: 206.624.0100

Draft Technical Memorandum

Prepared for: Parametrix

Project Title: 2024 Comprehensive Storm Drainage Plan

Project No.: 158561

Draft Technical Memorandum

Subject: Hydrologic and Hydraulic Modeling for Capital Improvement Projects

Date: March 26, 2024

To: Paul Fendt, PE

Alex Van Kirk, EIT

From: Margaret Ales, PE

Copy to: Madison Thompson, EIT

Prepared by: _____
Margaret Ales, PE

Reviewed by: _____
Mike Milne

Limitations:

This is a draft memorandum and is not intended to be a final representation of the work done or recommendations made by Brown and Caldwell. It should not be relied upon; consult the final report.

This document was prepared solely for Parametrix, Inc. in accordance with professional standards at the time the services were performed and in accordance with the contract between Parametrix, Inc. and Brown and Caldwell dated 5/23/2022. This document is governed by the specific scope of work authorized by Parametrix, Inc.; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Parametrix, Inc. and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Section 1: Introduction

As part of the City of Auburn (City) 2024 Comprehensive Storm Drainage Plan (Plan) update, Brown and Caldwell (BC) performed hydrologic and hydraulic (H&H) modeling analysis to evaluate existing drainage problems and capital solutions. BC performed the analysis with updated existing models and an extended meteorological time series.

The City initiated an extensive drainage system data inventory and H&H modeling effort to support the 2009 and 2015 Comprehensive Storm Drainage Plans (2009 Plan and 2015 Plan, respectively). After the 2009 and 2015 Plans, the City refined and developed new H&H models. As a result, 16 storm drainage system models have been created or refined for areas throughout the City. Each model is identified by the lettered subbasin drainage area(s) covered with the model extent. For example, the GHI model covers three subbasins: G, H, and I. Two of the 16 models (BCDF and GHI) were calibrated as part of the 2015 Plan and then updated after the 2015 Plan with new stormwater infrastructure, refined subbasin delineations, and refined calibration with monitored flow data.

The City reviewed the projects from the 2015 Plan and other more recent potential projects considered on behalf of this Plan. Of these, six potential projects were chosen for H&H modeling to evaluate whether they should be included as capital improvement projects (CIP) in the 2024 Plan.

Table B-1 summarizes the potential projects modeled as part of the 2024 Plan.

Table B-1. 2024 Plan Potential Project Modeling Summary

2024 Project ID[1]	Project Name	Subbasin Model Name	Project Description and Status
CP2116	R Street SE Widening - 22nd Street SE to 33rd Street SE	BCDF, AZ, and R	Stormwater capacity project evaluated as part of a comprehensive roadway improvement project. Currently at 60% design.
9	30th Street NE Area Flooding, Phase 2	GHI	Stormwater capacity capital improvement project (CIP) identified in the 2015 Plan (2015 Plan CIP ID is 4A). Minor piping improvements in 2018 may have reduced flooding problem.
-	30th Street NE Area Flooding, Phase 3	GHI	Stormwater capacity CIP previously identified in the 2015 Plan (2015 Plan CIP ID is 4B).
-	West Hills Drainage Improvements near S 314th Street & 54th Avenue S	No model	Relocate stormwater flows to public conveyance. CIP was previously identified in 2015 Drainage Plan (2015 Plan CIP ID is 5B).
11	Christa Ministries Facility Retrofit	GHI	New water quality improvement CIP identified as part of the 2024 Plan.
-	17th Street Pond Capacity	BCDF	New stormwater system capacity improvement project identified as part of the 2024 Plan.

1 If the project was selected to carry forward as one of the capital improvement projects (CIP) within the 2024 Plan, it was given a numerical ID ranging from 1 to 16. Projects that were included within the City's capital facilities plan (CFP) follow the format of CPXXXX for their project IDs, where the Xs represent numeric placeholders. Line items with neither a CIP ID on behalf of the 2024 Plan, nor a CFP ID were evaluated as part of the modeling effort but were not chosen to carry forward as a 2024 CIP or within the CFP.

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Section 2: Input Data and Model Updates

This section describes updates to the precipitation record and H&H models used to evaluate the potential projects listed in Table B-1.

2.1 Precipitation Record Extension

Auburn's H&H models use historical meteorological data to estimate stormwater flows and storage within the City's storm drainage system. The data consists of monthly evaporation and 15-minute precipitation depths. As part of the 2024 Plan, BC extended the 15-minute precipitation record to September 30, 2022, creating a 75-year precipitation record.

The Auburn precipitation record used for modeling is a composite from several rain gauges. The preferred rain gauge is located at Auburn City Hall and is maintained and operated by King County (King County 2022). Rainfall is used from other gauges when the City Hall gauged data is not available. Table B-2 summarizes the data sources for the composite precipitation record.

Table B-2. Auburn Composite Precipitation Record Summary

Source	Period	Notes
SeaTac Rainfall from WWHM2012	10/01/1948 00:00 to 11/30/2007 23:45	
Lakeland Hills	12/01/2007 00:00 to 12/06/2007 23:45	SeaTac 15-minute data not representative of Auburn hourly data.
SeaTac Rainfall from WWHM2012	12/07/2007 00:00 to 12/31/2009 23:45	
City of Auburn 15-minute rainfall	01/01/2010 00:00 to 12/31/2010 23:45	
City of Auburn aggregated 5-minute	01/01/2011 00:00 to 11/14/2012	
Lakeland Hills	11/14/2012 to 12/05/2012	City Hall rain gauge error (rain gauge top blew off).
City of Auburn aggregated 5-minute	12/05/2011 00:00 to 09/30/2022 23:45	

WWHM2012 = Western Washington Hydrology Model

2.2 Model Refinement

Auburn's H&H models have been updated and refined since the calibration efforts performed on behalf of the 2015 Plan. Updates include refining basin delineation and adding storm drainage features (conveyance and structures) from recently constructed projects. Four subbasin models were updated as part of the 2024 Plan or under a separate modeling contract, GHI, BCDF, AZ, and R. The model updates are described below. Figure B-1 shows the four subbasin models updated as part of the 2024 Plan relative to the City extent.

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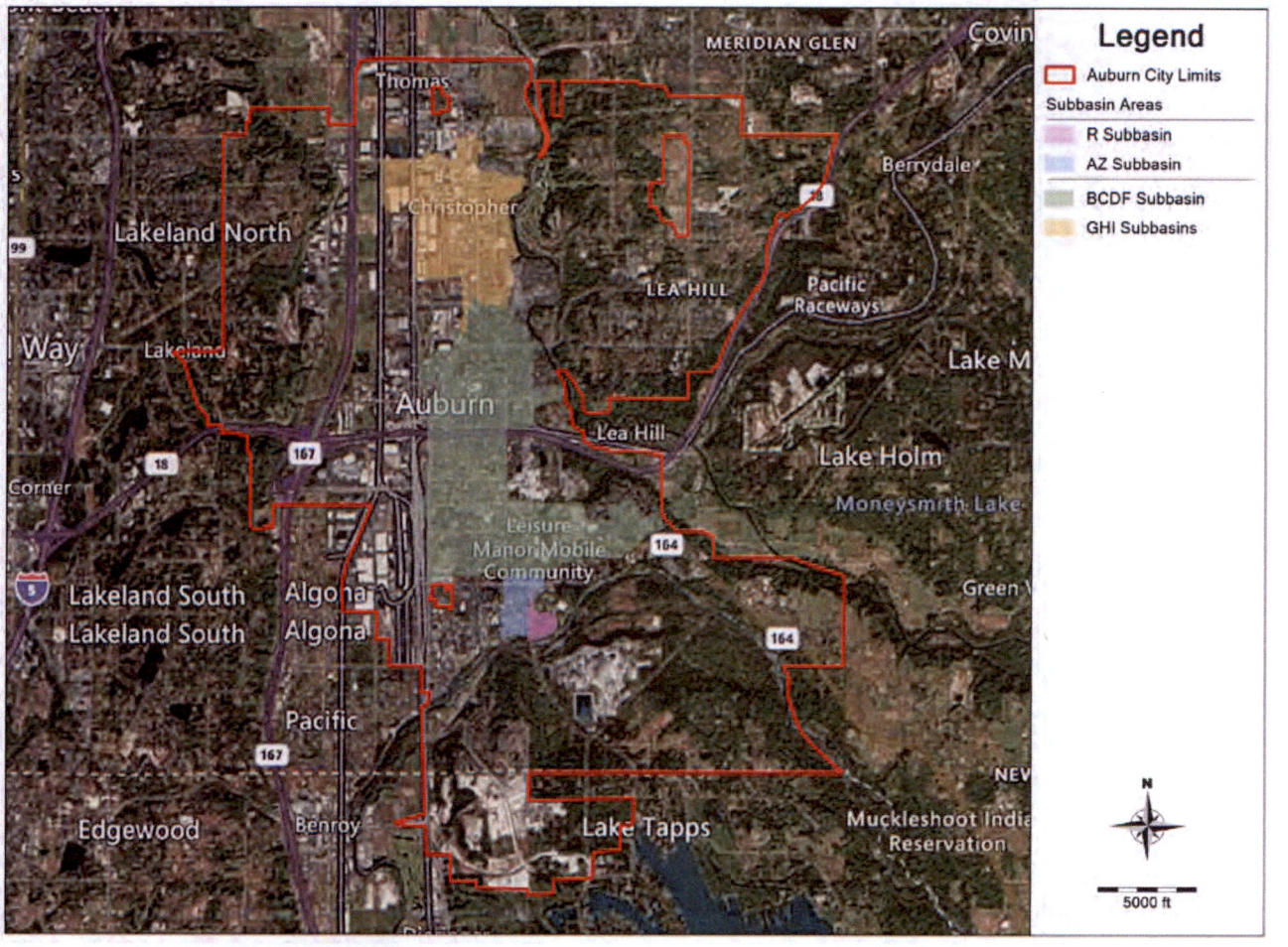

Figure B-1. Subbasin Models Updated on Behalf of Auburn's 2024 Comprehensive Storm Drainage Plan

2.2.1 GHI Subbasin Model

Since the 2015 Plan, BC has updated the calibrated GHI subbasin model with new stormwater projects at the City of Auburn Airport and used updated geographic information system (GIS) data to refine subbasin boundaries in the vicinity of the Brannan Park pump station.

Airport Area Updates. Model updates at the airport include those associated with CP1516 Runway 16-34 Extension and Change Order #2 and CP2118 North Airport Stormwater Improvements Phase 2. Key model updates from these projects included:

- Adding new impervious area, refining subbasin boundaries, and adding ChamberMaxx stormwater detention for the 16-34 runway extension.
- Isolating Pond I and the low elevation area (north hangar area) on airport property from the stormwater system in 30th Street NE so that high flows in the 30th Street NE system do not backwater to the pond and flood the low north hangar area.
- Making better use of storage in Pond I by reconfiguring connecting airport property stormwater pipes.
- Filling in Pond F and routing the Corporate Park Pump Station flows to Pond G.

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Brannan Park Pump Station Area Updates. BC refined the GHI model in the vicinity of Brannan Park Pump Station. Upstream of the pump station near I Street NE and 32nd Place NE, new storm pipe was added that routes roadway runoff to the main trunk line in 30th Street NE. Downstream of the pump station, the model was updated from a simplified outfall to a force main connection to the outfall at Reddington wet biofiltration swale.

2.2.2 BCDF Subbasin Model

BC updated the calibrated BCDF model to reflect recent or imminent stormwater conveyance projects.

- **CP1726-2019 Local Street Reconstruction As-Builts** (M Street between 25th Street SE and 29th Street SE, and 28th Street SE between M Street SE and T Street SE). This project was part of a street improvement project that helped improve conveyance capacity. The project included new pipe alignments and changes to the drainage basin delineation adding 7 acres to the B subbasin from the adjacent AZ subbasin.
- **CP1614-2017 Local Street Reconstruction and Preservation As-Builts** (R Street from 28th Street SE to 25th Street SE, 28th Street SE from R Street SE to T Street SE and portions of T Street SE, U Street SE, 27th Street SE and 26th Street SE). This project was part of a street improvement project that helped improve conveyance capacity. The project resulted in a new pipe alignment and changes to the drainage basin delineation. In addition, approximately 1.9 acres of the CIP1614 project is routed to infiltration facilities. The effective impervious area of the model was reduced by the amount of area routed to infiltration pipes and facilities.
- **CP2125-D Street SE and 23rd Street SE Storm Improvements 90% Submittal.** This project, identified as Project 7 and Project 8 in the 2015 Plan, will improve system capacity by constructing new conveyance in D Street SE (Project 7) from 27th Street SE to 21st Street SE, in 21st Street SE near D Street SE and in 25th Street SE near D Street SE. Improvements in 23rd Street SE and K Street SE (Project 8) were included in the plan set but may not be included in the imminent bid set. However, Project 8 improvements were included in the model update to reflect ultimate post-project conditions. These include conveyance improvements in 23rd Street SE near F Street SE and in K Street SE between 23rd Street SE and 21st Street SE.

2.2.3 AZ Subbasin Model

BC updated the uncalibrated AZ model to reflect recent improvements associated with CP1726 and CP1614 projects described above.

2.2.4 R Subbasin Model

BC updated the uncalibrated R basin model conveyance, hydrologic parameters, and basin delineation to be current with other adjacent models (AZ subbasin model). The City has not used the R Basin for any existing or proposed condition evaluations since the subbasin model was developed as part of the 2009 Plan.

2.3 Flow Frequency and Design Storms

After the basin models were updated to reflect existing and imminent CIP conditions, a frequency analysis was completed for each model by performing a long-term simulation (from 1948 to 2022). The long-term flow timeseries were then used to determine the 2% and 4% exceedance storms (one-in-50-year and one-in-25-year flows, respectively) per subbasin model. These storms are used as design storms to evaluate the potential projects listed in Table B-1.

For the long-term simulations, the hydraulic networks of the models were modified so that there were no restrictions to flow and there was free discharge at outfalls. As a result, all simulated runoff could be conveyed without substantial system storage and attenuation.

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The event peak flows from the simulations were selected in PCSWMM[1] using two event-based criteria: Minimum inter-event time (time between peak storms) of 12 hours and a flow threshold (varies by subbasin). The peak flows were ranked, and the flow frequencies were established with estimators derived from Cunnane plotting position formulae. The events associated with the 25-year peak flows were used to size storm drainage conveyance to meet the relevant level of service. The results of the flow frequency analysis for the GHI, BCDF, AZ, and R subbasin models are provided in Tables B-3, B-4, B-5, and B-6, respectively. Table B-7 lists the storms that generated the 100-, 50-, and 25-year flows for the subbasin models.

Flow frequencies are unique to each subbasin because of the different hydrologic and hydraulic characteristics of each subbasin. As a result, the storms associated with the return periods are different for each basin.

Table B-3. GHI Subbasin Frequency Analysis Summary

Peak flow rank	Event start date/time	Peak event flow (cubic feet per second) [a]	Return period (year)
1	10/20/2003 4:30	105.0	123.7
2	9/18/2021 15:25	88.6	46.4
3	11/6/2006 0:20	88.5	28.5
4	1/9/1990 4:35	87.4	20.6
5	11/18/2003 10:25	86.0	16.1
6	11/4/2006 15:15	84.4	13.3
7	11/24/1990 4:50	80.1	11.2
8	10/5/1981 23:20	76.4	9.8

a. Peak flow measured at inflow to Brannan Park pump station.

Table B-4. BCDF Subbasin Frequency Analysis Summary

Peak flow rank	Event start date/time	Peak event flow (cubic feet per second) [a]	Return period (year)
1	10/20/2003 4:15	109.6	125.3
2	11/6/2006 0:20	94.5	47.0
3	1/9/1990 4:30	73.8	28.9
4	10/5/1981 23:15	61.3	20.9
5	11/4/1998 19:30	45.5	16.3
6	11/4/2006 16:05	44.6	13.4
7	11/18/2003 10:25	39.9	11.4
8	11/24/1990 4:45	39.5	9.9

a. Peak flow measured at inflow to 17th Street Pond.

[1] PCSWMM is a GIS-based hydraulic and hydrologic modeling platform developed by Computational Hydraulics International (CHI). The software fully supports the Environmental Protection Agency (EPA) SWMM5 hydrology and hydraulics engine, thus providing comparable computation between EPA SWMM and PCSWMM models. Information about PCSWMM software can be found at http://www.chiwater.com/Software/PCSWMM/index.asp.

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Table B-5. AZ Subbasin Frequency Analysis Summary

Peak flow rank	Event start date/time	Peak event flow (cubic feet per second) [a]	Return period (year)
1	9/18/2021 15:20	35.8	125.3
2	10/20/2003 4:25	33.1	47.0
3	9/7/2019 20:40	32.7	28.9
4	9/12/2004 1:20	32.3	20.9
5	11/4/1998 19:20	32.2	16.3
6	11/4/2006 15:15	31.15	13.4
7	1/9/1990 4:45	31.08	11.4
8	12/14/1979 21:05	31.07	9.9

a. Peak flow measured at inflow to 36th Street Pond at M Street.

Table B-6. R Subbasin Frequency Analysis Summary

Peak flow rank	Event start date/time	Peak event flow (cubic feet per second) [a]	Return period (year)
1	9/18/2021 15:15	27.7	125.3
2	9/7/2019 20:35	26.3	47.0
3	10/20/2003 9:20	25.5	28.9
4	9/12/2004 1:15	25.0	20.9
5	12/14/1979 21:00	23.7	16.3
6	7/6/2018 18:30	23.1	13.4
7	11/4/2006 15:10	23.0	11.4
8	1/9/1990 5:00	22.8	9.9

a. Peak flow measured at outfall to White River at R Street and 37th.

Table B-7. Design Storms by Subbasin Summary

	100-year		50-year		25-year		
Basin	Start Date	Peak Flow Duration (hour)	Start Date	Peak Flow Duration (hour)	Start Date	Peak Flow Duration (hour)	Flow Measurement Location
GHI	10/20/2003	32	9/18/2021	1	11/6/2006	38	Inflow to Brannan Park Pump Station
BCDF	10/20/2003	20	11/6/2006	17	1/9/1990	8	Inflow to 17th Street Pond
AZ	9/18/2021	1	10/20/2003	16	9/7/2019	1	Inflow to 36th Street Pond
R	9/18/2021	1	9/7/2019	1	10/20/2003	11	Outfall to White River at R Street

2.4 Potential Project Evaluations

Of the six projects considered for inclusion in the 2024 Plan (see Table B-1), two were evaluated with the updated subbasin models and considered viable projects. Another two were evaluated but considered not viable because the proposed project would provide little improvement to capacity or reduce conveyance capacity. The City initially decided to defer the remaining two projects to the next planning period, so BC did not evaluate them. However, after reevaluation, the City decided to include one of these two projects, the 30th Street NE Area Flooding, Phase 2 project, as a CIP in the 2024 Plan.

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Table B-8 lists the potential projects, associated model(s), and status.

Table B-8. 2024 Plan Potential Projects and Evaluation Status

2024 Project ID[1]	Project Name	Associated Model Name	Project Evaluation Status
CP2116	R Street SE Widening - 22nd Street SE to 33rd Street SE	BCDF, AZ, and R	Evaluated and included in 2024 Plan.
11	Christa Ministries Facility Retrofit	GHI	
-	30th Street NE Area Flooding, Phase 3	GHI	Evaluated and not included in 2024 Plan.
-	17th Street Pond Capacity	BCDF	
-	West Hills Drainage Improvements near S 314th Street & 54th Avenue S	No model	Not evaluated. Deferred to later planning period.
9	30th Street NE Area Flooding, Phase 2	GHI	Not evaluated but included in 2024 Plan.

1 If the project was selected to carry forward as one of the capital improvement projects (CIP) within the 2024 Plan, it was given a numerical ID ranging from 1-16. Projects that were included within the City's capital facilities plan (CFP) follow the format of CPXXXX for their project IDs, where the Xs represent numeric placeholders. Line items with neither a CIP ID on behalf of the 2024 Plan, nor a CFP ID were evaluated as part of the modeling effort but were not chosen to carry forward as a 2024 CIP or within the CFP.

2.4.1 Included Projects

2.4.1.1 CP2116–R Street SE Widening - 22nd Street SE to 33rd Street SE

The R Street SE Widening project CP2116 is currently in design and estimated to begin construction in 2025. The project will improve the R Street SE/29th Street SE intersection, add a new southbound lane from 22nd Street NE to 33rd Street NE, and provide new roadway surface from 22nd Street SE to the White River bridge. As part of the project, the City is improving underground utilities as needed, including storm drainage, sewer pipe, and water lines.

The project lies within three drainage subbasins (B, A, and R subbasins) and, as a result, is represented in three of the City's subbasin models (BCDF, AZ, and R). Figure B-2 shows the project extent and the modeled subbasin delineation.

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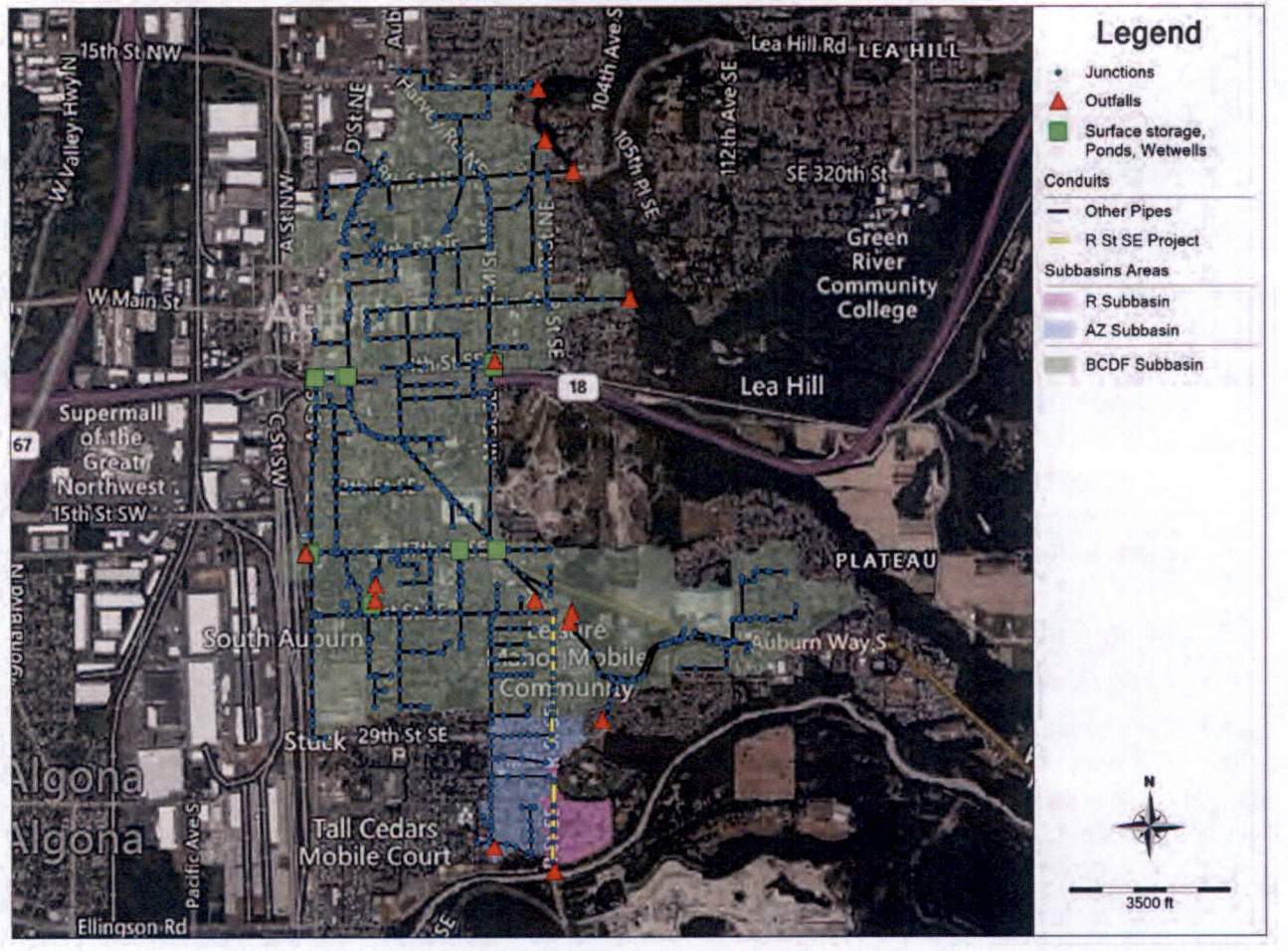

Figure B-2. R Street SE Widening Project Subbasins

BC evaluated the project at the 60% design phase with the 25-year storm flows developed for the BCDF, AZ, and R subbasin models. For all three model evaluations, the design storm simulation showed flooding within the project area resulting from downstream backwater. City staff recommended sizing the R Street SE project pipes assuming downstream impacts are alleviated as part of a future CIP. This evaluation resulted in increased pipe sizes for the R Street SE Project and the identification of the need for a future downstream CIP.

Figures B-3 through B-8 show the plan and profile for the 25-year design storm of the R Street SE Widening project and the future CIP needed to alleviate flooding in the project area from backwater. Table B-9 summarizes the recommended pipe sizes for the R Street SE Widening project and the future CIP.

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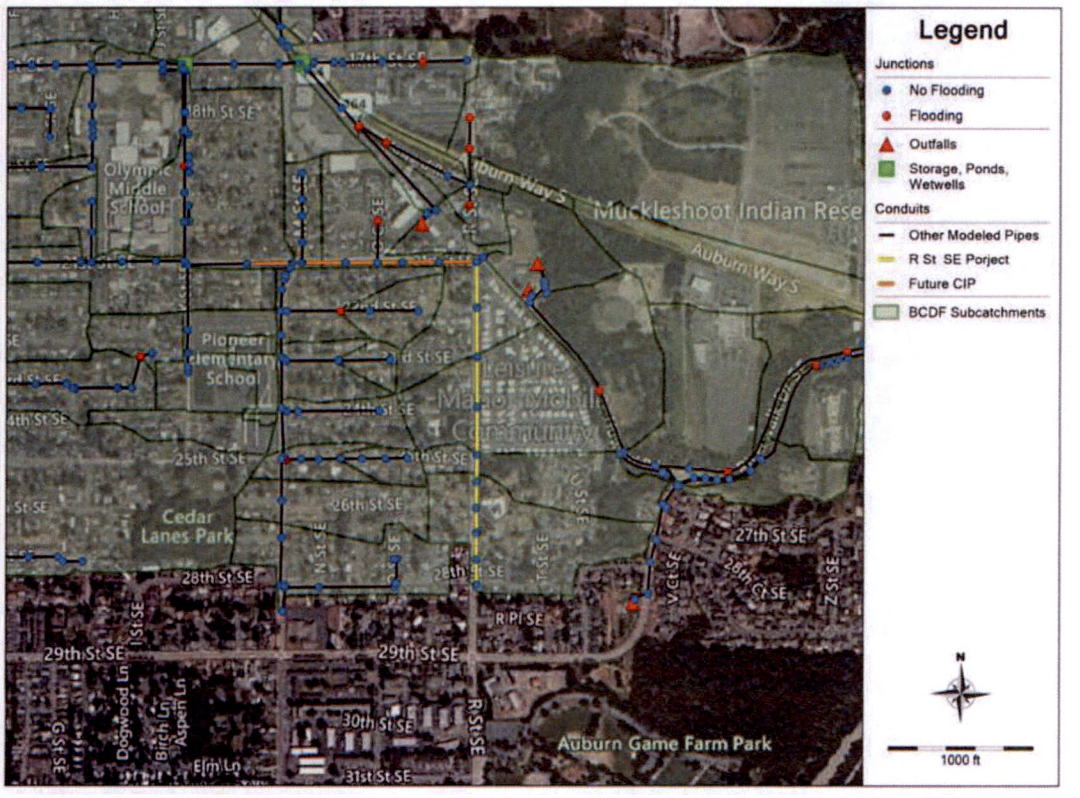

Figure B-3. Plan View of R Street SE Widening and Future CIP (BCDF Subbasin Model, 25-year storm flows [1/9/1990])

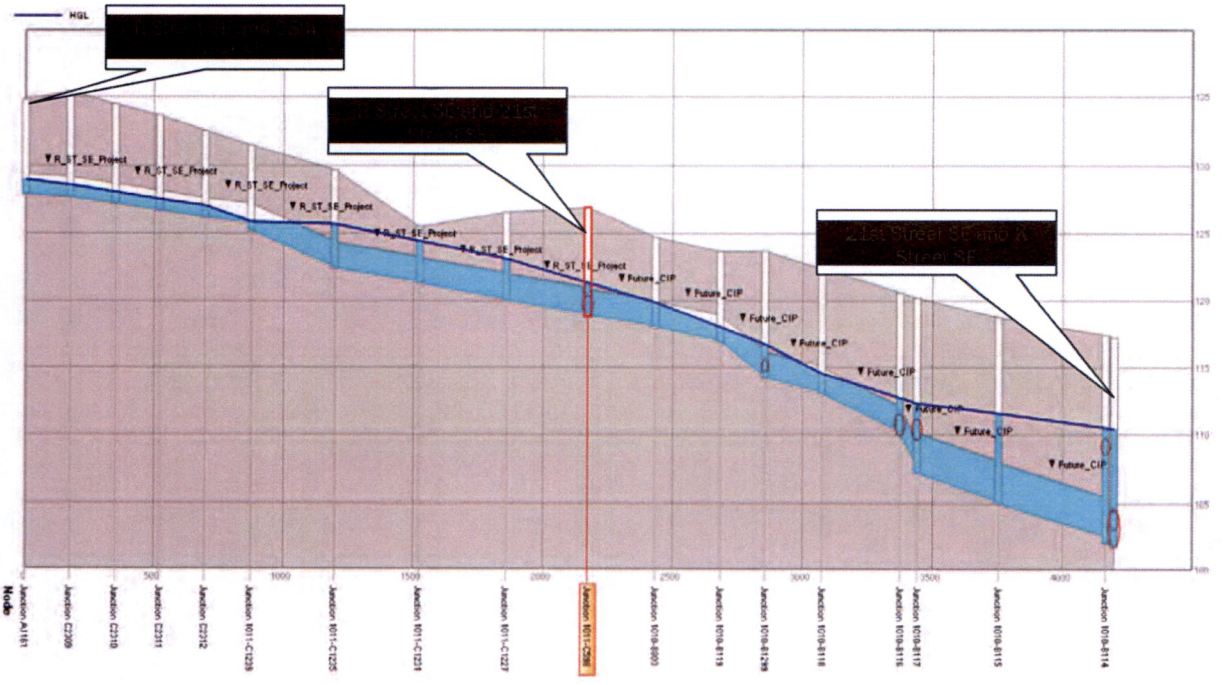

Figure B-4. Hydraulic Grade Line Profile View of R Street SE Widening and Future CIP (BCDF Subbasin Model, 25-year storm flows [1/9/1990])

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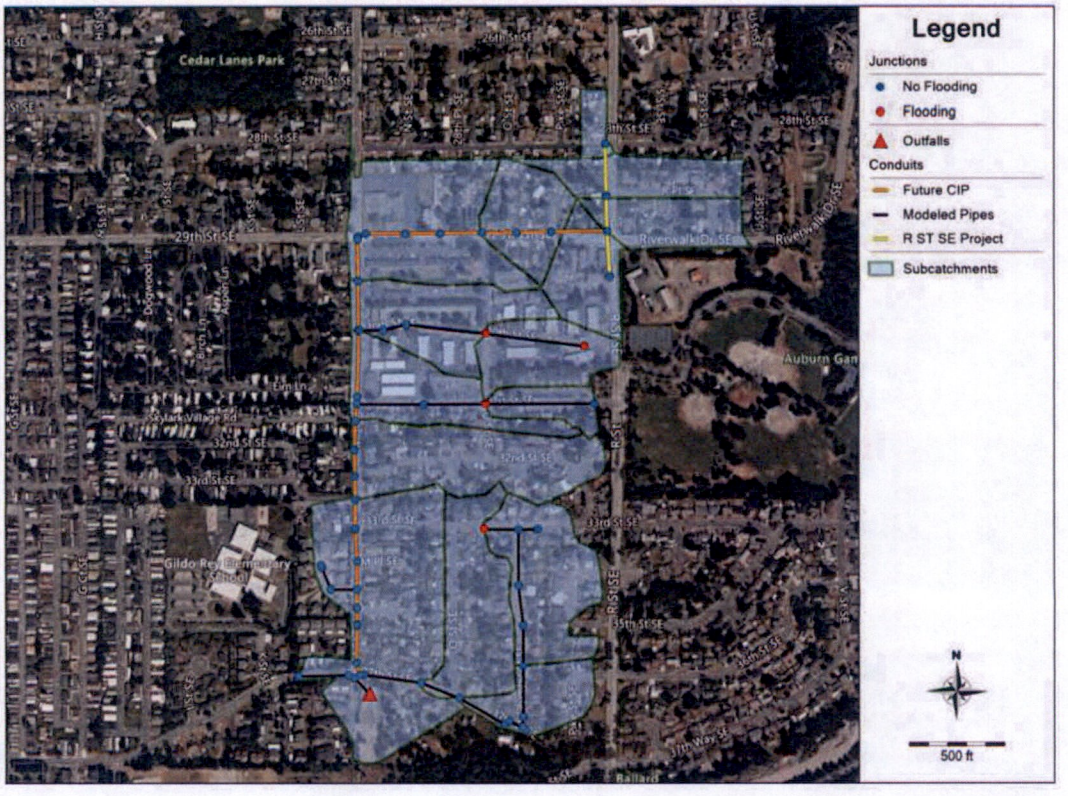

Figure B-5. Plan View of R Street SE Widening and Future CIP (AZ Subbasin Model, 25-year storm flows [9/7/2019])

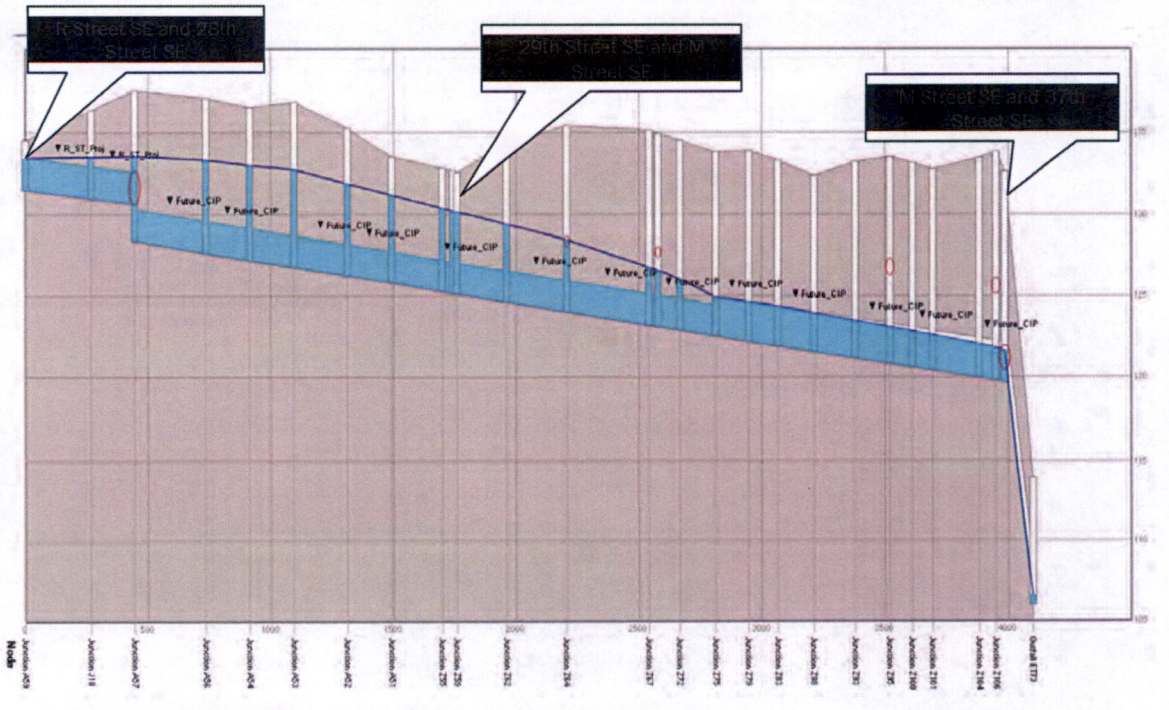

Figure B-6. Hydraulic Grade Line Profile View of R Street SE Widening and Future CIP (AZ Subbasin Model, 25-year storm flows [9/7/2019])

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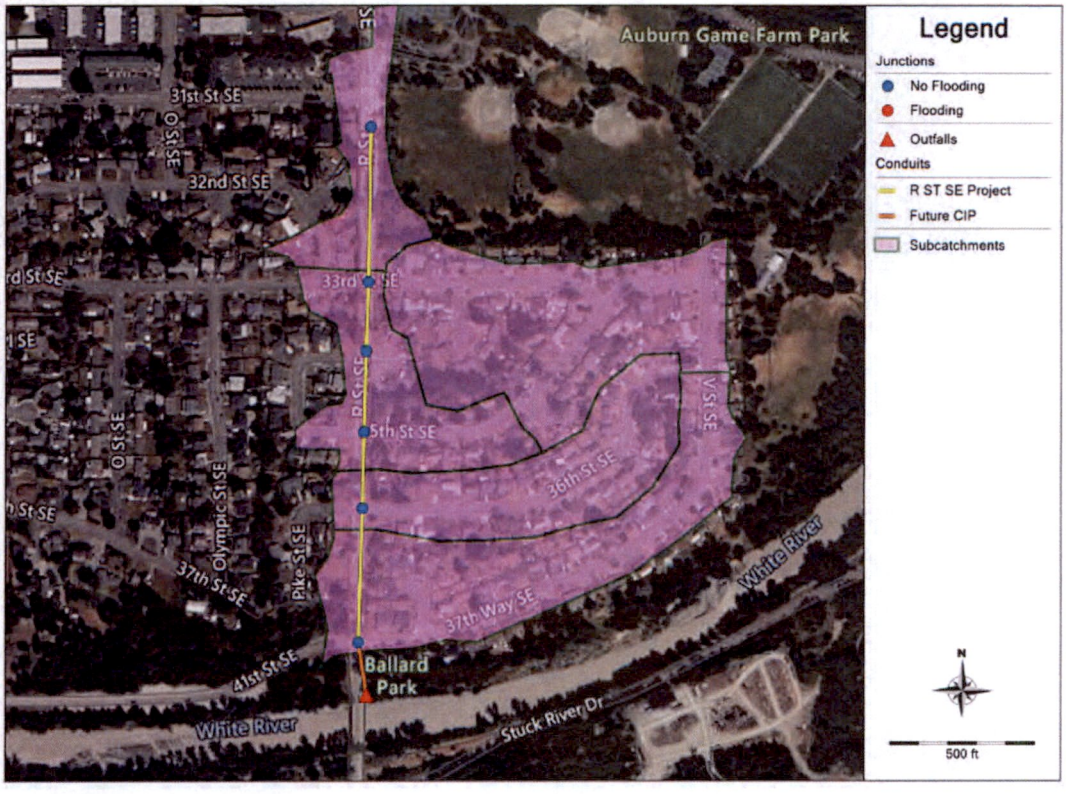

Figure B-7. Plan View of R Street SE Widening and Future CIP (R Subbasin Model, 25-year storm flows [10/20/2003])

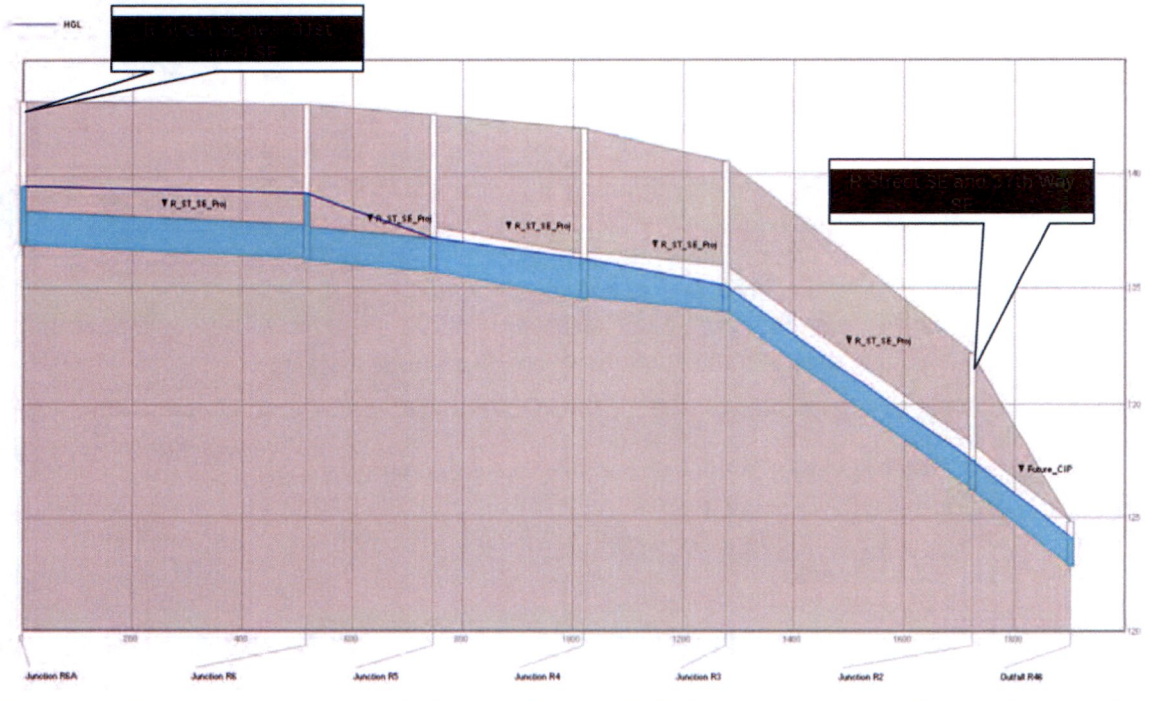

Figure B-8. Hydraulic Grade Line Profile View of R Street SE Widening and Future CIP (R Subbasin Model, 25-year storm flows [10/20/2003])

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Table B-9. R Street SE Widening Project and Future CIP Recommendations

Street Location	Subbasin Model Name	25-year Design Storm Start Date	2024 CIP Recommendations	Future CIP Recommendations
R Street SE from 28th Street SE to 25th Street SE R Street SE from 25th Street SE to 22nd Street SE	BCDF	1/9/1990	Upgrade pipe from 12-inch diameter to 18-inch diameter in R Street SE from 28th Street SE to 25th Street SE Upgrade pipe from 18-inch diameter to 24-inch diameter in 1st Street SE	Upgrade pipe from 18-inch diameter to 24-inch diameter in 21st Street SE from R Street SE to M Street SE Upgrade pipe from 24-inch diameter to 36-inch diameter in 21st Street SE from M Street SE to K Street SE
R Street SE from 28th Street SE to 29th Street SE	AZ	9/7/2019	Upgrade pipe from 10-inch diameter to 24-inch diameter in R Street SE from 28th Street SE south to approximately 225 ft of 29th Street SE	Upgrade pipe from 10-inch diameter to 24-inch diameter in 29th Street SE from R Street SE to M Street SE Upgrade pipe from 18-inch diameter to 24-inch diameter in M Street SE from 29th Street SE to 32nd Street SE Upgrade pipe from 24-inch diameter to 30-inch diameter in M Street SE from 32nd Street SE to 37th Street SE
33rd Street SE to White River Outfall	R	10/20/2003	Upgrade pipe from 10-inch/12-inch diameter to 18-inch diameter in R Street SE from 31st Street SE to 34th Street SE Upgrade pipe from 12-inch diameter to 24-inch diameter in R Street SE from 34th Street SE to 37th Way SE	Upgrade pipe from 18-inch diameter to 24-inch diameter south of 37th Way SE to the White River outfall

2.4.1.2 CIP 11 - Christa Ministries Facility Retrofit

The Christa Ministries Facility Retrofit project is a retrofit of an existing swale resized to meet the water quality flow volume for flows discharging from the Brannan Park pump station. Currently, the swale is part of a wetland and detention pond system on a City-owned parcel.

Modeling efforts for the project consisted of estimating the water quality flow volume discharged from the Brannan Park pump station force main using the Continuous Simulation Method from the 2019 Stormwater Management Manual for Western Washington (2019 SWMMWW) (Ecology 2019). The 2019 SWMMWW describes the methodology as "Using an approved continuous runoff model, the water quality design volume shall be the simulated daily volume that represents the upper limit range of daily volumes that accounts for 91% of the entire runoff volume over a multi-decade period of record."

BC ran the existing conditions GHI model for the 1949 to 2022 period of record to generate daily flow volumes from the Brannan Park pump station. To determine the 91% flow volume, BC removed the days without flow from the daily record and then used the Excel function PERCENTRANK.EXC to determine the rank percentile for each day's flow volume (100 to 0). The Excel formula PERCENTILE.INC was then used to return the flow volume associated with the 91% rank. The resulting water quality flow volume is 375,448 cubic feet or 8.6 acre-feet.

2.4.2 Excluded Projects

Two potential projects were evaluated with H&H models and determined to be not viable because the proposed changes did not provide sufficient benefit or exacerbated simulated downstream flooding conditions during design storms.

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2.4.2.1 30th Street NE Area Flooding, Phase 3 (2015 Plan CIP ID 4B)

The 30th Street NE Area Flooding, Phase 3 project was identified in the 2009 and 2015 Plans to reduce flooding along C Street NE between 30th Street NE and 37th Street NE in the GHI subbasin. The area experienced significant flooding during the December 3, 2007, storm and previous model results indicate the system's capacity may be limited by low pipe gradient and shallow inverts. The proposed project would collect stormwater from C Street NE in a new larger and higher gradient pipe and then pump flows to the 42-inch-diameter trunk line in 30th Street NE. The force main connection to the 30th Street NE pipe is also where the airport stormwater system connects to the 42-inch-diameter trunk line.

BC evaluated the impact of this project on the hydraulic grade line (HGL) in the 30th Street NE trunk with the updated GHI subbasin model (update described in Section 2.2) for the 25-year design storm (11/6/2006). The project raised the simulated HGL in the 30th Street NE trunkline by approximately 1 foot, which resulted in flooding at the airport property's lowest inlet rim (409-I51) near the north hangar. In addition, Figure B-9 shows the airport property flooding that resulted from the project. Figure B-10 compares the HGL in the 30th Street NE trunkline with and without this project.

Because of the simulated flooding during the design storm and the lack of reports of flooding on C Street NE since the December 2007 storm, the City opted to remove the 30th Street NE Area Flooding, Phase 3 project from consideration in the 2024 Plan.

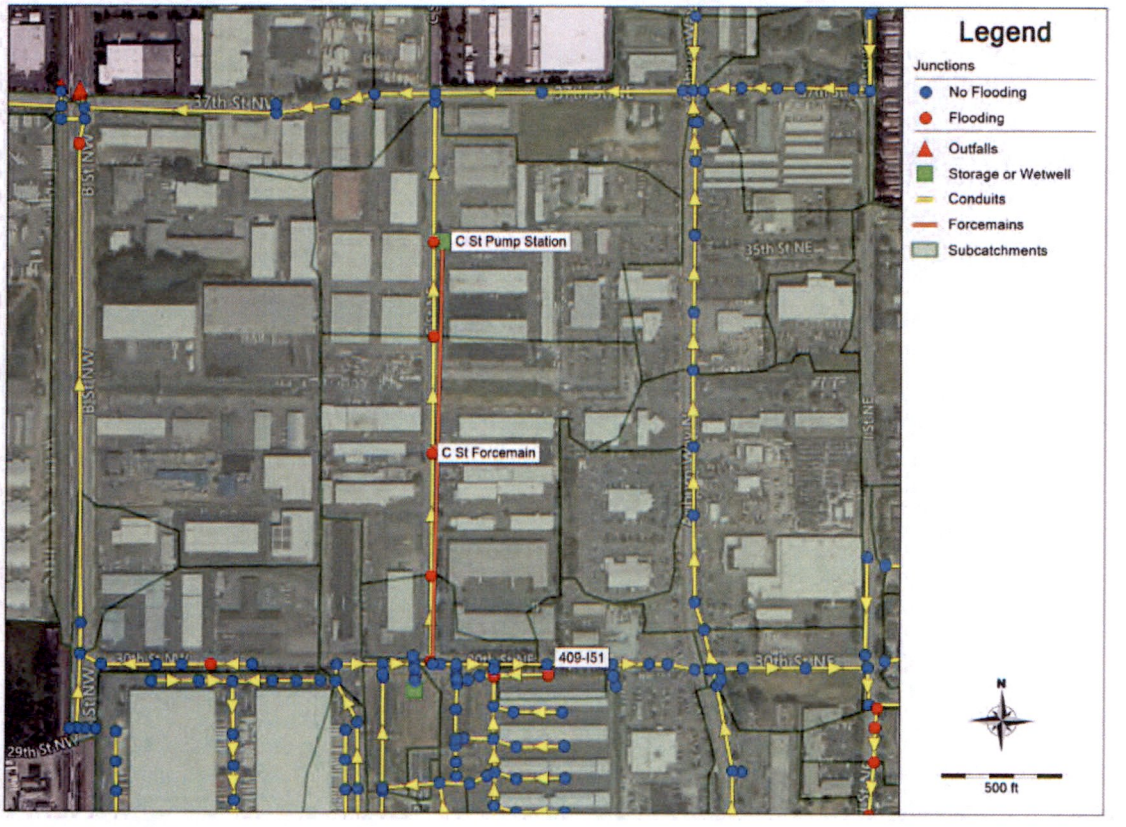

Figure B-9. Flooding impacts of 30th Street NE Area Flooding, Phase 3 Project at the Airport Property Low Area (catch basin 409-I51)

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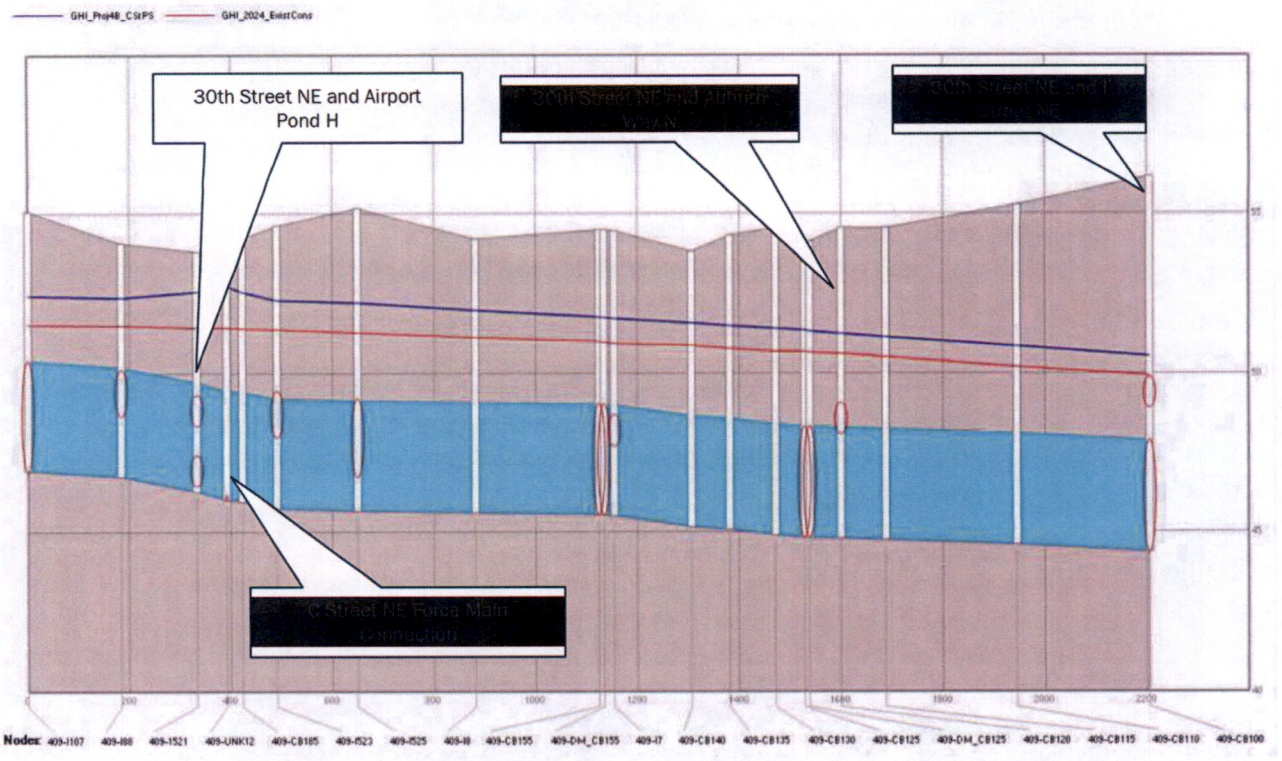

Figure B-10. Hydraulic Grade Line in 30th Street NE (from the Airport Property to I Street NE) Comparison of Existing Conditions and Proposed Conditions from the 30th Street NE Area Flooding, Phase 3 Project

2.4.2.2 17th Street Pond Improvements Project

The 17th Street Pond is one of several infiltration ponds in the BCDF subbasin. Currently, the control structure manhole for the 17th Street Pond is in the right-of-way (ROW) downstream of the pond outlet pipe. The standpipe portion of the control structure is dislodged, allowing stored water to discharge from the pond without control. Also, without the standpipe, model simulations show that downstream capacity limitations during large events cause water to back up in the system and into the ponds, allowing the pond to act as backwater storage. Prior to repairing the pond control, the City asked BC to review several scenarios to optimize the storage and operation of the 17th Street Pond to help reduce flooding in the downstream system, specifically at the low area near the intersection of Auburn Way S and the State Route (SR) 18 overpass. To help compare existing and proposed conditions, BC modeled several 17th Street Pond configurations:

1) Scenario 1: Outlet control as designed (control structure in ROW).
2) Scenario 2: Outlet control under current conditions (no control structure).
   a) Scenario 2a: Scenario 2 plus an increase in pond volume.
   b) Scenario 2b: Scenario 2 plus double the pond volume (as a sensitivity test only, does not represent space available to expand pond).
3) Scenario 3: Outlet control moved inside pond.
   a) Scenario 3a: Scenario 3 plus an increase in pond volume by replacing sloped sides with walls around the entire pond perimeter.

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Figure B-11 shows the HGL in Auburn Way South at the SR 18 westbound offramp for the various scenarios. The HGL varies slightly between the scenarios. Figure B-12 shows the flooding rate and volume during the 25-year storm for the scenarios at the low area. The difference in the amount of flooding between the scenarios is minimal.

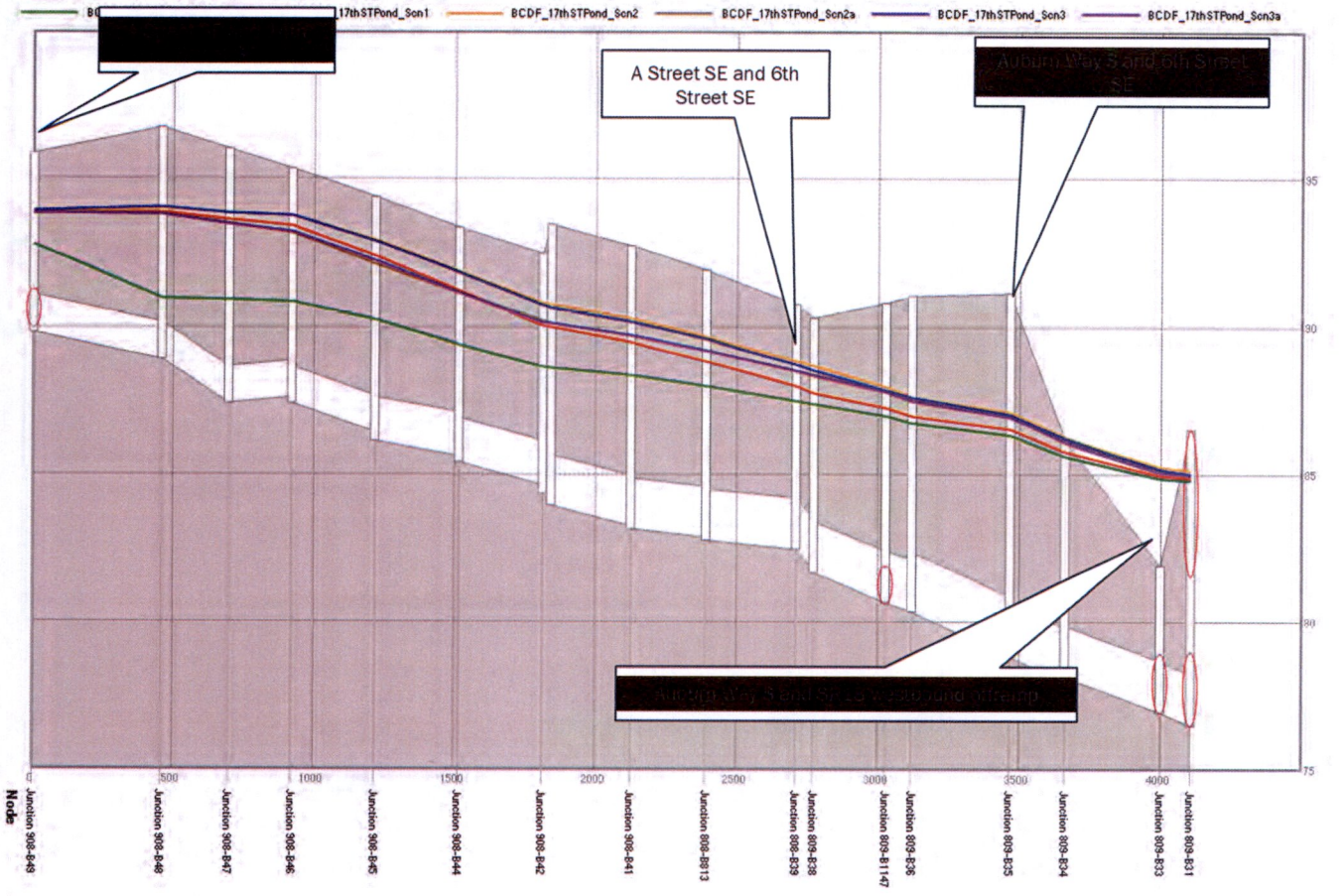

Figure B-11. Comparison of Hydraulic Grade Line in Vicinity of Auburn Way South and SR 18 Westbound Off-Ramp Intersection for Evaluation Scenarios

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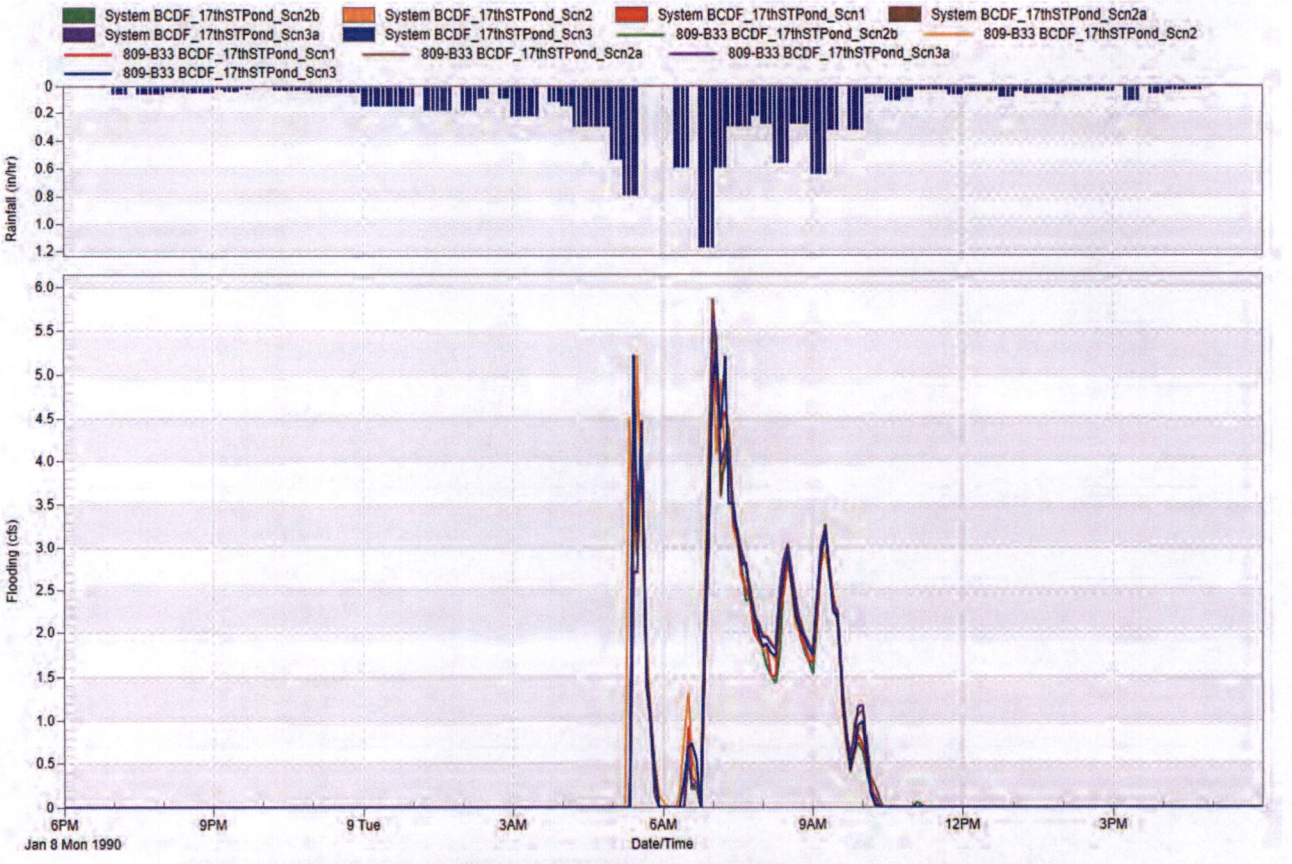

Figure B-12. Flooding at Low Inlet (809-B33) near Auburn Way South and SR 18 Westbound Offramp Intersection for Evaluation Scenarios

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References

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Appendix C

Asset Management Evaluation

1. Condition Assessment and Data Gaps Analysis

1.1 Existing Conditions

The City uses Cartegraph, a computerized maintenance management system (CMMS), to manage its active asset inventory. Cartegraph may be used to develop work requests, document the time and cost of the work performed, keep track of resources available, and produce reports of various kinds related to asset management. The City uses a Cartegraph mobile app during field assessments, but any further updates/changes to the asset is done on the desktop in a geographic information system (GIS). The City assured that the information between GIS and Cartegraph is universal for active assets.

Figure C-1 shows the City's Cartegraph Asset dashboard. The type and count of stormwater assets within the City's asset inventory is listed on the lefthand side of the figure. Each stormwater asset has several attributes that may be tracked and documented alongside the feature. Some assets have an overall condition index (OCI) rating set up in Cartegraph. However, it is not universal to all stormwater assets, and the City expressed interest in reviewing and revising how the rating was generated.

City field staff noted the Cartegraph mobile app allows users a few options for scoring or making notes, but not all conditions can be accurately noted in the field. For example, one staff member noted that an aspect of a pipe was observed to be failing in the field, but since the failure condition wasn't explicitly asked for in the Cartegraph mobile app, the condition was rated as 100% (signifying an excellent condition). Staff must ensure the conditions are accurately conveyed and update them as necessary after returning from the field.

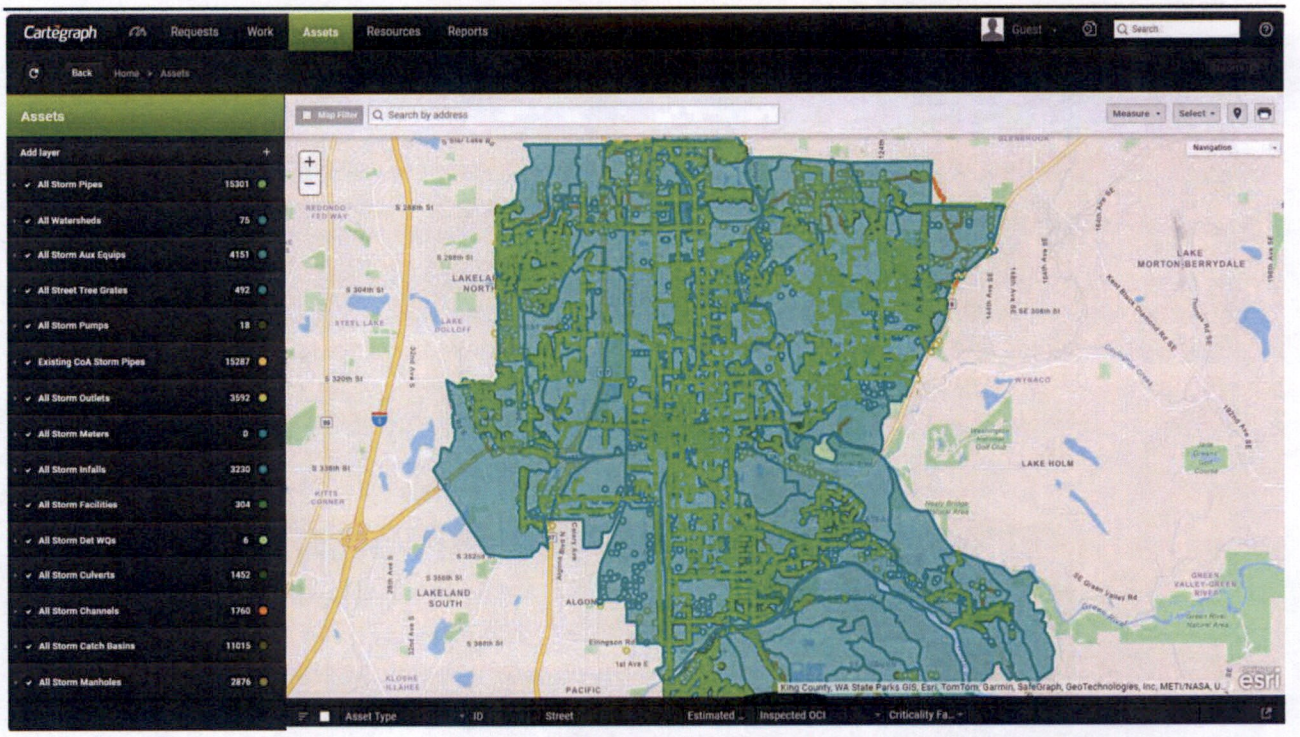


Figure C-1. City's Cartegraph Asset Dashboard and Stormwater Asset Inventory

Screenshot was taken June 4, 2024. Because most of the asset management review was performed more than 6 months prior to taking the screenshot, it is likely there may be some differences in total asset count shown in Figure C-1 and total counts reported elsewhere in this document.

1.2 Critical Attribute Data

One of the goals of this evaluation is to develop criteria for preparing a criticality and risk analysis for the City's stormwater assets. This involved preparing a method for scoring the likelihood of failure and criticality of failure of each type of asset. The likelihood of failure score reflects the expected asset condition based on specified attributes, and the criticality of failure score is demonstrative of the anticipated response should the asset fail.

Each stormwater asset was reviewed, and the criteria necessary for developing its scores was determined based on professional judgment and considered the data available. Some asset types were grouped together because they were anticipated to require similar levels of management/maintenance from the Storm Drainage Utility. Other asset types listed in Cartegraph, specifically fences, infalls, outlets, meters, and auxiliary equipment, were not grouped because they are linked to one of the greater asset types reviewed and should be assigned the same likelihood of failure and criticality of failure as the greater asset it is linked to (as work/inspection is anticipated to occur at the same time).

Another asset type listed in Cartegraph, Storm Channels (ditches), was not assigned criteria for criticality scores either because its condition is based on maintenance and will not be repaired or replaced (see the Ditch Maintenance and Operations Program).

Details regarding the critical attributes used in assigning the criticality scores are listed below. Scoring is discussed in the Criticality Review section.

- Age: Based on the installation date of the asset (current year minus installation year).
- Useful life: The expected amount of time an asset is expected to perform its function. Based on either the material (pipes, culverts, network structures) or type of asset (pumps, ponds). Useful life estimates are given in the Criticality Review section.
- Previous inspection data: The previously inspected condition of the asset.
- Proximity to critical facilities: Based on a GIS analysis where a buffer was placed around critical facilities within the City. Assets were assumed to have a higher criticality of failure if they were closer to a critical facility.
- Adjacency to critical roadways: Based on a GIS analysis where a buffer was placed around critical roadways within the City. Assets were assumed to have a higher criticality of failure if they were adjacent to a critical roadway.
- Adjacency to priority roadways: Based on a GIS analysis where a buffer was placed around priority roadways within the City. Assets were assumed to have a higher criticality of failure if they were adjacent to a priority roadway.

Table C-1 lists the recommended criteria to consider in calculating the likelihood of failure and criticality of failure scores for each category of stormwater asset.

Table C-1. Recommended Criteria for Calculating Criticality Scores of Stormwater Assets

Asset Name in Cartegraph	Asset Category	Likelihood of Failure Attributes	Criticality of Failure Attributes
Storm Pipes	Pipes	Age Useful life Previous inspection data	Proximity to critical facilities Adjacency to critical roadways Adjacency to priority roadways
Storm Culverts	Culverts	Age Useful life Previous inspection data	Proximity to critical facilities Adjacency to critical roadways Adjacency to priority roadways
Storm Pumps	Pumps	Installation date Useful life	Proximity to critical facilities Adjacency to critical roadways Adjacency to priority roadways
Street Tree Grates	Network structures	Age Useful life Previous inspection data	Proximity to critical facilities Adjacency to critical roadways Adjacency to priority roadways
Storm Manholes			
Storm Catch Basins			
Storm Facilities	Ponds	Installation date Type	Proximity to critical facilities Adjacency to critical roadways Adjacency to priority roadways
Storm Det WQs			

1.3 Data Gaps

After the critical attributes were identified for stormwater assets, a data gaps analysis was performed to see what needed to be addressed. This followed a previous effort led by the City to address data gaps in its stormwater asset inventory using a high precision antenna. As there were several stormwater assets, stormwater pipes and culverts were used as examples to demonstrate the completeness of the asset inventory.

Figure C-2 shows the distribution and availability of data for several attributes in the pipe dataset (namely, material, size, start elevation, and installation date). Figure C-3 shows the same for the culvert dataset (with the addition of end elevation). The figures demonstrate a fair amount of the attributes reviewed had <Null> entries. Most significantly, stormwater pipes are missing approximately 10% of their installation dates, while culverts are missing 75%.

Installation date was deemed to be a critical attribute for all of the stormwater assets in determining criticality scores. Lacking this attribute would then have the potential to prioritize an asset for work, even if it were expected to have been installed recently (and more likely to be in good condition), over an asset that is expected to have been installed 50 years ago. The goal of the criticality review is to simplify and provide reasoning for the prioritization of work, so it was deemed beneficial to perform a desktop GIS analysis to provide placeholder estimates for installation year. The stormwater pipe dataset was used for this process.

A copy of the stormwater pipes layer was made, and a new attribute column created for the estimated installation date. This was to make sure that the estimated installation dates entered could be distinguished from the installation dates in the dataset previously. Professional judgment was used to estimate installation dates by considering adjacent infrastructure, parcel build-out years, and historical imagery, as needed. Another attribute column was also created to provide notes as to why the estimated installation date was chosen for that feature. In this way, the remaining pipe dataset was assigned estimated installation dates and used to carry forward in the criticality review.

pipe (material)

Row Labels	Sum of Count
<Null>	338
ADS	27
CAST IRON	5
CLAY	15
CMP	1015
CONCRETE	3212
CPEP	1506
DUCTILE IRON	1360
HDPE	99
LCPE	12
PERFORATED	4
POLYETHYLENE	11
PVC	6683
RCP	710
RPVC	4
STEEL	1
Grand Total	15002

pipe (size)

Row Labels	Sum of Count
3	5
4	87
6	542
7	1
8	2314
10	234
12	8012
15	571
16	15
18	1441
20	1
21	121
22	3
24	722
26	2
27	12
28	2
29	3
30	288
36	293
42	116
48	66
49	1
54	4
57	2
60	4
64	1
71	2
72	9
77	2
78	2
81	2
87	4
95	3
96	5
108	3
117	1
120	4
142	1
<Null>	101
Grand Total	15002

SELEVATION	(Multiple Items)
pipes without start elevations	
Sum of Count	
	3315

INSTALLED	<Null>
pipes without install date	
Sum of Count	
	1523

Figure C-2. Stormwater Pipe Attribute Data Available in Cartegraph
Note: Attribute data were reviewed prior to capturing a screenshot of Cartegraph (Figure C-1). hence there may be some differences in asset count.

Culvert (material)

Row Labels	Sum of Count
<Null>	79
ADS	1
CAST IRON	2
CLAY	4
CMP	183
CONCRETE	714
CPEP	182
DUCTILE IRON	71
HDPE	4
PVC	97
RCP	33
RPVC	6
STEEL	1
UNKNOWN	2
Grand Total	1379

Culvert (size)

Row Labels	Sum of Count
4	2
6	9
8	54
9	2
10	21
12	864
14	1
15	23
18	134
20	5
21	1
24	86
27	1
28	3
29	1
30	12
32	1
33	2
36	39
42	3
48	19
49	1
54	8
60	5
66	2
72	3
76	1
77	1
84	4
96	4
120	2
144	1
180	1
240	1
660	1
<Null>	61
Grand Total	1379

Start Elevation	(Multiple Items)
Culverts without start elevations	
Sum of Count	
277	

Installed	<Null>
Culverts without install date	
Sum of Count	
1037	

End Elevation	(Multiple Items)
Culverts without end elevations	
Sum of Count	
285	

Figure C-3. Culvert Attribute Data Available in Cartegraph

Note: Attribute data were reviewed prior to capturing a screenshot of Cartegraph (Figure C-1), hence there may be some differences in asset count.

1.4 Recommendations

The findings from the condition assessment and data gaps analysis resulted in the following recommendations for the program:

- City field staff should be able to accurately report/enter asset conditions in the field. If there are features that are consistently being scored incorrectly due to issues with the Cartegraph app, this should be reviewed and amended to simplify the entry process from the field.
- The OCI rating should be reviewed and revised.
- The likelihood of failure and criticality of failure attributes from Table C-1 should be used as the criteria for criticality scoring.
- A similar GIS desktop analysis may be beneficial for other asset types with missing installation dates. Specifically, culverts are expected to benefit as they were missing 75% of their installation dates.

2. Criticality Review

2.1 Likelihood of Failure

To develop the likelihood of failure score, assumptions had to be made regarding the critical attributes listed in Table C-1.

2.1.1 Useful Life

The useful life estimates based on pipe material are given in Table C-2 below.

Table C-2. Useful Life Estimates for Pipe Material

Pipe Material (Cartegraph)	Description	Useful Life Estimate
<Null>	No material listed	50
ADS	Advanced drainage system (type of high density polyethylene pipe)	50
CAST IRON	Cast iron pipe	75
CLAY	Vitrified clay pipe	100
CMP[1]	Corrugated metal pipe	50
CONCRETE[1]	Concrete pipe	100
CPEP	Corrugated polyethylene pipe	50
DUCTILE IRON[1]	Ductile iron pipe	75
HDPE[1]	High density polyethylene pipe	100
LCPE	Line corrugated polyethylene pipe	50
PERFORATED	Perforated pipe	50
POLYETHYLENE	Polyethylene pipe	50
PVC[1]	Polyvinyl chloride pipe	100

Pipe Material (Cartegraph)	Description	Useful Life Estimate
RCP[1]	Reinforced concrete pipe	100
RPVC	Rigid polyvinyl chloride pipe	50
STEEL[1]	Ductile steel pipe	75

1 Useful life estimates were sourced from a similar process performed for the Multnomah County Drainage District. The remaining materials were not included in this process and were assigned a conservative estimate of 50 years as a placeholder value. This value may be updated by the City as they see fit.

Useful life estimates can be made in a similar way for culverts and network structures based on their material. These have not been prepared as a part of this assessment.

Useful life estimates for the ponds category from Table C-1 are given in Table C-3. The possible components for each type of facility was listed, and an estimate of useful life given using professional judgment. The most conservative useful life of one of the facility's components should be used to assign the useful life of the facility. These estimates were given as a basis for developing a likelihood of failure score for the ponds asset category. The useful life of pumps can be estimated in a similar manner as shown in Table C-3, but has not been estimated as a part of this assessment.

Table C-3. Useful Life Estimates for Ponds (Stormwater Facilities and Detention/Water Quality Treatment Facilities)

	Total[1]	Useful Life of Components Assumption (Years)[2]						
Facility Type	Useful Life Assumption (Years)	Control Structure Replacement	Mechanism Replacement	In-Place Soil Media	Media Box Replacement	Vault	Rebuild	Notes
<Null>	-	-	-	-	-	-	-	-
BAFFLE OIL/WATER SEPARATOR	20	-	20	-	-	50	-	-
BASIC BIOFILTRATION SWALE	N/A[3]	-	-	-	-	-	-	Maintenance based
BIORETENTION	25	-	-	25	-	-	-	Full media replacement
CARTRIDGE FILTER	20	-	-	-	20	50	-	-
CP OIL/WATER SEPARATOR	20	-	20	-	-	50	-	-
DETENTION POND	25	25	-	-	-	-	-	Assume 25 years for control structure
DETENTION TANK	25	25	-	-	-	50	-	Assume 25 years for control structure
DETENTION VAULT	25	25	-	-	-	50	-	Assume 25 years for control structure
FILTER STRIPS	25	-	-	25	-	-	-	Full media replacement
FLOOD STORAGE	25	25	-	-	-	-	-	Assume 25 years for control structure
HYDRODYNAMIC SEPARATOR	10	-	10	-	-	50	-	-
INFILTRATION	20	-	-	20	-	-	-	Full media replacement
INFILTRATION POND	20	-	-	20	-	-	-	Full media replacement
MODULAR WETLAND	20	-	-	-	20	-	-	-
PERMEABLE PAVEMENT	10	-	-	-	-	-	10	-
TREE BOX	20	-	-	-	20	-	-	-
WET BIOFILTRATION SWALE	N/A[3]	-	-	-	-	-	-	Maintenance based
WET POND	25	25	-	-	-	-	-	Assume 25 years for control structure
WET VAULT	25	25	-	-	-	50	-	Assume 25 years for control structure

1 Total useful life is based on the most conservative estimate listed for one of the facility's component parts.

2 Estimates were made using professional judgment regarding the useful life expectancy for the components of each facility. There is not a value listed for each facility for the possible components as they do not apply to each facility listed.

3 Facilities that do not have a useful life assumption are maintenance based and should be managed as part of routine maintenance rather than a repair and replacement program.

2.1.2 Remaining Useful Life

The remaining useful life is calculated using its age and its useful life, as shown below.

$$Remaining\ useful\ life = asset\ age - useful\ life$$

This is the basis for the likelihood of failure score for the stormwater assets.

2.1.3 Previous Inspection Data

The previous condition of the asset feature was used to make an adjustment to the likelihood of failure score, if it was available, since this would be the most reliable source of data regarding its condition.

Thus, the remaining useful life equation would be:

$$Remaining\ useful\ life = asset\ age - useful\ life + previous\ inspection\ data\ adjustment$$

Table C-4 shows the adjustment to the useful life based on the previous OCI assigned. These estimated adjustments were only considered for stormwater pipes and should be evaluated to see whether a similar adjustment can be made for network structures. This is not recommended for ponds and pumps.

Table C-4. Remaining Useful Life Adjustment for Pipes and Culverts Based on Previous Inspection Data

Overall Condition Index	Description	Useful Life Year Adjustment
0	Failed	0
20	Poor	10
40	Fair	20
60	Good	30
80	Excellent	40

2.1.4 Likelihood of Failure Score

Table C-5 shows how the likelihood of failure score was assigned based on remaining useful life. A score of 5 is the most likely to fail, while a score of 1 is the least likely to fail.

Table C-5. Likelihood of Failure Score

Score	Description	Useful Life Years Remaining with Updated Inspection Results
5	Structure is greater than 25 years beyond useful life and should be prioritized for inspection	-75
4	Structure is past end of useful life and must be inspected	-25
3	Structure is nearing end of useful life and should be inspected	0
2	Failure not expected for 25+ years	25
1	Unlikely failure in foreseeable future	75

2.2 Criticality of Failure Score

To develop the criticality of failure score, assumptions had to be made regarding the critical attributes listed in Table C-1. Each critical attribute metric was scored independently and then averaged to result in the criticality of failure score.

2.2.1 Proximity to Critical Facilities

A 1,000-foot buffer was placed around the critical facilities within the City of Auburn in GIS. If any asset was within 1,000 feet of a critical facility, then its failure was assumed to be most critical. The score for this assessment is shown in Table C-6 below.

Table C-6. Proximity to Critical Facilities Score

Distance from Critical Facility	Proximity to Critical Facilities Score
0–1000 feet	5
Greater than 1000 feet	1

This GIS analysis was only performed for stormwater pipes for this assessment but can be easily performed for other stormwater assets by applying the same GIS buffer.

2.2.2 Adjacency to Critical Roadways

The roadways considered as critical in this assessment are listed below.

- Emergency evacuation route.
- Snow plow route.
- King County Metro bus route.
- Sound Transit bus route.
- Pierce Transit bus route.

A buffer was placed around the critical roadways in the City in GIS. If any asset was within this buffer, it was deemed to be most critical of failure. The score for this assessment is shown in Table C-7 below.

Table C-7. Adjacency to Critical Roadways Score

Distance from Critical Roadway	Proximity to Critical Roadways Score
Within right-of-way buffer of critical roadway	5
Outside of critical roadway buffer	1

This GIS analysis was only performed for stormwater pipes for this assessment but can be easily performed for other stormwater assets by applying the same GIS buffer.

2.2.3 Proximity to Priority Roadways

A priority rank was assigned to the different functional classifications of roads within the City. A GIS analysis was performed where a buffer was placed around each street. Assets were then assigned a proximity to priority roadways score equal to the priority rank of the street right-of-way where it lay. The priority rank (and proximity to priority roadways score) based on street functional classification is shown in Table C-8 below.

Table C-8. Priority Rank based on Street Functional Classification

Street Functional Classification	Priority Rank
ALLEY	4
HIGHWAY	5
LOCAL	3
MINOR ARTERIAL	1
NON RESIDENTIAL COLLECTOR	2
PRINCIPAL ARTERIAL	1
RAMP	4
RESIDENTIAL COLLECTOR	2
RURAL COLLECTOR	4
#N/A	3
<Null>	3

This GIS analysis was only performed for stormwater pipes for this assessment but can be easily performed for other stormwater assets by applying the same GIS buffer.

2.2.4 Criticality of Failure Score

The criticality of failure score was calculated by taking the average of the proximity to critical facilities score, adjacency to critical roadways score, and adjacency to priority roadways score. The criticality of failure score is summarized in Table C-9 below.

Table C-9. Criticality of Failure Score

Criticality of Failure Score	Description
5	Structure has critical facilities <1000 ft away, is adjacent to a critical roadway, and adjacent to a higher priority roadway functional classification
4	
3	
2	
1	Structure is not adjacent to critical facilities, critical roadways, or higher priority roadways.

2.3 Results

The criticality of failure and likelihood of failure scores can be summed to create a combined score or used independently. A spreadsheet was created to score the stormwater pipes inventory using the methods described above. A screenshot is shown in Figure C-4 below of the first page of results. This spreadsheet may be used as an example for the other stormwater assets in creating a likelihood of failure and criticality of failure score.

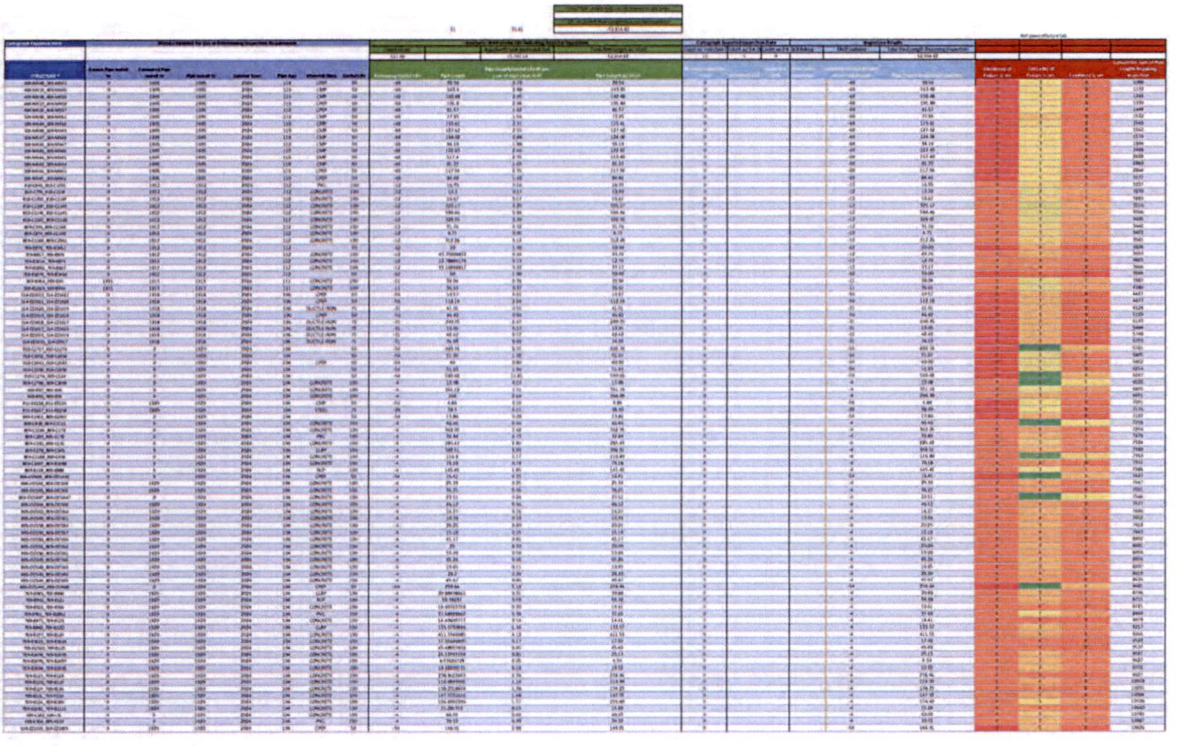


Figure C-4. Criticality Spreadsheet Results for Stormwater Pipes

2.4 Recommendations

The following actions are recommended after the criticality review:

- Estimate useful life for culverts, pumps, and network structures
- Consider whether previous inspection data should be used in adjusted useful life for network structures
- Perform GIS desktop analysis needed for the other stormwater assets in Table C-1 based on the methods described for the criticality of failure score.
- Enact the criticality of failure and likelihood of failure scores in Cartegraph for stormwater pipes, then follow suit with the stormwater assets listed in Table C-1.

3. Pipe Depreciation Analysis

The resulting failure scores allow for the City to rank different assets both on likelihood and criticality of failure. It is recommended to use this ranking strategy to develop an inspection program where inspections of different types of assets are prioritized based on their rank. The asset inspection program will serve to fill data gaps, update the likelihood of failure score based on field verification, and identify asset features requiring repair or replacement. After inspection data are input for an asset feature, the results of the inspection will supersede the use of estimated remaining useful life and installation date (where applicable) in calculating a likelihood of failure score. Using this system to prioritize maintenance allows resources to be used more efficiently and fills in data gaps resulting in a more robust asset inventory.

3.1 Inspection of Pipes, Culverts, and Network Structures

For the City's pipe system, the recommended program would prioritize inspection based on likelihood of failure and then criticality of failure. In this way, pipes with likelihood of failure scores greater than or equal to 4 (or a negative useful life estimate) will be inspected first. The next tier of inspections should address pipes with likelihood of failure scores equal to 3 and pipes with unknown installation dates. After pipes are inspected, they should be assigned a condition score, which will supersede the installation date and useful life expectancy in determining the likelihood of failure. The likelihood of failure for a pipe will increase over time, and this prioritization method will take this into account while integrating field inspection data. Table C-10 summarizes the length of pipe requiring inspection using this method.

Table C-10. Pipes Requiring Inspection Summary

	Feet	Miles	Relative to Existing City Total (%)	Notes
Total length of pipe in Cartegraph	2,439,196	461.97		This includes all jurisdictions and statuses.
Total length of pipe in City	1,292,737.73	244.84	100%	Jurisdiction = "CoA" and Status = "Existing"
Total pipe length requiring inspection	52,954.92	10.03	4.10%	Applies for any pipe whose Likelihood of Failure Score = 4 or 5 (Useful Life <0)

Since storm catch basins and storm manholes are related to pipes, it is recommended to inspect these at the same time as adjacent pipes. The same inspection prioritization method is recommended for culverts because the failure consequences are similar.

3.2 Inspection of Remaining Stormwater Assets

For storm pumps, it is recommended to closely evaluate their condition as their useful life nears the end (e.g., 5 or fewer years) and upgrade or replace them before probable failure. Stormwater control facilities should be routinely inspected and prioritized for inspection when critical feature data are unavailable.

4. Pipe Replacement Cost Projection

A brief review of costs were included in the asset management evaluation for consideration in setting the repair and replacement budget and resource planning goals for the 2024 Plan. A comprehensive cost estimate was prepared for both pipe replacement and the replacement of catch basins and manholes within the City. The assumptions and results of this analysis are noted below.

4.1 Method and Assumptions

The cost estimate for pipe replacement is meant to function as a generic cost estimate for the as opposed to being based off a particular project or area. The primary cost estimation calculations assume the replacement of 5,000 linear feet of pipe as well as the associated conveyance structures, such as manholes and catch basins. The estimate also includes work commonly associated with a pipe replacement project, including temporary erosion and sediment control (TESC); site prep, such as the removal of surface pavement and existing structures; the installation of the conveyance system structures, such as trenching and backfill; surface/pavement repair; and project costs, such as design contingency and permitting.

Additional assumptions and further explanation of cost breakdown for the cost of pipe replacement are as follows:

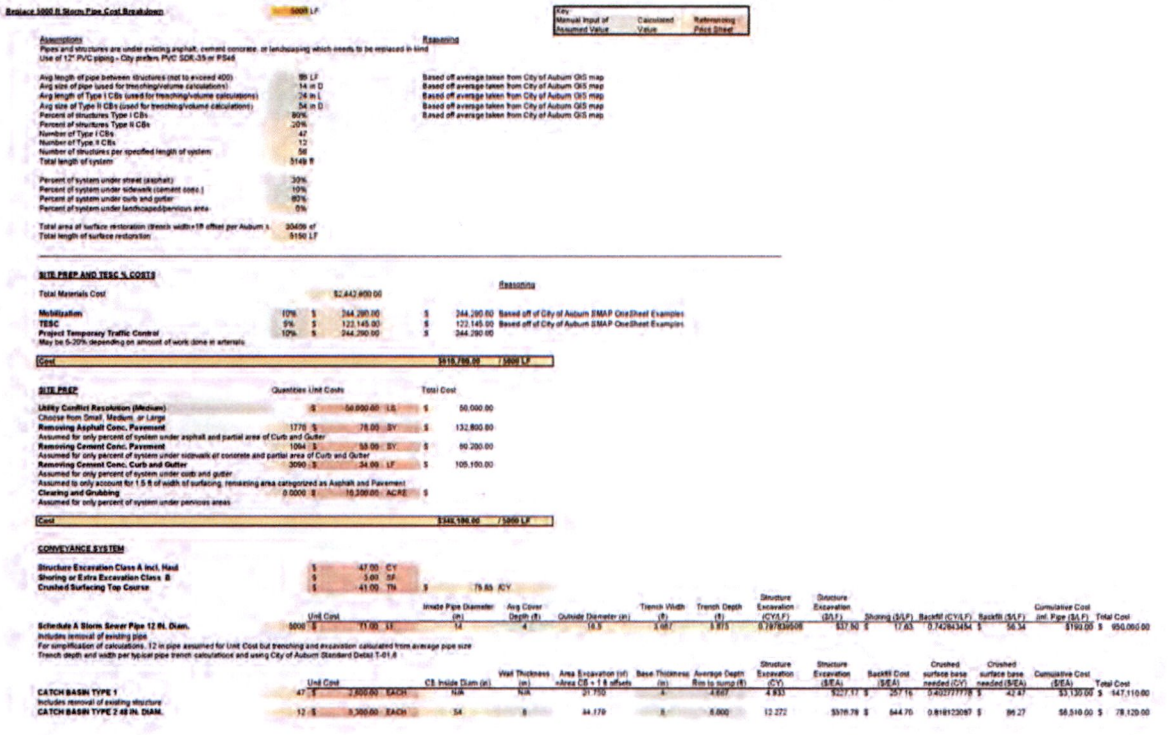
- General:
  - → All pipes and structures are assumed to be within the same/connecting system.
  - → Pipes and structures are under existing asphalt, cement concrete, or landscaping that would need to be replaced in kind.
  - → The City of Auburn GIS map was used to provide information about average pipe sizes, pipe lengths, types of catch basins, and land surface cover in the area that was used to make a general calculation of cost to replace 5,000 linear of pipe.
  - → The City of Auburn Engineering Design Standards (February 2024) as well as the Standard Details (February 2024) was used to inform typical design for the purpose of cost and quantity calculations.
- TESC and site prep: Site prep costs include the removal and cutting of surfaces that may be over the top of existing conveyance systems as well as Utility Conflict Resolution. Other costs for site prep, such as TESC, mobilization, and project temporary traffic control are calculated based on percentages commonly used in projects of a similar nature. Project temporary traffic control for the replacement of conveyance systems may vary depending on the

amount of work done in arterials or heavily trafficked areas. For this cost estimate, it was assumed that the work will need a medium amount of traffic control.

- Conveyance system and structural/asphalt repair: For the simplification of calculations, certain generalizations were made in calculating quantities and costs, such as the assumption that all pipes are the same size, material, and depth. See Figures C-5 through C-8 for assumptions.
- Project costs: Project costs percentages were based off the percentages used for the Stormwater Management Action Plan "One Sheets" completed for the City of Auburn in 2023. They include project costs for design contingency, permitting, design, City project management administration, and construction management.
- Unit costs: Unit costs were based off the assumption of 5,000 or 10,000 linear feet of pipe replacement and associated quantities for other conveyance system replacement appurtenances. Unit costs were estimated using the Washington State Department of Transportation Unit Bid Analysis tabs as well as other project cost estimates that have similar attributes to the general cost estimate of replacing conveyance system structures and pipes.

4.2 Results

Cost estimates were made to show the average cost of replacing 5,000 feet of pipe within the City of Auburn (Figure C-5), replacing 5,000 linear feet of pipe in downtown (Figure C-6), and 10,000 linear feet of pipe in rural areas (Figure C-7). A cost estimate was also made for replacing catch basins without replacing any adjacent pipes (Figure C-8).



Replace 5000 ft Storm Pipe Cost Breakdown	5000 LF	City Manual Input of Assumed Value	Calculated Value	Referencing Print Sheet

Assumptions		Reasoning
Pipes and structures are under existing asphalt, cement concrete, or landscaping which needs to be replaced in kind		
Use of 12" PVC piping - City prefers PVC SDR-35 or PS46		
Avg length of pipe between structures (not to exceed 400)	95 LF	Based off average taken from City of Auburn GIS map
Avg size of pipe (used for trenching/volume calculations)	14 in D	Based off average taken from City of Auburn GIS map
Avg length of Type I CBs (used for trenching/volume calculations)	24 in L	Based off average taken from City of Auburn GIS map
Avg size of Type II CBs (used for trenching/volume calculations)	54 in D	Based off average taken from City of Auburn GIS map
Percent of structures Type I CBs	80%	Based off average taken from City of Auburn GIS map
Percent of structures Type II CBs	20%	
Number of Type I CBs	47	
Number of Type II CBs	12	
Number of structures per specified length of system	59	
Total length of system	5149 ft	
Percent of system under street (asphalt)	30%	
Percent of system under sidewalk (cement conc.)	10%	
Percent of system under curb and gutter	60%	
Percent of system under landscaped/pervious area	0%	
Total area of surface restoration (trench width+1ft offset per Auburn s.	30409 sf	
Total length of surface restoration	5160 LF	

SITE PREP AND TESC % COSTS			Reasoning
Total Materials Cost	$2,442,800.00		
Mobilization	10%	$ 244,280.00	$ 244,280.00 Based off of City of Auburn SMAP OneSheet Examples
TESC	5%	$ 122,145.00	$ 122,145.00 Based off of City of Auburn SMAP OneSheet Examples
Project Temporary Traffic Control	10%	$ 244,280.00	$ 244,280.00
May be 5-20% depending on amount of work done in arterials			
Cost			$3,115,705.00 / 5000 LF

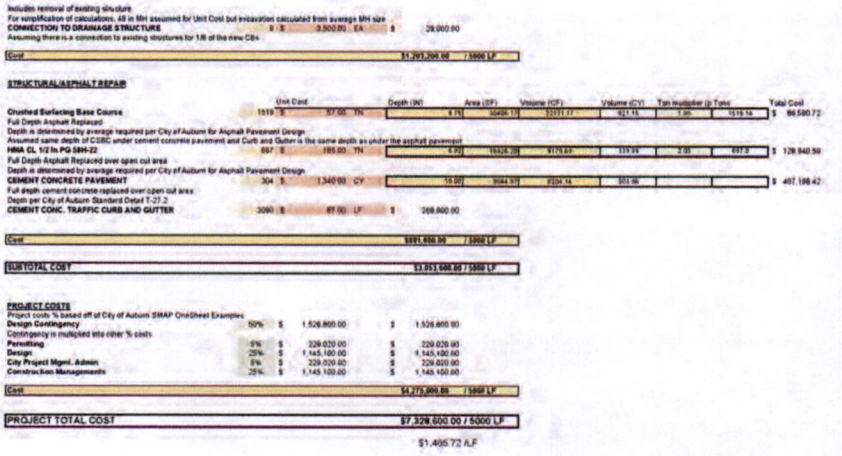
SITE PREP	Quantities	Unit Costs		Total Cost
Utility Conflict Resolution (Medium)	1	$ 50,000.00	LS	$ 50,000.00
Choose from Small, Medium, or Large				
Removing Asphalt Conc. Pavement	1776	$ 75.00	SY	$ 132,800.00
Assumed for only percent of system under asphalt and partial area of Curb and Gutter				
Removing Cement Conc. Pavement	1094	$ 55.00	SY	$ 60,200.00
Assumed for only percent of system under sidewalk or concrete and partial area of Curb and Gutter				
Removing Cement Conc. Curb and Gutter	3090	$ 34.00	LF	$ 105,100.00
Assumed for only percent of system under curb and gutter				
Assumed to only account for 1.5 ft of width of surfacing, removing area categorized as Asphalt and Pavement				
Clearing and Grubbing	0.0000	$ 10,000.00	AC/E	$ -
Assumed for only percent of system under pervious areas				
Cost				$345,100.00 / 5000 LF

CONVEYANCE SYSTEM				
Structure Excavation Class A Incl. Haul	$	47.00	CY	
Shoring or Extra Excavation Class B	$	5.00	SF	
Crushed Surfacing Top Course	$	41.00	TN	$ 79.85 /CY

	Unit Cost			Inside Pipe Diameter (in)	Avg Cover Depth (ft)	Outside Diameter (in)	Trench Width (ft)	Trench Depth (ft)	Structure Excavation (CY/LF)	Structure Excavation ($/LF)	Shoring ($/LF)	Backfill (CY/LF)	Backfill ($/LF)	Cumulative Cost (inl. Pipe ($/LF)	Total Cost
Schedule A Storm Sewer Pipe 12 IN. Diam.	5000	$ 77.00	LS	14	4	14.5	3.667	5.875	0.7978395508	$37.50	$ 17.63	0.7428634454	$ 56.34	$190.00	$ 950,000.00
Includes removal of existing pipe															
For simplification of calculations, 12 in pipe assumed for Unit Cost but trenching and excavation calculated from average pipe size															
Trench depth and width per typical pipe trench calculations and using City of Auburn Standard Detail T-01.0															

	Unit Cost			CB Inside Diam (in)	Wall Thickness (in)	Area Excavation (sf) +Area CB + 1 ft offsets	Base Thickness (in)	Average Depth Rim to sump (ft)	Structure Excavation (CY)	Structure Excavation ($/EA)	Backfill Cost ($/EA)	Crushed surface base needed (CY)	Crushed surface base needed ($/EA)	Cumulative Cost ($/EA)	Total Cost
CATCH BASIN TYPE 1	47	$ 2,800.00	EACH	N/A	N/A	21.700	4	4.667	4.833	$227.17	$ 257.16	0.402777778	$ 42.47	$3,130.00	$ 147,110.00
Includes removal of existing structure															
CATCH BASIN TYPE 2 48 IN. DIAM.	12	$ 3,300.00	EACH	54	6	44.179	6	6.000	12.272	$576.78	$ 644.76	0.818123087	$ 96.27	$8,510.00	$ 78,120.00

Figure C-5. Average Cost of Replacing 5,000 Feet of Stormwater Pipe in the City of Auburn



Includes removal of existing structure
For simplification of calculations, 48 in MH assumed for Unit Cost but excavation calculated from average MH size

CONNECTION TO DRAINAGE STRUCTURE	8	$	3,500.00	EA	$ 28,000.00

Assuming there is a connection to existing structures for 1/8 of the new CBs

Cost	$1,203,200.00	/ 5000 LF

STRUCTURAL/ASPHALT REPAIR

	Unit Cost				Depth (IN)	Area (SF)	Volume (CF)	Volume (CY)	Ton multiplier (p Tons		Total Cost
Crushed Surfacing Base Course	1519	$	57.00	TN	8.75	30406.17	22171.17	821.15	1.90	1519.14	$ 86,580.72
Full Depth Asphalt Replaced											
Depth is determined by average required per City of Auburn for Asphalt Pavement Design											
Assumed same depth of CSBC under cement concrete pavement and Curb and Gutter is the same depth as under the asphalt pavement											
HMA CL 1/2 In PG 58H-22	697	$	185.00	TN	6.92	16426.28	9179.69	339.99	2.00	697.0	$ 128,940.59
Full Depth Asphalt Replaced over open cut area											
Depth is determined by average required per City of Auburn for Asphalt Pavement Design											
CEMENT CONCRETE PAVEMENT	304	$	1,340.00	CY	10.00	9944.97	8204.14	303.86			$ 407,198.42
Full depth cement concrete replaced over open cut area											
Depth per City of Auburn Standard Detail T-27.2											
CEMENT CONC. TRAFFIC CURB AND GUTTER	3090	$	87.00	LF	$ 268,800.00						

Cost	$891,000.00	/ 5000 LF
SUBTOTAL COST	$3,053,600.00	/ 5000 LF

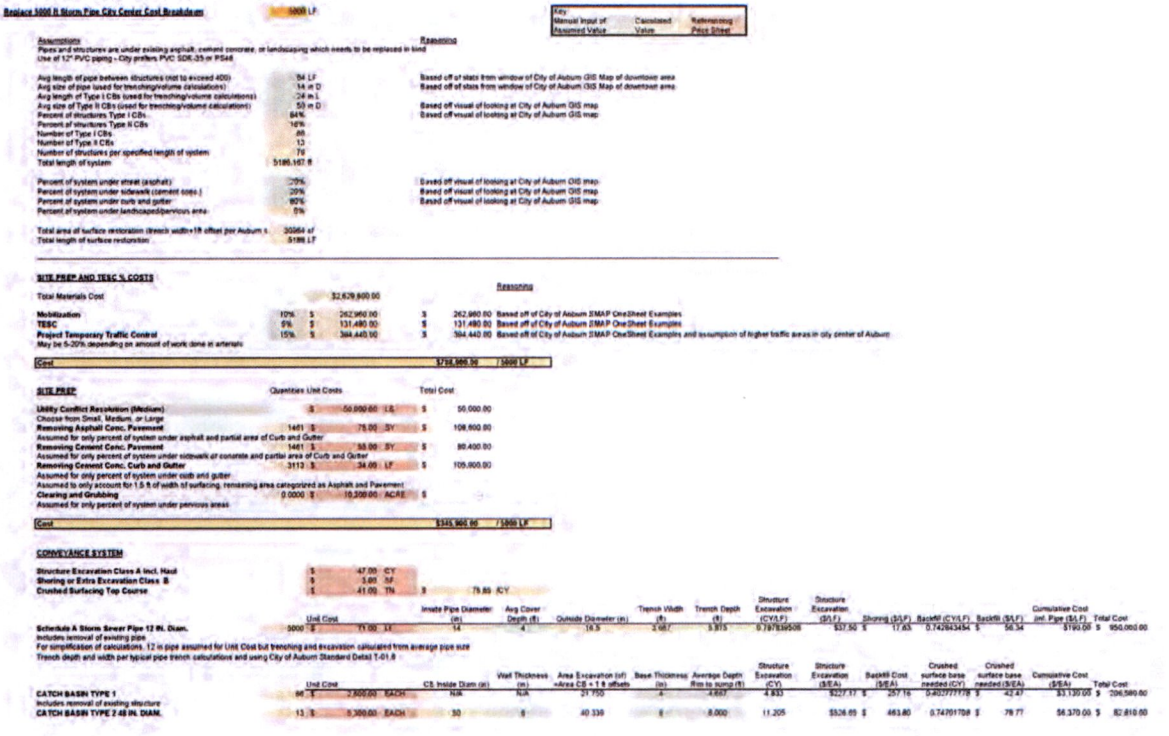
PROJECT COSTS

Project costs % based off of City of Auburn SMAP OneSheet Examples

Design Contingency	50%	$	1,526,800.00	$	1,526,800.00
Contingency is multiplied into other % costs					
Permitting	5%	$	229,020.00	$	229,020.00
Design	25%	$	1,145,100.00	$	1,145,100.00
City Project Mgmt. Admin	5%	$	229,020.00	$	229,020.00
Construction Managements	25%	$	1,145,100.00	$	1,145,100.00

Cost	$4,275,000.00	/ 5000 LF
PROJECT TOTAL COST	$7,328,600.00	/ 5000 LF
	$1,465.72 /LF	

Figure C-5 (continued). Average Cost of Replacing 5,000 Feet of Stormwater Pipe in the City of Auburn



Replace 5000 ft Storm Pipe City Center Cost Breakdown — 5000 LF

Key: Manual Input of Assumed Value | Calculated Value | Referencing Price Sheet

Assumptions — Reasoning

Pipes and structures are under existing asphalt, cement concrete, or landscaping which needs to be replaced in kind
Use of 12" PVC piping - City prefers PVC SDR-35 or PS46

Avg length of pipe between structures (not to exceed 400)	84 LF	Based off of stats from window of City of Auburn GIS Map of downtown area
Avg size of pipe (used for trenching/volume calculations)	14 in D	Based off of stats from window of City of Auburn GIS Map of downtown area
Avg length of Type I CBs (used for trenching/volume calculations)	24 in L	
Avg size of Type II CBs (used for trenching/volume calculations)	50 in D	Based off visual of looking at City of Auburn GIS map
Percent of structures Type I CBs	84%	Based off visual of looking at City of Auburn GIS map
Percent of structures Type II CBs	16%	
Number of Type I CBs	48	
Number of Type II CBs	10	
Number of structures per specified length of system	79	
Total length of system	5186.167 ft	
Percent of system under street (asphalt)	20%	Based off visual of looking at City of Auburn GIS map
Percent of system under sidewalk (cement conc.)	20%	Based off visual of looking at City of Auburn GIS map
Percent of system under curb and gutter	90%	Based off visual of looking at City of Auburn GIS map
Percent of system under landscaped/pervious area	5%	
Total area of surface restoration (trench width+1ft offset per Auburn s	39564 sf	
Total length of surface restoration	5186 LF	

SITE PREP AND TESC % COSTS — Reasoning

Total Materials Cost: $2,629,600.00

Mobilization	10%	$	262,960.00	$	262,960.00 Based off of City of Auburn XMAP OneSheet Examples
TESC	5%	$	131,480.00	$	131,480.00 Based off of City of Auburn ZMAP OneSheet Examples
Project Temporary Traffic Control	15%	$	394,440.00	$	394,440.00 Based off of City of Auburn ZMAP OneSheet Examples and assumption of higher traffic areas in city center of Auburn
May be 5-20% depending on amount of work done in arterials					
Cost				$798,900.00	/ 5000 LF

SITE PREP — Quantities | Unit Costs | Total Cost

Utility Conflict Resolution (Medium)	1	$ 50,000.00	LS	$	50,000.00
Choose from Small, Medium, or Large					
Removing Asphalt Conc. Pavement	1461	$ 75.00	SY	$	109,600.00
Assumed for only percent of system under asphalt and partial area of Curb and Gutter					
Removing Cement Conc. Pavement	1461	$ 55.00	SY	$	80,400.00
Assumed for only percent of system under sidewalk or concrete and partial area of Curb and Gutter					
Removing Cement Conc. Curb and Gutter	3113	$ 34.00	LF	$	105,900.00
Assumed for only percent of system under curb and gutter					
Assumed to only account for 1.5 ft of width of surfacing, remaining area categorized as Asphalt and Pavement					
Clearing and Grubbing	0.0000	$ 10,200.00	ACRE	$	-
Assumed for only percent of system under pervious areas					
Cost				$345,900.00	/ 5000 LF

CONVEYANCE SYSTEM

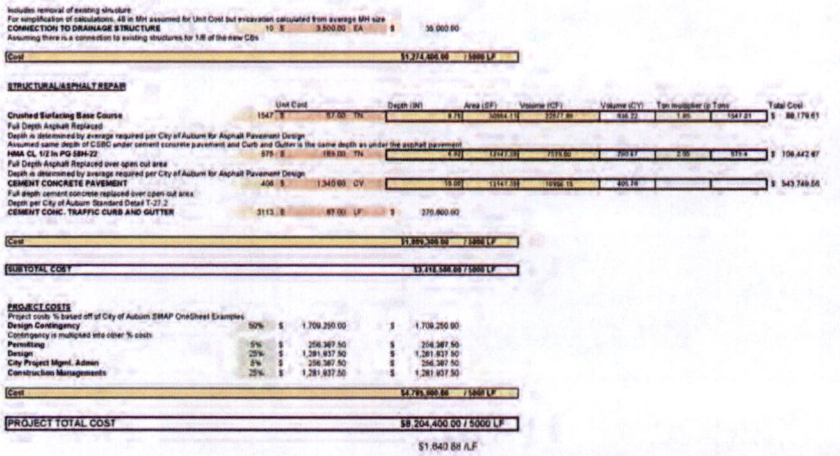
Structure Excavation Class A incl. Haul	$	47.00	CY
Shoring or Extra Excavation Class B	$	3.00	SF
Crushed Surfacing Top Course	$	41.00	TN

$ 75.89 /CY

	Unit Cost			Inside Pipe Diameter (in)	Avg Cover Depth (ft)	Outside Diameter (in)	Trench Width (ft)	Trench Depth (ft)	Structure Excavation (CY/LF)	Structure Excavation ($/LF)	Shoring ($/LF)	Backfill (CY/LF)	Backfill ($/LF)	Cumulative Cost (Int. Pipe ($/LF)	Total Cost
Schedule A Storm Sewer Pipe 12 IN. Diam.	5000	$ 71.00	LF	14	4	16.5	3.667	5.815	0.7878389508	$37.50	$ 17.63	0.7428434454	$ 56.34	$190.00	$ 950,000.00
Includes removal of existing pipe															
For simplification of calculations, 12 in pipe assumed for Unit Cost but trenching and excavation calculated from average pipe size															
Trench depth and width per typical pipe trench calculations and using City of Auburn Standard Detail T-01.0															

	Unit Cost			CB Inside Diam (in)	Wall Thickness (in)	Area Excavation (sf) =Area CB + 1 ft offsets	Base Thickness (in)	Average Depth ftm to sump (ft)	Structure Excavation (CY)	Structure Excavation ($/EA)	Backfill Cost ($/EA)	Crushed surface base needed (CY)	Crushed surface base needed ($/EA)	Cumulative Cost ($/EA)	Total Cost
CATCH BASIN TYPE 1	66	$ 2,600.00	EACH	N/A	N/A	21.750	4	4.667	4.833	$227.17	$ 257.16	0.402777778	$ 42.47	$3,130.05	$ 206,580.00
Includes removal of existing structure															
CATCH BASIN TYPE 2 48 IN. DIAM.	13	$ 5,300.00	EACH	50	6	40.339	6	8.000	11.205	$526.65	$ 463.80	0.74791708	$ 78.77	$6,370.00	$ 82,810.00

Figure C-6. Average Cost of Replacing 5,000 Feet of Stormwater Pipe in Downtown Auburn



Includes removal of existing structure
For simplification of calculations, 48 in MH assumed for Unit Cost but excavation calculated from average MH size

CONNECTION TO DRAINAGE STRUCTURE	10	$ 3,500.00	EA	$ 35,000.00	
Assuming there is a connection to existing structures for 1/8 of the new CBs					
Cost				$1,274,400.00	/ 5000 LF

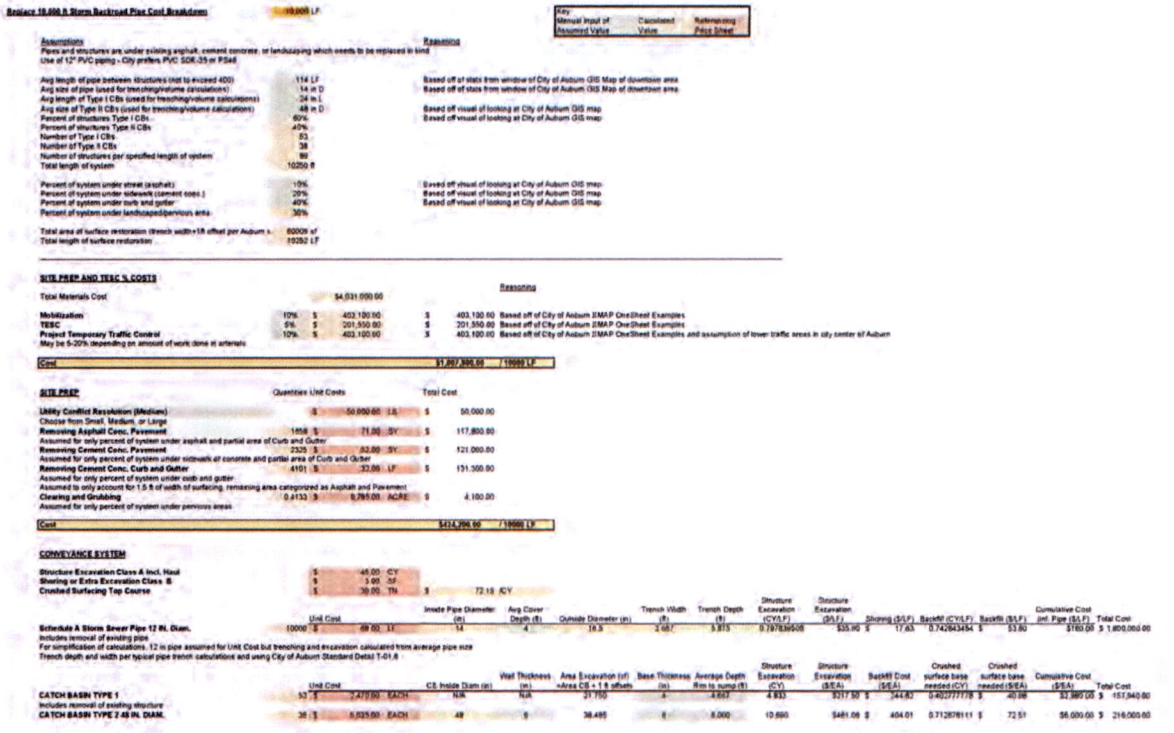
STRUCTURAL/ASPHALT REPAIR

		Unit Cost		Depth (IN)	Area (SF)	Volume (CF)	Volume (CY)	Ton multiplier (p Tons		Total Cost
Crushed Surfacing Base Course	1547	$ 67.00	TN	6.75	30864.11	22577.80	836.22	1.85	1547.21	$ 88,179.61
Full Depth Asphalt Replaced										
Depth is determined by average required per City of Auburn for Asphalt Pavement Design										
Assumed same depth of CSBC under cement concrete pavement and Curb and Gutter is the same depth as under the asphalt pavement										
HMA CL 1/2 In PG 58H-22	575	$ 185.00	TN	6.92	12147.28	7575.00	280.67	2.00	575.4	$ 106,442.67
Full Depth Asphalt Replaced over open cut area										
Depth is determined by average required per City of Auburn for Asphalt Pavement Design										
CEMENT CONCRETE PAVEMENT	406	$ 1,340.00	CY	15.00	12147.28	10996.15	405.78			$ 543,749.56
Full depth cement concrete replaced over open cut area										
Depth per City of Auburn Standard Detail T-27.2										
CEMENT CONC. TRAFFIC CURB AND GUTTER	3113	$ 87.00	LF	$ 270,800.00						
Cost				$1,899,300.00	/ 5000 LF					
SUBTOTAL COST				$3,418,500.00 / 5000 LF						

PROJECT COSTS

Project costs % based off of City of Auburn SMAP OneSheet Examples				
Design Contingency	50%	$ 1,709,250.00	$ 1,709,250.00	
Contingency is multiplied into other % costs				
Permitting	5%	$ 256,387.50	$ 256,387.50	
Design	25%	$ 1,281,937.50	$ 1,281,937.50	
City Project Mgmt. Admin	5%	$ 256,387.50	$ 256,387.50	
Construction Managements	25%	$ 1,281,937.50	$ 1,281,937.50	
Cost			$4,785,000.00	/ 5000 LF
PROJECT TOTAL COST			$8,204,400.00 / 5000 LF	
			$1,640.88 /LF	

Figure C-6 (continued). Average Cost of Replacing 5,000 Feet of Stormwater Pipe in Downtown Auburn



Replace 10,000 ft Storm Backroad Pipe Cost Breakdown — 10,000 LF

Key: Manual Input of Assumed Value | Calculated Value | Referencing Price Sheet

Assumptions — Reasoning

Pipes and structures are under existing asphalt, cement concrete, or landscaping which needs to be replaced in kind
Use of 12" PVC piping - City prefers PVC SDR-35 or PS46

Avg length of pipe between structures (not to exceed 400)	114 LF	Based off of stats from window of City of Auburn GIS Map of downtown area
Avg size of pipe (used for trenching/volume calculations)	14 in D	Based off of stats from window of City of Auburn GIS Map of downtown area
Avg length of Type I CBs (used for trenching/volume calculations)	24 in L	
Avg size of Type II CB's (used for trenching/volume calculations)	48 in D	Based off visual of looking at City of Auburn GIS map
Percent of structures Type I CBs	60%	Based off visual of looking at City of Auburn GIS map
Percent of structures Type II CBs	40%	
Number of Type I CBs	53	
Number of Type II CBs	36	
Number of structures per specified length of system	89	
Total length of system	10250 ft	
Percent of system under street (asphalt)	10%	Based off visual of looking at City of Auburn GIS map
Percent of system under sidewalk (cement conc.)	20%	Based off visual of looking at City of Auburn GIS map
Percent of system under curb and gutter	40%	Based off visual of looking at City of Auburn GIS map
Percent of system under landscaped/pervious area	30%	
Total area of surface restoration (trench width+1ft offset per Auburn s...	80008 sf	
Total length of surface restoration	10252 LF	

SITE PREP AND TESC % COSTS — Reasoning

Total Materials Cost		$4,031,000.00		
Mobilization	10%	$ 403,100.00	$ 403,100.00	Based off of City of Auburn EMAP OneSheet Examples
TESC	5%	$ 201,550.00	$ 201,550.00	Based off of City of Auburn EMAP OneSheet Examples
Project Temporary Traffic Control	10%	$ 403,100.00	$ 403,100.00	Based off of City of Auburn EMAP OneSheet Examples and assumption of lower traffic areas in city center of Auburn
May be 5-20% depending on amount of work done in arterials				
Cost			$1,007,300.00	/ 10000 LF

SITE PREP

	Quantities	Unit Costs		Total Cost
Utility Conflict Resolution (Medium)	1	$ 50,000.00	LS	$ 50,000.00
Choose from Small, Medium, or Large				
Removing Asphalt Conc. Pavement	1658	$ 71.00	SY	$ 117,800.00
Assumed for only percent of system under asphalt and partial area of Curb and Gutter				
Removing Cement Conc. Pavement	2329	$ 52.00	SY	$ 121,000.00
Assumed for only percent of system under sidewalk of concrete and partial area of Curb and Gutter				
Removing Cement Conc. Curb and Gutter	4101	$ 32.00	LF	$ 131,300.00
Assumed for only percent of system under curb and gutter				
Assumed to only account for 1.5 ft of width of surfacing, remaining area categorized as Asphalt and Pavement				
Clearing and Grubbing	0.4133	$ 9,765.00	ACRE	$ 4,100.00
Assumed for only percent of system under pervious areas				
Cost				$414,200.00 / 10000 LF

CONVEYANCE SYSTEM

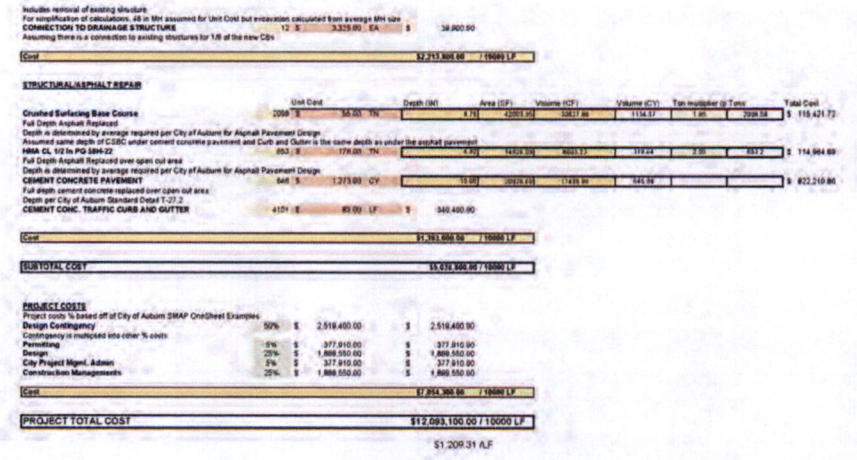
Structure Excavation Class A Incl. Haul	$	45.00	CY
Shoring or Extra Excavation Class B	$	5.00	SF
Crushed Surfacing Top Course	$	30.00	TN

$ 72.15 /CY

	Unit Cost			Inside Pipe Diameter (in)	Avg Cover Depth (ft)	Outside Diameter (in)	Trench Width (ft)	Trench Depth (ft)	Structure Excavation (CY/LF)	Structure Excavation ($/LF)	Shoring ($/LF)	Backfill (CY/LF)	Backfill ($/LF)	Cumulative Cost pre Pipe ($/LF)	Total Cost
Schedule A Storm Sewer Pipe 12 IN. Diam.	10000	$ 69.00	LF	14	4	18.3	2.667	5.813	0.787838508	$35.96	$ 17.63	0.742843464	$ 53.60	$780.00	$ 1,800,000.00
Includes removal of existing pipe															
For simplification of calculations, 12 in pipe assumed for Unit Cost but trenching and excavation calculated from average pipe size															
Trench depth and width per typical pipe trench calculations and using City of Auburn Standard Detail T-01.0															

	Unit Cost			CS Inside Diam (in)	Wall Thickness (in)	Area Excavation (sf) =Area CS + 1 ft offset	Base Thickness (in)	Average Depth Rim to Invert (ft)	Structure Excavation (CY)	Structure Excavation ($/EA)	Backfill Cost ($/EA)	Crushed surface base needed (CY)	Crushed surface base needed ($/EA)	Cumulative Cost ($/EA)	Total Cost
CATCH BASIN TYPE 1	53	$ 2,470.00	EACH	N/A	N/A	21.750	4	4.833	4.833	$217.50	$ 244.82	0.402777778	$ 40.98	$2,980.00	$ 157,940.00
Includes removal of existing structure															
CATCH BASIN TYPE 2 48 IN. DIAM.	36	$ 5,925.00	EACH	48	8	36.495	6	8.000	10.890	$491.06	$ 404.01	0.712878111	$ 72.51	$6,000.00	$ 216,000.00

Figure C-7. Average Cost of Replacing 10,000 Feet of Stormwater Pipe in Rural Auburn



Includes removal of existing structure
For simplification of calculations, 48 in MH assumed for Unit Cost but excavation calculated from average MH size

CONNECTION TO DRAINAGE STRUCTURE	12	$	3,325.00	EA	$ 39,900.00

Assuming there is a connection to existing structures for 1/8 of the new CBs

Cost	$2,213,800.00 / 10000 LF

STRUCTURAL/ASPHALT REPAIR

		Unit Cost			Depth (IN)	Area (SF)	Volume (CF)	Volume (CY)	Ton multiplier @ Tons		Total Cost
Crushed Surfacing Base Course	2098	$	55.00	TN	6.75	42003.95	32827.86	1134.57	1.85	2098.58	$ 115,421.72
Full Depth Asphalt Replaced											
Depth is determined by average required per City of Auburn for Asphalt Pavement Design											
Assumed same depth of CSBC under cement concrete pavement and Curb and Gutter is the same depth as under the asphalt pavement											
HMA CL 1/2 In PG 58H-22	653	$	178.00	TN	4.92	14928.09	6003.23	319.44	2.00	653.2	$ 114,964.69
Full Depth Asphalt Replaced over open cut area											
Depth is determined by average required per City of Auburn for Asphalt Pavement Design											
CEMENT CONCRETE PAVEMENT	646	$	1,273.00	CY	15.00	20826.69	17489.99	646.99			$ 822,210.86
Full depth cement concrete replaced over open cut area											
Depth per City of Auburn Standard Detail T-27.2											
CEMENT CONC. TRAFFIC CURB AND GUTTER	4101	$	83.00	LF	$ 340,400.00						

Cost	$1,393,000.00 / 10000 LF
SUBTOTAL COST	$5,026,800.00 / 10000 LF

PROJECT COSTS

Project costs % based off of City of Auburn SMAP OneSheet Examples

Design Contingency	50%	$	2,519,400.00	$	2,519,400.00
Contingency is multiplied into other % costs					
Permitting	5%	$	377,910.00	$	377,910.00
Design	25%	$	1,889,550.00	$	1,889,550.00
City Project Mgmt. Admin	5%	$	377,910.00	$	377,910.00
Construction Managements	25%	$	1,889,550.00	$	1,889,550.00

Cost	$7,054,300.00 / 10000 LF
PROJECT TOTAL COST	$12,093,100.00 / 10000 LF

$1,209.31 /LF

Figure C-7 (continued). Average Cost of Replacing 10,000 Feet of Stormwater Pipe in Rural Auburn

Replacing Catch Basin Cost Breakdowns

Key
Manual input of Assumed Value | Calculated Value | Referencing Price Sheet

Structure Excavation Class A incl. Haul	$	45.00	CY	
Shoring or Extra Excavation Class B	$	3.00	SF	
Gravel Backfill for Pipe Zone Bedding	$	60.00	CY	
Crushed Surfacing Base Course	$	58.00	TN	1.95 Ton Multiplier

	Unit Cost		CB Inside Diam (in)	Wall Thickness (in)	Area Excavation (sf) +Area CB + 1 ft offsets	Base Thickness (in)	Average Depth Rim to sump (ft)	Structure Excavation (CY)	Structure Excavation ($/EA)	Backfill Cost ($/EA)	Crushed surface base needed (CY)	Crushed surface base needed ($/EA)	Cumulative Cost ($/EA)	Total Cost
CATCH BASIN TYPE 1 Includes removal of existing structure	$ 2,400.00	EACH	N/A	N/A	21.750	4	4.667	4.833	$217.50	$ 205.43	0.402777778	$ 40.98	$2,940.00	$2,940.00
CATCH BASIN TYPE 2 48 IN. DIAM. Includes removal of existing structure	$ 5,030.00	EACH	48	6	38.485	6	8.000	10.690	$481.06	$ 335.66	0.712976111	$ 72.51	$5,930.00	$5,936.00
CATCH BASIN TYPE 2 60 IN. DIAM. Includes removal of existing structure	$ 8,075.00	EACH	60	9	50.265	6	8.000	13.963	$628.33	$ 532.33	0.930842268	$ 94.71	$9,340.00	$9,340.00

Figure C-8. Average Cost of Replacing Catch Basins in Rural Auburn

4.3 Discussion

The resulting cost opinion is intentionally conservative, approximately $1,500 per linear foot, to account for the wide range of generalizations and assumptions inherent in the process. Notably, the analysis indicated that pipe replacement in rural areas is expected to be less costly than in the City center. Additionally, replacing a larger quantity of pipe is only marginally more cost-effective.

As a prudent practice, it is recommended to diligently track the costs associated with installation, repair, and replacement of asset features on an annual basis. This data serve as valuable reference information for future asset replacement budget planning. As additional data are collected, cost opinions can be updated to enhance accuracy.

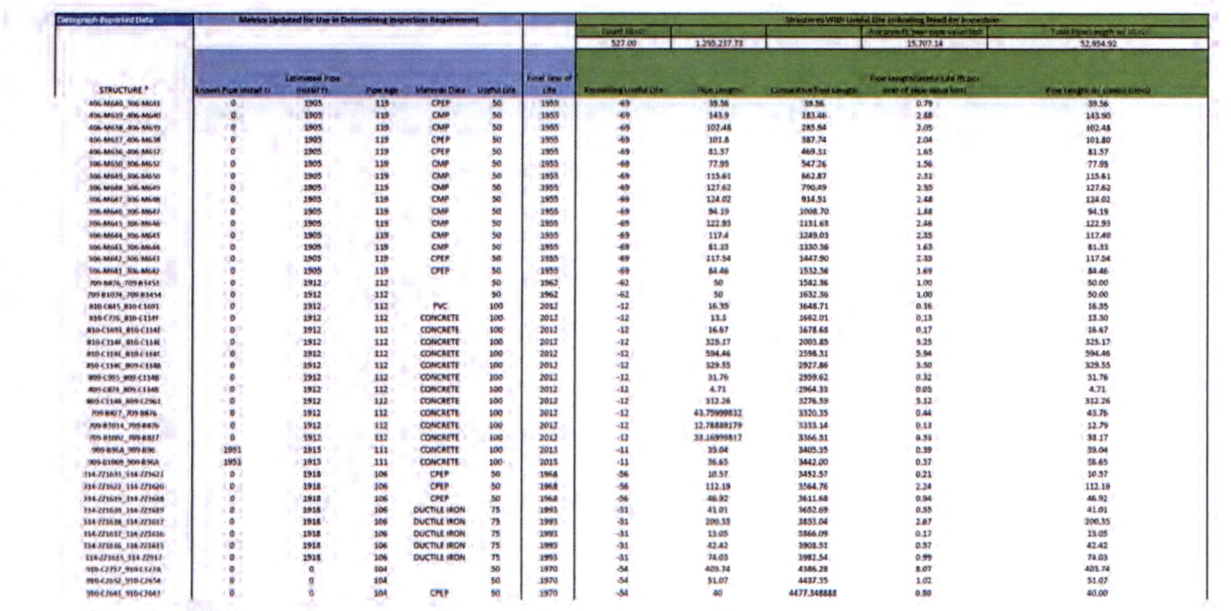
5. Pipe Depreciation Analysis

A life cycle analysis was performed for stormwater pipes to demonstrate the expected depreciation rate of each asset and provide background for the recommended maintenance frequency of the entire system. To do so, a spreadsheet was created to analyze the remaining useful life estimate for the City's pipe database over time. A screenshot of the first page of the spreadsheet is shown in Figure C-9. This shows the existing condition dataset of the stormwater pipes. In the spreadsheet, a cumulative total was calculated for the pipes whose remaining useful life score had gone negative. This represented the total linear feet of pipe "lost." As shown in Figure C-9, at the time of this assessment, approximately 53,000 feet of pipe is expected to be beyond its useful life.

An average rate of pipe loss was calculated by dividing each pipe's useful life from its length and then summing to find the total for the system. As shown in Figure C-9, the average rate of pipe value "lost" is approximately 15,700 feet per year.

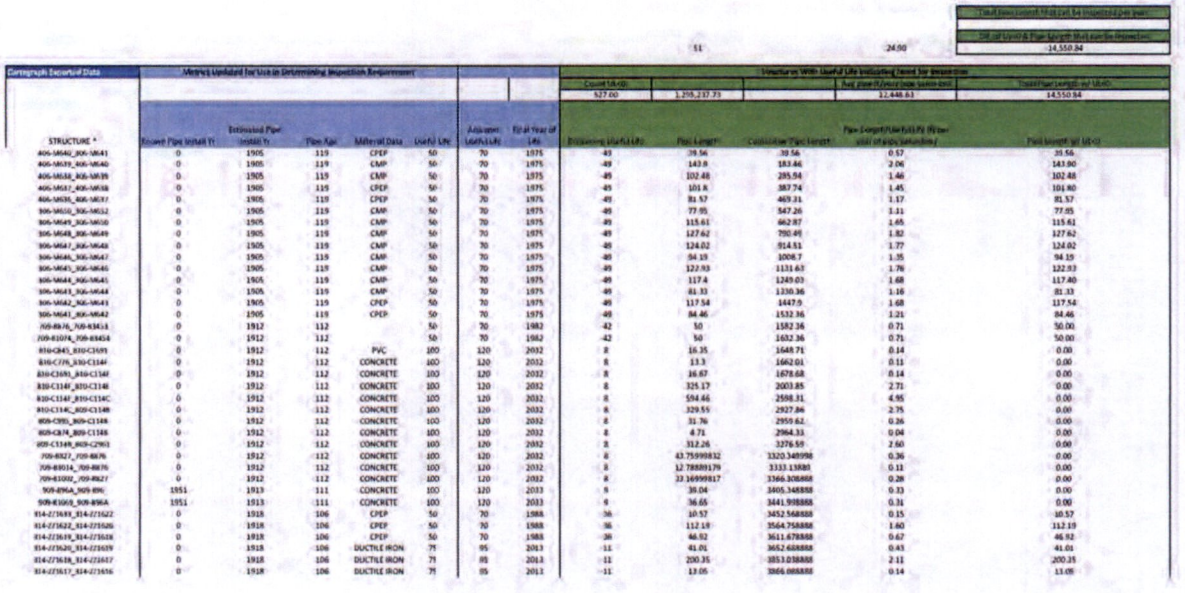
To show the sensitivity of the results, a copy of the spreadsheet was created, and all useful life estimates were increased by 20 years. A screenshot of the first page is shown in Figure C-10. This scenario shows the total linear feet of pipe beyond its useful life to be approximately 14,500 feet, and the average rate of pipe loss per year to be approximately 12,500 feet.

Both scenarios were used to project the amount of pipe replacement needed over 10-, 20-, and 50-year replacement durations. The costs estimated in the previous section were used to provide estimates for these replacements for reference. Figure C-11 shows the results of this projection.



Catchgraph Exported Data	Metrics Updated for Use in Determining Inspection Requirement						Structures With Useful Life Including Need for Inspection				
							Count (each)			Avg growth rate (pipe size/useful life)	Total Pipe Length (pipe size)
							527.00	1,295,237.73		15,707.14	52,954.92
STRUCTURE *	Known Pipe Install Yr	Estimated Pipe Install Yr	Pipe Age	Material Data	Useful Life	Final Year of Life	Remaining Useful Life	Pipe Length	Cumulative Pipe Length	Pipe Length/Useful Life (ft per year of pipe service life)	Pipe Length (pipe size)
406-M640_306-M641	0	1905	119	CPEP	50	1955	-69	39.56	39.56	0.79	39.56
406-M639_406-M640	0	1905	119	CMP	50	1955	-69	143.9	183.46	2.88	143.90
406-M638_406-M639	0	1905	119	CMP	50	1955	-69	102.48	285.94	2.05	102.48
406-M637_406-M638	0	1905	119	CPEP	50	1955	-69	101.8	387.74	2.04	101.80
406-M636_406-M637	0	1905	119	CPEP	50	1955	-69	81.57	469.31	1.63	81.57
306-M650_306-M652	0	1905	119	CMP	50	1955	-69	77.95	547.26	1.56	77.95
306-M649_306-M650	0	1905	119	CMP	50	1955	-69	115.61	862.87	2.31	115.61
306-M648_306-M649	0	1905	119	CMP	50	1955	-69	127.62	790.49	2.55	127.62
306-M647_306-M648	0	1905	119	CMP	50	1955	-69	124.02	914.51	2.48	124.02
306-M646_306-M647	0	1905	119	CMP	50	1955	-69	94.19	1008.70	1.88	94.19
306-M645_306-M646	0	1905	119	CMP	50	1955	-69	122.93	1131.63	2.46	122.93
306-M644_306-M645	0	1905	119	CMP	50	1955	-69	117.4	1249.03	2.35	117.40
306-M643_306-M644	0	1905	119	CMP	50	1955	-69	81.33	1330.36	1.63	81.33
306-M642_306-M643	0	1905	119	CPEP	50	1955	-69	117.54	1447.90	2.35	117.54
306-M641_306-M642	0	1905	119	CPEP	50	1955	-69	84.46	1532.36	1.69	84.46
709-B876_709-B1453	0	1912	112		50	1962	-62	50	1582.36	1.00	50.00
709-B1074_709-B3454	0	1912	112		50	1962	-62	50	1632.36	1.00	50.00
810-C845_810-C1691	0	1912	112	PVC	100	2012	-12	16.35	3648.71	0.16	16.35
810-C770_810-C1349	0	1912	112	CONCRETE	100	2012	-12	13.3	3662.01	0.13	13.30
810-C1691_810-C1347	0	1912	112	CONCRETE	100	2012	-12	16.67	3678.68	0.17	16.67
810-C1349_810-C1436	0	1912	112	CONCRETE	100	2012	-12	325.17	2003.85	3.25	325.17
810-C1436_810-C1435	0	1912	112	CONCRETE	100	2012	-12	594.46	2598.31	5.94	594.46
810-C1347_809-C1348	0	1912	112	CONCRETE	100	2012	-12	329.55	2927.86	3.30	329.55
809-C995_809-C1348	0	1912	112	CONCRETE	100	2012	-12	31.76	2959.62	0.32	31.76
809-C874_809-C1348	0	1912	112	CONCRETE	100	2012	-12	4.71	2964.33	0.05	4.71
809-C1348_809-C2961	0	1912	112	CONCRETE	100	2012	-12	312.28	3276.59	3.12	312.28
709-B827_709-B876	0	1912	112	CONCRETE	100	2012	-12	43.79999932	3320.35	0.44	43.76
709-B1014_709-B876	0	1912	112	CONCRETE	100	2012	-12	12.78889179	3333.14	0.13	12.79
709-B1092_709-B827	0	1912	112	CONCRETE	100	2012	-12	33.16999817	3366.31	0.33	33.17
909-B96A_909-B96	1951	1915	111	CONCRETE	100	2013	-11	39.04	3405.35	0.39	39.04
909-B1069_909-B96A	1951	1913	111	CONCRETE	100	2015	-11	36.65	3442.00	0.37	36.65
314-Z1631_314-Z1622	0	1918	106	CPEP	50	1968	-56	10.57	3452.57	0.21	10.57
314-Z1622_314-Z1620	0	1918	106	CPEP	50	1968	-56	112.19	3564.76	2.24	112.19
314-Z1629_314-Z1688	0	1918	106	CPEP	50	1968	-56	46.92	3611.68	0.94	46.92
314-Z1630_314-Z1687	0	1918	106	DUCTILE IRON	75	1993	-31	41.01	3652.69	0.55	41.01
314-Z1628_314-Z1617	0	1918	106	DUCTILE IRON	75	1993	-31	200.35	3853.04	2.67	200.35
314-Z1627_314-Z1616	0	1918	106	DUCTILE IRON	75	1993	-31	13.05	3866.09	0.17	13.05
314-Z1616_314-Z1615	0	1918	106	DUCTILE IRON	75	1993	-31	42.42	3908.51	0.57	42.42
314-Z1615_314-Z2917	0	1918	106	DUCTILE IRON	75	1993	-31	74.03	3982.54	0.99	74.03
910-C2757_910-C1674	0	0	104		50	1970	-54	403.74	4386.28	8.07	403.74
910-C2652_910-C2674	0	0	104		50	1970	-54	51.07	4437.35	1.02	51.07
910-C2641_910-C2643	0	0	104	CPEP	50	1970	-54	40	4477.348888	0.80	40.00

Figure C-9. Screenshot of Stormwater Pipe Depreciation Spreadsheet



									11		24.00	-14,550.84
Cartegraph Exported Data	Metrics Updated for Use in Determining Inspection Requirement						Structures With Useful Life Indicating Need for Inspection					
							Count (A-D):				Avg pipe ft/structure (use same unit)	Total Pipe Length w/ UL<0:
							527.00	1,295,237.73			12,448.63	14,550.84
STRUCTURE *	Known Pipe Install Yr	Estimated Pipe Install Yr	Pipe Age	Material Data	Useful Life	Adjusted Useful Life	Final Year of Life	Remaining Useful Life	Pipe Length	Cumulative Pipe Length	Pipe Length/Useful Life Ratio (use all same units)	Pipe Length w/ UL<0
406-M640_406-M641	0	1905	119	CPEP	50	70	1975	-49	39.56	39.56	0.57	39.56
406-M639_406-M640	0	1905	119	CMP	50	70	1975	-49	143.9	183.46	2.06	143.90
406-M638_406-M639	0	1905	119	CMP	50	70	1975	-49	102.48	285.94	1.46	102.48
406-M637_406-M638	0	1905	119	CPEP	50	70	1975	-49	101.8	387.74	1.45	101.80
406-M636_406-M637	0	1905	119	CPEP	50	70	1975	-49	81.57	469.31	1.17	81.57
306-M650_306-M652	0	1905	119	CMP	50	70	1975	-49	77.95	547.26	1.11	77.95
306-M649_306-M650	0	1905	119	CMP	50	70	1975	-49	115.61	662.87	1.65	115.61
306-M648_306-M649	0	1905	119	CMP	50	70	1975	-49	127.62	790.49	1.82	127.62
306-M647_306-M648	0	1905	119	CMP	50	70	1975	-49	124.02	914.51	1.77	124.02
306-M646_306-M647	0	1905	119	CMP	50	70	1975	-49	94.19	1008.7	1.35	94.19
306-M645_306-M646	0	1905	119	CMP	50	70	1975	-49	122.93	1131.63	1.76	122.93
306-M644_306-M645	0	1905	119	CMP	50	70	1975	-49	117.4	1249.03	1.68	117.40
306-M643_306-M644	0	1905	119	CMP	50	70	1975	-49	81.33	1330.36	1.16	81.33
306-M642_306-M643	0	1905	119	CPEP	50	70	1975	-49	117.54	1447.9	1.68	117.54
306-M641_306-M642	0	1905	119	CPEP	50	70	1975	-49	84.46	1532.36	1.21	84.46
709-B836_709-B841A	0	1912	112		50	70	1982	-42	50	1582.36	0.71	50.00
709-B1074_709-B1454	0	1912	112		50	70	1982	-42	50	1632.36	0.71	50.00
810-C845_810-C1691	0	1912	112	PVC	100	120	2032	8	16.35	1648.71	0.14	0.00
810-C776_810-C1144	0	1912	112	CONCRETE	100	120	2032	8	13.3	1662.01	0.11	0.00
810-C1691_810-C1149	0	1912	112	CONCRETE	100	120	2032	8	16.67	1678.68	0.14	0.00
810-C1149_810-C1148	0	1912	112	CONCRETE	100	120	2032	8	325.17	2003.85	2.71	0.00
810-C1149_810-C1148C	0	1912	112	CONCRETE	100	120	2032	8	594.46	2598.31	4.95	0.00
810-C1148_809-C1148	0	1912	112	CONCRETE	100	120	2032	8	329.55	2927.86	2.75	0.00
809-C955_809-C1148	0	1912	112	CONCRETE	100	120	2032	8	31.76	2959.62	0.26	0.00
809-C874_809-C1148	0	1912	112	CONCRETE	100	120	2032	8	4.71	2964.33	0.04	0.00
809-C1149_809-C2961	0	1912	112	CONCRETE	100	120	2032	8	312.26	3276.59	2.60	0.00
709-B827_709-B876	0	1912	112	CONCRETE	100	120	2032	8	43.75999832	3320.349998	0.36	0.00
709-B3014_709-B876	0	1912	112	CONCRETE	100	120	2032	8	12.78889179	3333.13888	0.11	0.00
709-B1092_709-B827	0	1912	112	CONCRETE	100	120	2032	8	33.16999817	3366.308868	0.28	0.00
909-B96A_909-B96	1951	1913	111	CONCRETE	100	120	2033	9	39.04	3405.348868	0.33	0.00
909-B1068_909-B96A	1951	1913	111	CONCRETE	100	120	2033	9	36.65	3441.998868	0.31	0.00
814-Z71693_814-Z71622	0	1918	106	CPEP	50	70	1988	-36	10.57	3452.568868	0.15	10.57
814-Z71622_814-Z71626	0	1918	106	CPEP	50	70	1988	-36	112.19	3564.758868	1.60	112.19
814-Z71619_814-Z71618	0	1918	106	CPEP	50	70	1988	-36	46.92	3611.678868	0.67	46.92
814-Z71620_814-Z71619	0	1918	106	DUCTILE IRON	75	95	2013	-11	41.01	3652.688868	0.43	41.01
814-Z71618_814-Z71617	0	1918	106	DUCTILE IRON	75	95	2013	-11	200.35	3853.038868	2.11	200.35
814-Z71617_814-Z71616	0	1918	106	DUCTILE IRON	75	95	2013	-11	13.05	3866.088868	0.14	13.05

Figure C-10. Screenshot of Stormwater Pipe Depreciation Spreadsheet Adding 20 Years to Useful Life

Base Scenario				
Rate of Pipe Loss	=	15,700	ft pipe lost/yr (function of useful life/material & pipe age)	Preliminary Cost Opinion Est. / Year
Starting Pool of Dead Pipe				
For year	=	2022	year to source pool of dead pipe data	
Length of pipe needing replacement for entered year	=	52,000	ft starting pool of dead pipe needing replacement	
10 Replacement Duration	=	10	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	20,900	ft pipe needing replacement/year	$ 31,350,000
25 Replacement Duration	=	25	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	17,780	ft pipe needing replacement/year	$ 26,670,000
50 Replacement Duration	=	50	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	16,740	ft pipe needing replacement/year	$ 25,110,000
Adding +20 years to useful life				
Rate of Pipe Loss	=	12,500	ft pipe lost/yr (function of useful life/material & pipe age)	
Starting Pool of Dead Pipe				
For year	=	2022	year to source pool of dead pipe data	
Length of pipe needing replacement for entered year	=	15,000	ft starting pool of dead pipe needing replacement	
10 Replacement Duration	=	10	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	14,000	ft pipe needing replacement/year	$ 21,000,000
25 Replacement Duration	=	25	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	13,100	ft pipe needing replacement/year	$ 19,650,000
50 Replacement Duration	=	50	years duration to catch up on dead pipe	
Rate of Pipe Replacement Needed	=	12,800	ft pipe needing replacement/year	$ 19,200,000

Figure C-11. Cost Projection Results for 10-,20-, and 50-Year Pipe Replacement Durations

5.1 Discussion

The depreciation analysis was performed to provide a point of comparison on which to base the City's resource planning recommendations. Though the costs of pipe replacement are conservative, the anticipated cost of the various replacement durations was considered too great for the asset repair and replacement program. Thus, the escalated budget for repair and replacement from previous years was used as the basis for the asset repair and replacement program for the 2024 Plan. However, the results from this analysis can be used to inform the budget for future plans should it be of interest to expand the scope of the repair and replacement program. A similar depreciation analysis could be done for culverts.

6. Future Work & Maintenance

This asset management assessment provides a starting point from which the City can base its asset management program. The following actions will be needed to implement the discussed variables into the City's program.

- Review issues with scoring in the Cartegraph app. Ensure that any features being scored incorrectly are reviewed and amended to simplify the entry process from the field.
- The OCI rating should be reviewed and revised as needed.
- Enact the criticality of failure and likelihood of failure scores in Cartegraph for stormwater pipes and use these to prioritize inspections for pipes and adjacent network structures.
- The criticality of failure metrics should be periodically run in GIS and updated in Cartegraph for criticality of failure score.

Future actions that should be considered to expand upon the work described in this assessment are listed below.

- A GIS desktop analysis to fill in estimated installation dates should be considered for other asset types (specifically, culverts are expected to benefit, as they were missing 75% of their installation dates.
- Perform a GIS desktop analysis needed for the other stormwater assets in Table C-1 based on the methods described for the criticality of failure score.
- Estimate useful life for culverts, pumps, and network structures.
- Consider whether previous inspection data should be used in adjusted useful life for network structures.
- Enact the criticality of failure and likelihood of failure scores in Cartegraph for the remaining stormwater assets. Then follow suit with the stormwater assets listed in Table C-1.

Appendix D

Regulatory-Driven Improvements Assessment

The Regulatory-Driven Improvements table will be included as Appendix D of the final Plan.

Appendix E

Ditch Maintenance and Operations Program - Development and Recommended Actions

DATE:	June 6, 2024
TO:	Tim Carlaw, PE
FROM:	Paul Fendt, PE
SUBJECT:	Ditch Maintenance and Operations Program
CC:	Michael Murray, PE
	Alex Van Kirk, EIT
PROJECT NUMBER:	553-1931-052
PROJECT NAME:	Comprehensive Storm Drainage Plan Update

Overview and Introduction

This memorandum documents the proposed ditch maintenance and operations (M&O) program of the Stormwater Programs Task for the Comprehensive Storm Drainage Plan (Plan) for the City. This effort has been implemented to improve the M&O of the City's ditch inventory to control stormwater runoff and improve the quality of downstream receiving waters. The analysis considers the existing ditch M&O program and determines if additional controls and resources are required to meet needs and address potential liabilities. This technical memorandum discusses the City's ditch inventory, existing ditch M&O program, an outline for the proposed ditch M&O program, and future recommendations for consideration.

Ditch Inventory Evaluation

The evaluation of the City's existing ditch M&O program began with an assessment of its asset inventory. The City's ditch inventory is mapped under the "Channels" layer in the City's computerized maintenance management system, Cartegraph. At the time of investigation, there were 1,698 features within the Channels layer. Figure E-1 at the end of this memorandum demonstrates the extent of the channel inventory within Cartegraph.

The evaluation of the inventory included reviewing the available attribute and location data for the Channels layer features. The feature attribute review revealed an incomplete dataset with several attributes having little to no data inputs. While the data may be incomplete for the entire inventory, the following attribute fields were available for input and were either beneficial during evaluation or are anticipated to be of use in the program once data is made available.

- Owner: The jurisdiction responsible for M&O of the feature.
- Installed: The date the feature was constructed.
- Channel type: Labels the feature as a ditch or a stream.
- Channel shape: Identifies the feature as having a parabolic, v-bottom, or trapezoidal shape.
- Bottom width: The width of the bottom face of the feature.
- Bottom material: Identifies the feature as having a concrete, grass, plastic, riprap, or soil bottom.
- Slope: The longitudinal slope of the feature from inlet to outlet.
- Length: The length of the feature from inlet to outlet.
- Easement: A yes/no field that indicates whether the feature is within an easement.

Having feature data for these attributes would help with determining maintenance needs and options for water quality retrofits, making an educated guess for the useful life of component parts, and identifying the parties responsible for feature M&O. It is recommended to update features with these attributes upon implementing the ditch M&O program.

Channel features were further evaluated to determine whether they should be considered ditches and, consequently, whether they should be included in the City's ditch M&O program. A copy of the Channels layer was created to classify features accordingly. Attachment E1 describes the process used in classifying layer features and demonstrates the different categories created within the copied layer. The result of this process was a copy of the Channels layer broken into four categories based on expectations from the City's M&O program. These categories are summarized below.

- Roadside conveyance: Ditches within road right-of-way that are assumed to be capturing road runoff. This is the most common form of ditch.
- Facility-related: Ditches within close proximity to stormwater facilities that solely convey stormwater to and from the stormwater facilities.
- Collection (other): The remaining City-owned channel features that are expected to be maintained by the Storm Drainage Utility. This excludes any surface water linework (streams, rivers, etc.), ditches owned by other jurisdictions (including private ownership), and ditches maintained by other divisions within the City (for example, ditches within the median of the airport).
- N/A: All features not included in the preceding categories and not maintained by the City's Storm Drainage Utility.

The tasks proposed on behalf of each of these categories are discussed in a later section of this memorandum.

Existing Ditch Maintenance and Operation Program

The City was consulted regarding the existing M&O program for their ditch inventory. Maintenance activities include regrading and removal of sediment; nuisance vegetation; and isolated obstructions such as trash, trees, and accumulated debris. Because vegetation is important for erosion control, removal of beneficial vegetation is minimized.

Maintenance of the City's ditch inventory is time intensive. Six M&O staff are required for a single ditch maintenance crew to operate the City-owned excavator, control traffic, and manually regrade or remove obstructions. While the City aims to implement a ditch maintenance program, the City's ditch inventory is only maintained on an as-needed basis.

Proposed Ditch Maintenance and Operation Program

The components of the program are listed and discussed below.

Incorporation of Ditch Classifications

Depending on the type of ditch, there may be a specific inspection regime and go-to maintenance activities. It is recommended that the City incorporate the earlier-listed classifications as feature attributes in their Channels layer in Cartegraph.

As detailed in Attachment E1, all channels classified as streams were shown to overlap with surface water linework in the geographic information system (GIS) and assumed to be streams. No streams are included in the ditch M&O program; however, complaints and observations, such as erosion around structures, may be addressed and included in customer service. For the purpose of this technical memorandum, none of the stream features will be discussed further.

Inspection and Routine Maintenance

All ditches will need to be inspected regularly to determine whether further maintenance or construction is required. Routine maintenance will occur during inspection and will include smaller-scale tasks, such as picking up trash, clearing out shopping carts, addressing spot complaints, and mowing. A full inspection will involve evaluating the system for any structural or vegetation issues and documenting the results to determine whether a work order is needed. Ditches identified in a work order should result in a follow up within 15 days.

Roadside ditches are expected to require constant maintenance. The collection ditches will require additional routine maintenance, such as annual mowing and sediment removal. Facility-related ditches are recommended to be maintained and inspected with the facilities they are related to. A checklist for the full inspection and routine maintenance task, along with any additional tasks required for certain types of ditches, should be developed as a follow-up to this memorandum.

Overall System Management

A general management system will be needed to ensure features are mapped, add new ditches to the City inventory, investigate encroachments, develop capital items, coordinate complaint response, make recommendations for water quality retrofits, promote general environmentally friendly practices, and facilitate the generation of work orders. These items are covered in more detail below.

Mapping Update

In addition to updating the Channels layer with the attribute classifications described earlier, the mapped features will need to be evaluated for accuracy after field inspection and confirm they are classified correctly. Similarly, attributes and linework for the feature should be reviewed and modified after field work.

It is recommended that in addition to the attributes listed in the Ditch Inventory Evaluation section, the following attributes be defined and verified for each feature as work orders are developed.

- Inverts (as available).
- Average bottom and top width.
- Permitted encroachments (utility structures, driveways, etc.).
- Ownership and easements.

Some of the attributes may be field verified during inspection, while others may involve desktop research.

Adding New Ditches

There should be a protocol in place where any ditches observed in the field should be noted and then verified of their existence in the City's ditch inventory. This will aim to pick up on any unmapped ditches within the City to ensure features are maintained and operated appropriately. Newly added ditches will require ownership and responsibility research and subsequent easements or purchase.

Encroachment Investigation

Any encroachments observed in the ditch features while in the field must be documented. Examples of encroachments include utility boxes, utility poles, driveway locations, and driveway pipes. These items will need to be investigated and handled appropriately.

Capital Development

The results of the feature inspection may warrant minor capital repairs or replacement. The projects should be added as a program to the Storm Drainage Utility's capital improvement plan. Items noted during inspection that may require capital repair or replacement include sedimentation, erosion, and system/structural failures.

Responding to Complaints

The program does not deal with private ditches. However, if a complaint is received, the City may need to respond. The City may either notify the owner of the complaint and insist they handle it appropriately, or the City may handle the complaint and then bill the owner for the work.

Water Quality Retrofits

As part of the program, the City's ditches should be evaluated for potential water quality retrofits, focusing on roadside ditches. Retrofits would implement strategies to provide treatment for the various pollutants found in road runoff (6PPD-quinone, road maintenance chemicals, heavy metals, eroded soil, etc.). Determining potential retrofits to consider and deciding how a ditch is chosen for retrofit should be determined as a follow-up to this memorandum.

General Environmentally Friendly Practices

It is recommended to follow general environmentally friendly practices when performing ditch maintenance. A few of these practices have been listed below and can be researched further in Volume IV of the Pierce County Stormwater and Site Development Manual.

- Encourage vegetation by not mowing too low.
- Avoid using chemicals where possible.
- Perform regular inspections.
- Conduct vegetative maintenance in the late spring or early fall.

Work Order Development

The following items will need to be addressed and managed in incorporating the proposed ditch M&O program.

- How does inspection turn into a work order?
- How often should ditches be inspected?
- What are the thresholds for action?

Recommendations

It is recommended to implement the proposed ditch maintenance program as detailed above. Further work to develop the inspection checklists, decide on how to implement water quality retrofits, and address the work order development items is necessary as a follow-up to this memorandum. It is recommended to reflect upon the program after 5 years to assess whether any adjustments would be beneficial to the program.

City of Auburn Channel Inventory

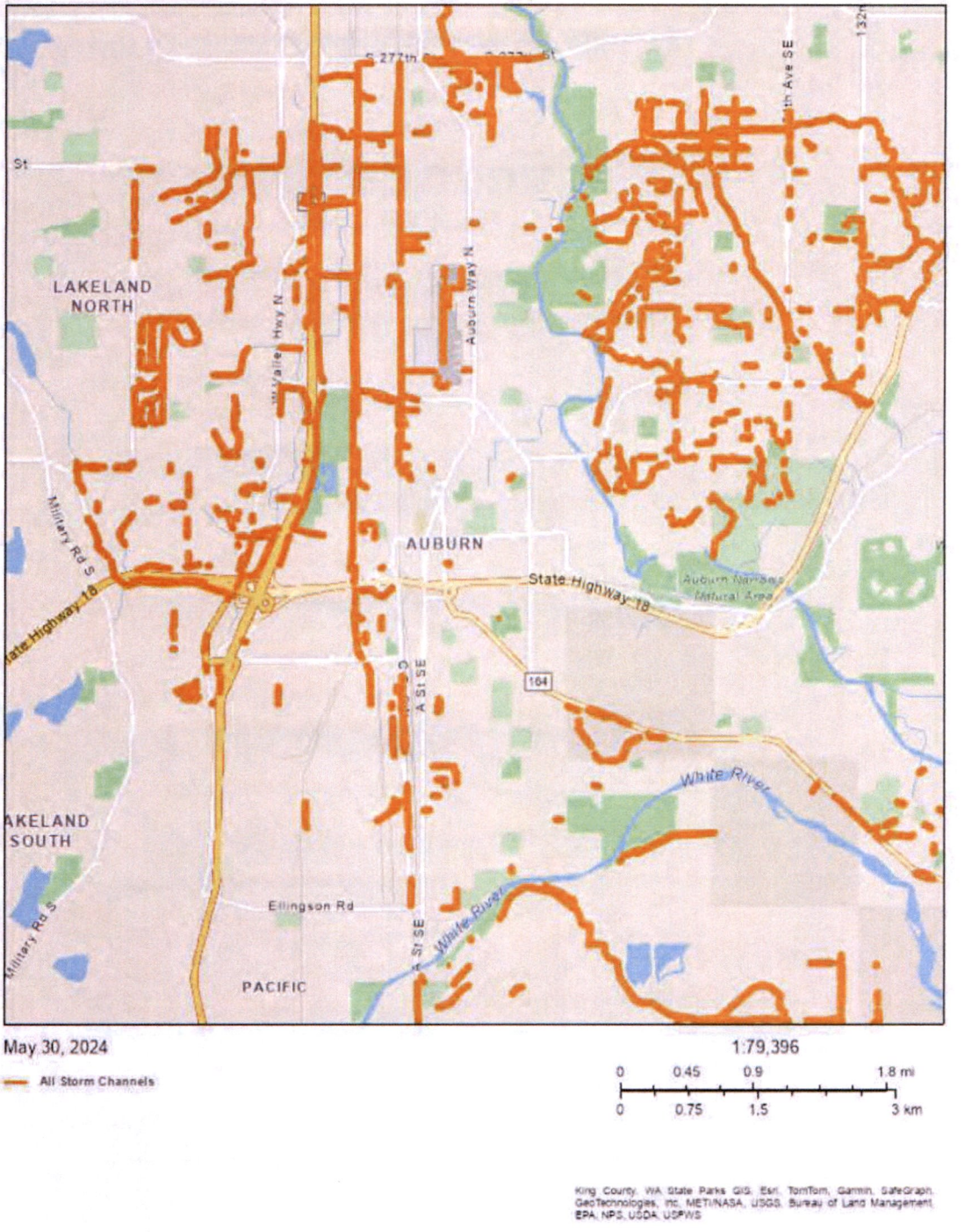


Figure E-1. Extent of Channels Layer in Cartegraph

Attachment E1

Channel Classification

Attachment E1

Channel Classification

The Channel layer was exported from the City's Cartegraph inventory and was used as the basis for the data review. At the time of export, there were 1,698 features with a total of more than 440,000 feet in summed length.

After reviewing the channel inventory, it was determined that a categorization of the channels by type would be beneficial in developing the required inspection criteria, frequency, and maintenance needs. Two attribute columns were added to the Channel layer, named "Source_Drainage" and "Source_Drainage_Note" to ease this process. Features were assigned a common category in the "Source_Drainage" attribute column, and any notes or reasoning for the assignment were justified in the "Source_Drainage_Note" attribute column. The process for classification of the channel inventory (and filling out the Source_Drainage attribute column) is detailed in the following sections.

The characteristics evaluated for classification along with a description of the process for each are listed below.

Ownership

The channels were first broken down using the feature's Owner attribute. The process for this breakdown is listed below.

- Any ditches marked as Owner = "COA"[1] or "0" or blanks were assumed to be City owned and broken down further.
- Any ditches marked as Owner = "Private" were marked as "Private – Ditch."
- Any ditches marked as Owner = "WSDOT" were marked as "WSDOT – Ditch."
- Any ditches marked as any owner not previously identified were marked as "Other Jurisdiction – Ditch."

Surface Water

The Channels layer was overlaid in GIS with linework from surface water and stream network layers. Any features from the Channels layer that overlapped with the surface water and stream network linework were marked as "Streams." These features would not be considered in the ditch maintenance and operations program.

If any features appeared to be visually similar to streams in GIS but did not overlap with any surface water linework, they were marked as "COA – Channelized Streams." An example of this instance is shown in Figure E1-1 below.

[1] Where COA is an abbreviation for City of Auburn.

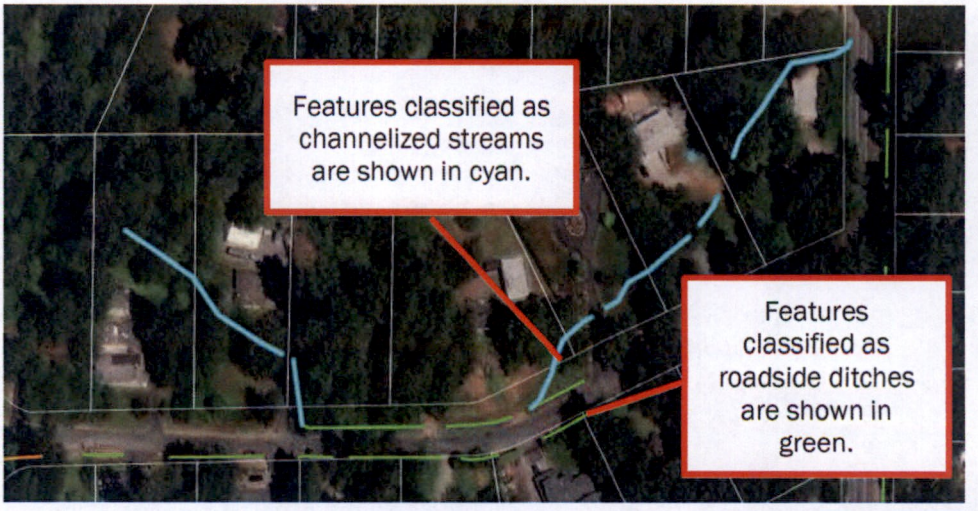


Figure E1-1. COA – Channelized Streams and Roadside Ditches Example

Roadside Ditch

A buffer was applied around roadways in GIS to capture any of the channel features within right-of-way. Any ditches within this buffer were marked as "COA – Roadside Ditch." These features are assumed to be capturing road runoff and are anticipated to be the most common form of a ditch. Examples of these features are shown in green in Figure E1-1.

Stormwater Facility

In a similar fashion to roadside ditches, a buffer was applied around the City's existing stormwater facilities. Any channels that lay within this buffer were visually evaluated to confirm that they seemed to be associated with a stormwater facility. Channel features that were confirmed to be associated with a stormwater facility were marked as "COA – Facility." Maintenance for ditches associated with an existing facility are anticipated to follow a schedule dictated by maintenance of the overall facility. An example of this feature type is shown below in Figure E1-2.

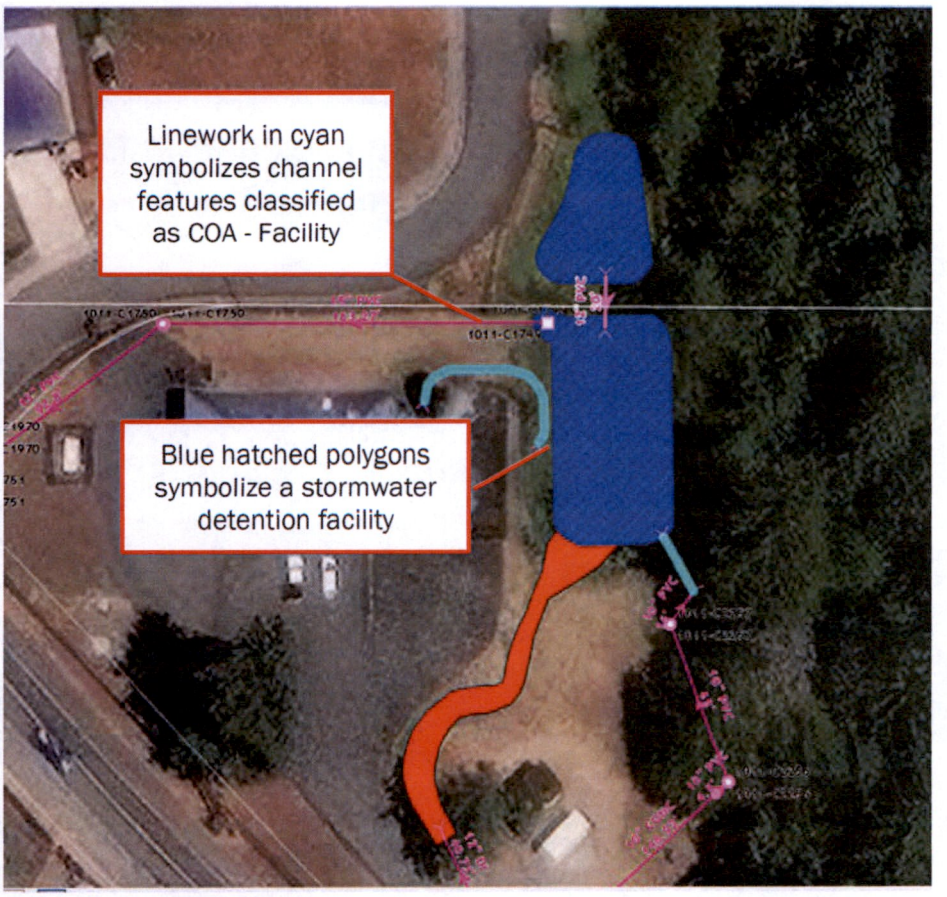


Figure E1-2. COA – Facility Features Example

Airport Median

There were three channel features shown in the airport median that were classified separately. These features were marked as "COA – Other." These are likely not ditches and would follow a different maintenance schedule than what is recommended elsewhere. Maintenance would be dictated by airport requirements. The three channel features of this type are shown below in Figure E1-3.



Figure E1-4. COA – Other Features

Public Ditches

The remaining channel features that were City owned and not surface water, not receiving roadside drainage, not associated with a stormwater facility, and not within the airport median were classified as "COA – Public." These features will require different inspection and maintenance techniques than the roadside ditches because access may be more challenging and captured runoff is anticipated to be sourced from more than roadways. An example of a channel feature classified as "COA – Public" is shown below in Figure E1-4.



Figure E1-4. COA – Public Feature Example

Results

After classifying the Channels layer as detailed above, the resulting breakdown of features in each category is demonstrated below in Table E1-1.

Table E1-1. Channel Classification Breakdown

Owner[1]	Classification[2]	Length[3] (feet)	Length (miles)	Percent of City-Owned Channels	Percent of Total Channels
Various	Stream	84,000	16	-	19%
WSDOT	WSDOT - Ditch	29,000	5	-	6%
Other Jurisdictions	Other Juris - Ditch	9,000	2	-	2%
Private	Private - Ditch	101,000	19	-	23%
COA	COA - Channelized Stream	14,000	3	6%	3%
COA	COA - Roadside Ditch	176,000	33	79%	39%
COA	COA - Facility	5,000	~1	2%	1%
COA	COA - Other	3,000	~1	1%	1%
COA	COA - Public	26,000	5	12%	6%
-	**COA Total**	**224,000**	**42**	**100%**	**50%**
-	**Total**	**447,000**	**85**	**-**	**100%**

1 Owner corresponds to the data for the feature attribute of the same name. COA = City of Auburn; WSDOT = Washington Department of Transportation. "Other Jurisdictions" includes any other ownership not included in COA, WSDOT, or Private. Other jurisdictions listed as owners of channel features include City of Algona, City of Kent, King County, and the Muckleshoot Indian Tribe.

2 Classification also refers to the "Source_Drainage" attribute column developed for this evaluation.

3 Length has been rounded up to the nearest thousand. The columns to the right have all been calculated based on this rounded number.

Work Implications

The review of the channel inventory layer was conducted as part of a larger effort to develop a drainage ditch maintenance program for the City. Breaking down the layer into the classifications identified in Table 1 allow for resources to be evaluated appropriately. While the channel classifications aid in giving additional context for the features within the Channel layer, some of the classifications are expected to require the same work items and maintenance frequencies, while others are not maintained by the storm drainage utility and will not be included within the ditch maintenance program. To simplify drainage ditch M&O needs, features can be split into broader categories based on expected work. Table E1-2 shows the groupings for ditch M&O work as they relate to the COA channel classifications.

Table E1-2. COA Drainage Ditch M&O Categories Relative to Channel Classifications

COA Drainage Ditch M&O Category	Channel Classification	Length (feet)	Length (miles)
Roadside Conveyance	COA - Roadside Ditch	176,000	33
Facility-Related	COA - Facility	5,000	~1
Collection (Other)[1]	COA - Channelized Stream	40,000	8
	COA - Public		
Total Maintained by Storm Drainage Utility		221,000	42
N/A[2]	COA - Other	226,000	43

COA = City of Auburn; M&O = maintenance and operation

1 This grouping combines all other COA ditches maintained by the storm drainage utility collecting stormwater. For the purposes of this preliminary ditch maintenance program, these ditches are expected to have the same maintenance needs and frequency of work.

2 N/A includes all features in the channel classifications layer not sorted into one of the other three M&O categories, and not included in the City's ditch maintenance program. COA-Other is included in this category as it is not expected to be maintained by the storm drainage utility. It is expected to have different maintenance expectations dictated by the airport. If this is proven otherwise, it should be sorted into one of the other M&O categories based on expected level of need.

Facility-related ditches will largely be maintained alongside the facilities they correspond with. This may require a first step in associating facility-related features with the respective facility they serve in Cartegraph to ensure that these features are not missed. After this exercise, facility maintenance may include maintenance of any associated ditches (depending on recommended maintenance frequency, facilities may be maintained several times per year, while facility-related ditches may not need as many visits). While these features are still included within the ditch maintenance program, the frequency and scheduling of work is dependent on timing for associated facilities. Though, the work associated with ditch inspection and maintenance will be dictated by the ditch inspection program.

In terms of M&O tasks, features classified as COA-Channelized Stream are expected to have the same inspection and maintenance requirements as those in COA-Public, so these will be treated the same in terms of recommended M&O actions.

Appendix F

SEPA Compliance Documentation

The SEPA Compliance Documentation will be included as Appendix F of the final Plan.

CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Ordinance No. 6949 (Krum) (10 Minutes)

Date:
August 19, 2024

Department:
Community Development

Attachments:
Presentation to CC Study Session
Ordinance No. 6949
Exhibit A – Hearing Examiner Recommendation for Stonecreek Apartments Site-specific Rezone
Vicinity Map-Existing Zone-Proposed Rezone

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

Ordinance No. 6949 changes the zoning map designation of a portion of King County Parcel No. 3339900507 from R-10 Residential – Ten Dwelling Units per Acre to R-20, Twenty Dwelling Units per Acre, in response to an application from property owner.

Zoning map change (Rezone) of approximately 7,098 square foot (sf) of a split-zoned parcel totaling 21,090 sf from "R-10, Residential Zone – Ten Dwelling Units per Acre" to the "R-20, Residential Zone – Twenty Dwelling Units per Acre" owned by Balvir Singh and Jaspreet Kaur.

On July 17, 2024, the Hearing Examiner held a Public Hearing, and on August 1, 2024 issued a written recommendation to City Council that the Stonecreek Apartments site-specific rezone be adopted.

Reviewed by Council Committees:

Councilmember: Tracy Taylor **Staff:** Jason Krum

Meeting Date: August 26, 2024 Item Number:

ORDINANCE 6949
STONECREEK APARTMENTS
SITE-SPECIFIC REZONE
CITY FILE NO. REZ23-0005

AUBURN CITY COUNCIL STUDY SESSION

DINAH REED– SENIOR PLANNER
AUGUST 26, 2024

Department of Community Development
Planning • Building • Development Engineering • Permit Center
Sustainability • Community Services • Code Enforcement

AUBURN VALUES

SERVICE
ENVIRONMENT
ECONOMY
CHARACTER
SUSTAINABILITY
WELLNESS
CELEBRATION

ORD. 6949 STONECREEK APARTMENTS
LOCATION OF SITE



- Application submitted on July 11, 2023 by Balvir Singh, the Property Owner.
- Location – 703 8th St. NE, Auburn
- Parcel size ~ ½ acre
- Split-zoned:
  - 7,098 sf of parcel = R-10
  - 13,992 sf of parcel = R-20

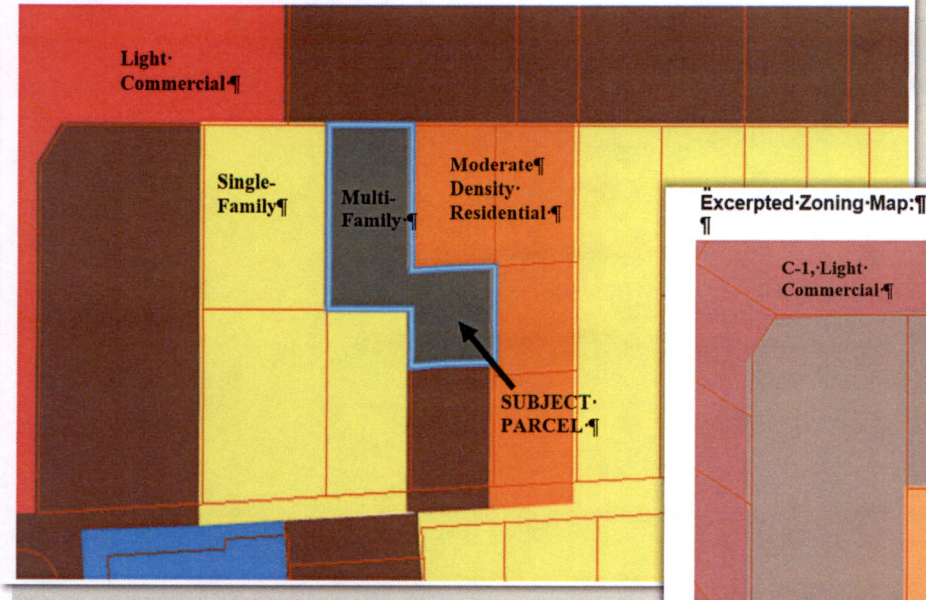
ORD. 6949 STONECREEK APARTMENTS

- The parcel is vacant, flat, and has no critical areas.
- The parcel is situated in an area surrounded by both Multi-family residential and Single-family residential.



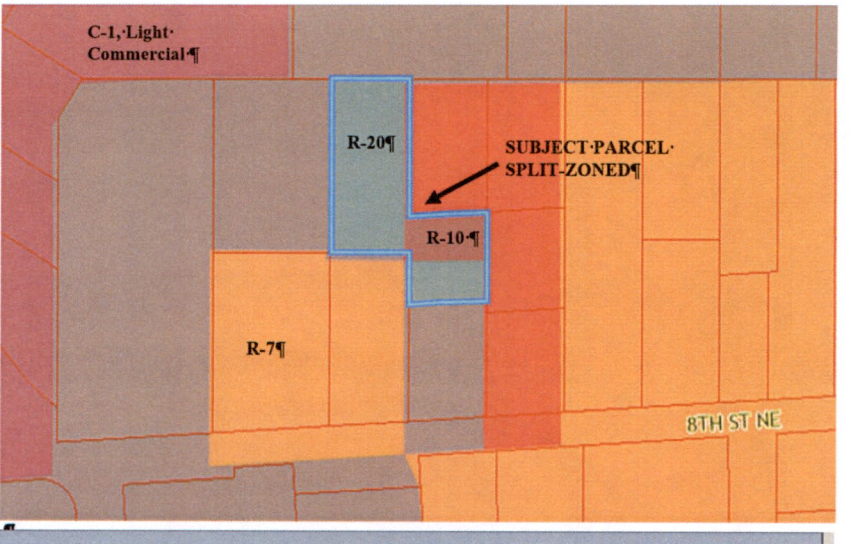
ORD. 6949 STONECREEK APARTMENTS
LAND USE AND ZONING

Excerpted·Comprehensive·Plan·Land·Map:¶



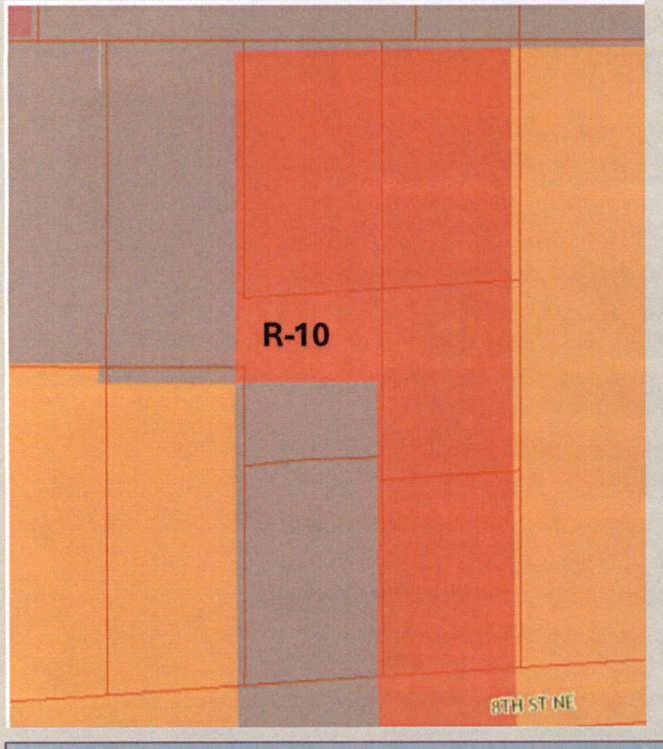
Excerpted·Zoning·Map:¶

¶

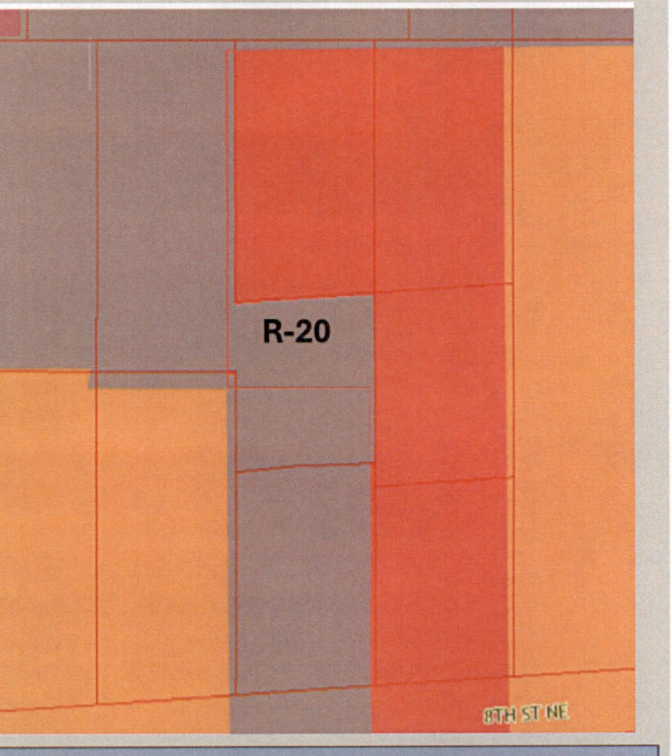


ORD. 6949 STONECREEK APARTMENTS
ZONING MAPS

Existing Map



Proposed Map



SERVICE • ENVIRONMENT • ECONOMY • CHARACTER • SUSTAINABILITY • PEOPLE • CELEBRATION

ORD. 6949 STONECREEK APARTMENTS
REZONE APPROVAL CRITERIA

In accordance with ACC 18.68.040

The rezone implements the policies of the comprehensive plan;

- **Staff Analysis** – The Rezone request is to change from R-10 to R-20 therefore, the change implements the intent of the Comprehensive Plan Land Use Designation of Multiple-family.

The rezone is necessary due to a substantial change in circumstances since the current zoning; and

- **Staff Analysis** – More than 2/3 of the parcel is zoned R-20 however, rezoning the 7,098 square feet from R-10 to R-20 will allow 2 additional units/apartments for the future apartment complex. The Housing Element (Vol. 2) in City of Auburn's Comprehensive Plan states that "Auburn's housing stock is older than average, and much of its rental housing stock is in fair or poor condition."

The rezone bears a substantial relationship to the public health, safety, or welfare.

- **Staff Analysis** – The rezone should not have an adverse impact on the surrounding area.

ORD. 6949 STONECREEK APARTMENTS HEARING EXAMINER RECOMMENDATION

- An open record public hearing was held on July 17, 2024 and on August 1, 2024, the **Hearing Examiner issued a written recommendation of approval.**
- Based upon the Hearing Examiner's recommendation of approval, staff seeks to schedule Ordinance No. 6949 for City Council action at the regular meeting on September 16, 2024.

ORDINANCE NO. 6949

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, FOR A SITE SPECIFIC REZONE OF A PORTION OF ONE PARCEL FROM R-10, RESIDENTIAL ZONE - TEN DWELLING UNITS PER ACRE TO R-20, TWENTY DWELLING UNITS PER ACRE

WHEREAS, a Boundary Line Adjustment (City File No. BLA21-0006) was applied for to combine the northern 90 feet of parcel no. 3339900495 with parcel no. 333990507, recorded on November 5, 2021 and resulting in a split-zoned single lot; and

WHEREAS, the split-zoned single lot had a portion zoned R-20, Twenty Dwelling Units per Acre and a portion R-10, Ten Dwelling Units per Acre; and

WHEREAS, Balvir Singh, Applicant and Property Owner, submitted a site-specific rezone application on July 11, 2023 for King County Parcel No. 3339900507; and

WHEREAS, the rezone will ensure that the zoning of the entire lot fully matches the intent of the Comprehensive Plan by eliminating the split zoning and expanding the R-20 zone to include the whole parcel; and

WHEREAS, the project is exempt from SEPA review in accordance with WAC 197-11-800(6)(c); and

WHEREAS, after proper notice published in the City's official newspaper at least ten (10) days prior to the date of public hearing, the City of Auburn Hearing Examiner conducted a public hearing, heard public testimony, and took evidence and exhibits into consideration; and

WHEREAS, on August 1, 2024 the City of Auburn Hearing Examiner recommended approval of the site-specific rezone application, and made and entered Findings of Fact and Conclusions of Law based thereon in support of that

recommendation, as set forth in the Findings of Fact, Conclusions of Law and Recommendation of the Hearing Examiner attached hereto, marked as Exhibit "A" and incorporated herein by this reference; and

WHEREAS, the City Council concurs with the Findings of Fact and Conclusions of Law of the Hearing Examiner; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, DO ORDAIN as follows:

Section 1. Adoption of the Hearing Examiner's Findings of Fact and Conclusions of Law. The City Council adopts the Findings of Fact and Conclusions of Law based thereon, made and entered by the Hearing Examiner in support of the recommendation to the City Council, as set forth in the "Findings of Fact, Conclusions of Law and Recommendation for the Stonecreek Apartments, City File Number REZ23-0005, dated August 1, 2024", attached hereto, marked as Exhibit "A".

Section 2. Approval. The City Council adopts and approves the request to change the zoning of a portion of King County Parcel No. 3339900507 from R-10, Residential – Ten Dwelling Units per Acre to R-20, Twenty Dwelling Units per Acre.

Section 3. Constitutionality or Invalidity. If any section, subsection clause or phase of this Ordinance is for any reason held to be invalid or unconstitutional such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining portions of this Ordinance, as it is being hereby expressly declared that this Ordinance and each section, subsection, sentence, clause and phrase hereof would have been prepared, proposed, adopted and approved and ratified irrespective of the fact that any one or more section, subsection, sentence, clause or phrase be declared invalid or

unconstitutional.

Section 5. Recordation. Upon the passage, approval and publication of this Ordinance as provided by law, the City Clerk of the City of Auburn shall cause this Ordinance to be recorded in the office of the King County Auditor's Division.

Section 6. Implementation. The Mayor is hereby authorized to implement such administrative procedures as may be necessary to carry out the directions of this legislation.

Section 7. Effective Date. This ordinance shall take effect and be in force five (5) days from and after its passage, approval, and publication, as provided by law.

INTRODUCED:_____

PASSED: _____

APPROVED: _____

_____
NANCY BACKUS, MAYOR

ATTEST:

_____
Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

_____
Jason Whalen, City Attorney

Published: _____

Exhibit A

BEFORE THE HEARING EXAMINER FOR THE CITY OF AUBURN

Phil Olbrechts, Hearing Examiner

RE: Stonecreek Apartments Rezone REZ23-0005	**FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATION.**

INTRODUCTION

Balvir Singh requests an upzone of a portion of his property located at 703 8th St. NE. from R-10 to R-20. It is recommended that the City Council approve the rezone.

The requested upzone is arguably legally mandated since the current R-10 zoning is inconsistent with the comprehensive plan use map designation of "multi-family." That map designation requires densities of 20-24 units per acre. The R-20 zoning classification meets this requirement, the current zoning R-10 does not.

Mr. Sing's property is currently split zoned with R-10 on one portion and R-20 on the other. The square footage of the entire parcel is 21,090 square feet. The proposal would rezone 7,098 square feet that is currently R-10 to R-20 so that the entirety of the parcel is R-20. If the rezone is approved, the applicant intends to construct a 10-unit apartment building on the site. Absent approval of the rezone, the current zoning would allow for an 8-unit building.

TESTIMONY

Ms. Diana Reed, Auburn City Planner, summarized the staff report. There was no other testimony.

EXHIBITS

Exhibits 1-7 listed at page 6 of the July 11, 2024 staff report were admitted into the record during the July 17, 2024 public hearing.

FINDINGS OF FACT

Procedural:

1. Applicant. The applicant is Mr. Balvir Singh, 24827 16th Ave. S, Des Moines, WA 98198. The property owners are Mr. Singh and Jaspreet Kaur.

2. Hearing. The Hearing Examiner conducted a virtual and telephonic hearing on the application at 5:30 p.m. on July 17, 2024.

Substantive:

3. Site/Proposal Description. The applicant proposes a site-specific rezone located at 703 8th St. NE for a portion of King County Parcel No. 3339900507 which is split-zoned between R-20 Residential Zone - 20 Dwelling Units per acre (R-20) and R-10 Residential Zone - 10 Dwelling Units per acre (R-10). The square footage of the entire parcel is 21,090 square feet. The proposal will rezone 7,098 square feet that is currently R-10 to R-20 so that the entirety of the parcel is R-20.

The subject property is irregular in shape, with the western rectangular portion of the lot measuring at about 14,245 square feet and eastern rectangular portion of the lot at approximately 7,065 square feet. It is flat and has no critical areas. Both ingress, egress and utilities easements are available across the lot to the south (parcel no. 3339900495) to 8th St. NE, recorded under AFNS: 781205072, 881212073, 20010220000902 & 20030929002021 as shown on the Boundary Line Adjustment (BLA21-0006) (Exhibit 5). A Boundary Line Adjustment (File No. BLA21-0006) was applied for to combine the northern 90 feet of parcel no. 3339900495 with parcel no. 3339900507, recorded on 11/5/2021 and resulting in a split-zoned single lot. Although split-zoned after the BLA, the entirety of the property was previously designated Multi-Family in the Comprehensive Plan.

4. Characteristics of the Area. The subject property is situated in an area surrounded by both Multi-Family Residential and Single-Family Residential in the immediate vicinity.

5. Adverse Impacts. No adverse impacts are anticipated from the proposal. The proposal was reviewed by the City's Building, Traffic, Utilities Division, and the Valley Regional Fire Authority who did not express any concerns regarding the rezoning of the subject property. The proposal is exempt from SEPA environmental review in accordance with WAC 197-11-800(6)(c). Pertinent impacts are addressed as follows:

A. Traffic. The proposal will not generate adverse traffic impacts. Two comment letters were received from community members regarding traffic issues (Exhibit 6). Both letters expressed concern about the proposed effect that 10 new units would have on increased traffic on a portion of 8th St. NE that they assert already has numerous functional road and sidewalk related issues. Specifically, these concerns include observed high vehicle speeds and blockage of sidewalks by parked vehicles. These comments were reviewed and responded to on-point by City staff (Exhibit 6). Concerns regarding vehicle speeds are an enforcement issue and links for members of the public to initiate a complaint were provided by City staff. Common walkways blocked by vehicles were identified as a civil matter. In regard to increased traffic, staff has indicated in their report (Exhibit 1) that the City's traffic engineer reviewed the proposal and that the potential addition of 10 dwelling units at this location did not require the preparation of a Transportation Impact Assessment (TIA). Projects that do not require a TIA are considered to not generate adverse traffic impacts.

CONCLUSIONS OF LAW

Procedural:

1. Authority of Hearing Examiner. ACC 18.68.030(A)(1) grants the Hearing Examiner with the authority to review and make a recommendation on rezone requests to the City Council.

Substantive:

2. Zoning Designation. The property is currently split zoned with 13,992 square feet located within a R-20 zoning district and the balance of the site (7,098 square feet) located with a R-10 zoning district.

3. Review Criteria. ACC 18.68.040 governs the criteria for review. Applicable criteria are quoted below in italics and applied through corresponding conclusions of law.

ACC 18.68.040: *There is no presumption of validity for a rezone (zoning map amendment) and the applicant has the burden of proof in establishing compliance with all of the following criteria:*

A. The rezone implements the policies of the comprehensive plan; or
B. The rezone is necessary due to substantial change in circumstances since the current zoning; and

4. Criterion Met. The criterion is met. The rezone implements the policies of the comprehensive plan by making the zoning of the property consistent with the comprehensive land use map designation. Changing the designation to R-20 would fully implement the Comprehensive Plan intent for the entire site and this criterion is met. No change of circumstance is required for approval of the rezone because the rezone implements the Comprehensive Plan.

The entirety of the parcel has a Comprehensive Plan designation of "Multi-Family". The Comprehensive Plan establishes density ranges for lands designated as Multi-Family as follows (emphasis added in **bold** text):

> *"This category shall be applied to those areas that are either now developed or are reserved for multiple family dwellings. Densities may range from **20 to 24 units per acre**. These communities are served by transit, have nonmotorized connections to surrounding amenities and services, or have access to on-site amenities."*

The rezone will ensure that the zoning of the entire site fully matches the intent of the Comprehensive Plan by eliminating the split zoning and expanding the R-20 zone to include the whole parcel. R-10 zoning (10 units per acre) is not an appropriate implementing zone for this site as it is below the Comprehensive Plan's specified density of 20-24 units per acre.

In addition to providing for required consistency with the City's comprehensive plan land use map, the proposal is also consistent with the following comprehensive plan policies:

> The City of Auburn Comprehensive Plan Land Use Element "Multiple-family Designation" general policies include:
>
> • LU-27: *Provide a variety of housing typologies to suit the needs of various potential residents.*
>
> The City of Auburn Comprehensive Plan Housing Element general policies include:
>
> • H-10: *Provide a land use plan and zoning that offers opportunities to achieve a variety of housing styles and densities for private and nonprofit housing providers.*
>
> • H-15: *Use innovative zoning provisions to encourage infill development of underutilized parcels in zones that have been identified in the Comprehensive Plan as areas where infill residential development should be encouraged. Certain development requirements for infill development may be relaxed, while requiring adherence to specific design requirements to ensure compatibility with the character of nearby existing residential*

structures.

The proposal is consistent with the policies quoted above because it provides for multi-family apartment housing.

C. The rezone bears a substantial relationship to the public health, safety, or welfare.

5. Criterion Met. The criterion is met. As determined in Finding of Fact No. 5, the proposal will not create any significant adverse impacts. As determined in Conclusion of Law No. 4, the proposal is necessary to implement the Comprehensive Plan. For these reasons, the proposal is found to furthers public health, safety and welfare.

RECOMMENDATION

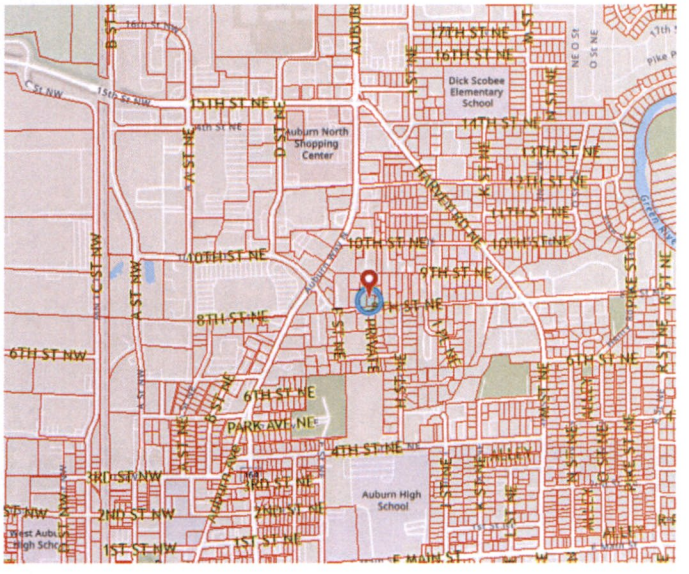
The Hearing Examiner recommends approval of REZ23-0005

Dated this 1st day of August, 2024.

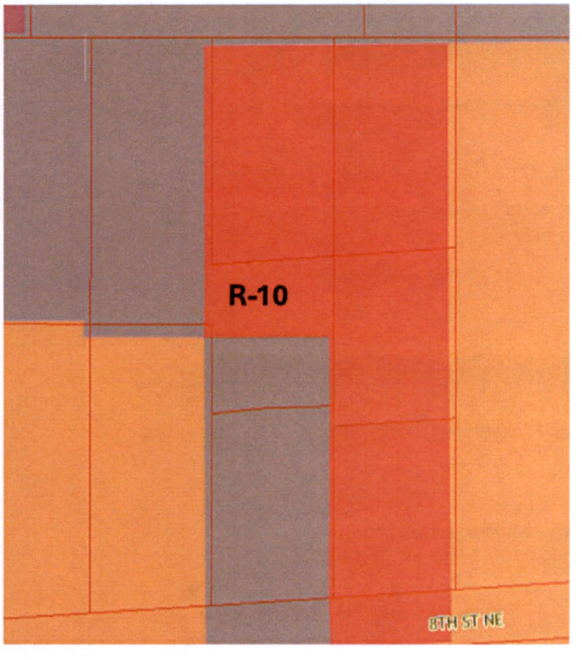
_____

Phil Olbrechts,
City of Auburn Hearing Examiner

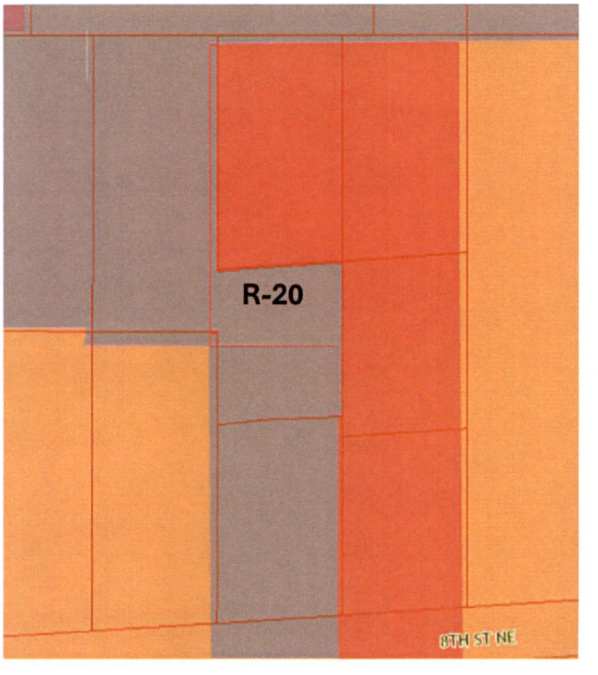
Vicinity Map



Existing Zoning Map



Proposed Rezone Map



CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Ordinance No. 6952 (Gaub) (20 Minutes)

Date:
August 19, 2024

Department:
Public Works

Attachments:
Ordinance No. 6952
Exhibit A
Presentation

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

Ordinance No. 6952 amends City Code related to water main extensions and private fire hydrants and the water mains serving the fire hydrants to be consistent with the Engineering Design Standards (EDS) as noted during the Council Study Session on January 22, 2024. The current EDS standards require amendment to portions of Chapters 13.06, 13.08, and 13.16 of Auburn City Code to remove details that are provided in the EDS and to provide for clean up of references in City Code to old standards no longer in use.

The Ordinance clarifies ownership and maintenance responsibilities of both public and private water main extensions, clarifies under what conditions the City may pay for oversizing water main extensions, clarifies fire hydrant installation and testing and inspection requirements, adds specific requirements, responsibilities, and restrictions for private fire hydrants, and includes additional provisions for violations of the fire hydrant regulations.

Reviewed by Council Committees:

Councilmember: Tracy Taylor **Staff:** Ingrid Gaub

Meeting Date: August 26, 2024 Item Number:

ORDINANCE NO. 6952

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, RELATING TO WATER MAIN EXTENSIONS AND REQUIREMENTS FOR PRIVATE FIRE HYDRANT INSTALLATIONS AND MAINTENANCE RESPONSIBILITIES, AND AMENDING CHAPTERS 13.06 WATER SYSTEM RESPONSIBILITY, 13.08 WATER MAIN EXTENSIONS AND PAYMENT, AND 13.16 FIRE HYDRANTS OF THE AUBURN CITY CODE

WHEREAS, Title 13 of the Auburn City Code (ACC) establishes rules and regulations for the Water, Sewers, and Public Utilities, consistent with public health, safety, and welfare of the community; and

WHEREAS, revisions are needed to Chapter 13.06 of the ACC to be consistent with the City Engineering Design Standards to address maintenance requirements of both public and private water systems; and

WHEREAS, revisions are needed to Chapter 13.08 of the ACC to be consistent with the City Engineering Design Standards to address ownership and maintenance responsibilities of water main extensions; and

WHEREAS, revisions are needed to Chapter 13.16 of the ACC to be consistent with the City Engineering Design Standards to address ownership and maintenance responsibilities of both public and private fire hydrant installations.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, DO ORDAIN as follows:

Section 1. Amendment to City Code. Chapters 13.06, 13.08, and 13.16 of the Auburn City Code are amended to read as shown in Exhibit A.

Section 2. Implementation. The Mayor is authorized to implement those administrative procedures necessary to carry out the directives of this legislation.

Section 3. Severability. The provisions of this ordinance are declared to be separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section, or portion of this ordinance, or the invalidity of the application of it to any person or circumstance, will not affect the validity of the remainder of this ordinance, or the validity of its application to other persons or circumstances.

Section 4. Effective date. This Ordinance will take effect and be in force five days from and after its passage, approval, and publication as provided by law.

INTRODUCED: _____

PASSED: _____

APPROVED: _____

_____
NANCY BACKUS, MAYOR

ATTEST:

_____
Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

_____
Jason Whalen, City Attorney

Published: _____

13.06.027 Water system responsibility.

The city is responsible for maintenance of the public water system within public rights-of-way and easements up to and including water service meters unless otherwise provided by agreement, by auburn city code, or by state law. Owners of private water systems, including but not limited to fire protection and landscaping irrigation systems, are solely responsible for maintenance and operation of such private systems. Private water system owners must comply with the requirements of the Auburn Design and Construction standards as adopted in ACC 12.04 for operation, maintenance, and testing of private water distribution and fire systems.

~~The city shall be responsible for the maintenance and operation of the public water system within public rights-of-way and easements up to and including water service meters. The responsibility for the maintenance and operation of the non-public water supply system within private property shall be the property owner's.~~ (Ord. 5849 § 1, 2004.)

The Auburn City Code is current through Ordinance 6912, passed July 17, 2023.

Disclaimer: The city clerk's office has the official version of the Auburn City Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

City Website: www.auburnwa.gov

Hosted by Code Publishing Company, A General Code Company.

Chapter 13.08
WATER MAIN EXTENSIONS AND PAYMENT

Sections:

13.08.010	~~Chapter purpose.~~Repealed.
13.08.015	Definitions.
13.08.020	Supervision and extent.
13.08.030	Main installation – Cost liability – Specifications.
13.08.040	Oversizing.
13.08.050	Repealed~~Fire hydrants – Required~~.
13.08.060	*Repealed.*
13.08.065	Fire hydrants – Installation on existing mains or relocation.
13.08.070	*Repealed.*
13.08.080	*Repealed.*
13.08.090	*Repealed.*

For statutory provisions on contracts for water facilities between cities and property owners, see Ch. 35.91 RCW; for provisions making Ch. 35.91 RCW applicable to code cities, see RCW 35A.80.010.

13.08.010 Chapter purpose.

Repealed by Ord. 6952. ~~This chapter regulating the extension of and payment for water mains is for the purpose of uniformity in establishing extreme limits of water mains, and is to promote fairness among the abutting property owners on both sides of streets on which water mains are located and to avoid public harm or creation of nuisance situations. (Ord. 5850 § 1, 2004; Ord. 5212 § 1 (Exh. H), 1999; Ord. 4776 § 1, 1995; 1957 code § 10.10.010.)~~

13.08.015 Definitions.

As used in this Chapter, ~~:~~ "City of Auburn design and construction standards" means the requirements adopted under Chapter 12.04 ACC for storm drainage, sanitary sewer, street, and water design and construction.

~~B. "Local improvement district" means a method of assessing benefiting properties in financing needed capital improvements through formation of special assessment districts. (Ord. 5850 § 1, 2004.)~~

13.08.020 Supervision and extent.

All extensions of ~~persons or local improvement districts desiring to extend~~ city water mains in the city's identified water service area boundary area must ~~extend the same under the supervision of the city engineer. All extensions shall extend to and across the full width of the property served with water. No property shall be served with city water unless the water main is~~ be extended in accordance with the City of Auburn design and construction standards. ~~to the extreme boundary limit of the property line extending the full length of the front footage of the property.~~ (Ord. 5850 § 1, 2004; Ord. 5212 § 1 (Exh. H), 1999; 1957 code § 10.10.020.)

13.08.030 Main installation – Cost liability – Specifications.

~~In all cases where~~ When a property owner is ~~are~~ required to extend a water main~~s~~, the property owner to be served shall pay for the installation cost of the water main~~s~~. All water mains to be installed within the city's water service area shall be sized in accordance with the requirements of ~~city's comprehensive water plan and~~ the City of Auburn design and construction standards. When required by the City Engineer, a private property owner shall own and be responsible to maintain any water main and hydrants that are installed on the owner's property solely to provide it with fire protection. (Ord. 5850 § 1, 2004; Ord. 5212 § 1 (Exh. H), 1999; 1957 code § 10.10.030.)

13.08.040 Oversizing.

When the city deems it necessary to require a water main extension that is greater in size than that required by the City of Auburn design and construction standards ~~it is deemed necessary by the city to install major transmission lines larger than are required to serve adjacent properties for domestic, industrial or fire protection purposes~~, the city may ~~, pursuant to a~~

~~written agreement between the city and the developer negotiated in advance to any work,~~ compensate the developer for the difference in cost of the oversizing~~,~~ if,

a) the city's purpose for requiring an oversized water main is to provide domestic, industrial, or fire protection water service to properties other than those being developed by the developer; and

b) the developer has executed a written payment agreement with the city prior to commencing any work; and

c) in the city's judgment the extension is economically feasible for the city.

The City Engineer shall determine the size of the oversized water ~~-~~ main ~~to serve the abutting property shall be determined by the city engineer~~ by taking into consideration the length of line, potential land uses, and fire flow requirements. (Ord. 5850 § 1, 2004; Ord. 5212 § 1 (Exh. H), 1999; 1957 code § 10.10.040.)

13.08.050 Fire hydrants – Required.

Repealed by Ord 6952. ~~All new water mains to be installed within the city's water service area shall include fire hydrants for adequate fire protection. Hydrants shall be installed in accordance with the city of Auburn design and construction standards. (Ord. 5850 § 1, 2004; Ord. 5212 § 1 (Exh. H), 1999; 1957 code § 10.10.050.)~~

13.08.060 Fire hydrants – Installation on existing mains.

Repealed by Ord. 5850.

13.08.065 Fire hydrants – Installation ~~on existing mains~~ or relocation.

~~A fire hydrant may be installed on an existing main, or be relocated, as approved by the city.~~ When the city requires the relocation, installation, or extension of a water main, it shall include

installation of fire hydrants according to the provisions of ACC 13.16 and the City of Auburn design and construction standards.~~Hydrants shall be installed or relocated in accordance with the city of Auburn design and construction standards. A written permit is required to install or relocate a hydrant. A permit application and inspection fee shall be charged in accordance with the city of Auburn fee schedule.~~ (Ord. 5944 § 1, 2005.)

13.08.070 Payback agreement.

Repealed by Ord. 6512. **13.08.080 Connections on unassessed property – Charge – Generally.**

Repealed by Ord. 5850. **13.08.090 Connections on unassessed property – Charge – Payments – Nonpayment action.**

Repealed by Ord. 5850. **The Auburn City Code is current through Ordinance 6912, passed July 17, 2023.**

Disclaimer: The city clerk's office has the official version of the Auburn City Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

City Website: www.auburnwa.gov

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Chapter 13.16
FIRE HYDRANTS

Sections:

13.16.010 Repealed~~Chapter title~~.

13.16.020 Definitions.

13.16.030 ~~Required.~~Fire hydrant installation, inspection requirements.

13.16.050 ~~Flush-type hydrants prohibited~~Repealed.

13.16.060 Repealed.~~Installation requirements.~~

13.16.070 ~~Special requirements~~Repealed.Special requirements, responsibilities, and restrictions.

13.16.080 ~~Accessibility~~Repealed.

13.16.090 ~~Dead-end mains prohibited~~Repealed.

13.16.100 Fire flow requirements.

13.16.122 ~~Spacing between hydrants – Buildings more than 150 feet from right-of-way~~Repealed.

13.16.124 Repealed~~Spacing between hydrants – Commercial or industrial buildings~~.

13.16.126 Repealed~~Spacing between hydrants – Apartment buildings~~.

13.16.130 Penalty.

Prior legislation: Ords. 2882 and 2862.

13.16.010 Chapter title.

Repealed by Ord. 6952.

~~This chapter shall be known and may be cited as the "Auburn fire hydrant/access ordinance." (Ord. 3064 § 1, 1976.)~~

13.16.020 Definitions.

As used in this chapter:~~For the purpose of this chapter, the following words, terms, phrases and their derivations shall have the meaning given in this section, unless the context otherwise indicates. When not inconsistent with the context, words used in the present tense include the future; words in the plural number include the singular number and words in the singular number include the plural number. The word "shall" is always mandatory.~~

~~A. "APWA" means the American Public Works Association.~~

~~B. "AWWA" means the American Water Works Association.~~

~~C. "Fire chief" means the city fire chief or the fire marshal.~~

~~D. "Fire department" means the city fire department.~~

A~~E~~. "Fire flow" means the measure of ~~the~~ sustained available water flow ~~of available water~~ required for firefighting at ~~of~~ a specific building or structure within a specific area at 20 pounds per square inch residual pressure~~, and shall be corrected to the lowest gallonage available based on peak-period demands and seasonal demands~~.

B. "Public Fire hydrant" means a fire hydrant owned by the city or its designee, situated in public right-of-way or easement, and situated and maintained to provide water for firefighting purposes. Public fire hydrants are without restriction as to use for that purpose. The location of a public fire hydrant is such that it is accessible for immediate use of the fire authority at all times. Fire hydrants connected to public water mains are considered Public Fire Hydrants.

~~F. "Flush-type hydrant" means a hydrant installed entirely below grade.~~

C~~G~~. "Private Fire Hydrant" means a private fire hydrant situated and maintained to provide water for firefighting purposes. Private fire hydrants are with restrictions as to use for that purpose and the property owner retains ownership of the fire hydrant~~.~~. The location of private hydrants are~~may be~~ set entirely on private property and are accessible for immediate use of

the fire authority at all times.. ~~back from the right of way further than for public hydrants,~~ Fire hydrants connected to a private water main are "Private Fire Hydrants."

~~such that it is not readily accessible for immediate use by the fire authority for other than certain private property.~~

D. "Fire hydrant" means both private hydrants and public hydrants.

~~H. "Public hydrant" means a fire hydrant situated and maintained to provide water for firefighting purposes without restriction as to use for that purpose. The location is such that it is accessible for immediate use of the fire authority at all times.~~

~~I. "UBC" means the Uniform Building Code, including amendments, as adopted by the city.~~

~~J. "UL" means the Underwriters' Laboratories, Inc.~~

~~K. "Water authority" means the city water division of the department of public works or any other municipal or quasi-municipal entity distributing water to fire hydrants within the city.~~ (Ord. 4567 § 2 (Exh. A), 1992; Ord. 4377 § 2, 1990; Ord. 3064 § 1, 1976.)

13.16.030 ~~Required~~Fire hydrant installation, inspection requirements.

A. The city engineer may require, according to the Auburn engineering design and construction standards, the installation of fire hydrants when a new main is installed. ~~All new water mains to be installed within the city's water service area must shall include fire hydrants meeting the standards required in this Chapter. for adequate fire protection.~~

B. All fire hydrants installed or relocated in the city's identified water service boundary area shall be subject to testing and inspection by the city or its designee. All fire hydrants shall be installed in accordance with City of Auburn design and construction standards and applicable permits. Unless otherwise provided by agreement, installation of a hydrant requires payment of an application and inspection fee in the amount set by the City of Auburn fee schedule.

~~All buildings constructed within the city, except as noted below, shall be served by fire hydrants installed in accordance with the requirements of this chapter. In addition, presently existing fire~~

~~hydrants which do not conform with the requirements and standards of this chapter, when replaced shall be replaced with hydrants which do conform to the standards and requirements of this chapter. All fire hydrants shall be served by a municipal or quasi-municipal water system, or as otherwise approved by the fire chief. All hydrants shall be subject to testing, inspection, and approval by the fire department.~~

~~EXCEPTIONS:~~

~~A. New dwellings: Detached single-family dwellings constructed after the effective date of the ordinance codified in this section shall be exempt from the requirements for fire hydrants if all of the following conditions are met:~~

~~1. The dwelling is located on a lot zoned R-R (Rural Residential); and~~

~~2. The lot size is four acres or larger or is an existing platted lot as of the effective date of the ordinance codified in this section; and~~

~~3. The detached accessory buildings that are greater than 1,000 square feet in ground area must be separated from the family dwelling by 50 feet or more; and~~

~~4. The dwelling is protected by a residential sprinkler, smoke and heat detection system in accordance with city fire department administrative guidelines. The department may reference nationally recognized codes as may be necessary to carry out the directions and intent of this legislation;~~

~~5. No dwelling authorized under this exception shall be within 50 feet of another dwelling unit.~~

~~B. Accessory buildings: Accessory buildings to a single-family dwelling shall be exempt if one of the following conditions is present:~~

~~1. The accessory building is more than 50 feet from any dwelling; or~~

~~2. The accessory building is less than 1,000 square feet in size.~~

~~However, the fire chief may apply additional requirements or deny approval if they finds that unacceptable hazards may exist from the siting or construction of any such accessory building.~~

~~C. Existing buildings:~~

1. Additions, alterations or repairs: Additions, alterations or repairs may be made to any detached single-family dwelling regulated by this section which existed prior to the effective date of the ordinance codified in this section without requiring the dwelling to comply with the fire hydrant or sprinkler system provisions of this section, provided:

a. The cumulative addition, alteration or repair does not constitute more than a 50 percent increase in the building gross square foot area that existed prior to the effective date of the ordinance codified in this section.

2. Moved and replaced buildings:

a. Detached single-family dwellings moved onto locations regulated by this section, shall comply with the provisions of this section.

b. Detached single-family dwellings replaced as a result of damage or deterioration which affects more than 50 percent of the gross square foot of existing building area, as determined by the building and fire official, shall comply with the provisions of this section.

c. The chief may modify the zoning and acreage requirements as noted in subdivisions 1 and 2 of subsection A of this section, upon application in writing by the owner or their duly authorized representative if the proposed detached single-family dwelling to be constructed is to replace an existing more hazardous single-family dwelling.

D. Temporary buildings: Temporary buildings such as construction sheds and on-site living accommodations such as trailers, mobile homes, and campers intended for exclusive temporary use during periods of construction of permanent buildings may be located or erected on locations regulated by this section without complying with the fire hydrant and sprinkler system requirements if:

1. A temporary on-site permit is granted by the building and fire officials in accordance with the Auburn Municipal Code, Title 18, Zoning or ACC 15.14.020, Uniform Administration Code.

2. Temporary buildings are removed, vacated or modified to comply with the provisions of this section on or before the expiration of the temporary on-site permit. (Ord. 4226 § 1, 1987; Ord. 4057 § 2, 1985.)

13.16.050 Flush-type hydrants prohibited.

Repealed by Ord. 6952.

~~The installation of flush-type hydrants is prohibited unless approved by the fire chief. (Ord. 3064 § 1, 1976.)~~

13.16.060 Installation requirements.

Repealed by Ord. 6952.~~All fire hydrants shall be installed~~ The installation of all fire hydrants ~~shall be in accordance with~~ the cCity of Auburn engineering ddesign6onstr and cconstruction6onstruction sstandards. ~~sound engineering practices. In addition, the following requirements shall apply to all building construction projects:~~

~~A. Two copies of detailed plans or drawings accurately indicating the location of all valves and fire hydrants to be installed shall be submitted to the fire chief prior to the commencement of any construction.~~

~~B. All fire hydrants must be approved by the appropriate water authority prior to the installation.~~

~~C. All construction of the fire hydrant installation and its attendant water system connection shall conform to the design standards and specifications promulgated by the appropriate water authority.~~

~~D. Fire hydrant installations shall be adequately protected against vehicular damage, in accordance with standards and specifications promulgated by the appropriate water authority.~~

~~E. An auxiliary gate valve shall be installed at the main line tee to permit the repair and replacement of the hydrant without disruption of water service.~~

~~F. All hydrants shall stand plumb, be set to the finished grade with the lowest outlet of the hydrant no less than 18 inches above the grade, and have no less than 36 inches in diameter of clear area about the hydrant for the clearance of hydrant wrenches on both outlets and the control valve.~~

~~G. The pumper port shall face the street. Where the street cannot be clearly defined or recognized, the port shall face the most likely route of approach and location of the fire truck while pumping, all as determined by the fire chief.~~

~~H. The lead from the service main to the hydrant shall be no less than six inches in diameter. Any hydrant leads over 50 feet in length from water main to hydrant shall be no less than eight inches in diameter.~~

~~I. All hydrants newly installed in single-family residential areas shall be supplied by not less than eight-inch mains and shall be capable of delivering 1,000 gallons per minute fire flow over and above average maximum demands at the furthest point of installation. Dead-end mains over 50 feet in length which supply hydrants shall be at least eight inches in size.~~

~~J. All hydrants newly installed in commercial, industrial, multifamily residential areas and other similar areas shall be supplied by not less than eight-inch mains.~~

~~K. All hydrants shall have at least a five-inch minimum valve opening, "O" ring stem seal, two two-and-one-half-inch national standard thread hose nozzles, one steamer port per city fire department specifications and a six-inch mechanical joint shoe connection. In addition, all hydrants shall meet AWWA standards for public hydrants and shall be installed according to the specifications of the city fire department.~~

~~L. All pipe shall meet relevant AWWA standards.~~

~~M. The maximum distance between fire hydrants in single-family use district zones shall be 600 feet, measured as the fire vehicle lays its hose.~~

~~N. The maximum distance between fire hydrants in commercial, industrial, and apartment (including duplex) use district zones shall be 300 feet, measured as the fire vehicle lays its hose.~~

~~O. Lateral spacing of fire hydrants shall be approved by the fire chief and predicated on hydrants being located at street intersections.~~

~~P. The owner shall be responsible for notifying the appropriate water authority and the fire department in writing of the date the fire hydrant installation and its attendant water connection system will be available for use.~~

~~Q. All hydrants on private property shall be installed the same and meet all of the requirements as established for public hydrants. (Ord. 3064 § 1, 1976.)~~

13.16.070 Special requirements, responsibilities, and restrictions.

A. When required by the city engineer, the owner of private property shall own and be responsible to maintain any private fire hydrant or water main installed on that private property solely to provide it with fire protection.

B. Any such private fire hydrant and water main shall be installed in accordance with City of Auburn engineering design and construction standards, and a backflow device meeting the engineering design and construction standards shall be installed on any privately installed water mains for protection of the public water system.

C. The water supplied by private fire hydrants may only be used for fire hydrant maintenance activities or for fire protection. Any other private fire hydrant water use is prohibited, except as ACC 13.06.415 permits.

~~A. Buildings having required fire flows of less than 2,500 gallons per minute may have fire hydrants on one side of the building only.~~

~~B. When the required fire flow is over 2,500 gallons per minute, the fire hydrants shall be served by a main which loops around the building or complex of buildings and reconnects back to a distribution supply main.~~

~~C. The number of fire hydrants shall be determined on an average spacing of 300 feet in commercial or industrial areas, schools, and institutions, computed on an imaginary line parallel to and not less than 50 feet from the structure. All hydrants are to be accessible to fire department pumpers over paved or gravel roads capable of supporting such fire apparatus. The fire department shall determine the location of the hydrants based upon a determination of utility, topography, and building location. Hydrants shall be a minimum of 50 feet away from the buildings or structure; minor deviations may be granted by fire department approval of written requests.~~

~~D. Approved foam-type fire-extinguishing systems, or equivalent, shall be required in addition to fire hydrants in special hazardous installations such as oil refineries, chemical plants, and similar operations. Systems installed shall comply with NFPA No. 16 or the appropriate standard for the type of system. (Ord. 3064 § 1, 1976.)~~

13.16.080 Accessibility.

Repealed by Ord. 6952.

~~Hydrants shall not be obstructed by any structure or vegetation, or have visibility impaired within a distance of 150 feet in any direction of vehicular approach to the hydrant. (Ord. 3064 § 1, 1976.)~~

13.16.090 Dead-end mains prohibited.

Repealed by Ord. 6952.

~~Provisions shall be made wherever appropriate in any project for looping all dead-end or temporarily dead-end mains. Construction plans must be approved by the appropriate water~~

~~authority prior to the commencement of construction. Where it is not feasible at the time of approval and installation to loop a water system, in the opinion of the fire department, the loop requirement may be relaxed if the intent of the code is met and a stub is provided on the main for future expansion. (Ord. 3064 § 1, 1976.)~~

13.16.100 Fire flow requirements.

The fire flow requirements of a building, structure, storage pile or area of new development, redevelopment, or change in land use shall be the minimums established in the City of Auburn Engineering Design Standards. For purposes of this chapter, redevelopment shall be as defined in ACC 13.48.010. Building construction, alteration, addition, repair, or change of use may require additional fire flow whenever fire sprinkler systems are required based on building size, occupancy, and use in accordance with Chapter 15.36A ACC.

~~The fire flow requirements of a building, structure, storage pile or area shall be based on criteria established in Appendix III-A of the Uniform Fire Code, 1991 Edition, as amended and adopted in Chapter 15.36 ACC which is adopted by reference. (Ord. 4567 § 3 (Exh. B), 1992; Ord. 4377 § 3, 1990; Ord. 3064 § 1, 1976.)~~

13.16.122 Spacing between hydrants – Buildings more than 150 feet from right-of-way.

Repealed by Ord. 6952.

~~Spacing between hydrants serving portions of buildings more than 150 feet from the public right-of-way may be modified in accordance with the provisions below provided that the buildings which are required by the Uniform Building Code to be sprinkled shall not be allowed hydrant spacing increases; except, when that portion of a building is required to be sprinkled and that portion is minor and incidental to the primary occupancy which does not otherwise require sprinklers, hydrant spacing may be increased from 150 feet to 300 feet if the total building is sprinkled. (Ord. 3174 § 1(A), 1977.)~~

13.16.124 Spacing between hydrants – Commercial or industrial buildings.

Repealed by Ord. 6952.

~~Hydrants required to serve any commercial or industrial building or portion thereof which is more than 150 feet from a public right-of-way shall be increased to 300 feet; provided, that the building is fully sprinkled with an approved sprinkler system as specified in National Fire Protection Association Pamphlet No. 13. (Ord. 3174 § 1(B), 1977.)~~

13.16.126 Spacing between hydrants – Apartment buildings.

Repealed by Ord. 6952.

~~Hydrants required to serve any apartment buildings or portions thereof which are more than 150 feet from a public right-of-way shall be increased to 300 feet; provided, that the building is fully sprinkled with an approved sprinkling system as specified in National Fire Protection Association Pamphlet No. 13 and equipped with an approved automatic fire detection system as specified in National Fire Protection Association Pamphlet No. 72. (Ord. 3174 § 1(C), 1977.)~~

13.16.130 Penalty.

Any violation of this chapter ~~shall~~may be enforced pursuant to the provisions of Chapter 1.25 ACC. The provisions of that chapter are not the exclusive remedy and enforcement actions pursuant to the chapter shall not bar or otherwise limit the right of the city to seek all other remedies allowed under applicable law, or to seek and obtain judicial enforcement by means of specific performance, injunctive relief, mandate, or any other remedy at law or in equity. (Ord. 4502 § 10, 1991; Ord. 3064 § 1, 1976.)

The Auburn City Code is current through Ordinance 6912, passed July 17, 2023.

Disclaimer: The city clerk's office has the official version of the Auburn City Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

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ENGINEERING SERVICES

FIRE HYDRANT CITY CODE UPDATE

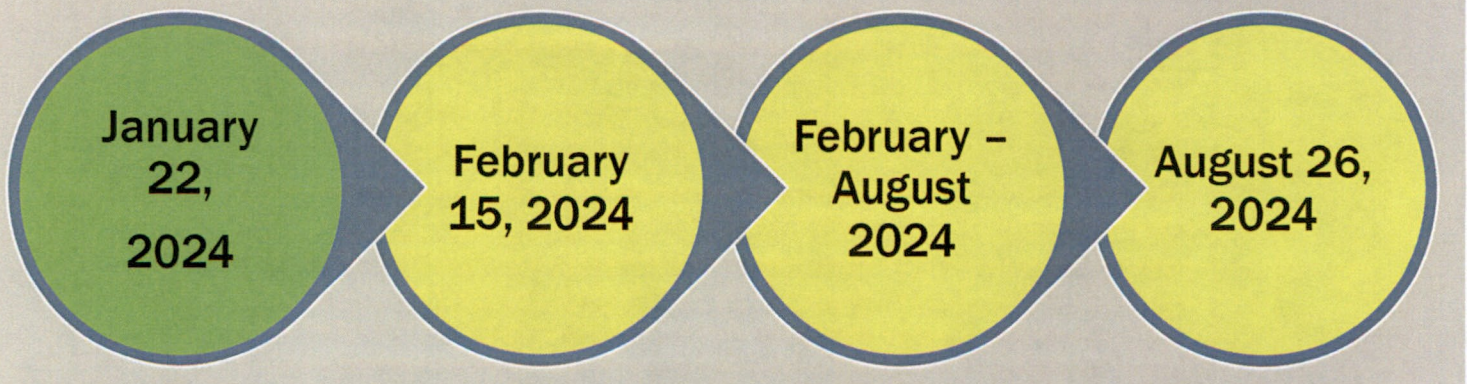
RYAN VONDRAK, UTILITIES ENGINEERING MANAGER
CITY COUNCIL STUDY SESSION
AUGUST 26, 2024

Public Works Department
Engineering Services • Airport Services • Maintenance & Operations Services

AUBURN VALUES

SERVICE
ENVIRONMENT
ECONOMY
CHARACTER
SUSTAINABILITY
WELLNESS
CELEBRATION

TIMELINE


January 22, 2024
February 15, 2024
February – August 2024
August 26, 2024
• Design Standards Update to Council
• Design Standards Published
• Draft Code Updates
• Draft Code Update to Council

WATER MAIN UPSIZING, PIPE VELOCITIES, PRIVATE FIRE HYDRANTS

Water Main Upsizing

- **Purpose:**
  - Create a more equitable approach to water main upsizing, placing the focus more on pressure, demand, and velocity constraints.

Water Main Pipe Velocities

- **Purpose:**
  - Reduce inconsistencies in water main sizing requirements, placing the focus more on pressure, demand, and velocity constraints.

Private Fire Hydrants

- **Purpose:**
  - Place responsibility for maintaining fire hydrant and water mains installed only for fire protection of private property on the property owner, while maintaining integrity of the publicly owned system.

ACC 13.06 WATER UTILITY – GENERAL REGULATIONS

ACC 13.06.027 Water System Responsibility

- **Purpose:**
  - Provides additional clarification on water system ownership and maintenance responsibilities for both public and private systems and indicating private water systems need to comply with the City's Design and Construction Standards.

ACC 13.08 WATER MAIN EXTENSIONS AND PAYMENT

ACC 13.08.010 Chapter Purpose

- **Purpose:**
  - Provide consistency in ACC's. This aligns with other Chapters that do not have purpose sections contained within them.

ACC 13.08.015 Definitions

- **Purpose:**
  - Remove definitions no longer used in the Chapter.

ACC 13.08 WATER MAIN EXTENSIONS AND PAYMENT

ACC 13.08.020 Supervision and Extent

- **Purpose**:
  - Remove statements that are direct references to the engineering design standards and provide direction on requirements for water main extensions.

ACC 13.08.030 Main installation – Cost liability - Specifications

- **Purpose**:
  - Remove the reference to the comprehensive water plan for water main sizing that is an engineering design standards statement and add statement to clarify requirements for maintenance responsibilities of private water mains.

ACC 13.08 WATER MAIN EXTENSIONS AND PAYMENT

ACC 13.08.040 Oversizing

- **Purpose:**
  - Provide clarity for oversizing water main extensions installed by others and under what instances the City may pay for the oversizing.

ACC 13.08.050 Fire hydrants - Required

- **Purpose:**
  - Remove redundant statements.

ACC 13.08 WATER MAIN EXTENSIONS AND PAYMENT

ACC 13.08.065 Fire hydrants – Installation ~~on existing mains~~ or relocation

- **Purpose**:
  - Provide clarity in the intent of the section, keeping the focus on water mains and direct the reader to the appropriate references for fire hydrant installations.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.010 Chapter title

- **Purpose:**
  - Provide consistency in ACC's. This aligns with other Chapters that do not have chapter title sections contained within them.

ACC 13.16.020 Definitions

- **Purpose:**
  - Remove definitions no longer used in the Chapter. To be consistent with changes proposed in the sections, modify definitions of Fire Hydrants (Public and Private).

ACC 13.16 FIRE HYDRANTS

ACC 13.16.030 ~~Required~~Fire hydrant installation, inspection requirements

- Purpose:
  - Remove redundant language that is already identified in the International Fire Code and add language on testing and inspection requirements and fire hydrant installation requirements.

ACC 13.16.050 Flush-type hydrants prohibited

Purpose:

- Remove language that is implied or stated in other ACC sections or referenced in the engineering design standards.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.060 Installation requirements

- **Purpose:**
  - Remove language that is stated in the engineering design standards.

ACC 13.16.070 Special requirements, responsibilities, and restrictions

- **Purpose:**
  - Remove language that is stated in the engineering design standards or outdated and replace with specifics for special requirements, responsibilities and restrictions that are more appropriate for ACC.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.080 Accessibility

- **Purpose:**
  - Remove language that is referenced in the engineering design standards.

ACC 13.16.090 Dead-end mains prohibited

- **Purpose:**
  - Remove language that is stated in the engineering design standards or outdated.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.100 Fire flow requirements

- **Purpose:**
  - Remove outdated references and provide clarity on the requirements for meeting fire flow minimums.

ACC 13.16.122 Spacing between hydrants – Buildings more than 150 feet from right-of-way

- **Purpose:**
  - Remove language that is stated in National Fire Protection Association Pamphlets or the engineering design standards.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.124 Spacing between hydrants – Commercial or industrial buildings

- **Purpose:**
  - Remove language that is stated in National Fire Protection Association Pamphlets or the engineering design standards.

ACC 13.16.126 Spacing between hydrants – Apartment Buildings

- **Purpose:**
  - Remove language that is stated in National Fire Protection Association Pamphlets or the engineering design standards.

ACC 13.16 FIRE HYDRANTS

ACC 13.16.130 Penalty

- **Purpose:**
  - Add further descriptors for assessing penalties for clarity.

DESIGN STANDARDS UPDATE

Questions?

CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Ordinance No. 6953 (Gaub) (10 Minutes)

Date:
August 20, 2024

Department:
Public Works

Attachments:
Ordinance No. 6953
Exhibit A
Vicinity Map

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

The applicant, Ralph Pozzi has indicated to the City that they will be unable to complete conditions associated with Right-of-Way Vacation No. VAC21-0002 previously approved by City Council on December 20, 2021 under Ordinance No. 6839. The vacation is for a portion of West Main Street, east of Lund Road SW.

Vacation Ordinance No. 6839 initially required the applicant to complete conditions associated with the vacation by December 20, 2022. The applicant was unable to complete all conditions by that time and requested an extension to September 20, 2023 which was approved by City Council under Ordinance No. 6893. The applicant was again unable to complete all conditions by September 20, 2023 and requested another extension to September 30, 2024 which was approved by City Council under Ordinance No. 6916.

The applicant contacted the City on August 2, 2024 and once again indicated that they would not be able to complete all conditions of the vacation by the deadline of September 30, 2024. City Staff have reviewed the right-of-way and determined that it is still no longer necessary to meet the needs of the City and that the conditions of the vacation which the applicant is unable to complete could be modified so that the vacation can take effect. The applicant has agreed that they will be responsible for completing the conditions as modified to be completed after the vacation takes effect. These conditions include obtaining permits, modifying storm infrastructure and constructing appropriate site improvements within the vacated right-of-way that becomes the applicants property including storm drainage, parking, lighting, and landscaping to meet City standards.

If adopted, Ordinance No. 6953 amends Ordinance No. 6916, 6893, and 6839 modifying the requirement for the applicant to complete certain conditions associated with Right-of-Way Vacation No. VAC21-0002. A depiction of the vacation area is included with Ordinance No. 6916, Exhibit A and the Vicinity Map, in the packet.

Reviewed by Council Committees:

Councilmember: Tracy Taylor **Staff:** Ingrid Gaub

Meeting Date: August 26, 2024 Item Number:

ORDINANCE NO. 6953

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN WASHINGTON, AMENDING CONDITIONS OF ORD. NO. 6839 ASSOCIATED WITH VACATING RIGHT-OF-WAY OF A PORTION OF WEST MAIN STREET, EAST OF LUND ROAD SW, WITHIN THE CITY OF AUBURN, WASHINGTON

WHEREAS, the City of Auburn, Washington ("City"), approved Ordinance No. 6839 on December 20, 2021, vacating right-of-way located within a portion of West Main Street, east of Lund Road SW, within the City, subject to conditions outlined in that Ordinance; and,

WHEREAS, Section 1, Paragraph I of Ordinance No. 6839 required that all conditions of the vacation be completed by December 20, 2022 or the vacation and Ordinance would be null and void; and,

WHEREAS, pursuant to Auburn City Code (ACC) 12.48.090 and before the December 20, 2022 deadline in Ordinance No. 6839, the applicant requested additional time to complete the required conditions of Ordinance No. 6839. The City Council granted the request by passing Ordinance No. 6893, which amended Ordinance No. 6839 to extend its vacation condition deadline to September 20, 2023; and,

WHEREAS, by letter dated July 10, 2023, the applicant indicated they were not able to complete the vacation conditions in Section 1, paragraphs F and G of Ordinance No. 6839 by the amended September 20, 2023 deadline set by Ordinance No. 6893 and requested additional time to complete the conditions. The City Council granted the request by passing Ordinance No. 6916, which amended Ordinance No. 6839 and 6893 and provided a second

extension of time to complete the vacation conditions in Section 1, paragraphs F and G of Ordinance No. 6839 to September 30, 2024. A copy of Ordinance No. 6919 is attached as Exhibit A; and,

WHEREAS, by written correspondence dated August 2, 2024, the applicant has indicated that they will not be able to complete vacation conditions in Section 1, paragraphs F and G of Ordinance No. 6839 by the amended September 30, 2024 deadline set by Ordinance No. 6916; and,

WHEREAS, the applicant has agreed that they will be responsible for completing the conditions as stated in Section 1, paragraphs F and G of Ordinance No. 6839 after the right-of-way vacation takes effect if those conditions are modified in the vacation and the applicant has agreed to pursue completion of those conditions after the vacation takes effect to bring the vacated right-of-way that becomes that applicant's property into compliance with City codes and standards; and,

WHEREAS, the City has determined that it is in the public interest to amend the conditions of the vacation to modify the requirement to complete the vacation conditions in Section 1, paragraphs F and G of Ordinance No. 6839 and that the vacation of right-of-way of a portion of West Main Street, east of Lund Road SW as described in Ordinance No. 6839 become effective.

WHEREAS, the City Council has considered matters concerning the proposed vacation and approves the amendment to modify the requirement for the applicant to complete the requirements in Section 1, paragraphs F and G of Ordinance No. 6839 as

conditions of the vacation.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON DO ORDAIN as a non-codified ordinance as follows:

Section 1. **Amendment of City Ordinance.** Section 1, Paragraphs F and G of Ordinance No. 6839 are modified to be required following the vacation becoming effective and Paragraph I is amended to read as follows:

> This vacation shall be effective upon completion of the provisions in paragraph ~~F, G, and~~ H, above. The above described provisions of paragraph H must be completed by December 20, 2022~~, and the above provisions of paragraphs F and G must be completed by September 30, 2024,~~ or the vacation and this Ordinance will be null and void, and the provisions of paragraphs F and G must be completed by the vacation applicant following the vacation becoming effective.

Section 2. **Constitutionality or Invalidity.** If any portion of this Ordinance or its application to any person or circumstances is held invalid, the remainder of the Ordinance or the application of the provisions to other persons or circumstances shall not be affected.

Section 3. **Implementation.** The mayor is authorized to implement such administrative procedures as may be necessary to carry out the directives of this location.

Section 4. **Effective Date.** This Ordinance shall take effect and be in force five (5) days from and after passage, approval, and publication as provided by law.

Section 5. **Recordation.** The City Clerk is directed to record this Ordinance together with Ordinance No. 6916, Ordinance No. 6893, and Ordinance No. 6839 with the office of the King County Auditor only upon completion of those conditions set forth in

Ordinance No. 6839, at which time the vacation pursuant to Ordinance No. 6839 shall be effective under Auburn City Code 12.48.080.

INTRODUCED: _____

PASSED: _____

APPROVED: _____

_____
NANCY BACKUS, MAYOR

ATTEST:

_____
Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

_____
Jason Whalen, City Attorney

PUBLISHED: _____

Exhibit "A"

ORDINANCE NO. 6916

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN WASHINGTON, AMENDING ORD. NO. 6839 AND EXTENDING THE DEADLINE TO COMPLETE CONDITIONS ASSOCIATED WITH VACATING RIGHT-OF-WAY OF A PORTION OF WEST MAIN STREET, EAST OF LUND ROAD SW, WITHIN THE CITY OF AUBURN, WASHINGTON

WHEREAS, the City of Auburn, Washington ("City"), approved Ordinance No. 6839 on December 20, 2021, vacating right-of-way located within a portion of West Main Street, east of Lund Road SW, within the City, subject to conditions outlined in that Ordinance; and,

WHEREAS, Section 1, Paragraph I of Ordinance No. 6839 required that all conditions of the vacation be completed by December 20, 2022 or the vacation and Ordinance would be null and void; and,

WHEREAS, pursuant to Auburn City Code (ACC) 12.48.090 and before the December 20, 2022 deadline in Ordinance No. 6839, the applicant requested additional time to complete the required conditions of Ordinance No. 6839. The City Council granted the request by passing Ordinance No. 6893, which amended Ordinance No. 6839 to extend its vacation condition deadline to September 20, 2023. A copy of Ordinance no. 6893 is attached as Exhibit A to this Ordinance; and,

WHEREAS, by letter dated July 10, 2023, the applicant has indicated that due to unresolved permitting issues, they will not be able to complete the vacation conditions in Section 1, paragraphs F and G of Ordinance No. 6839 by the amended September 20, 2023 deadline set by Ordinance No. 6893. The applicant again requests additional time to

complete the conditions, and estimates completion by September 30, 2024; and,

WHEREAS, the City has determined that the applicant's request to have a second extension of time until September 30, 2024 to complete the conditions in Section 1, Paragraphs F and G of Ordinance No. 6839, is reasonable in light of the unresolved permitting issues, and that it is in the public interest to continue the deadline; and,

WHEREAS, the City Council has considered and approves the applicant's request for extension.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON DO ORDAIN as a non-codified ordinance as follows:

Section 1. Amendment of City Ordinance. Section 1, Paragraph I of Ordinance No. 6839 is amended to read as follows:

> This vacation shall be effective upon completion of the provisions in paragraph F, G, and H, above. The above described provisions of paragraph H must be completed by December 20, 2022, and the above provisions of paragraphs F and G must be completed by September 30, 2024, or the vacation and this Ordinance will be null and void.

Section 2. Constitutionality or Invalidity. If any portion of this Ordinance or its application to any person or circumstances is held invalid, the remainder of the Ordinance or the application of the provisions to other persons or circumstances shall not be affected.

Section 3. Implementation. The mayor is authorized to implement such administrative procedures as may be necessary to carry out the directives of this location.

Section 4. Effective Date. This Ordinance shall take effect and be in force

five (5) days from and after passage, approval, and publication as provided by law.

Section 5. **Recordation.** The City Clerk is directed to record this Ordinance together with Ordinance No. 6893 and Ordinance No. 6839 with the office of the King County Auditor only upon completion of those conditions set forth in Ordinance No. 6839, at which time the vacation pursuant to Ordinance No. 6839 shall be effective under Auburn City Code 12.48.080.

INTRODUCED: AUG 21 2023

PASSED: AUG 21 2023

APPROVED: AUG 21 2023

NANCY BACKUS, MAYOR

ATTEST:

Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

Harry Boesche, Acting City Attorney

PUBLISHED: _____

Exhibit A

ORDINANCE NO. 6893

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN WASHINGTON, AMENDING DEADLINE TO COMPLETE CONDITIONS ASSOCIATED WITH VACATING RIGHT-OF-WAY OF A PORTION OF WEST MAIN STREET, EAST OF LUND ROAD SW, WITHIN THE CITY OF AUBURN, WASHINGTON

WHEREAS, the City of Auburn, Washington ("City"), approved Ordinance No. 6839 on December 20, 2021, a copy of which is attached as Exhibit A, vacating right-of-way located within a portion of West Main Street, east of Lund Road SW, within the City, subject to conditions outlined in Ordinance No. 6839; and,

WHEREAS, Section 1, Paragraph I of Ordinance No. 6839 required that all conditions of the vacation be completed by December 20, 2022 or the vacation and Ordinance will be null and void; and,

WHEREAS, the applicant has requested additional time to complete the conditions set forth in Section 1, Paragraphs F and G of Ordinance No. 6839; and,

WHEREAS, the City has determined that the applicant's request to have one extension of time until September 20, 2023 to complete the conditions in Section 1, Paragraphs F and G of Ordinance No. 6839, is reasonable in light of unforeseeable circumstances, and that it is in the public interest to continue the deadline; and,

WHEREAS, the City has determined that the deadline to complete all other conditions in Section 1 of Ordinance No. 6839 shall remain December 20, 2022; and,

WHERAS, the City Council has considered the request for extension.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN,

WASHINGTON DO ORDAIN as a non-codified ordinance as follows:

Section 1. **Extension.** The deadline for completing the right of way vacation conditions in Section 1, Paragraphs F and G of Ordinance No. 6839 is continued in a one-time extension to September 20, 2023. The applicant's deadline to complete all other conditions of the right of way vacation in Ordinance No. 6839 shall remain December 20, 2022.

Section 2. **Constitutionality or Invalidity.** If any portion of this Ordinance or its application to any person or circumstances is held invalid, the remainder of the Ordinance or the application of the provisions to other persons or circumstances shall not be affected.

Section 3. **Implementation.** The mayor is authorized to implement such administrative procedures as may be necessary to carry out the directives of this location.

Section 4. **Effective Date.** This Ordinance shall take effect and be in force five (5) days from and after passage, approval, and publication as provided by law.

Section 5. **Recordation.** The City Clerk is directed to record this Ordinance together with Ordinance No. 6839 with the office of the King County Auditor only upon completion of those conditions set forth in Ordinance No. 6839, at which time the vacation pursuant to Ordinance No. 6839 shall be effective under Auburn City Code 12.48.080.

INTRODUCED: DEC 0 5 2022

PASSED: DEC 0 5 2022

APPROVED: DEC 0 5 2022

NANCY BACKUS, MAYOR

ATTEST:

For: Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

Kendra Comeau, City Attorney

PUBLISHED: _____

Exhibit "A"

ORDINANCE NO. 6839

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN WASHINGTON, VACATING RIGHT-OF-WAY OF A PORTION OF WEST MAIN STREET, EAST OF LUND ROAD SW, WITHIN THE CITY OF AUBURN, WASHINGTON.

WHEREAS, the City of Auburn, Washington ("City"), has received a petition signed by at least two-thirds (2/3) of the owners of property abutting right-of-way located within a portion of West Main Street, east of Lund Road SW, within the City of Auburn, requesting vacation of the right-of-way; and,

WHEREAS, as required by Chapter 12.48 of the Auburn City Code, a public hearing was held in connection with the possible vacation, with notice having been provided pursuant to statute; and,

WHEREAS, the City Council has considered all matters presented at the public hearing on the proposed vacation, held on the 20th day of December, 2021, at the Auburn City Council Chambers in Auburn, Washington.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON DO ORDAIN as a non-codified ordinance as follows:

Section 1. Vacation. That the right of way located at a portion of West Main Street, east of Lund Road SW, located within the City of Auburn, Washington, legally described as follows:

COMMENCING AT THE NORTHEAST CORNER OF LOT 1 OF CITY OF. AUBURN SHORT PLAT NUMBER SP-11-85, RECORDED JANUARY 08, 1986 UNDER RECORDING NUMBER 8601080790, IN KING COUNTY, WASHINGTON; THENCE NORTH 86°14'47" WEST ALONG THE NORTH

LINE OF SAID LOT 1 A DISTANCE OF 65.87 FEET;
THENCE SOUTH 03°45'13" WEST 3.00 FEET TO THE BEGINNING;
THENCE CONTINUING SOUTH 03°45'13" WEST 27.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT THE RADUIS POINT OF WHICH BEARS NORTH 03°45'13" EAST DISTANT 2260.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 8°35'30" AN ARC LENGTH OF 338.89 FEET;
THENCE NORTH 77°39'17" WEST 31.05 FEET;
THENCE NORTH 86°14'47" WEST 30.07 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 80°54'28" EAST DISTANT 30.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94°02'01" AN ARC LENGTH OF 49.24 FEET TO THE BEGINNING OF A CURVE TO THE LEFT HABING A RADUIS OF 2233.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 9°22'20" AN ARC LENGTH OF 365.27 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 10,620 SQUARE FEET, MORE OR LESS.

and as shown on the survey, a copy of which is attached, marked Exhibit "A" is vacated and the property lying in the right-of-way described, shall inure and belong to those persons entitled to receive the property in accordance with RCW 35.79.040, conditioned upon the following:

A. Reservation in favor of the City of a perpetual Nonexclusive Easement under, over, through and across the vacated right-of-way as described above for the purpose of laying, maintaining, and installing future and existing water, sanitary sewer and storm water facilities and including a reservation in favor of the City of the right to grant easements for utilities over, under and on all portions of the vacated right-of-way as

described above.

The City shall have the absolute right, at times as may be necessary for immediate entry upon said Easement Area for the purpose of maintenance, inspection, construction, repair or reconstruction of the above improvements without incurring any legal obligation or liability.

The City shall have the absolute right to place any type of driving surface within said Easement Area deemed necessary by the City.

The owners of the adjacent properties agree and shall not in any way block, restrict or impede access and egress to or from said Easement Area, and /or in any way block, restrict or impede full use of the real property within the Easement Area by the City for the above described purposes. No building, wall, rockery, fence, trees, or structure of any kind shall be erected or planted, nor shall any fill material be placed within the boundaries of said Easement Area, without the express written consent of the City. Except as required or approved by the City, no excavation shall be made within three feet of said facilities. The surface level of the ground within the Easement Area shall be maintained at the elevation as currently existing except areas that were previously graded and must be re-graded to satisfy conditions of this right-of-way vacation as set forth in paragraphs F and G.

This easement shall be a covenant running with the adjacent property parcels and burden said real estate, and shall be binding on the successors, heirs and assigns of all parties.

B. Under the terms of the reservation set out in Paragraph A above and in accordance with RCW 35.79.030, the City grants a private utility easement to Puget Sound Energy over, under, and upon the vacated right-of-way as described above for the construction, operation, maintenance, repair, replacement, improvement and removal of electric and gas distribution facilities. The owners of the adjacent property shall not erect any structures on the easement and shall not place trees or other obstructions on the easement that would interfere with the exercise of Grantee's rights.

This easement shall be a covenant running with the adjacent property parcels and burden said real estate, and shall be binding on the successors, heirs and assigns of all parties.

C. In accordance with RCW 35.79.030, the City grants a private utility easement to CenturyLink over, under and upon the vacated right-of-way as described above for the construction, operation, maintenance, repair, replacement, improvement and removal of wireline telecommunications facilities. The owners of the adjacent properties shall not erect any structures on the easement and shall not place trees or other obstructions on the easement that would interfere with the exercise of Grantee's rights.

This easement shall be a covenant running with the adjacent property parcels and burden said real estate, and shall be binding on the successors, heirs and assigns of all parties.

D. In accordance with RCW 35.79.030, the City grants a private utility easement to Comcast over, under and upon the vacated right-of-way as described above for the construction, operation, maintenance, repair, replacement, improvement and removal of cable facilities. The owners of the adjacent properties shall not erect any structures on the easement and shall not place trees or other obstructions on the easement that would interfere with the exercise of Grantee's rights.

This easement shall be a covenant running with the adjacent property parcels and burden said real estate, and shall be binding on the successors, heirs and assigns of all parties.

E. It is provided, however that such reserved or granted utility and access easements as set out in Paragraphs A, B, C and D above may be modified to accommodate a removal, relocation and sitting of the affected utility lines if the Utility and the property owners on whose property the utility lines are located agree to the removal relocations and sitting being paid by said property owners and with the removal relocation and sitting being done in conformity with applicable standards.

F. The applicant shall move the existing fence to the current property line (as it exists prior to vacation) and obtain a Grading Permit to remove gravel and construct proper site improvements for storm drainage to storm inlet structures, parking, lighting and landscaping per City requirements and Engineering Design and Construction Standards.

G. The applicant shall obtain required permits and replace the domed storm inlet structures with a standard grate and shall install concrete aprons around all storm inlet structures per the City's Standard Details.

H. In accordance with RCW 35.79.0360 and ACC 12.48.085, compensation to the City of Auburn, shall be made by the owner or owners of property adjacent thereto in the total amount of Forty-five Thousand ($45,000.00) Dollars for the full appraised value of the right-of-way, which has been right-of-way for more than twenty-five (25) years and for which public funds were expended.

I. This vacation shall be effective upon completion of the provisions in paragraph F, G, and H, above. The above described provisions must be completed by December 20, 2022 or the vacation and this Ordinance will be null and void.

Section 2. **Constitutionality or Invalidity.** If any portion of this Ordinance or its application to any person or circumstances is held invalid, the remainder of the Ordinance or the application of the provisions to other persons or circumstances shall not be affected.

Section 3. **Implementation.** The Mayor is authorized to implement such administrative procedures as may be necessary to carry out the directives of this location.

Section 4. **Effective Date.** This Ordinance shall take effect and be in force five (5) days from and after passage, approval, and publication as provided by law.

Section 5. **Recordation.** The City Clerk is directed to record this Ordinance with the office of the King County Auditor only upon completion of those provisions set forth in Section 1, Paragraphs F, G, and H, above, at which time the vacation pursuant to this Ordinance shall be effective under Auburn City Code 12.48.080.

INTRODUCED: DEC 2 0 2021

PASSED: DEC 2 0 2021

APPROVED: DEC 2 0 2021

NANCY BACKUS, MAYOR

ATTEST:

Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

Kendra Comeau, City Attorney

PUBLISHED: _____

EXHIBIT A

PAGE 1

RIGHT OF WAY VACATION LEGAL DESCRIPTION

COMMENCING AT THE NORTHEAST CORNER OF LOT 1 OF CITY OF AUBURN SHORT PLAT NUMBER SP-11-85, RECORDED JANUARY 08, 1986 UNDER RECORDING NUMBER 8601080790, IN KING COUNTY, WASHINGTON;
THENCE NORTH 86°14'47" WEST ALONG THE NORTH LINE OF SAID LOT 1 A DISTANCE OF 65.87 FEET;
THENCE SOUTH 03°45'13" WEST 3.00 FEET TO THE POINT OF BEGINNING;
THENCE CONTINUING SOUTH 03°45'13" WEST 27.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS NORTH 03°45'13" EAST DISTANT 2260.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 8°35'30" AN ARC LENGTH OF 338.89 FEET;
THENCE NORTH 77°39'17" WEST 31.05 FEET;
THENCE NORTH 86°14'47" WEST 30.07 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT THE RADIUS POINT OF WHICH BEARS SOUTH 80°54'28" EAST DISTANT 30.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94°02'01" AN ARC LENGTH OF 49.24 FEET TO THE BEGINNING OF A CURVE TO THE LEFT HAVING A RADIUS OF 2233.00 FEET;
THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 9°22'20" AN ARC LENGTH OF 365.27 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 10,620 SQUARE FEET, MORE OR LESS.

A PORTION OF THE NE 1/4 OF THE SW 1/4 OF SECTION 13, T21N, R4E, W.M.

informed land survey

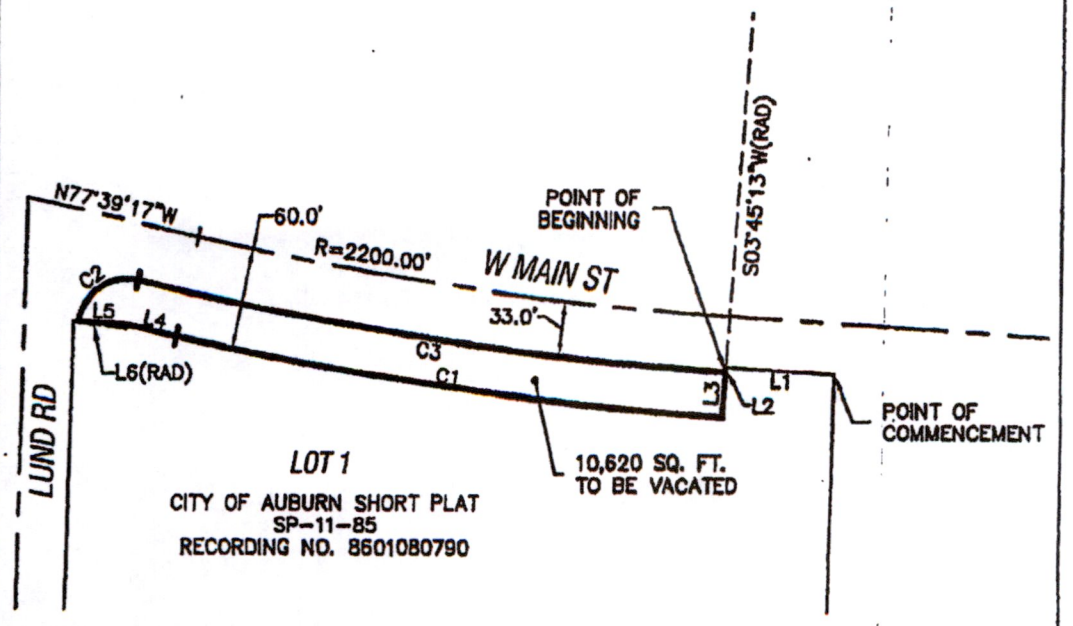
PO Box 5137
Tacoma, WA 98415-0137

Phone: 253-627-2070
admin@i-landsurvey.com
www.i-landsurvey.com

LAND SURVEYING • MAPPING • CONSTRUCTION LAYOUT

EVAN M. WAHLSTROM
STATE OF WASHINGTON
44651
REGISTERED
PROFESSIONAL LAND SURVEYOR
10/5/21

EXHIBIT A
PAGE 2
RIGHT OF WAY VACATION DEPICTION



CURVE	ARC LENGTH	RADIUS	DELTA ANGLE
C1	338.89'	2260.00'	8°35'30"
C2	49.24'	30.00'	94°02'01"
C3	365.27'	2233.00'	9°22'20"

LINE	BEARING	DISTANCE
L1	N86°14'47"W	65.87'
L2	S03°45'13"W	3.00'
L3	S03°45'13"W	27.00'
L4	N77°39'17"W	31.05'
L5	N86°14'47"W	30.07'
L6	S80°54'28"E	30.00'

GRAPHIC SCALE

0 50 100 200

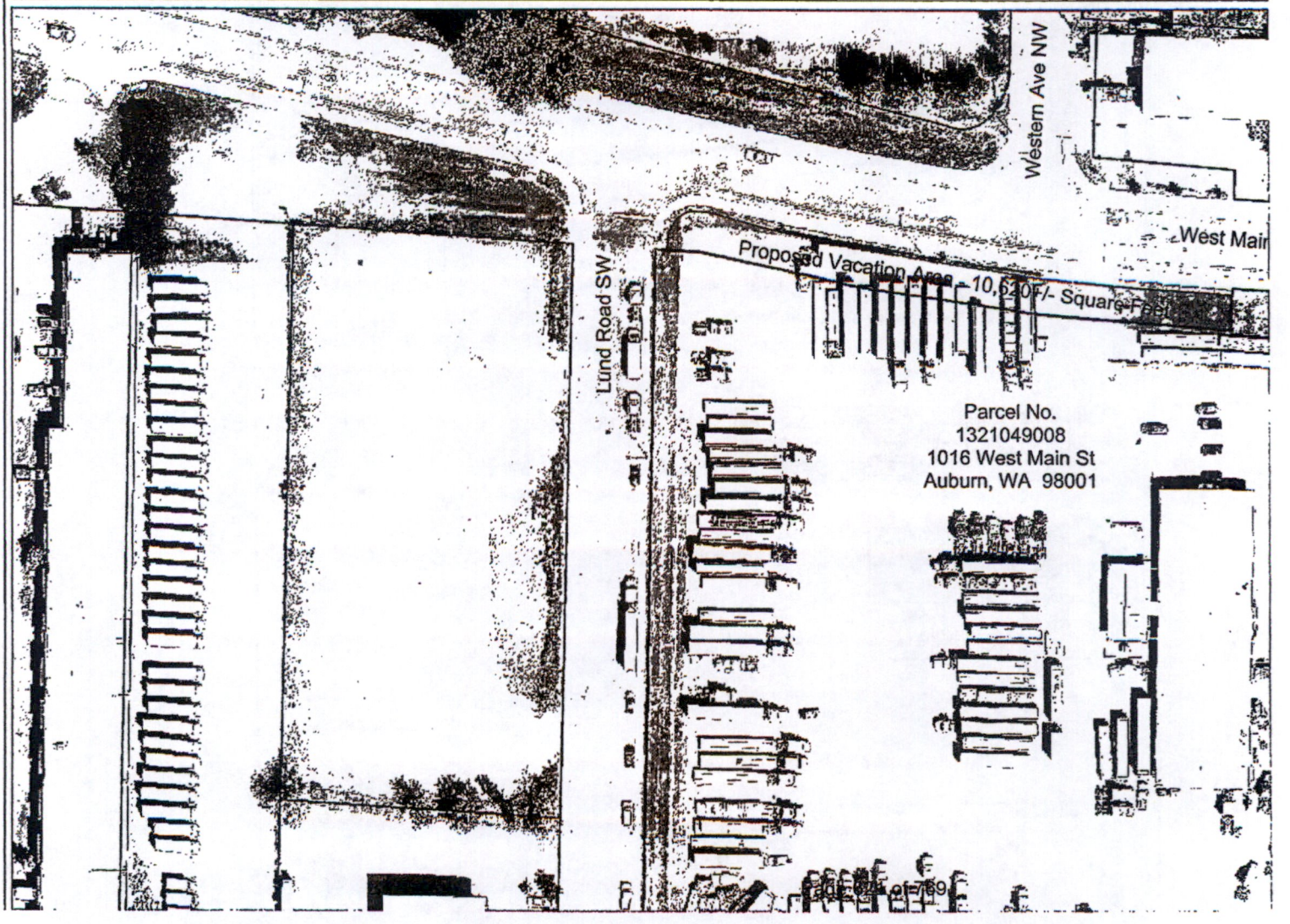
1" = 100 FEET





A PORTION OF THE NE 1/4 OF THE SW 1/4 OF SECTION 13, T21N, R4E, W.M.

Vicinity Map - VAC21-0002



Vicinity Map - VAC21-0002

Printed Date: 10/7/2021
Map Created by City of Auburn eGIS
Imagery Date: May 2015



166.7 0 83.33 166.7 Feet

NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet

1 in = 83.33 ft 1: 1,000

Information shown is for general reference purposes only and does not necessarily represent exact geographic or cartographic data as mapped. The City of Auburn makes no warranty as to its accuracy.

CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Resolution No. 5782 (Council) (60 Minutes)

Date:
August 20, 2024

Department:
City Council

Attachments:
Resolution No. 5782
Council Rules Of Procedure, All revisions shown in track changes
Exhibit 1 - Policies
Current Council Rules Of Procedure
Bothell
Lacey
Vancouver
Councilmember Suggested Edits
Councilmember Suggested Edits
Councilmember Suggested Edits

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

The Council Rules of Procedure Ad Hoc Committee met several times. The Committee consists of Councilmembers Hanan Amer as the Chair, Tracy Taylor and Yolonda Trout-Manuel. All suggested changes are shown in track changes.

In addition to the draft Rules of Procedure provided, the Ad Hoc Committee agreed that additional details are needed under Section 13 pertaining to filling a vacant Council position. Exhibit B includes three examples from other cities (Lacey, Bothell, and Vancouver). Each of these examples articulate greater detail and structure in such areas as advertising the vacancy, reviewing applications, conducting interviews and making a final decision. Auburn City Council Rules of Procedure lack any details regarding this approach. In late 2022 and early 2023 City Council had to develop their approach for filling a vacancy without the benefit of an already written outline. Given that Washington State Statute requires City Council to take action to fill a vacancy within 90 days, precious time is lost if the approach to filing the position has to be developed within that window of time (if 90 days pass without the position being filled, the authority to fill the position redirects to the County).

Reviewed by Council Committees:

Councilmember: Hanan Amer
Staff:
Meeting Date: August 26, 2024
Item Number:

RESOLUTION NO. 5782

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, AMENDING THE CITY COUNCIL RULES OF PROCEDURE

WHEREAS, the City Council adopted its Rules of Procedure on February 4, 2024, which provided that future amendments would be made by Resolution; and

WHEREAS, the City Council most recently revised the Rules of Procedure on September 5, 2023 via adoption of Resolution No. 5735; and

WHEREAS, the City Council has decided to amend its rules again to implement current law and to make necessary clarifying changes.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, RESOLVES as follows:

Section 1. The Rules of Procedure of the City Council are amended to read in substantially the same form as the rules attached hereto as Exhibit A.

Section 2. The Mayor is authorized to implement those administrative procedures necessary to carry out the directives of this legislation.

Section 3. The City Clerk is authorized to correct any scrivener's errors and to repaginate the document upon final approval of the document's content.

Section 4. This Resolution will take effect and be in full force on passage and signatures.

Dated and Signed: _____

CITY OF AUBURN

_____
NANCY BACKUS, MAYOR

ATTEST:

_____
Shawn Campbell, MMC, City Clerk

APPROVED AS TO FORM:

_____
Jason Whalen, City Attorney

Council Rules of Procedure with Track Changes as of August 12, 2024

RULES OF PROCEDURE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON

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RULES OF PROCEDURE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON

SECTION 1
AUTHORITY

Pursuant to RCW 35A.12.120, the Auburn City Council establishes the following rules for the conduct of Council meetings, proceedings, business, and the maintenance of order. These rules shall be in effect on adoption by resolution of Council and until they are amended, or new rules are adopted. The Deputy Mayor will coordinate a review of these rules at least once every calendar year.

SECTION 2
COUNCIL MEETINGS

All meetings of the City Council shall be open to the public and all persons shall be permitted to attend, both in person and virtually, any meeting of this body, except as provided in RCW Chapter 42.30. The City Clerk[1] is responsible for preparing agendas for all City Council meetings.[2]

The City Clerk is responsible for preparing action minutes of all of the Council meetings that contain an account of all official actions of the Council. Council meetings shall be electronically recorded and retained for the period of time as provided by State law.

2.1 **Regular Meetings.** Regular Meetings of the City Council shall be held at 7:00 p.m. on the first and third Mondays of every month in the City Hall Council Chambers located at 25 West Main Street, Auburn, Washington.[3]

A. If a scheduled Regular Council meeting falls on a legal holiday, the meeting shall be held at 7:00 p.m. on the first business day following the holiday.

B. The Mayor, as Presiding Officer, shall be seated at the center of the dais, and the Deputy Mayor shall be seated to the Presiding Officer's immediate left. When the Deputy Mayor is acting as the Presiding Officer, in the absence of the Mayor, the Deputy Mayor shall be seated in the center of the dais. The seating arrangement for the other members of the Council shall be as determined and directed by the Deputy Mayor. The seating arrangement will be decided once every calendar year.

[See ACC 2.06.010 (Ord. 3916 § 1, 1983; 1957 code § 1.04.010); ACC 2.06.020 (Ord. 3759 § 1, 1982; 1957 code § 1.04.020); ACC 2.06.030 (1957 code § 1.04.060); ACC 2.06.080 (1957 code § 1.04.090).]

---

[1]The City Clerk may delegate any of the duties in these Rules to staff.
[2]ACC 2.03.100
[3]ACC 2.06.010(A), 2.06.020

2.2 **Study Sessions.** Study Sessions of the City Council shall be held at 5:30 p.m. on the second, fourth, and fifth Mondays of every month in the City Hall Council Chambers located at 25 West Main Street, Auburn, Washington.[4]

A. If a scheduled Study Session falls on a legal holiday, the meeting shall be held at 5:30 p.m. on the first business day following the holiday.

B. Study Sessions seating arrangement shall be located in the floor space directly in front of the dais, unless there is a public health emergency in effect. The table layout for Council, presenters, and speakers shall be done in such a way as to provide for maximum visibility of all attendees. The Deputy Mayor and the Special Focus Area Chairperson for the scheduled focus area, as set out by the agenda, shall be at a designated head table. No particular seating arrangement shall be required for other members of the Council, or for the Mayor, for Study Sessions.

C. The Council shall not take final action at a Study Session. For purposes of this rule, "final action" by the Council means a collective positive or negative decision, or an actual vote on a motion, proposal, resolution, order, or ordinance.[5] Procedural parliamentary motions are not considered final action.

2.3 **Special Meetings.** A Special Meeting of the City Council may be called by the Mayor or any three members of the Council by written notice delivered to each member of the Council at least 24 hours before the time specified for the proposed meeting. Meeting notices shall be delivered by reasonable methods. Those methods can include email notification in addition to notice on the agency's website and principal location. The City Clerk shall provide the written notices. No ordinance or resolution shall be passed, or contract let or entered into, or bill for the payment of money allowed, at any special meeting unless public notice of that meeting has been given by notice to the local press, radio, and television that is reasonably calculated to inform the city's inhabitants of the meeting.[6]

[See ACC 2.06.040 (1957 code § 1.04.070).]

2.4 **Emergency Meetings.** Emergency Meetings may be called by the Mayor or Presiding Officer in case of an emergency. Meeting site notice requirements do not apply.

In the event of an emergency, Council may vote on emergency expenditures pursuant to RCW 35A.34.140 and 35A.34.150.

---

[4] ACC 2.06.010(B), 2.06.020
[5] RCW 42.30.020(2)
[6] ACC 2.06.040; RCW 35A.12.110

2.5 **Closed or Executive Sessions.** A Council meeting that is closed to the public. Council, the Mayor, City Attorney, and authorized staff members and/or consultants may attend.

Closed and Executive Sessions may be held during Regular Meetings, Study Session Meetings, and Special Meetings of the City Council, and will be announced by the Presiding Officer. Closed and Executive Session subjects are limited to considering those matters permitted by State law.[7]

2.6 Council Retreat. Council will coordinate with staff to strive to hold an annual retreat in the first or second quarter of each calendar year.

2.7 **Cancellation of Meetings.** Meetings may be canceled by the Mayor with the concurrence of the Deputy Mayor or, in the absence of either, by the Mayor or the Deputy Mayor, or in the absence of both, by the Presiding Officer or by a majority vote of the City Council, and proper notice given by the City Clerk.

2.8 **Quorum.** Four (4) or more Councilmembers will constitute a quorum for the transaction of business.

SECTION 3
ORDER OF BUSINESS FOR
REGULAR COUNCIL MEETING AGENDA

All items to be included on the Council's agenda for consideration should be submitted to the City Clerk in full by 5:00pm on the Wednesday preceding each Regular Council Meeting. The City Clerk shall then prepare a proposed agenda according to the order of business, for approval by the Mayor, or their designee, provided the approval shall be exercised in a manner consistent with ACC 2.03.100. A final agenda will then be prepared by the City Clerk and distributed to Councilmembers as the official agenda for the meeting.

3.1 The agenda format of the Regular City Council meeting shall be as follows:

A. **Call to Order.** The Mayor shall call the meeting to order.

B. **Land Acknowledgement.** The Mayor shall make a land acknowledgement.

C. **Public Participation.** This is the place in the agenda where the public is informed on how to participate in the public meeting and/or instructed on the available options to view the public meeting.

D. **Pledge of Allegiance**. The Mayor, Councilmembers and, at times, invited guests will lead the Pledge of Allegiance.

[7] RCW 42.30.110(1), 42.30.140

E. **Roll Call**. The City Clerk will call the roll.

F. **Announcements, Proclamations and Presentations**. A proclamation is defined as an official announcement made by the Mayor or the City Council regarding a non-controversial event, activity, or special interest group which has a major city-wide impact.

G. **Appointments**. Appointing individuals to various committees, boards and commissions. Confirmation of appointments, where confirmation is called for, may be preceded by discussion in Executive Session, where appropriate.

H. **Agenda Modifications**. Changes to the Council's published agenda are announced at this time.

I. **Public Hearings and Appeals**. Individuals may comment on public hearing and appeal items by submitting written comments to the City Clerk in advance of the public hearing or by participating in the forum designated by the public hearing notice. However, if an appeal is a closed-record appeal, the matter shall be considered only based on information, evidence, and documents in the record. Argument on the appeal shall refer only to matters, information, documents, and evidence presented at the underlying hearing from which the appeal is taken. No new information, evidence, or documents may be added and argument on the appeal may only deal with information, evidence, and documents in the record. The Presiding Officer will state the public hearing and/or appeal procedures before each hearing.

J. **Public Comment.** Members of the public may comment on any matter related to City business under the Public Comment portion of the meeting agenda. Section 10 of these Rules sets forth the procedures for receiving public comments.

K. **Correspondence**.

L. **Council Ad Hoc Committee Reports**. Council Ad Hoc Committee Chairs, or designee, may report on the status of their Ad Hoc Council Committees' progress on assigned tasks and may give their recommendations to the City Council, if any.

M. **Consent Agenda**. Approval of the Consent Agenda, including items considered to be routine and non-controversial, may be approved by one motion. Items on the Consent Agenda include, but are not limited to, the following. Any Councilmember may remove any item from the Consent Agenda for separate discussion and action. The Chair for a Special Focus Area may speak to any of the items on the Consent Agenda that are relevant to the Special Focus Area that they are assigned.

1. Approval of minutes.

2. Fixing dates for public hearings and appeals.

3. Approval of claims and vouchers, bid awards, and contracts.

4. Approval of surplus property.

5. Other items designated by the City Council.

N. **Unfinished Business**. Unfinished business of a general nature that was considered by Council at a previous business meeting.

O. **New Business**. Business, other than ordinances and resolutions, that has not been previously before the City Council and items that are removed from the Consent Agenda for separate discussion and action. Councilmembers are required to provide the Mayor and Deputy Mayor information regarding the topic of any new business 48 hours prior to the Council meeting.

P. **Ordinances**.

1. All ordinances shall be in writing. Titles may be read aloud before the ordinance is voted on. Any Councilmember may request a full reading of the text of a proposed ordinance before the vote on its adoption. The request for a full reading of an ordinance does not need to be voted on. However, the request for a reading of the title of the proposed ordinance, or a full reading of the text of the proposed ordinance, may be waived by a majority of the Councilmembers in attendance at the Council Meeting.

2. Before any ordinance is considered for adoption by the City Council, the ordinance shall be included on a Study Session agenda. Council may waive this rule.

After a motion to adopt an ordinance has been made and seconded, the Councilmember making the motion is encouraged to give a brief description of the issues involved with the ordinance, without simply repeating the ordinance title, and may choose to comment on any results of Council discussion or action regarding the issue.

Discussion and debate by the City Council on ordinances will be held before the vote on an ordinance. Councilmembers may approve, reject, or amend the ordinance, or postpone the action and direct staff to further review the proposed ordinance.

An ordinance shall be adopted by a vote of at least a majority of the whole membership of the Council. In the event of a public emergency, an ordinance may be made effective on adoption, instead of after five days after publication, with a majority vote plus one of the whole Council. A public emergency ordinance is one designated to protect public health and safety, public property, or public peace.

Q. **Resolutions**. All resolutions shall be in writing. Titles may be read aloud before the resolution is voted on. Any Councilmember may request a full reading of the text of a proposed resolution prior to the vote on its passage. The request for a full reading of a resolution does not need to be voted on. However, the request for a reading of the title of the proposed resolution, or a full reading of the text of the proposed resolution may be waived by a majority of the Councilmembers in attendance at the Council Meeting.

After a motion to pass a resolution has been made and seconded, the Councilmember making the motion is encouraged to give a very brief description of the issues involved with the resolution without simply repeating the resolution title, and the Councilmember may choose to comment on any results of Council discussion or action regarding the issue.

Discussion and debate by the City Council on resolutions will be held before the vote on a resolution. Councilmembers shall decide whether or not to amend the resolution, or direct staff to further review the proposed resolution.

A resolution shall be passed by a majority vote of a quorum of the Council, provided that passage of any resolution for the payment of money or that grants or revokes a franchise or license, shall require the affirmative vote of at least a majority of the whole membership of the Council.

R. **Mayor and Councilmember Reports**. The Mayor and Councilmembers may report on their activities related to federal, state, regional, City, and local organizations for which they are members in their official capacity as elected officials. Reports shall regard those activities and events that have occurred since the last Regular Meeting and that have an important and direct impact or benefit to the City. The Mayor and Councilmembers shall limit their reports to not more than three (3) minutes, with sensitivity to avoiding duplicate reporting.

S. **Adjournment**.

3.2 **Recess**. The foregoing agenda may be interrupted for a stated time as called by the Presiding Officer to recess for any reason, including Closed or Executive Sessions.

3.3 **Amendment to Agenda**. The sequence of handling items on the agenda of a particular Regular Council Meeting may be amended from order listed on the printed/approved agenda as follows:

A. **Motion to Suspend the Rules**. On a motion by any member and majority vote, the City Council may suspend the rules to add an item (e.g., under New Business) or to allow an item on the agenda to be considered at a different order or placement in the agenda, or to be referred to an upcoming Study Session agenda (See Rules 2.2 and 16.1).

B. **Adjustment of Agenda by Presiding Officer**. The Presiding Officer may adjust the order of items on the agenda or add items to the agenda, if agreed upon by the Mayor and the Deputy Mayor, subject to being overruled by a majority vote of the Council.

SECTION 4
COUNCILMEMBER ATTENDANCE AT MEETINGS

4.1 **Council Meetings.**

A. Councilmembers shall attend all scheduled meetings, including committee meetings.

A Councilmember will be excused from a meeting if they have submitted a request in advance of the meeting. Written requests should be submitted by email. If the request is made the day of the meeting, it may be made by telephone or in person. The reason for the request shall be given at the time of the request. Excessive, continued, or prolonged absences may be addressed by the City Council on a case-by-case basis.

Councilmembers shall send their email communication regarding their absence or anticipated late arrival to Council meetings or committees to the CouncilAlerts@auburnwa.gov email address.

[*See* ACC 2.06.050 and RCW 35A.12.060]

B. Councilmembers may participate remotely at Council meetings via telephone, video conference, or other approved electronic means with notification to the Mayor, Deputy Mayor, and designated City staff prior to noon on the day of the meeting. If a Councilmember appears remotely for a Council meeting, the Councilmember will use the City of Auburn approved virtual background. Technical circumstances shall be considered as to the acceptability of remote attendance. Council prefers in-person attendance when possible.

C. Remote attendance of the entire council may be permissible when and if a declaration of emergency is declared locally, regionally, statewide, and/or nationally that would prohibit in person attendance by Councilmembers. The Mayor shall direct remote attendance of the Council as necessary and when it is in the interest of the City to conduct Council business.

[*See* ACC 2.06.050 and RCW 35A.12.060]

4.2 **Study Sessions.**

A. Councilmembers shall attend all Study Sessions.

A Councilmember will be excused from a meeting if they have submitted a request pursuant to section 4.1A of these rules, in advance of the meeting. Written requests should be submitted by email. If the request is made the day of the meeting, it may be made by telephone or in person. The reason for the request shall be given at the time of the request. Excessive, continued, or prolonged absences may be addressed by the City Council on a case-by-case basis.

[*See* ACC 2.06.050 and RCW 35A.12.060]

B. Councilmembers may participate remotely at Study Sessions under the same protocol set forth in Section 4.1B-C.

4.3. **Ad Hoc Council Committee Meetings.** Attendance at Ad Hoc Council Committee Meetings and Special Meetings will not be considered "Regular Meetings" for the purposes of RCW 35A.12.060, applicable to Regular City Council meetings. However, unexcused absences from any Regular or Special meetings, or Ad Hoc Committee meetings, is a violation of these Rules of Procedure.

4.4 **Use of Cell Phones Prohibited.** At all meetings of the City Council, Councilmembers may not use their City cell phones. All cell phones must remain on silent for the duration of the meeting. Personal communication devices may only be used in the event of an emergency. Councilmembers shall not send, receive, read or post e-mails, texts, or social media posts during meetings of the Council.

4.5 **Deportment.** To the extent feasible, Councilmembers shall utilize language appropriate to the seriousness of the public legislative matters at hand. Councilmembers shall address their remarks to the Presiding Officer and shall address elected officials and staff by their title or other method that uses their last name rather than first name, e.g., "Mayor [surname]," "Deputy Mayor [surname], "Councilmember [surname]" "Chief [surname]," or "Director [surname]," as applicable. The purpose of this approach is to ensure that the City Clerk can create accurate meeting minutes. Councilmembers shall refrain from side

conversations with other individual Councilmembers. Councilmembers shall also refrain from inappropriate or derogatory body language, comments, or any other actions that detract from the deportment of the City Council.

SECTION 5
PRESIDING OFFICER - DUTIES

5.1 **Conduct of Meetings**.

A. The Mayor will preside over all Regular Meetings, Special Meetings, and Emergency Meetings of the Council. If the Mayor is absent, the Deputy Mayor will preside. If both the Mayor and Deputy Mayor are absent, the Chair of Municipal Service Special Focus Area or Chair of the Finance and Internal Services Special Focus Area (in that order) will preside.

The Deputy Mayor will preside over Council Study Sessions, other than those portions for which Special Focus Areas are scheduled, in which case the Chair of the Special Focus Area will preside. If the Deputy Mayor is absent, the Special Focus Area Chair will preside. If both the Deputy Mayor and the Special Focus Area Chair are absent, the Special Focus Area Vice Chair will preside.

The Mayor is encouraged to attend Study Sessions.

5.2 **The Presiding Officer**:

A. Shall preserve order and decorum at all meetings of the Council and cause the removal of any person in the audience from any meeting who interrupts the meeting after having been warned to cease the interruptive behavior.

B. Shall observe and enforce all rules adopted by the Council.

C. Shall decide all questions on order, in accordance with these rules, subject to appeal by any Councilmember.

D. May affix approximate time limits for each agenda item.

SECTION 6
COUNCILMEMBERS

6.1 **Remarks**. Councilmembers who wish to speak shall address the Presiding Officer and, when recognized, shall limit their comments to questions under consideration.

6.2 **Questioning**. Any member of the Council, and the Mayor, shall have the right to question any individual, including members of the staff, on matters related to the issue properly before the Council for discussion.

6.3 **Obligation to the Public Agency**. Notwithstanding the right of Councilmembers to express their independent opinions and exercise their freedom of speech, Councilmembers should act in a way that reflects positively on the reputation of the City and of the community. Councilmembers shall also interact with other members of the City Council, the Mayor, and City staff in ways that promote effective local government.

6.4 **Council Training**. Councilmembers shall participate in training offered by individuals, agencies, entities, and organizations including, but not limited to, the Association of Washington Cities and the State of Washington. This includes initial orientation after taking office, and other required or recommended training.

6.5 **Participation in Committees, Agencies and Organizations**. To better represent the interests of the City of Auburn, Councilmembers are encouraged to participate in assignments to local, regional, state, and national committees, agencies and organizations, and to attend community, regional, and state events. Councilmembers who have confirmed their intent to attend are expected to arrange their appearance in order to avoid unnecessary expenditure of City funds.

6.6 **Conduct.** Councilmembers shall be subject to the policies in Exhibit 1 of these Rules. Unless otherwise stated in these Rules, the terms, provisions, and conditions set forth in the Polices are hereby incorporated into these Rules. Any violation of these policies, as determined by the City Council, shall be subject to section 20.1 of these Rules.

SECTION 7
DEBATES

7.1 **Speaking to the Motion**. No member of the Council, or the Presiding Officer, shall speak more than twice on the same motion except by consent of the Presiding Officer or a majority of the Councilmembers present at the time the motion is before the Council. The Presiding Officer shall recognize Councilmembers in the order in which they request the floor. The Councilmember who made a motion shall be permitted to speak to it first. The Presiding Officer may also allow discussion of an issue before stating a motion when such discussion would facilitate wording of a motion.

7.2 **Interruption**. No member of the Council, or the Presiding Officer, shall interrupt or argue with any other member while such member has the floor, other than the Presiding Officer's duty to preserve order during meetings as provided in Section 5.2.A of these rules.

7.3 **Courtesy**. Members of the Council and the Presiding Officer, in the discussion, comments, or debate of any matter or issue, shall address their remarks to the Ppresiding Officer, be courteous in their language and deportment, and shall not engage in or discuss or comment on personalities, or make derogatory remarks or insinuations with respect to any other member of the Council, or any member of the staff or the public, but shall at all times confine their remarks to those facts which are germane and relevant to the question or matter under discussion.

7.4 **Challenge to Ruling**. Any member of the Council shall have the right to challenge any action or ruling of the Presiding Officer, in which case the decision of the majority of the members of the Council present shall govern.

SECTION 8
PARLIAMENTARY PROCEDURES AND MOTIONS

8.1 Unless specifically provided in these rules, all City Council meeting discussions shall be governed by *ROBERTS RULES OF ORDER, NEWLY REVISED* (latest edition).

8.2 If a motion does not receive a second, it dies. Matters that do not constitute a motion (and for which no second is needed) include nominations, withdrawal of motion by the person making the motion, request for a roll call vote, and point of order or privilege.

8.3 A motion that receives a tie vote fails. The Mayor, as Presiding Official, shall be allowed to vote to break a tie vote, except where prohibited by law.

8.4 Motions shall be stated in the affirmative. For example, "I move to approve" as opposed to "I move to reject." Councilmembers shall be clear and concise and not include arguments for the motion within the motion.

8.5 After a motion has been made and seconded, the Councilmembers may discuss their opinions on the issue prior to the vote. A motion and second is not an indication by a Councilmember that they support the action. The motion and second enables discussion and debate in advance of a formal vote.

8.6 If any Councilmember wishes to abstain from a vote on a motion that Councilmember shall so advise the City Council, shall remove and absent themselves from the deliberations and considerations of the motion, and shall have no further participation in the matter. The Councilmember should make this determination before any discussion or participation on the subject matter or as soon thereafter as the Councilmember identifies a need to abstain. A Councilmember may confer with the City Attorney to determine whether the Councilmember is required to abstain.

8.7 A motion to table is non-debatable and shall preclude all amendments or debates of the issue under consideration. A motion to table effectively removes the item without a time certain. A motion to table to a time certain will be considered a motion to postpone as identified in Section 8.8. To remove an item from the table requires a two-thirds' majority vote.

8.8 A motion to postpone to a certain time is debatable, is amendable and may be reconsidered at the same meeting. The question being postponed must be considered at a later time at the same meeting, or at a time certain at a future Regular or Special City Council meeting. To remove an item from postponement in advance of the time certain requires a two-thirds' majority vote.

8.9 A motion to postpone indefinitely is debatable, is not amendable, and may be reconsidered at the same meeting only if it received an affirmative vote.

8.10 A motion to call for the question shall close debate on the main motion and is not debatable. This motion must receive a second and fails without a two-thirds' vote; debate is reopened if the motion fails.

8.11 A motion to amend is defined as amending a motion that is on the floor and has been seconded, by inserting or adding, striking out, striking out and inserting, or substituting.

8.12 Motions that cannot be amended include motions to adjourn, lay on the table (table), roll call vote, point of order, reconsideration, and take from the table.

8.13 A point of order can be raised by any member of the governing body. A member of the governing body can appeal the Chair's ruling. An appeal must be immediate and must be seconded. The Chair will then explain the ruling. The members of the governing body can debate the matter, each member may speak once. The members of the governing body will then make a decision on the appeal by a majority vote.

8.14 Amendments are voted on first, then the main motion as amended (if the amendment received an affirmative vote).

8.15 Debate of the motion only occurs after the motion has been moved and seconded.

8.16 The presiding officer, City Attorney, or City Clerk should repeat the motion prior to voting.

8.17 When a question has been decided, any Councilmember who voted with the prevailing side may move for reconsideration at the same, or the next meeting. In order to afford Councilmembers who voted with the prevailing side the potential basis for a motion for reconsideration, Councilmembers who voted with the prevailing side may inquire of Councilmembers who voted with the minority as to

the reasons for their minority vote, if not stated during debate prior to the vote. A motion for reconsideration is debatable if the motion being reconsidered was debatable. If the motion being reconsidered was not debatable, the motion for reconsideration is not debatable.

8.18 The City Attorney shall act as the Council's parliamentarian and shall advise the Presiding Officer on all questions of interpretations of these rules which may arise at a Council meeting.

8.19 These rules may be amended, or new rules adopted, by a majority vote of the full Council.

SECTION 9
VOTING

9.1 **Voice vote**. A generalized verbal indication by the Council as a whole of "aye or yes" or "nay or no" vote on a matter, the outcome of which vote shall be recorded in the official minutes of the Council. Silence of a Councilmember during a voice vote shall be recorded as a "no" vote except where a Councilmember abstains because of a stated conflict of interest or appearance of fairness issue.

If there is uncertainty as to the outcome of a voice vote, the Presiding Officer or any Councilmember may ask for a raise of hands for the ayes or nays.

9.2 **Roll Call Vote**. A roll call vote may be requested by the Presiding Officer or by any Councilmember. The City Clerk shall conduct the roll call vote.

9.3 **Abstentions**. It is the responsibility of each Councilmember to vote when requested on a matter before the full Council. A Councilmember may only abstain from discussion and voting on a question because of a stated conflict of interest or appearance of fairness.

9.4 **Votes by Mayor**. Except where prohibited by law, the Mayor, as Presiding Official, shall be allowed to vote to break a tie vote.

SECTION 10
COMMENTS, CONCERNS AND TESTIMONY TO COUNCIL

10.1 Persons or groups specifically scheduled on a Council Meeting Agenda may address the Council in accordance with the speaking times included on the agenda.

10.2 Persons or groups that are not specifically scheduled on the agenda may address the council by filling out a speaker sign-in sheet (available at the City Clerk's desk or at a designated location within the Council Chambers), and (when recognized

by the Presiding Officer) stepping up to the podium and giving their name and city of residence for the record.

Unscheduled public comments to the Council are subject to the following rules:

1. Remarks will be limited to 3 minutes. The City Clerk shall use a suitable device to electronically measure speaker time. The Presiding Officer may make discretionary exceptions to speaker time restrictions;

2. Speakers may not "donate" their speaking time to any other speaker;

3. Remarks will be addressed to the Council as a whole.

10.3 Meeting interruptions. Any speaker or person who interrupts the orderly conduct of a meeting may be barred from further participation in the meeting by the Presiding Officer, unless permission to continue is granted by a majority of Councilmembers present. Examples of interruptions under this rule include:

1. failing to comply with an allotted speaking time;

2. committing acts of violence or property destruction;

3. directly or indirectly threatening physical violence against anyone attending the meeting;

4. interfering with the meeting or with other speakers through vocal interruptions or disruptive action.

If a meeting interruption occurs, the Presiding Officer shall address the person(s) causing the interruption by citing the interrupting conduct, ordering it to stop, and warning that continuation may result in removal from the meeting.

The Presiding Officer may remove the interrupting person(s) if the conduct persists after the warning. If removal of the person(s) does not restore the meeting to order, the Presiding Officer may clear the room of spectators and continue the meeting or adjourn the meeting and reconvene it at a different location selected by Council majority.[8]

SECTION 11
PUBLIC HEARINGS AND APPEALS

11.1 Quasi-judicial hearings require a decision be made by the Council using a certain process, which may include a record of evidence considered and specific findings made. The following procedure shall apply:

[8] RCW 42.30.050

A. The Department Director of the department most affected by the subject matter of the hearing, or that Director's designee, will present the City's position and findings. Staff will be available to respond to Council questions.

B. The proponent spokesperson shall speak first and be allowed ten (10) minutes. Council may ask questions.

C. The opponent spokesperson shall be allowed ten (10) minutes for presentation and Council may ask questions.

D. Each side shall then be allowed five (5) minutes for rebuttal, with the proponent spokesperson speaking first, followed by the opponent spokesperson.

E. The City Clerk shall serve as timekeeper during these hearings.

F. After each proponent and opponent spokesperson have used their speaking time, Council may ask further questions of the speakers, who shall be entitled to respond but limit their response to the question asked.

11.2 Public hearings where a general audience is in attendance to present arguments for or against a public issue:

A. The Department Director or designee shall present the issue to the Council and respond to questions.

B. A person may speak for three (3) minutes. No one may speak for a second time until everyone who wishes to speak has had an opportunity to speak. The Presiding Officer may make exceptions to the time restrictions of persons speaking at a public hearing when warranted, in the discretion of the Presiding Officer.

C. The City Clerk shall serve as timekeeper during these hearings.

D. After the speaker has used their allotted time, Council may ask questions of the speaker and the speaker may respond but may not engage in further debate.

E. The hearing will then be closed to public participation and open for discussion among Councilmembers.

F. The Presiding Officer may exercise changes in the procedures at a particular meeting or hearing, but the decision to do so may be overruled by a majority vote of the Council.

SECTION 12
DEPUTY MAYOR

12.1 Annually or more often as deemed appropriate, the members of the City Council, by majority vote, shall designate one of their members as Deputy Mayor for a one-year time period, except as provided in Section 12.1, Paragraphs G and H. Elections will be held no later than the last Council meeting of the year for determining the Deputy Mayor for the subsequent year.

A. Any member of the City Council may be nominated for the position of Deputy Mayor by having that Councilmember's name placed in nomination by a Councilmember. The nomination of a councilmember for the position of Deputy Mayor does not require a second, and a councilmember may nominate him or herself.

1. Nominations for the position of Deputy Mayor shall be made by members of the City Council on the dates of election for the Deputy Mayor position.

2. In connection with the selection of Deputy Mayor, Councilmembers are expected to approach the election in an open, transparent, and respectful manner, avoiding anything that jeopardizes harmony among Councilmembers.

B. The Councilmember receiving a majority of the votes cast by the members of the City Council shall be elected Deputy Mayor. A Councilmember may vote for themself.

C. The names of all nominees for the position of Deputy Mayor shall be included in the vote.

D. If no single Councilmember received a majority of the votes cast, a second vote/ballot between the two nominees who received the largest number of votes will be held.

E. The Deputy Mayor shall serve at the pleasure of the Council.

F. In the event of a prolonged absence or unavailability of the Deputy Mayor, the Council shall vote on which Councilmember shall serve as the Interim Deputy Mayor. The Interim Deputy Mayor shall be the Councilmember who receives a majority vote. That Councilmember shall then serve as Interim Deputy Mayor until the return of the regular Deputy Mayor, or until the subsequent Deputy Mayor is designated by majority vote. The Interim Deputy Mayor shall have all the rights, duties, and authority of the Deputy Mayor under these rules

G. If the designated Deputy Mayor is unable to serve the full term of the position of Deputy Mayor, the Council shall elect the next Deputy Mayor in accordance with Section 12 to serve the remainder of the term. If the appointment is declined the process shall continue until a Deputy Mayor is designated.

H. In the event that the Councilmember selected as Deputy Mayor (or Interim Deputy Mayor) is unable to perform the duties of the position of Deputy Mayor, or fails to act in accordance with the City Council Rules of Procedure, the City Council may, by a majority vote of the full City Council, remove the Deputy Mayor (or Interim Deputy Mayor) from this position, in which case, the Council shall elect the next Deputy Mayor (or Interim Deputy Mayor) in accordance with Section 12 to serve the remainder of the term.

[*See* RCW 35A.12.065.]

12.2 The Deputy Mayor or Interim Deputy Mayor, as the head of the legislative branch of the City, shall perform the following duties:

A. Intra-Council Relations:

1. Serve as the Chair of the Council Study Sessions in accordance with Rule 5.1.B;

2. Assist in new councilmember training including conducting a review of the rules of procedure with one to two individual Councilmembers, and a staff liaison, if requested, provided the Mayor is notified of the request;

3. Support cooperative and interactive relationships among Councilmembers;

4. Work with Mayor and Administration to prepare agendas for Council Study Sessions, in accordance with Rules 2.2 and 16.1.B;

5. Preside over the Study Sessions of the City Council, designate Special Focus Area Chairs and Vice-Chairs, designate Special Focus Area assignments, and work with the chairs of the Special Focus Areas on the portions of Study Sessions over which the Special Focus Areas chairs preside in order to reinforce appropriate Special Focus Area topics and to ensure the Councilmember understands how to preside over their portion of the meeting.

6. With support from the City Attorney and/or City Clerk, ensure that Councilmembers are aware of the requirements and limitations

related to the Open Public Meetings Act (OPMA) and reinforce adherence to the OPMA and quorum triggers when Councilmembers are operating and communicating in their Ad-Hoc Committee and Special Focus Areas roles. The Deputy Mayor has a responsibility to report violations of the OPMA when they are made aware of a violation.

B. Mayor-Council Relations:

1. Help maintain a positive and cooperative relationship between the Mayor and the City Council;

2. Act as conduit between the Mayor and the City Council on issues or concerns relating to their duties;

3. Preside over Regular Meetings of the City Council in the absence or unavailability of the Mayor;

4. In the event of a prolonged absence or incapacitation that exceeds two weeks (a state of disability that prohibits the function of duties) of the Mayor, the Deputy Mayor shall perform the duties of the Mayor.

   (a) A prolonged absence that exceeds two weeks is defined as requiring a leave of absence that prohibits the performance of the duties of the office. Vacation leave for periods up to two weeks, illnesses requiring an absence of less than two weeks, out of state or out of country travel lasting not more than two weeks, or other similar short-term absences shall not be considered prolonged absences.

   (b) In the event of a disaster, emergency, or other similar circumstance, where the Mayor is out-of-town and unable to carry out the duties of the office of Mayor, the Deputy Mayor, in consultation with the Mayor, shall act as Mayor until the return and availability of the Mayor;

5. The Deputy Mayor shall also stand in on behalf of the Mayor in other situations as requested by the Mayor;

6. In the performance of the duties of the Mayor, the Deputy Mayor shall not have authority to appoint, remove, replace, discipline or take other similar action on any Department Director or employee of the City;

7. The Deputy Mayor shall not have veto authority for actions that may be taken by the City Council;

8. The Deputy Mayor shall be aware of City, regional, and intergovernmental policies and activities in order to properly execute the role of Mayor.

C. Intergovernmental and Community Relations:

1. Act in absence of Mayor as requested and/or as required;

2. Be aware of all City regional and intergovernmental policies and activities in order to be prepared to step into the role of Mayor if necessary;

3. Serve as the Chair of the City's Emergency Management Compensation Board.

D. Other Duties of the Deputy Mayor:

1. In cooperation with the Mayor and Special Focus Area Chairpersons and with assistance from Administration, create and establish agendas for all Study Sessions;

2. Serve as liaison to the Junior City Council, encouraging, guiding, and counseling the members of the Junior City Council in connection with its duties and assignments;

3. Facilitate any issue related to the conduct and/or actions of Councilmembers that may be inappropriate or that may be in violation of the Council Rules of Procedure (Section 20.1);

4. Conduct voluntary regular and periodic meetings with individual Councilmembers and a staff liaison, if a staff liaison is requested by the Deputy Mayor or the individual Councilmember and provided the Mayor is notified of the request, to address Councilmember issues, concerns, legislative processes, Councilmember proposals, Councilmember training, and other similar related items;

5. Conduct group meetings with Councilmembers, including two on one meetings with Councilmembers on a rotating basis provided that such meetings shall not have more than two Councilmembers at such meetings. All such meetings at which a quorum of the City Council is in attendance shall be in compliance with the Open Public Meetings Act (RCW 42.30), unless expressly exempted.

SECTION 13
COUNCIL POSITION VACANCY OR ABSENCE

13.1 If an unexpired Council position becomes vacant, the City Council has ninety (90) days from the occurrence of the vacancy to appoint, by majority vote of a quorum of the remaining members of the Council, a qualified person to fill the vacancy pursuant to State law. The Council may make such appointment at its next Regular Meeting, or at a Special Meeting called for that purpose. If the Council does not appoint a person within the ninety (90) day period, the County may appoint a qualified person to fill the vacancy as provided by RCW 42.12.070.

13.2 If there is an extended excused absence or disability of a Councilmember, the remaining members by majority vote may appoint a Councilmember Pro Tempore to serve during the absence or disability.

13.3 The City Clerk's Office shall prepare and submit a display advertisement to the City's official newspaper, with courtesy copies to all other local media outlets, which announces the vacancy consistent with the requirements necessary to hold public office: that the applicant (a) be a registered voter of the City of Auburn, and (b) have a one (1) year residency in the City of Auburn. This display advertisement shall contain other information, including but not limited to, time to be served in the vacant position, election information, salary information, Councilmember powers and duties, the deadline date and time for submitting applications, interview and appointment schedules, and such other information that the City Council deems appropriate.

13.4 The City Clerk's Office shall prepare an application form which requests appropriate information for City Council consideration of the applicants. Applications will be available at City of Auburn offices and on the City's official website. Copies of the display advertisement will be provided to current members of the City of Auburn commissions, committees, boards, task forces and other City-sponsored community groups.

13.5 Applications received by the deadline date and time will have personally identifiable information removed and two interview question from each Councilmember. If two of the questions submitted by Councilmembers are similar one of Councilmember's second question will be used.

13.6 In the event the City receives more than 10 completed applications, each City Councilmember will submit to the City Clerk an unranked list of the candidates the Councilmember wishes to move forward in the process. Each Councilmember's list should contain no more than 15 anonymized candidates. The City Clerk shall aggregate all Councilmembers lists into one unranked master list of the 10-15 candidates most commonly selected among the individual lists provided. The list

shall be arranged in the anonymized order and shall only include the anonymized designation of the candidates. This aggregated list shall be provided to the Council during the executive session prior to the interview meeting.

13.7 Immediately following the executive session, Council shall meet in public session to select which candidates to invite to participate in an interview at a future City Council meeting. The decision as to which applicants to interview will be based on the information contained in the application forms and Council's evaluation of the qualifications of the candidates. The decision as to which candidates will be interviewed will be at the sole discretion of the City Council.

13.8 At the opening of the meeting at which interviews take place, the Mayor shall provide an overview of the format and ground rules for the meeting. The applicant's order of appearance shall be determined at this time by a random lot drawing performed by the City Clerk.

13.9 In order to ensure each candidate has a fair and equal opportunity to speak with Council, all candidates will be asked to remain sequestered at City Hall, which includes not using electronic devices, for the duration of all candidate interviews. Candidates will be ushered to and from the City Council Chambers by a member of City staff in order to participate in their interview at the pre-determined time. Candidates will be released from sequestration upon conclusion of the final interview and may observe the remainder of the public portion of the Council meeting.

13.10 Each candidate interview shall be no more than 30 minutes in length. The Council may reduce the 30-minute interview time if the number of applicants exceeds six candidates. Each interview shall follow the following format. (1) The applicant shall present their credentials to the City Council (up to 10 minutes). (2) The City Council shall ask the predetermined set of questions, one question per Councilmember, which must be responded to by the applicant. Each applicant will be asked and will answer the same set of questions and will have two (2) minutes to answer each question (up to 14 minutes). (3) An informal question-and-answer period during which Councilmembers may ask and receive answers to miscellaneous or follow-up questions (remainder of time).

13.11 Upon completion of the interviews, the Council may convene into Executive Session to discuss the qualifications of the applicants. However, all interviews, deliberations, nominations, and votes taken by Council must be in open public sessions. The Council may not determine who to select or reach a consensus on a preferred candidate in Executive Session.

13.12 The Mayor asks for nominations from Councilmembers for the purpose of creating a group of candidates to be considered. No second is needed.

13.13 Nominations are closed by a motion, second, and majority vote of Council.

13.14 Councilmembers may deliberate on matters such as criteria for selection and the nominated group of candidates.

13.15 The Mayor polls the Councilmembers to ascertain if they are prepared to vote. Voting must take place in a manner in which the public is notified as to the vote of each existing Councilmember for which candidate. If there is more than one candidate, a vote must be taken for each candidate to record each Councilmember's vote.

13.16 The City Clerk records the votes in the meeting minutes.

13.17 The selection of a candidate to fill the vacancy is made by a majority vote of the remaining six members of the Council.

13.18 If a majority vote is not received for a candidate, the Council may postpone elections until another date.

13.19 The Mayor declares the nominee receiving the majority vote as the new Councilmember to be sworn in immediately after the effective date of the resignation.

13.20 The term of the candidate selected to fill the vacancy will be in effect until a person is elected at the next regular election for municipal officers. If successful at the election, the interim term would then end, and the appointed Councilmember will either complete the 4-year term of the vacated position or begin a new 4-year term, depending on the position number of the vacated position.

13.21 If the Council does not appoint a qualified person to fill the vacancy within 90 days of the occurrence of the vacancy, the County Council will appoint a person to fill the vacancy (RCW 42.12.070).

SECTION 14
COUNCIL MEETING STAFFING

14.1 Department Directors or designees shall attend all meetings of the Council unless excused by the Mayor.

14.2 The City Attorney, or designee, shall attend all meetings of the Council unless excused by the Mayor, and shall upon request, give an opinion, either written or

oral, on legal questions. The City Attorney shall act as the Council's parliamentarian.

SECTION 15
COUNCIL RELATIONS WITH STAFF

15.1 There will be mutual courtesy and respect from both City staff and Councilmembers toward each other and of their respective roles and responsibilities.

15.2 City staff will acknowledge the Council as policy makers, and the Councilmembers will acknowledge City staff as administering the Council's policies under the direction of the Mayor.

15.3 It is the intent of Council that all pertinent information asked for by individual Councilmembers shall be made available to the full Council.

15.4 Individual Councilmembers shall not attempt to coerce or influence City staff in the selection of personnel, the awarding of contracts, the selection of consultants, the processing of development applications, or the granting of City licenses or permits. Councilmembers may, at the request of the Mayor, participate in discussions and decisions related to these matters.

15.5 Other than through legislative action taken by the Council as a whole, individual Councilmembers shall not interfere with the operating rules and practices of any City department.

15.6 No individual Councilmember shall direct the Mayor to initiate any action or prepare any report that is significant in nature, or initiate any project or study without the consent of a majority of the Council. This provision, however, does not prohibit individual Councilmembers from discussing issues with the Mayor or making individual requests or suggestions to the Mayor. The Mayor shall endeavor to advise and update the Councilmember(s) on the status or follow-up of such issues.

15.7 All Councilmember requests for information, agenda bills and staff analysis, other than requests for legal advice from the City Attorney's Office, shall be directed through the Mayor in order to assign the task to the proper staff. The Deputy Mayor may work with the Mayor's designated staff to prepare Study Session agendas and related materials, and facilitate Study Session work.

15.8 Any written communication with staff shall also include the Mayor as a recipient.

SECTION 16
COUNCIL STUDY SESSIONS, COMMITTEES AND CITIZEN ADVISORY BOARDS

16.1 **Study Sessions and Special Focus Areas.** In addition to the regularly scheduled City Council meetings (Regular Council Meetings) scheduled on the first and third Mondays of the month. Different than the format for Regular Council Meetings (identified in Section 3 hereof), Study Sessions shall be less formal than Regular Council Meetings and shall give the City Council the opportunity to discuss and debate issues coming before it for action at Regular Council meetings. The format for these meetings shall be as follows:

A. General Business Focus and Special Focus Areas.

Study Sessions shall consist of (1) a General Business Focus and (2) a Special Focus Area in each meeting. The General Business Focus shall be scheduled first and shall include agenda items that relate to issues of general City concern, items that will be coming before the City Council at upcoming meetings, and presentations and reports to the City Council. The Special Focus Area groups shall, on a rotating basis described below, commence their portion of the Study Session following the conclusion of the Study Session General Business Focus. The Special Focus Area groups shall review matters of Council concern related to their areas of oversight responsibility. The Special Focus Area groups shall consist of the following: (1) Public Works & Community Development; (2) Municipal Services; (3) Community Wellness; and (4) Finance& Internal Services. These Special Focus Area groups shall be tasked with oversight of Council considerations as follows:

1. Community Wellness
    - Health, Equity, & Wellness
    - Neighborhood Services
    - Homelessness Prevention
    - Social Services
    - Diversity, Equity, & Inclusion
    - Cultural Arts & Community Events
    - Housing Policy
2. Finance & Internal Services
    - Facilities
    - Technology
    - Property management
    - Risk management & Insurance
    - Fiscal Sustainability
3. Public Works & Community Development
    - Utilities
    - Transportation
    - Environmental Policy
    - Land Use & Development
    - Right of Way Management

- Airport
- Park Development
- Economic Development

4. Municipal Services
   - Public Safety
   - Courts
   - Recreation, Museum & Senior Services
   - Animal Control
   - Emergency Planning
   - Cemetery
   - Communications

B. Scheduling of Special Focus Area.

1. The Special Focus Areas shall conduct their portion of the Study Sessions on second and fourth Mondays of the month on a rotating basis such as follows: Public Works & Community Development, then Municipal Services, then Community Wellness, then Finance & Internal Services, then Public Works & Community Development, then Municipal Services, and so on.

2. On fifth Mondays of the month, Study Sessions will not typically include any of the above Special Focus Areas but may include special topics and issues of general concern to the City Council, including Council operating arrangements and Council Rules of Procedure. It is provided, however, that in order for the City Council to address the matters coming before the City Council, the Mayor and Deputy Mayor may, as they deem appropriate, insert into any Study Session any matters calling for City Council consideration and discussion, regardless of Special Focus Areas. Such matters will be scheduled to allow sufficient time for preparation of relevant background analysis and information concerning said items and provision to all Councilmembers in advance of the Study Session.

3. Topics for Special Focus Area consideration (for inclusion in the Special Focus Area portion of the Study Session agenda) shall be determined by the Chair of each Special Focus Area along with the Mayor, the Deputy Mayor, the Vice-Chair, and the designated Departments Director(s) for the Special Focus Area. The matters will be scheduled to allow sufficient time for preparation of relevant background analysis and information concerning said items and provision to all Councilmembers in advance of the Study Session. The Department Director(s) shall review agenda topics and suggestions by other Councilmembers of such topics. The Deputy Mayor may review agenda items and topics with each Special Focus Area Chairperson individually when convenient.

C. Meeting Times

Study Sessions shall be scheduled as set forth in Section 2.2, above.

1. Three to four hours maximum timeframe (goal).

2. Agenda items should relate to future policy-making, strategic planning, or key state or federal issues affecting current or future city operations.

3. Agenda items should be substantive only (*e.g.*, traffic impact fee increase proposals, comprehensive plan updates, rather than day-to-day operational issues. Non-substantive items (*e.g.*, accepting a grant, authorizing contract bidding, etc.) should go directly to the Regular City Council Meeting.

D. Study Session Meeting Format.[9]

1. Call to Order.

2. Roll Call.

3. Announcements, Reports, and Presentations.

4. Agenda Items for Council Discussion.

5. Ordinances.

6. Special Focus Area (the Chair of the Special Focus Area scheduled for the Study Session shall preside over this portion of the Study Session). The Vice Chair shall preside over this portion of the Study Session in the Chair's absence.

7. Adjournment.

E. Council discussion at Study Sessions of each agenda item shall be managed by the Presiding Officer through recognition of each Councilmember in turn. After presentation of an agenda item, the Presiding Officer will ask each Councilmember whether the member would like to make a statement or ask a question regarding the agenda item. The Presiding Officer will start with the Councilmember at the Presiding Officer's right and address each Councilmember in order of seating, as determined by the Presiding Officer. After all Councilmembers have been addressed, the Presiding Officer will again ask for a statement by each Councilmember in the same order. Invitation by the Presiding Officer to each

[9] It is the intention of the City Council that Study Sessions shall be televised on the City's public access channel if reasonably possible.

Councilmember to make a statement or ask a question shall be repeated two additional times. There shall be a limit of one question per Councilmember for each round (for three total rounds). Further questions by any Councilmember should be sent via email to the appropriate Department Director after the meeting, provided the Mayor is included in that email. Questions posed at Study Session or via follow up email shall be limited to the matter presented at Study Session.

16.2 **Ad Hoc Committees.** The Mayor, the Deputy Mayor, or a majority of the City Council may establish Ad Hoc Committees as may be appropriate to consider special matters that require special approach or emphasis.

A. Ad Hoc Committees may be established and matters referred to them at Study Sessions, without the requirement that such establishment or referral take place at a regular City Council Meeting.

B. The Mayor and the Deputy Mayor shall each appoint a Councilmember to each Council Ad Hoc Committee. The Deputy Mayor may appoint themselves. The third Councilmember to be appointed to the Ad Hoc Committee shall be selected by majority vote of the Council.

C. Ad Hoc Committees shall consider all matters referred to them and take action by majority consensus only when all Ad Hoc Councilmembers are present. The Chair of such Ad Hoc Committee shall report to the Council the findings of the committee. Committees may refer items to the Council with a committee recommendation or with no committee recommendation.

D. Unless otherwise expressly provided for when forming an Ad Hoc Committee, it is the intention of the Council that Ad Hoc Committees function informally and not in any way that takes action in lieu of or on behalf of the full Council. The purpose and function of such Ad Hoc Committees shall be to review matters in advance of their consideration by the full Council, and perhaps record and make recommendations to the full Council. They are not "committees of a governing body" subject to the requirements of the Open Public Meetings Act (Chapter 42.30. RCW). Ad Hoc Committees shall not receive public testimony or allow audience participation in connection with or related to the agenda item being discussed by the Committee.

E. Councilmembers on Ad Hoc Committees may request a staff liaison, and City Attorney or City Attorney's designee, be present to assist the Councilmembers with institutional knowledge on the subject matter to be discussed, provided the Mayor is notified of the request.

16.3 **Intergovernmental Councils, Boards and Committees.** The Mayor shall appoint Council representatives to intergovernmental councils, boards, and committees.

A. Councilmember appointments to intergovernmental councils, boards and committees, including Ad Hoc Committees, shall be periodically reviewed. All

Councilmembers shall have the opportunity to serve on such councils, boards, and/or committees as assigned by the Mayor and on a rotating basis at the discretion of the Mayor. Councilmember appointments to intergovernmental councils, boards, and committees by the Mayor shall be done with consideration of a Councilmember's expertise, background, knowledge, working experience and/or education in that council, board, or committee. Ad Hoc Committee appointment by the Mayor or Deputy Mayor shall be at their discretion.

B. Councilmembers will prioritize appointments to Intragovernmental Councils, Boards, and Committees by seeking and filling positions that provide value to the City and its constituents. Providing value occurs in the following order of priority: (1) bringing money to the City, (2) bringing projects and/or investments into the City, (3) influencing policy or investment outcomes in the City, and (4) protecting City interests. These community-wide benefits are a priority over the personal interests of an individual Councilmember.

C. Advisory Boards, Committees, and Commissions established by ordinance, consisting of residents appointed pursuant to the establishing Ordinance and serving in the capacity and for the purposes indicated in the Ordinance, shall act as an advisory committee to the Council.

SECTION 17
COUNCIL REPRESENTATION AND INTERNAL COMMUNICATION

17.1 If a Councilmember meets with, attends a meeting, or otherwise appears before individuals, another governmental agency, a community organization, or a private entity or organization, including individuals, agencies, or organizations with whom or with which the City has a business relationship, and makes statements directly or through the media, commenting on an issue that does or could affect the City, the Councilmember shall state the majority position of the Council, if known, on that issue. Personal opinions and comments which differ from those of the Council majority may be expressed if the Councilmember clarifies that these statements do not represent the Council's position, and the statements are those of the Councilmember as an individual. Additionally, before a Councilmember discusses anything that does or could relate to City liability, the Councilmember should talk to the City Attorney or the City's Risk Manager, so that the Councilmember would have a better understanding of what may be said or how the discussion should go to control or minimize the City's liability risk and exposure.

17.2 Councilmembers need to have other Councilmember's concurrence before representing another Councilmember's view or position with the media, another government agency, or community organization.

17.3 Councilmembers shall not knowingly communicate with an opposing party or with an opposing attorney in connection with any pending or threatened litigation in which the City is a party or in connection with any disputed claim involving the City without the prior approval of the City Attorney, unless the Councilmember is individually a party to the litigation or is involved in the disputed claim separate from the Councilmember's role as a City official.

17.4 Communication among Councilmembers shall conform to the following parameters:

A. Except in connection with Councilmembers meeting, informally, in committees not subject to the Open Public Meetings Act, to assure that communication on agenda items occurs to the greatest extent possible at the public meetings, and to avoid even the perception that email is being used in a way that could constitute a public meeting, successive communications on Council topics that involve a quorum of the Councilmembers shall not occur. Councilmembers shall refrain from emailing Councilmembers about such agenda items. Councilmembers should be prepared to communicate about matters that are on upcoming Council agendas at the public meetings. If Councilmembers wish to share information with other Councilmembers about matters that are on upcoming agendas, the Councilmembers should forward that information to the Mayor for distribution in the Council meeting packets.

B. Councilmembers may communicate via email to other Councilmembers, including to a quorum of the full Council about matters within the scope of the Council's authority or related to City business, but not yet scheduled on upcoming Council agendas, to indicate a desire that certain items be included on upcoming meeting agendas; provided that Councilmembers shall never ask for responses from the other Councilmembers in that communication.

C. Email communication among Councilmembers relating to City operations should also include the Mayor as a recipient/addressee.

D. Councilmembers may email the Mayor about City business without limitations or restrictions.

E. The Deputy Mayor from time to time may need to communicate with all Councilmembers on various items such as the annual review of the Rules of Procedure. All such correspondence, usually in the form of email, shall be provided to Council as a whole through the Council Assistant. Any responses from Council shall also be directed to the Council Assistant who shall then provide all Councilmembers with email correspondence regarding questions, comments, suggestions, recommendations, or any similar item.

F. Council email correspondence and all electronic communications shall utilize the designated city email account or city device with no exceptions and within the parameters of the Open Public Meetings Act and the Public Records Act.

17.5 Councilmembers shall not communicate with staff regarding their own personal business during times set out to discuss City of Auburn business. Councilmembers shall not discuss personal business with staff immediately before or after Council meetings in Council Chambers.

17.6 Council Relations with City Boards and Commissions.

A. **Council Liaisons**. In addition to where a Councilmember is appointed by the Council or the Mayor to serve as a member of a board, commission, committee, task force, or any other advisory body, the City Council may, on limited occasions or under unusual circumstances, appoint a Councilmember to serve as a non-member Liaison to a board, commission, committee, task force, or any other advisory body. Anytime a Councilmember is appointed as such a Liaison, the position or role of Liaison is subordinate to that of Councilmember, and the Councilmember's responsibility is first and foremost to the City and to the Council. The role and responsibility of the Councilmember-Liaison is to keep the City Council apprised of the activities, positions, and actions of the entity or organization to which the Councilmember has been appointed Liaison, and not to communicate to the board, commission, committee, task force, or other advisory body a statement as the position of the City Council, except as authorized or directed by the Council. Insofar as a Councilmember-Liaison position does not give all Councilmembers equal access to the activities, functions, and information of or about a board, commission, committee, task force or any other advisory body, appointments to Council Liaison positions should be reserved to those instances where a Report to the Council by the board, commission, committee, task force, or any other advisory body would not be convenient or practical.

B. **Reports to the Council**. Each board, commission, committee, task force, or any other advisory body of the City shall be requested to present a report to the City Council at a Regular Meeting or a Study Session of the City Council, as scheduled by the Mayor or Deputy Mayor. Such reports shall be scheduled for a Regular Council Meeting or a Council Study Session and shall be delivered by the Chair of the board, commission, committee, task force, or any other advisory body or designee. The reports shall inform the City Council of the activities, functions and information with which the board, commission, committee, task force, or any other advisory body has been involved since the previous report and shall include the opportunity for questions by Councilmembers.

17.7 Whenever a member of the City Council attends any meeting of any other entity or organization, he or she should endeavor to be prudent in what he or she says or does at such meeting. Further, the Councilmember should avoid attending such meeting if that attendance would impose an interference with the meeting or the operations of the other entity or organization, or of the operations of the City.

SECTION 18
TRAVEL AUTHORIZATION

18.1 **Value of Council Travel**. The Auburn City Council recognizes the need of its members to attend conferences, trainings, and meetings to broaden their knowledge of and familiarity with a diverse collection of City-related issues, including, but not limited to, Public Works, Communications, Transportation, Economic Development, Public Safety, and Energy. These conferences also provide valuable opportunities to network with other elected City officials. Comparing Auburn's specific issues with those of other cities often provides the Council with established policies already in place in other cities that can be adapted to meet the specific needs of the City of Auburn, as well as expediently and efficiently acquainting Auburn City Councilmembers with ideas of how to address Auburn issues and solve Auburn problems.

18.2 **Annual Budget Amounts for Council Travel**. To accommodate Council travel, the Auburn City Council shall allocate an identified amount of money each year in the City budget process to each Councilmember for City-related travel costs, including transportation, lodging, meals, and registration costs.

18.3 **Adjustment of Council Travel Allocations**. If a Councilmember needs more than the amount of travel related funds allocated for their use, the Councilmember shall (1) see if there are unused funds available from any other Councilmember(s) who are willing to transfer funds from their account to the Councilmember needing additional travel funds. If so, with the consent of the Deputy Mayor and the other transferring Councilmember(s), funds will be transferred to the requesting Councilmember's allotment; or (2) shall request a net adjustment to the budget adding additional funds to their allotment, which adjustment shall be approved by a majority of the whole Council.

18.4 **Receipts and Travel Documentation**. Each Councilmember shall be responsible for providing to the Mayor or Finance Director, within ten (10) business days of returning from City travel, any and all City travel related receipts and documentation, and a written report regarding the authorized travel the Councilmember attended. All documentation shall also be sent via email to the CouncilAlerts@auburnwa.gov email address. Quarterly reports of the travel costs incurred by each Councilmember shall be provided by the Finance Department.

SECTION 19
CONFIDENTIALITY

19.1 Councilmembers shall keep confidential all written materials and verbal information provided to them during Executive or Closed Sessions and as provided in RCW 42.23.070, to ensure that the City's position is not compromised. Confidentiality also includes information provided to Councilmembers outside of Executive Sessions when the information is considered by the exempt from disclosure under exemptions set forth in the Revised Code of Washington.

SECTION 20
ENFORCEMENT OF RULES OF PROCEDURE

20.1 Councilmembers shall conform their conduct to the requirements, standards and expectations set forth in these Rules of Procedure. In addition to and notwithstanding whatever other enforcement mechanisms may exist for legal, ethical or practical obligations on Councilmember performance or conduct, violations of these Rules of Procedure by Councilmembers may be enforced by action of the City Council through sanctions such as votes of censure or letters of reprimand, and such other action as may be permitted by law.

City Council Rules of Procedure:

Adopted: February 2, 2004
Ordinance No. 5802
Amended by Resolution No. 4282, December 17, 2007
Amended by Resolution No. 4429, December 15, 2008
Amended by Resolution No. 4467, April 6, 2009
Amended by Resolution No. 4615, July 6, 2010
Amended by Resolution No. 4686, February 22, 2011
Amended by Resolution No. 4740, August 15, 2011
Amended by Resolution No. 4813, May 21, 2012
Amended by Resolution No 4909, February 19, 2013
Amended by Resolution No. 5105, November 3, 2014
Amended by Resolution No. 5112, December 1, 2014
Amended by Resolution No. 5115, December 15, 2014
Amended by Resolution No. 5217, May 2, 2016
Amended by Resolution No. 5240, July 5, 2016
Amended by Resolution No. 5283, February 21, 2017
Amended by Resolution No. 5308, August 7, 2017
Amended by Resolution No. 5367, May 7, 2018
Amended by Resolution No. 5399, December 17, 2019
Amended by Resolution No. 5469, November 4, 2019
Amended by Resolution No. 5543, September 8, 2020
Amended by Resolution No. 5676, September 19, 2022
Amended by Resolution No. 5721, June 5, 2023

EXHIBIT A

CITY COUNCIL CONDUCT POLICIES

1. CONDUCT

City Policy Reference 200-81

PURPOSE
To emphasize the high standards of professionalism, public service, and integrity expected.

POLICY
It shall be the duty of all City personnel to maintain high standards of cooperation, efficiency and integrity in their work with the City. It is the responsibility of each individual to conduct themselves with professionalism and commitment towards customer service not only with the citizens and public of the City of Auburn but also when working within other elected officials or working with other departments within the City structure.

2. FAIR PRACTICES

City Policy Reference 200-2

PURPOSE
To establish guidelines for the promotion of fair practice and nondiscrimination in activities relating to employment and treatment of all citizens in order to foster trust and cooperation between City personnel and the diverse and pluralistic society that makes up the City of Auburn.

The City is committed to recognizing that all people are vital to the City's shared prosperity and that all people must be respected and valued. City personnel can, and should, lead the way forward in making inclusiveness and diversity priorities, and pledges active efforts to seek to achieve that goal.

POLICY
The Policy of the City of Auburn is to promote and afford equal treatment and services to all citizens and to assure equal employment opportunity to all persons regardless of race, creed, color ethnicity, nation origin, sex, age, marital status, veteran's status, sexual orientation, or the presence of any sensory, mental, or physical disability, unless based upon a bona fide occupational qualification: provided that the prohibition against discrimination shall not apply if it prevents the proper performance of the particular worker involved.

The City of Auburn will cooperate with all organizations and commissions organized to promote fair practices and equal opportunity in employment.

DEFINITIONS:

For the purpose of this policy, sexual orientation means heterosexual, homosexual, bisexual, and gender expression or identity. As used in this definition, " gender expression or identity" means having or being perceived as having a gender identity, self image, appearance, behavior, or

expressions, whether or not that gender identity self image, appearance, behavior, or expression is different from that traditionally associated with the sex assigned to that person at birth.

3. NONDISCRIMINATION

City Policy Reference 200-03

PURPOSE
To establish policy for a nondiscriminatory working environment within the City Auburn.

POLICY
The policy of the City of Auburn is to promote and afford equal treatment and services to all citizens and to assure equal employment opportunity to all qualified persons regardless of race, creed, 'color, ethnicity, national origin, sex, age, marital status, sexual orientation, veteran's status, or the presence of any sensory, mental, or physical disability, unless based on a bona fide occupational qualification.

It is the policy of the City of Auburn to foster and maintain a harmonious and nondiscriminatory working environment for all. Toward this end, the City will not tolerate racial, ethnic, religious, disability or sexual oriented behaviors or comments by any citizen, employee, or elected official to or about any citizen, employee, or elected official.

DEFINITONS
For the purpose of this policy, sexual orientation means heterosexual, homosexual, bisexual, and gender expression or identity. As used in this definition, "gender expression or identify" means having or being perceived as having a gender identity, self image, appearance, behavior, or expressions, whether or not that gender identity self image, appearance, behavior, or expression is different from that traditionally associated with the sex assigned to that person at birth.

4. WORKPLACE HARASSMENT

City Policy Reference 200-4

PURPOSE
To establish the policy and procedures defining the City's position on workplace harassment, including sexual harassment, and to provide guidance to any City personnel who believes he/she has experienced harassment by a supervisor, co-worker, other City personnel, or outside individual.

POLICY
It is the policy of the City of Auburn to provide a work environment for everyone that is harmonious and free from intimidation and harassment. The City is committed to ensuring that

the practices and conduct of all City personnel comply with the requirements of federal and state laws against employment discrimination. To that end, the City expects all City personnel to work in a manner that respects the feelings and dignity of others.

It is the policy of the City that everyone have the right to work in an environment free from harassment based upon their race, color, religion, gender, national origin, ethnic background, age, marital status, sexual orientation, military or veteran's status, presence of a disability or the presence of any other protected status or characteristic, or any other basis prohibited by local, state, or federal laws unless based on a bona fide occupational qualification. Workplace harassment, including sexual harassment, negatively affects morale, motivation, and job performance. The City will not tolerate any form of workplace harassment, including sexual harassment, toward City personnel by other City personnel or other individuals.

Those who in good faith report an incident of workplace harassment, including sexual harassment, shall not be subjected to any form of retaliation.

DEFINITIONS

1. Workplace harassment includes, but is not limited to, unsolicited remarks, gestures, or physical contact; display or circulation of written materials or pictures derogatory to a specific gender, racial, ethnic, religious groups, persons with physical, mental, or sensory disabilities, or any other basis prohibited by local, state, or federal laws; or basing employment decisions on an employee's response to sexually-orientated requests.

2. Sexual harassment means unwelcome behavior of a sexual nature that affects terms and conditions of the work environment. These include, but are not limited to, sexual advances and/or other verbal or physical conduct made when: (a) submission to such conduct is made explicitly or implicitly a term or condition of an individual's employment; (b) submission to, or rejection of, such conduct by an individual is used as the basis for employment decisions affecting such individuals; or (c) such conduct has the purpose or effect of unreasonably interfering with the individual's work performance or creating an intimidating, hostile, or offensive working environment.

Examples of sexual harassment include, but are not limited to:

1. Unwelcome or unwanted flirtations, propositions, advances, patting, pinching, brushing up against, hugging, cornering, blocking, kissing, fondling, putting ones arms around another, or any other similar physical contact considered unacceptable by another individual.

2. Verbal comments, suggestions, jokes, innuendos, or derogatory remarks based on sex;

3. Visual harassment, leering, whistling, gesturing, posting sexually suggestive or derogatory pictures, cartoons, drawings.

4. Pressure for sexual favors, subtle or blatant expectations, pressures, or requests for any type of sexual favor accompanied by implied or stated promises of preferential treatment or negative consequences concerning an individual's employment (such as an employee's performance evaluation, work assignment, advancement, or training opportunities).

3. Other harassment (nonsexual) is defined as verbal or physical conduct that denigrates, shows hostility, or aversion toward an individual because of such individual's protected status or characteristics such as his/her race, color, religions, gender, national origin, age marital status, veteran's status, sexual orientation, or disability that has the purpose or effect of creating an intimidating, hostile, or offensive work environment; or has the purpose or effect of unreasonably interfering with an individual's work performance; or otherwise adversely affects the individual's employment opportunities.

4. Sexual orientation means heterosexual, homosexual, bisexual, and gender expression or identity. As used in this definition, "gender expression or identify" means having or being perceived as having a gender identity, self image, appearance, behavior, or expressions, whether or not that gender identity self image, appearance, behavior, or expression is different from that traditionally associated with the sex assigned to that person at birth.

5. WORKPLACE VIOLENCE

City Police Reference 200-13

PURPOSE
To establish policy defining the City's position on not tolerating violence in the workplace, and provide guidance in the event a violent or threatening act or situation occurs.

POLICY
No person shall display violent or threatening behavior to others, including employees, the public, vendors, or contractors in the performance of his/her job and/or while on City property. Given the City's commitment to ensuring a healthy, safe and non-violent work environment, prohibitive behavior includes, but is not limited to:

1. Any verbal threat of harm towards persons or property.
2. Any threatening or actual physical act such as threatening gestures, hitting, pushing, kicking, holding, impeding or. blocking the movement of another person.
3. The use, threatening use or possession of firearms, other weapons or explosives, openly or concealed, licensed or otherwise, while performing City business and/or while on City premises including parking lots. Exception: Commissioned law enforcement officers or other official purposes sanctioned by the City.

DEFINITIONS
Weapon: Any object, instrument or chemical used to inflict harm or injury to another person or any item used in a manner threatening harm or injury to another person.

Possession of mace, pepper spray or the like for defensive purposes is not a violation of this policy.

6. TOBACCO-FREE WORK ENVIRONMENT

City Policy Reference 200-08
RCW 70.160
WAC 296-62-12005

PURPOSE
The purpose of this policy is to set out a plan and timelines for the City and City personnel to maintain a tobacco -free work environment.

POLICY
1. The City is committed to achieving a tobacco-free work environment, providing as much support as possible to assist tobacco users in this transition, and to fulfill its obligations under the law.

2. Smoking, the use of vapor and/or e -cigarettes, and all other tobacco products are prohibited in City buildings, facilities, entryways, near air intakes, or other openings that allow airflow directly into an office, building, or City vehicle.

3. City personnel may use tobacco products, vapors, and/or e -cigarettes during breaks and meal periods in outdoor areas surrounding City vehicles and facilities absent any other ordinance, rules, and/or regulations prohibiting tobacco usage.

4. Smoking cessation programs are offered by the City to assist current tobacco users who wish to stop using tobacco products.

7. ALCOHOL AND DRUG FREE WORK ENVIRONMENT

City Policy Reference 200-09
Drug -Free Workplace Act of 1988, Federal Register, Vol. 54 No 19.

PURPOSE
The City of Auburn has a significant interest in ensuring the health and safety of its City personnel and citizens. Therefore, the City will maintain a policy of an alcohol and drug free workplace.
This policy outlines those steps the City is taking to ensure that City personnel are free of the influence of controlled substances and/or alcohol while in the performance of their duties or acting on the City's behalf.

POLICY

1. Prohibited Conduct.

a. The City of Auburn strictly prohibits the manufacture, possession, distribution, dispensing or use of alcohol or controlled substances in the workplace, while on duty, or while representing the City of Auburn.

b. Reporting for work, remaining on duty, or acting on behalf or the City of Auburn while under the influence of alcohol or a controlled substance is strictly prohibited.

c. No personnel shall perform safety sensitive functions on behalf of the City within four (4) hours after using alcohol.

8. INTERNET & ELECTRONIC RESOURCES-EQUIPMENT USE-ELECTED OFFICIALS

City Policy Reference 500-3

PURPOSE
To establish a policy and identify the principles of acceptable use of the internet and other electronic communications resources/equipment provided for use during his/her term of office for elected officials.

POLICY
It is the policy of the Council that Internet and electronic resources equipment use shall conform to and be consistent with the requirements of City of Auburn Administrative Policy and Procedure 500-03, "Internet & Electronic Resources/Equipment Use – Elected Officials."

All letters, memoranda, and interactive computer communication involving City Councilmembers and members of advisory boards and commissions, the subject of which relates to the conduct of government or the performance of any governmental function, are public records.

When individual Councilmembers have completed their term of office, they will return all City electronic equipment to the Director of Information Technologies.

COMMUNICATIONS

Each Councilmember is responsible for checking their communication device multiple times daily and respond to requests by City staff as soon as possible.

ELECTRONIC COMMUNICATIONS

1. For emergency notifications of absences, and not planned absences, Councilmembers shall send an email to CouncilAlerts@auburnwa.gov to ensure the auto-distribution of communications to necessary people.
2. Messages that relate to the functional responsibility of the recipient or sender as a public official constitute a public record. Those records are subject to public inspection and copying.
3. Electronic communications that are intended to be shared among a quorum of the Council or of an Ad Hoc Council Committee, whether concurrently or serially, must be considered in light of the Open Public Meetings Act, if applicable. If the intended purpose of the electronic communication is to have a discussion that

should be held at an open meeting, the electronic discussion shall not occur. Further, the use of electronic communication to form a collective decision of the Council shall not occur.

2. Electronic communication should be used cautiously when seeking legal advice or to discuss matters of pending litigation or other confidential City business. In general, electronic communication is discoverable in litigation, and even deleted electronic communication is not necessarily removed from the system. Confidential electronic communications should not be shared with individuals other than the intended recipients, or the attorney-client privilege protecting the document from disclosure may be waived.
3. Electronic communication between Councilmembers and between Councilmembers and staff shall not be transmitted to the public or news media without the filing of a public disclosure request with the City Clerk.
4. Even if a Councilmember uses their personal electronic devices, all electronic communications and documents related to City business will be subject to discovery demands and public disclosure requests.

USE OF CITY EQUIPMENT AND FACILITIES

1. Councilmembers are provided various tools to assist them in handling the business of the City in the role as members of the Council. These tools include, but are not limited to: (1) an individual office assigned to each Councilmember in which there is (a) office furniture; (b) a computer accommodating access to the City's computer network and (c) a telephone tied to the City's telephone system; (2) and I-Pad or comparable equipment also tied to the City's computer system that can be used remotely (not just in the Councilmember's office); (3) an I-Phone or comparable equipment accommodating mobile communication needs for (a) telephone calls, (b) emails, and (c) texting; (4) a City badge accommodating physical access to City Hall facilities and Council Offices; and (5) Council mailboxes.
2. In order to assure transmittal of information necessary to conduct business of the City and to avoid Public Records Act liability for the City and Councilmembers for improper or private equipment use, Councilmembers shall use the tools identified above to assist them in being able to receive and work with information related to duties as Councilmembers.

PROHIBITED USES: The creation, transmission, downloading or storage of any document, data or message which reasonably can be construed as relating to or promoting the following, are prohibited:

1. Discrimination or harassment on the basis of age, race, color, gender, creed, marital status, national origin, disability or sexual orientation;
2. Any language and subject matter that is objectionable, offensive, obscene, threatening or otherwise inappropriate as described in the City's Workplace Harassment Policy;
3. Any communication to solicit for or promote commercial or non-profit ventures, religious or political causes, outside organizations, rumor or slander or other non-job related solicitations;

4. Any information that violates copyright laws;
5. Copying any City licensed computer software for personal use is prohibited;
6. See also specific prohibitions related to individual types of system use, below.

INTERNET: Browsing, List-Servs, Newsgroups, etc.

1. It is the policy of the City to maximize the cost-effective use of its computer systems as a means to improve efficiency and productivity. All Councilmembers are responsible for using the Internet resources in an effective, ethical, and lawful manner, and in accordance with this policy.
2. Access to the City e-mail (Outlook web access) from any remote computer that has internet access may be granted to City officials, as approved by the Mayor. Those approved to have this access must maintain virus protection software on their connections. Failure to maintain virus protection may result in the access being revoked.
3. Limited personal use may only consist of browser capability and may not include ListServs, Newsgroups, Chat Rooms or other capabilities.
4. Using City equipment or City internet connection to violate the integrity of another system (hacking) is prohibited.

SYSTEM SECURITY

1. Acquisition of computer equipment. All acquisitions of information systems components will be coordinated through the Information Technologies Department. This includes demonstration hardware and software used for evaluation purposes as well as products acquired for ongoing use.
2. Conscientious care. All Councilmembers are responsible for care of the personal computer system components that they are assigned or using. Councilmembers are responsible for promptly reporting any equipment, software and data damage and/or destruction of which they become aware. Any damage caused by personal use, including repair costs, will be the responsibility of the Councilmember.
3. Downloading/installing software (including upgrades and screensavers). The City computer system is designed to work in a network environment. Installation of unauthorized software can result in damaging the integrity of the system. Councilmembers should not download or install software on any City-owned computer. If additional software is required, a request should be addressed to the Information Services Service Desk.
4. Downloading files from the Internet. Councilmembers are individually and directly responsible for checking files for viruses using the latest version of the recommended virus-checking program. Downloading or uploading files is restricted to City business.
5. Unauthorized access. Councilmembers are prohibited from using "loopholes" or knowledge or a special password to damage computer systems, obtain extra resources, or to gain access to systems for which proper authorization has been given. Councilmembers are responsible for keeping their password confidential and not sharing it with other users.

6. Use of aliases. Use of aliases while using the Internet or internal e-mail is prohibited. Anonymous messages and anonymous newsgroup postings are prohibited.
7. Unlicensed or copied software is prohibited on any City computer. No Councilmember may use unlicensed or copied software on any City computer. The City shall seek reimbursement from any Councilmember who installs, downloads, uses or authorizes the use of any unlicensed or copied software on any City computer, or any fines, costs or other expenses incurred by the City resulting from such use.

MONITORING, ENFORCEMENT AND PENALTIES

1. All hardware, software, programs, applications, templates, data and data files residing on City information systems or storage media, whether City business or personal, are the property of the City of Auburn. The City retains the right to access, copy and change, alter, modify, destroy, delete or erase this property without prior notice to Councilmembers.
2. The City retains the right to monitor and audit the use of e-mail and Internet use. The right to use these technologies does not include the right to privacy.
3. Deleted documents, messages and data may be retrieved from a variety of points in the network. Councilmembers should assume that electronic evidence discovery might recover deleted or unsaved data.
4. Councilmembers' use of a personal Internet account on City equipment is to be arranged through the Information Technologies service desk and is subject to the provisions of this policy. Said Councilmembers should be aware that their personal e-mail and electronic files could be monitored by the City and could be reviewed as part of a Public Records request.

9. E-MAIL ETIQUETTE

City Policy Reference 200-16

City of Auburn's E-Mail Policy

Computer systems, network utilities and electronic mail are powerful business tools. These systems are designed to foster open and efficient communications. The Electronic Messaging System, like paper files and notebooks, is an asset provided to City personnel to assist them in performing their work efficiently and for limited personal use. These tools, and the work product they contain, are the property of the City. Please use your good judgment as you use the electronic mail system. While it is the general intention of the City to keep electronic mail private, it is possible that other people may view other's electronic mail messages, the recipient may route the message to others, or the City may be required to provide public disclosure of e-mail messages. You should assume that any message may be viewed by persons other than the recipient and format your messages accordingly. All messages should be composed with the expectation that they will be made public.

Getting The Message Across

Electronic mail, or e-mail, is unique. Once sent, it will wait for the recipient for hours or days. It is more tangible than voice mail and faster than paper mail. By saving copies of messages and responses, a record of communications can be built and saved. It also is useful for sharing documents in electronic form. The unique qualities of electronic mail make it an extremely useful tool in the business place. For those who spend much of their time at a desktop computer or a terminal on a network, e-mail can provide an immediate messaging service and mailbox.

Privacy vs. Public Disclosure Issues

All e-mail messages are considered to be public records and the public has the right to examine public records. Therefore, if you are concerned about public disclosure or internal disclosure, e-mail should not be used as a communication tool. Confidential and sensitive issues should not be communicated via e-mail. A user, in forwarding a message that originates from someone else, may not make changes to that message without clearly notes that changes were made to the message and the identity of the person making the changes.

Alternatives To E-Mail

The City Intranet is a better way for making announcements such as retirement parties or broad policy statements. Telephones provide a more immediate response and can be a better way to make initial contacts with people. Memos and internal mail are best for sending specific policy statements, financial forms, and documentation. The US Postal Service, UPS, Federal Express and other such companies are the best way to send and receive external business documents. One-on-one meetings are still a good way of communicating info.

Messages

E-mail is best for short messages. A message of one to five paragraphs or one that takes only one screen is most likely to be read and used. When composing your message, take a few extra seconds to think of an accurate description of the message to put in the subject field. Titles such as "???" or "more stuff" are less useful than "Network Questions" or "New Uses for Bulletin Board System." If you are sending e-mail to someone you have not met or dealt with in a long time, it is a good idea to let them first know who you are and why you want their attention. ("Hi, I work for Purchasing and have a question about...")

Attachments

The attachment feature of e-mail programs allows you to send files, such as spreadsheets and formatted documents to other computer users. When you send attachments, be certain that the receiver can read them. Just because a document can be attached to a message does not mean that the person at the other end can read it. For instance, if you attach an

Excel spreadsheet to an e-mail note and the recipient of the note does not have Excel on their PC, then they will not be able to open the attachment.

Language And Behavior

Good E-mail is businesslike and free from obscene, pornographic, sexual, harassing, menacing defamatory, threatening or otherwise offensive language. The City does not tolerate racism, sexism, and other inappropriate behavior. It is also not tolerated in the e-mail environment.

Some people will send an angry e-mail message; one that they would never say in person. Take a minute before you respond. Be careful about which words you use and how you say them. Remember that messages can be printed or forwarded. Do not say things you may regret later.

Mail Lists

Mailing lists, called Personal Groups, are a useful tool. If you are working and exchanging mail with a group of people on a regular basis, a Personal Group allows you to send the same message to all of them by entering only one address. You may want to build a Personal Group that will target your regular or special group of mail recipients. The Help File accessible through your e-mail can help you set up Personal Groups.

"Junk" Mail

"Junk" e-mail is inevitable. Try not to generate it yourself by limiting your general broadcasts. Target your audience carefully by making use of Personal Groups. If you must send a large mailing, try not to use attachments; including attachments increases the load on the network and can be costly when you consider the amount of time it takes to open an attachment. Delete e-mail you consider "junk", before opening it.

Personal Business

Use of e-mail is primarily to be reserved for official City business. However, limited personal use is authorized. There shall be no negative impact or disruption to either the sender's or receiver's performance of public duties (i.e. forwarding jokes takes time away from the job and wastes computer memory).

Return Receipts

Leave "Return Receipt" turned off unless a return receipt is absolutely necessary. Return receipts also slow down the e-mail system. If everyone requested a return receipt for each message they sent, it would double the traffic load on the mail system.

Glossary of Terms

Attachment
A file that is included with a message. It is displayed in the message as an icon, representing the type of file it is.

Broadcast
Distribution of a message to a wide number of mail users.

Intranet
A computer system used as an information source and message system. It is similar to a physical bulletin board, but messages are posted electronically on a computer bulletin board system.

E-Mail
Electronic mail

"Junk" Mail
A broadcast that includes individuals who do not need or want the information contained in the message.

Personal Groups
Assignment of a single name to multiple users. When the group name is added to the recipient list for a message, each individual in that group receives the message.

Return Receipt
Displays the date and time the message you sent was opened by the recipient.

10. CELLULAR PHONE & TABLET

City Policy Reference 200-16A
RCW 46.61.672
WAC 204-10

PURPOSE
To establish a policy that provides for and regulates cellular phone and tablet use by City personnel.

POLICY

The City of Auburn recognizes that cellular phones and tablets are an important and necessary tool in the performance of certain job duties. For those who have a valid business purpose, the City of Auburn provides cell phones and tablets for City business use.

Cell phone and tablet use can create distractions for drivers. City Personnel are prohibited from texting, using e-mail, or performing any other operation with electronic equipment, while driving a vehicle on City business. If a cell phone must be used while driving, all personnel must follow Washington State Law and use the cell phone in a "hand-free mode". "Hands-free mode" means the use of a wireless communication device with a speaker phone, headset, or earpiece.

USAGE POLICY. The City of Auburn issues cellular phones to allow efficient and cost-effective execution of City business. All City use cellular phones and services will be acquired and/or approved by the Information Technology Department.

The City of Auburn audits all City-provided cellular phone services (voice minutes used, text messages sent/received, and data service use) which include a review of the monthly billing by the individual's supervisor.

Most wireless transmissions are not secure. Therefore, individuals using wireless services should use discretion in relaying confidential information. Reasonable precautions should be made to prevent equipment theft and vandalism to City-issued cellular phones.

Cellular phone use by a driver of City-owned vehicles or by a driver of a privately owned or leased/rented vehicle, when driving to or from City business, is prohibited unless "hands-free" is used.

When using a cell phone in a "hands-free mode" dialing of the phone shall only be done when the vehicle is stopped or through the use of voice activated commands. Texting while driving a vehicle is prohibited.

PERSONAL USE OF CITY-PROVIDED CELLULAR PHONES. City-provided cellular phone use is billed on a time-used basis and intended for City business only. Emergency personal use should be limited to 3 minutes or less.

11. CITY OWNED VEHICLES, EQUIPMENT

City Policy Reference 200-11

PURPOSE
To establish a policy regarding personal use of City owned vehicles, equipment and materials.

POLICY
City owned vehicles, equipment, materials, or services for personal convenience or profit is prohibited. Use is to be restricted to such services as are available to the public generally, for the authorized conduct of official business, and for such purposes and under such conditions as are directed by administrative order of the chief executive officer of the City (Mayor).

DEFINITIONS
Vehicles: Automobiles, vans, trucks, tractors and other specialty vehicles

Equipment: Telephones, computers, copy machines, fax machines, or other office equipment provided for the accomplishment of clerical tasks; tools and equipment used to repair facilities, grounds, and vehicles; and/or any other type of city owned property.

Materials: Paper, pens, other desk and office supplies; items such as fertilizer, cleaner, pesticide, etc., used in grounds and facilities maintenance; and operational supplies used to repair, clean or fuel equipment.

Services: Any service provided by the City in the performance of its municipal responsibilities.

PROCEDURE

City Mail Room: The City mail room will not accept personal packages from City personnel to be mailed or packages of a personal nature mailed to City personnel at the City address. The mail room is very busy with business related mail distribution and other responsibilities. Personal letters that are self-stamped and sealed will be accepted and mailed by the City mail room. However, the City will not be responsible if a letter is not delivered to the recipient.

12. USE OF PERSONAL VEHICLES

City Policy Reference 200-17

PURPOSE

To document the policy for the use of personal vehicles for official city business.

POLICY

The City encourages City personnel to use city-owned vehicles for official city business; however, the use of personal vehicles is allowed per the following guidelines:

1. LIABILITY INSURANCE. Those who use personal vehicles for city business must purchase and maintain auto liability insurance that meets or exceeds the state's minimum requirements for bodily injury and property damage and must keep a copy of proof of insurance in their vehicle at all times. In the event of an accident the individual's personal auto insurance provides the primary coverage, and the City's liability insurance provides coverage in excess of that policy. The City does not provide collision or comprehensive insurance coverage for personal vehicles even when used for official city business. In some cases an individual's insurance company may require a special endorsement for business use; therefore, those individuals should contact their insurance agent to determine if special coverage is required.

2. DRIVING UNDER THE INFLUENCE OF DRUGS AND ALCOHOL. Driving any vehicle on city business during or after consumption or drugs, alcohol or prescription medication that affect driving ability is strictly prohibited per the City's Alcohol and Drug Free Work Environment Polic.

3. COMPENSATION FOR BUSINESS USE OF PERSONAL VEHICLES. The City will compensate City personnel who use personal vehicles for official City business on a per mile basis at the current standard mileage rate established by the Federal Government. To receive compensation for local mileage, City personnel must submit a Travel Authorization and Explain Claim form per the City's Travel Authorization & Reimbursement for Business-Related Travel Expenses Policy.

13. WORKPLACE INSPECTIONS

City Policy Reference 200-33

PURPOSE
The City of Auburn has a responsibility to ensure a safe workplace and conduct any related investigations in a timely and thorough manner. For these, and any other reason the City determines appropriate and necessary, the City has a right to conduct random and unannounced inspections workspaces.

POLICY

The City provides equipment, furniture/lockers, vehicles, materials and other items for the use by City personnel in their conduct of official City business. The City does not assume responsibility for any theft or damage to any personal belongings occurring within the workplace.

The City of Auburn retains the right to conduct random and unannounced inspections of workspaces.

14. WORKPLACE HEALTH AND SAFETY

City Policy Reference 300-01

PURPOSE
To document the City of Auburn's policy on workplace health and safety.

POLICY
The City of Auburn takes the health and safety of its workforce seriously and will comply with all applicable federal, state and local health and safety regulations to provide a work environment free from recognized hazards likely to cause injury, illness or death.

15. ID BADGES

City Policy Reference 200-38

PURPOSE
To establish the City's policy on City personnel identification and building access badges.

POLICY

The City utilizes a keyless entry ID Badge Access system for entry to most City building. Building access assignments are made by Human Resources based on position, assigned responsibilities and individual building policies. Overside of badge access systems management is a collaborative effort involving Human Resources, Facilities and Information & Technology.

The City will issue photo identification access badges to all elected officials, full-time, part-time and non-benefitted employees. Volunteers will receive non-photo identification/building access

badges, unless they are volunteering in the Police Department or Emergency Management Division, in which case they will receive a photo identification/building access badge.

16. DRESS FOR YOUR DAY

City Policy Reference 200-39

PURPOSE

The policy articulates the City's "Dress for Your Day" philosophy and provides a flexible and reasonable dress standard for all. This policy is to support a work environment that is comfortable and inclusive for all City personnel.

Ultimately, the racially, gender, religiously, and politically inclusive business casual dress code aims to balance individual expression, professionalism, and safety requirements, fostering an environment where all feel valued, respected, and able to perform their duties effectively.

POLICY - DRESS FOR YOUR DAY

1. The City's "Dress for your Day" philosophy encourages individuality and personal discretion by allowing individuals to tailor their clothing choices to the day-to-day demands of their role and the work that they perform. Individuals should consider their day's schedule, tasks being performed, and the people with whom they'll have interaction.
2. Good judgment should always be applied when making decisions on workday attire. Dress for Your Day embodies the basic sentiment that the City trusts individuals to know how to exercise good judgment in choosing clothing for the workday. This philosophy is intended to reinforce that trust.
3. General Expectations. To provide guidance, some minimum standards are outlined below.
    a. Casual is the default dress code. Casual is defined as all shirts with collars, crewneck or v-neck shirts, blouses, and golf and polo shirts. Casual slacks and trousers, jeans without holes, etc. Dresses/skirts that are mid-thigh or longer, except for safety sensitive positions prohibited by the Department of Labor & Industries. Clean, athletic shoes, casual slip-on or tie shoes and dress sandals.
    b. Business attire may be necessary for meetings with elected officials, community members or customers, colleagues or networking opportunities. Business attire is defined as all shirts with collars, blouses, and golf and polo shirts. Slacks and trousers. Dresses/skirts that are mid-thigh or longer. Slip on or tie shoes, dress sandals and clean athletic shoes.
    c. Attire and appearance should be clean and appropriate to the workday.
    d. Hats should have the City of Auburn logo to aid in identification when serving the public.
4. Inappropriate Attire. It would be impossible to provide an exhaustive list of what is or is not acceptable when it comes to appropriate attire. That said, below are some examples of inappropriate or unprofessional attire. This list is not intended to be exhaustive.
    a. Garments that are dirty, ripped, extremely worn or threadbare.
    b. Attire printed with social movements, counter movement, or political affiliations.
    c. Sleepwear, including slippers.

d. Beachwear, including flip-flops, swimwear and shorts.
e. Shirt or blouse that ends above the waist, exposing a midriff section.
f. Exercise gear is generally not appropriate but may be worn when participating in wellness, recreation or City-based activities.
g. Applying the Dress for Your Day standard, beach wear and/or exercise gear would be reasonable attire for parks/recreation staff.
h. Heavily scented lotions, perfumes, colognes should be generally avoided, as some people have scent allergies and sensitivities. Where specific disability accommodations have been put in place, use of such products may be formally restricted.

17. PUBLIC RECORDS REQUESTS

City Policy Reference 400-03

PURPOSE
To establish the procedures the City of Auburn ("City") will follow in order to provide full access to public records. These rules provide information to persons wishing to request access to public records of the City and establish processes for both requestors and the City staff.

POLICY
RCW 42.56.070 (1) requires each agency to make available for inspection and copying nonexempt "public records" in accordance with published rules. The act defines "public record" to include any "writing containing information relating to the conduct of government or the performance of any governmental or proprietary function prepared, owned, used, or retained" by the agency.

RCW 42.56.070(2) requires each agency to set forth "for informational purposes" every law, in addition to the Public Records Act, that exempts or prohibits the disclosure of public records held by that agency. The City adopts by reference the list of exemptions found in Appendix C of the Public Records Act for Washington Cities, Counties, and Special Purpose Districts published by Municipal Research & Service Center, last update March 2019, as that list may be amended.

In accordance with RCW 42.56.070(4)(a), the City finds that the City is comprised of multiple departments, which maintain separate databases and document management systems. The City further concludes that because of the multiple locations, formats, and storage systems, it is unduly burdensome to main an all-inclusive index of public records. Therefore, the City does not maintain an all-inclusive index of public records.

18. ELECTRONIC SIGNATURES

City Policy Reference 400-04

PURPOSE AND ADMINISTRATION
To establish an electronic signature policy for the City.

This policy may be modified, rescinded, or replaced at any time by the City Attorney.

POLICY

The City recognizes electronic signatures as legally binding and equivalent in force and effect as an original handwritten signature and authorizes the use of an electronic signature platform to affix signatures to City records as provided in this policy. Electronic signatures may be affixed to all records not legally required to have an original handwritten signature, including but not limited to, meeting minutes, resolutions, ordinances, engineering records, and any and all leases, contracts, and agreements to which the City is a signatory.

Electronic signatures may be used on City records requiring execution by a third party. Electronic signatures cannot be applied using another employee's name. Records signed by a designee on behalf of the Mayor, City Clerk, City Attorney, City Engineer, Engineer of Record or Department Director shall use the designee's own electronic signature.

If an electronic signature is used for interstate transactions or for documents required by the U.S. Federal government, the electronic signature shall comply with the requirements of the Electronic Signatures in Global and Electronic Commerce Act. This policy in no way affects the City's ability to conduct a transaction using a physical medium and shall not be construed as a prohibition on the use of original handwritten signatures.

19. PETITIONS AND SIGNATURE DRIVES AT CITY HALL

City Policy Reference 500-1

PURPOSE

It is the purpose and intent of this policy to make available at City Hall and other public facilities of the City access to and an opportunity for exchange of information. There are occasions when public service projects and matters of community interest would warrant the use of City Hall and other City facilities. Among the methods that information may be gathered and shared are petitions and signature drives. However, state law (RCW 42.17.130) provides strict limitations on the use of public facilities for political campaigns, ballot measures and elections matters. Accordingly, the accessibility and availability of City Hall and other City facilities for petitions and signature drives related to political campaigns, ballot measures and elections matters must be curtailed in accordance with state law. Therefore, in order to provide for distinction between those petitions and signature drives that are election related and those that are community oriented but unrelated to election matters, a policy should be implemented.

POLICY

Whenever proponents of a petition or signature drive wish to solicit signatures and have petitions available for signature at City Hall and other City facilities, the Community Development Director shall screen the petitions and signature drives to assess whether they have any relationship to any political campaigns, ballot measures or election matters.

1. If the Community Development Director determines that the signature drive or petition is related to any ballot measure, election or candidacy, it shall be denied permission to utilize City Hall or other City facilities.
2. If the Community Development Director determines that the petition or signature drive is unrelated to any political campaigns, ballot measures or elections matters, the Community Development Director shall then assess whether the petition or signature

drive is community oriented or directed to issues and matters objectively beneficial to the City.

3. If the Community Development Director determines that the signature drive or petition is not community oriented or directed to issues and matters objectively beneficial to the City, it shall be denied permission to utilize City Hall or other City facilities.
4. On the other hand, if the Community Development Director determines that the signature drive or petition is community oriented or directed to issues and matters objectively beneficial to the City, it may be granted permission to utilize City Hall or other City facilities, subject to reasonable space and access considerations.
5. In considering whether the signature drive or petition is community oriented and/or directed to issues and matters objectively beneficial to the City, the Community Development Director shall consider whether it meets or promotes a legitimate municipal/governmental purpose and whether it does so in a way that is fair and responsible.

20. OBSTRUCTION OF ACCESS TO CITY FACILITIES

City Policy Reference 500-2

PURPOSE
To establish a policy that bans use of entry-plaza areas around City Hall, as well as use of other City facilities for purposes different than those for which they were intended, or which interferes with or which could interfere with the intended uses.

POLICY
People are prohibited and prevented from any use of City facilities that interferes with the purposes for which the City facilities were intended, or which interferes with or obstructs safe, clean access to City facilities. This includes, but is not limited to use of bicycles, scooters, skates, skateboards and similar vehicles in the entry-plaza areas around City Hall.

21. TRAVEL AUTHORIZATION

City Policy Reference 100-11
RCW 42.24
Auburn Municipal Code 2.54

PURPOSE
To provide Councilmembers who incur authorized travel, subsistence, registration and related expenses while on City business, reasonable and timely mechanisms for reimbursement and/or the advancement of such necessary expenditures.

It is also recognized that City payment of business-related food and beverage for non-travel purposes will be incurred by Councilmembers wherein reimbursement will be provided. This policy also served to provide guidelines by which to determine whether or not expenditure by a Councilmember may be reimbursable to that Councilmember, and by which to determine refreshments and related costs served or made available at meetings involving volunteers and other quasi-employees are legitimate City expenditures.

POLICY

The City will pay reasonable and necessary expenses incurred by Councilmembers while conducting authorized City business. When incurring such expenses, Councilmembers must be sensitive to public expectations as to the use of public moneys and the need to use good judgment. The City will not pay ineligible expenses such as alcoholic drinks, expenses incurred by a spouse or another person, and first-class travel, nor will the City pay expenses judged excessive, extravagant, unnecessary or unreasonable.

It shall be the policy of the City to allow attendance and participation of City elected and appointed officials, employees, members of boards, and commissions at meetings and conventions when such participation is determined to be in the public interest. It shall be understood that all subsistence rates, allowances and payments provided to City employees/officials through the implementation of this policy shall only be paid when such employee or official is engaged in duly authorized City business and not for any other purposes.

22. USE OF CITY CREDIT CARDS

City Policy Reference 100-12
RCW 43.09.2855
Auburn Municipal Code 3.10.020

PURPOSE

1.1 To establish a policy and procedure related to the distribution, authorization, control and use of City credit cards.

1.2 To establish credit limits and payment of bills related to City credit cards.

POLICY

The City of Auburn finds that the use of credits cards is a customary and economical business practice to improve cash management, reduce costs and increase efficiency.

Use of Credit Cards shall be limited to the following:

- Extraordinary and/or emergency type circumstances;
- Advance payment for budgeted and authorized training classes/ seminars;
- Advance payment for budgeted and authorized purchases made via the internet;
- Budgeted, approved. travel including costs associated with such travel (advance payment of airline fares, lodging, registration fees, and tuition);
- Non -travel status meals (see receipt requirement in section 5. 4);
- Travel status meals limited to the. Per Diem rate (see requirements in section 5. 4).
- See also the Travel. Authorization & Reimbursement for Business - Related Travel. Expenses policy, No. 100- 11.

All credit card receipts must be itemized or have an itemized receipt accompanying them. Meal receipts shall include a detail of food and beverages served. Meals purchased in travel status will be limited to per diem amounts. If the per diem rate is exceeded, the card user must reimburse the City.

Personal charges to City credit cards are not allowed under any circumstance

Disallowed charges, or charges not properly identified, will be paid by the card user before the charge card billing is due. Failure to do so will render the card user personally liable for the unpaid amount, plus interest and/ or any fees at the rate charged by the bank that issued the card.

Cash advances on all City credit cards are prohibited.

23. PURCHASING CARDS

City Policy Reference 100-15

PURPOSE

To establish policies and procedures for employees regarding the use of purchasing cards to procure goods or services for official City business purposes.

POLICY

It is the policy of the City of Auburn to authorize cardholders to make purchases using a City of Auburn purchasing card. Use of purchasing cards will reduce costs associated with processing invoices and purchase orders by departments and accounts payable and maintain good business relations with suppliers through prompt payments.

Authorized cardholders are responsible for becoming knowledgeable with proper use of the card, authorized expenditures, and the documentation requirements. Authorized cardholders are to use the cards only for official City business.

All purchasing cards will be issued to the City of Auburn in the name of the authorized cardholder. The purchasing card must be maintained on person or otherwise secured in a manner to maintain control of the card. For safety purposes the authorized cardholder' s identification or social security number is not associated with the card.

Purchasing Card Program Cardholder Responsibilities:

1. Be accountable and responsible for the purchasing card in his/ her name at all times.
2. Use the purchasing card for official City business only and not personal use or cash advances. The Purchasing Card Agreement between the cardholder and the City must be completed and signed by the cardholder and Pcard Program Administrator (Finance A/ P) before the purchasing card will be issued. The Purchasing Card Agreement and its terms are incorporated as part of this policy.
3. Obtain and retain original receipts, packing slips, and shipping documents for each purchase made with the purchasing card. A monthly report will be provided by the cardholder.
4. Reconcile, or arrange for the reconciliation of, the purchasing card monthly report/ statement. Confirm that original receipts documenting all transactions on the report are supportable as appropriate City expenditures are attached to the report. Have the monthly report reviewed and approved according to internal department policies and submitted to the Finance Department by the appropriate due dates. Include appropriate additional documentation when consistent with other City policies (i. e., travel authorization forms).

5. All purchasing card purchases must comply with the City of Auburn Purchasing and Travel policies and procedures. The purchasing card is not to be used as a substitute for contracts.

6. The use of the purchasing card does not relieve the cardholder from complying with other State, City, and department policies and procedures. The purchasing card is not intended to replace effective procurement planning, which can result in quantity discounts, a reduced number of trips, and more efficient use of City resources.

7. The authorized cardholder is the only person entitled to use the purchasing card that has their name on the face of the card. Purchasing cards should be treated with extreme care in the same manner as a personal credit card. The cardholder is responsible for reporting a lost or stolen card immediately to their supervisor and Purchasing Card Program Administrator (Finance A/P).

DEFINITIONS:

AUTHORIZED CARDHOLDERS. The Mayor, City Council members, and authorized full or part-time regular City employees are eligible to use purchasing cards. Temporary employees are not authorized to use purchasing cards.

PURCHASING CARDS. Will be a credit card with a Visa logo issued from the bank or procurement card program of the City's choice.

Current Council Rules of Procedure as of September 2023

RULES OF PROCEDURE OF THE CITY COUNCIL OF

THE CITY OF AUBURN, WASHINGTON

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RULES OF PROCEDURE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON

SECTION 1
AUTHORITY

Pursuant to RCW 35A.12.120, the Auburn City Council establishes the following rules for the conduct of Council meetings, proceedings and business, and the maintenance of order. These rules shall be in effect on adoption by resolution of Council and until they are amended or new rules are adopted. The Deputy Mayor will coordinate a review of these rules at least once every calendar year.

SECTION 2
COUNCIL MEETINGS

All meetings of the City Council shall be open to the public and all persons shall be permitted to attend, both in person and virtually, any meeting of this body, except as provided in RCW Chapter 42.30. The City Clerk[1] is responsible for preparing agendas for all City Council meetings.[2]

The City Clerk is responsible for preparing action minutes of all of the Council meetings, that contain an account of all official actions of the Council. Council meetings shall be electronically recorded and retained for the period of time as provided by State law.

2.1 **Regular Meetings.** Regular meetings of the City Council shall be held at 7:00 p.m. on the first and third Mondays of every month in the City Hall Council Chambers located at 25 West Main Street, Auburn, Washington.[3] The regular meeting location may be changed by a majority vote of the City Council.

A. If a scheduled Regular Council meeting falls on a legal holiday, the meeting shall be held at 7:00 p.m. on the first business day following the holiday.

B. The Mayor, as presiding officer, shall be seated at the center of the dais, and the Deputy Mayor shall be seated to the presiding officer's immediate left. When the Deputy Mayor is acting as the presiding officer, in the absence of the Mayor, the Deputy Mayor shall be seated in the center of the dais. The seating arrangement for the other members of the Council shall be as determined and directed by the Deputy Mayor. The seating arrangement will be decided once every calendar year.

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[1]The City Clerk may delegate any of the duties in these Rules to staff.
[2]ACC 2.03.100
[3]ACC 2.06.010(A), 2.06.020

[See ACC 2.06.010 (Ord. 3916 § 1, 1983; 1957 code § 1.04.010); ACC 2.06.020 (Ord. 3759 § 1, 1982; 1957 code § 1.04.020); ACC 2.06.030 (1957 code § 1.04.060); ACC 2.06.080 (1957 code § 1.04.090).]

2.2 **Study Sessions.** Study Sessions of the City Council shall be held at 5:30 p.m. on the second, fourth and fifth Mondays of every month in the City Hall Council Chambers located at 25 West Main Street, Auburn, Washington.[4] The regular meeting location, including making the location a virtual forum, for Study Sessions may be changed by a majority vote of the City Council.

A. If a scheduled Study Session falls on a legal holiday, the meeting shall be held at 5:30 p.m. on the first business day following the holiday.

B. Study Sessions seating arrangement shall be located in the floor space directly in front of the dais, unless there is a public health emergency in effect. The table layout for Council and presenters and speakers shall be to provide for maximum visibility of all attendees. The Deputy Mayor and the Special Focus Area chairperson for the scheduled focus area per the agenda shall be at a designated head table. No particular seating arrangement shall be required for other members of the Council, or for the Mayor for Study Sessions.

C. The Council shall not take final action at a Study Session. For purposes of this rule, "final action" by the council means a collective positive or negative decision, or an actual vote on a motion, proposal, resolution, order or ordinance.[5] Procedural parliamentary motions are not considered final action.

2.3 **Special Meetings.** A special meeting of the City Council may be called by the Mayor or any three members of the Council by written notice delivered to each member of the Council at least 24 hours before the time specified for the proposed meeting. Meeting notices shall be delivered by reasonable methods. Those methods can include email notification in addition to notice on the agency's website and principal location. The City Clerk shall provide the written notices. No ordinance or resolution shall be passed, or contract let or entered into, or bill for the payment of money allowed, at any special meeting unless public notice of that meeting has been given by notice to the local press, radio and television that is reasonably calculated to inform the city's inhabitants of the meeting.[6]

[See ACC 2.06.040 (1957 code § 1.04.070).]

2.4 **Emergency Meetings.** Emergency meetings may be called by the Mayor or presiding officer in case of an emergency. Meeting site notice requirements do not apply.

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[4] ACC 2.06.010(B), 2.06.020
[5] RCW 42.30.020(2)
[6] ACC 2.06.040; RCW 35A.12.110

2.5 **Closed or Executive Sessions.** A Council meeting that is closed to the public. Council, the Mayor, City Attorney and authorized staff members and/or consultants may attend.

Closed and Executive sessions may be held during Regular meetings, Study Session meetings, and Special meetings of the City Council, and will be announced by the presiding officer. Closed and Executive session subjects are limited to considering those matters permitted by State law.[7]

2.6 **Cancellation of Meetings.** Meetings may be canceled by the Mayor with the concurrence of the Deputy Mayor or, in the absence of either, by the Mayor or the Deputy Mayor, or in the absence of both, by the presiding officer or by a majority vote of the City Council, and proper notice given by the City Clerk.

2.7 **Quorum.** Four (4) or more Councilmembers will constitute a quorum for the transaction of business.

SECTION 3
ORDER OF BUSINESS FOR REGULAR COUNCIL MEETING AGENDA

All items to be included on the Council's agenda for consideration should be submitted to the City Clerk, in full by 12:00 Noon on the Tuesday preceding each regular Council meeting. The City Clerk shall then prepare a proposed agenda according to the order of business, for approval by the Mayor, or their designee, provided the approval shall be exercised in a manner consistent with ACC 2.03.100. A final agenda will then be prepared by the City Clerk and distributed to Councilmembers as the official agenda for the meeting.

3.1 The agenda format of the Regular City Council meeting shall be as follows:

A. **Call to Order.** The Mayor shall call the meeting to order.

B. **Land Acknowledgement.** The Mayor shall make a land acknowledgement.

C. **Public Participation.** This is the place in the agenda where the public is informed on how to participate in the public meeting and/or instructed on the available options to view the public meeting.

D. **Pledge of Allegiance**. The Mayor, Councilmembers and, at times, invited guests will lead the Pledge of Allegiance.

[7] RCW 42.30.110(1), 42.30.140

E. **Roll Call**. The City Clerk will call the roll.

F. **Announcements, Proclamations and Presentations**. A proclamation is defined as an official announcement made by the Mayor or the City Council regarding a non-controversial event, activity or special interest group which has a major city-wide impact.

G. **Appointments**. Appointing individuals to various committees, boards and commissions. Confirmation of appointments, where confirmation is called for, may be preceded by discussion in executive session, where appropriate.

H. **Agenda Modifications**. Changes to the Council's published agenda are announced at this time.

I. **Public Hearings and Appeals**. Individuals may comment on public hearing and appeal items by submitting written comments to the City Clerk in advance of the public hearing or by participating in the forum designated by the public hearing notice. However, if an appeal is a closed-record appeal, the matter shall be considered only based on information, evidence and documents in the record. Argument on the appeal shall refer only to matters, information, documents and evidence presented at the underlying hearing from which the appeal is taken, and no new information, evidence or documents may be added, and argument on the appeal may only deal with information, evidence and documents in the record. The presiding officer will state the public hearing and/or appeal procedures before each hearing.

J. **Public Comment.** Members of the public may comment on any matter related to City business under the Public Comment portion of the meeting agenda. Section 10 of these Rules sets forth the procedures for receiving public comments.

K. **Correspondence**.

L. **Council Ad Hoc Committee Reports**. Council ad hoc Committee Chairs, or designee, may report on the status of their ad hoc Council Committees' progress on assigned tasks and may give their recommendations to the City Council, if any. The Chair of an ad hoc committee must notify the Mayor, Deputy Mayor, City Clerk, and most senior member of the ad hoc committee in advance of any anticipated absence.

M. **Consent Agenda**. Approval of the Consent Agenda, including items considered to be routine and non-controversial, may be approved by one motion. Items on the Consent Agenda include but are not limited to the

following. Any Councilmember may remove any item from the Consent Agenda for separate discussion and action.

1. Approval of minutes.

2. Fixing dates for public hearings and appeals.

3. Approval of claims and vouchers, bid awards and contracts.

4. Approval of surplus property.

5. Other items designated by the City Council.

N. **Unfinished Business**. Unfinished business of a general nature that was considered by Council at a previous business meeting.

O. **New Business**. Business, other than ordinances and resolutions, that has not been previously before the City Council and items that are removed from the Consent Agenda for separate discussion and action. Councilmembers are encouraged to provide the Mayor or Deputy Mayor information regarding the topic of any new business 48 hours prior to the Council meeting.

P. **Ordinances**.

1. All ordinances shall be in writing. Titles may be read aloud before the ordinance is voted on. Any councilmember may request a full reading of the text of a proposed ordinance before the vote on its adoption. The request for a full reading of an ordinance does not need to be voted on. However, the request for a reading of the title of the proposed ordinance, or a full reading of the text of the proposed ordinance may be waived by a majority of the councilmembers in attendance at the council meeting.

2. Before any ordinance is considered for adoption by the City Council, the ordinance shall be included on a Study Session agenda. Council may waive this rule.

After a motion to adopt an ordinance has been made and seconded, the Councilmember making the motion is encouraged to give a brief description of the issues involved with the ordinance, without simply repeating the ordinance title, and may choose to comment on any results of Council discussion or action regarding the issue.

Discussion and debate by the City Council on ordinances will be held before the vote on an ordinance. Councilmembers may approve, reject, or amend

the ordinance, or postpone the action and direct staff to further review the proposed ordinance.

An ordinance shall be adopted by a vote of at least a majority of the whole membership of the Council, provided, that public emergency ordinances require a vote of a majority plus one of the whole Council membership. A public emergency ordinance is one designated to protect public health and safety, public property, or public peace.

Q. **Resolutions**. All resolutions shall be in writing. Titles may be read aloud before the resolution is voted on. Any councilmember may request a full reading of the text of a proposed resolution prior to the vote on its passage. The request for a full reading of a resolution does not need to be voted on. However, the request for a reading of the title of the proposed resolution, or a full reading of the text of the proposed resolution may be waived by a majority of the councilmembers in attendance at the council meeting.

After a motion to pass a resolution has been made and seconded, the Councilmember making the motion is encouraged to give a very brief description of the issues involved with the resolution without simply repeating the resolution title, and the councilmember may choose to comment on any results of Council discussion or action regarding the issue.

Discussion and debate by the City Council on resolutions will be held before the vote on a resolution. Councilmembers shall decide whether or not to amend the resolution, or direct staff to further review the proposed resolution.

A resolution shall be passed by a majority vote of a quorum of the Council, provided that passage of any resolution for the payment of money or that grants or revokes a franchise or license, shall require the affirmative vote of at least a majority of the whole membership of the Council.

R. **Mayor and Councilmember Reports**. The Mayor and Councilmembers may report on their significant City-related activities associated with their appointed positions on federal, state, regional, City, and local organizations, since the last regular meeting. The Mayor and Councilmembers shall limit their reports to not more than three (3) minutes, with sensitivity to avoiding duplicate reporting.

S. **Adjournment**.

3.2 **Recess**. The foregoing agenda may be interrupted for a stated time as called by the presiding officer to recess for any reason, including closed or executive sessions.

3.3 **Amendment to Agenda**. The sequence of handling items on the agenda of a particular Regular Council Meeting may be amended from order listed on the printed/approved agenda as follows:

A. **Motion to Suspend the Rules**. On a motion by any member and majority vote, the City Council may suspend the rules to add an item (e.g., under New Business) or to allow an item on the agenda to be considered at a different order or placement in the agenda, or to be referred to an upcoming Study Session agenda (See Rules 2.2 and 16.1).

B. **Adjustment of Agenda by Presiding Officer**. The presiding officer may adjust the order of items on the agenda, or add items to the agenda if agreed upon by the Mayor and the Deputy Mayor, subject to being overruled by a majority vote of the Council.

SECTION 4
COUNCILMEMBER ATTENDANCE AT MEETINGS

4.1 **Council Meetings.**

A. Councilmembers shall attend all scheduled meetings, including committee meetings. Councilmembers shall inform the Mayor or the City Clerk if they are unable to attend any Regular Council meeting, or if they knowingly will be late to any such meetings, or unable to stay for the entire meeting. Councilmembers shall inform the Chair of the committee and the City Clerk if they are unable to attend a meeting.

A Councilmember will be excused from a meeting if they have submitted a request to the Mayor or City Clerk in advance of the meeting. Written requests should be submitted whenever possible, by email. If the request is made the day of the meeting, it may be made by telephone or in person. The reason for the request shall be given at the time of the request. Excessive, continued or prolonged absences may be addressed by the City Council on a case-by-case basis.

Additionally, Councilmembers shall notify the Deputy Mayor of anticipated absences.

[*See* ACC 2.06.050 and RCW 35A.12.060]

B. Councilmembers may participate remotely at Council meetings via telephone, video conference, or other approved electronic means with notification to the Mayor, Deputy Mayor, and designated City staff prior to noon on the day of the meeting. If a Councilmember appears remotely for a Council meeting, the Councilmember will use the City of Auburn approved virtual background. Technical circumstances shall be considered as to the

acceptability of remote attendance. Council prefers in-person attendance when possible.

C. Remote attendance of the entire council may be permissible when and if a declaration of emergency is declared locally, regionally, state wide, and/or nationally that would prohibit in person attendance by councilmembers. The Mayor shall direct remote attendance of the council as necessary and when it is in the interest of the City to conduct council business.

[*See* ACC 2.06.050 and RCW 35A.12.060]

4.2 **Study Sessions.**

A. Councilmembers shall attend all Study Sessions. Councilmembers shall inform the Mayor or the City Clerk and the Deputy Mayor if they are unable to attend a Study Session, or if they knowingly will be late to any such meeting, or unable to stay for the entire meeting. Councilmembers shall also inform the Chair of ad hoc committees, and Special Focus Areas if they are unable to attend a such meetings.

A Councilmember will be excused from a meeting if they have submitted a request to the Mayor or City Clerk and the Deputy Mayor in advance of the meeting. Written requests should be submitted whenever possible, by email. If the request is made the day of the meeting, it may be made by telephone or in person. The reason for the request shall be given at the time of the request. Excessive, continued or prolonged absences may be addressed by the City Council on a case-by-case basis.

[*See* ACC 2.06.050 and RCW 35A.12.060]

B. Councilmembers may participate remotely at Study Sessions under the same protocol set forth in Section 4.1B-C.

4.3. **Ad Hoc Council Committee Meetings.** Attendance at Ad Hoc Council Committee meetings and Special meetings will not be considered "regular meetings" for the purposes of RCW 35A.12.060, applicable to Regular City Council meetings. However, unexcused absences from any Regular or Special meetings, or Ad Hoc Committee meetings, is a violation of these Rules of Procedure.

4.4 **Use of Cell Phones Prohibited.** At all meetings of the City Council, Councilmembers may use their City cell phones. All cell phones must remain on silent for the duration of the meeting. Personal communication devices may only be used in the event of an emergency. Councilmembers shall not send, receive, read or post e-mails, texts, or social media posts during meetings of the Council.

4.5 **Deportment.** To the extent feasible, Councilmembers shall utilize language appropriate to the seriousness of the public legislative matters at hand.

Councilmembers shall address their remarks to the presiding officer, and shall address elected officials and staff by their title rather than first name, e.g., "Mayor [surname]," "Deputy Mayor [surname], "Council member [surname]" "Chief [surname," or "Director [surname]," as applicable. Councilmembers shall refrain from side conversations with other individual Councilmembers. Councilmembers shall also refrain from inappropriate or derogatory body language, comments, or any other actions that detract from the deportment of the City Council.

SECTION 5
PRESIDING OFFICER - DUTIES

5.1 **Conduct of Meetings**.

A. The Mayor will preside over all Regular and Special Meetings of the Council. If the Mayor is absent, the Deputy Mayor will preside. If both the Mayor and Deputy Mayor are absent, the Senior Councilmember will preside.

B. The Deputy Mayor will preside over Council Study Sessions, other than those portions for which Special Focus Areas are scheduled, in which case the Chair of the Special Focus Area will preside. If the Deputy Mayor is absent, the Special Focus Area Chair will preside. If both the Deputy Mayor and the Special Focus Area Chair are absent, the Senior Councilmember will preside.

C. The Chair of a Special Focus Area must notify the Mayor, Deputy Mayor, City Clerk, and Vice Chair of the Special Focus Area in advance of any anticipated absence.

The Mayor is encouraged to attend Study Sessions.

5.2 **The Presiding Officer**:

A. Shall preserve order and decorum at all meetings of the Council and cause the removal of any person in the audience from any meeting who interrupts the meeting after having been warned to cease the interruptive behavior.

B. Shall observe and enforce all rules adopted by the Council.

C. Shall decide all questions on order, in accordance with these rules, subject to appeal by any Councilmember.

D. May affix approximate time limits for each agenda item.

SECTION 6
COUNCILMEMBERS

6.1 **Remarks**. Councilmembers who wish to speak shall address the presiding officer, and when recognized, shall limit their comments to questions under consideration.

6.2 **Questioning**. Any member of the Council, and the Mayor, shall have the right to question any individual, including members of the staff, on matters related to the issue properly before the Council for discussion.

6.3 **Obligation to the Public Agency**. Notwithstanding the right of Councilmembers to express their independent opinions and exercise their freedom of speech, Councilmembers should act in a way that reflects positively on the reputation of the City and of the community. Councilmembers shall also interact with other members of the City Council, the Mayor and City staff in ways that promote effective local government.

6.4 **Council Training**. Councilmembers shall participate in training offered by individuals, agencies, entities and organizations including but not limited to the Association of Washington Cities and the State of Washington. This includes initial orientation after taking office, and other required or recommended training.

6.5 **Participation in Committees, Agencies and Organizations**. To better represent the interests of the City of Auburn, Councilmembers are encouraged to participate in assignments to local, regional, state and national committees, agencies and organizations, and to attend community, regional and state events. Councilmembers who have confirmed their intent to attend are expected to arrange their appearance in order to avoid unnecessary expenditure of City funds.

SECTION 7
DEBATES

7.1 **Speaking to the Motion**. No member of the Council, or the presiding officer, shall speak more than twice on the same motion except by consent of the presiding officer or a majority of the Councilmembers present at the time the motion is before the Council. The Presiding Officer shall recognize Councilmembers in the order in which they request the floor. The Councilmember who made a motion shall be permitted to speak to it first. The presiding officer may also allow discussion of an issue before stating a motion when such discussion would facilitate wording of a motion.

7.2 **Interruption**. No member of the Council, or the presiding officer, shall interrupt or argue with any other member while such member has the floor, other than the

presiding officer's duty to preserve order during meetings as provided in Section 5.2.A of these rules.

7.3 **Courtesy**. Members of the Council and the presiding officer, in the discussion, comments, or debate of any matter or issue shall address their remarks to the presiding officer, be courteous in their language and deportment, and shall not engage in or discuss or comment on personalities, or indulge in derogatory remarks or insinuations in respect to any other member of the Council, or any member of the staff or the public, but shall at all times confine their remarks to those facts which are germane and relevant to the question or matter under discussion.

7.4 **Challenge to Ruling**. Any member of the Council shall have the right to challenge any action or ruling of the presiding officer, in which case the decision of the majority of the members of the Council present shall govern.

SECTION 8
PARLIAMENTARY PROCEDURES AND MOTIONS

8.1 Unless specifically provided in these rules, all City Council meeting discussions shall be governed by *ROBERTS RULES OF ORDER, NEWLY REVISED* (latest edition).

8.2 If a motion does not receive a second, it dies. Matters that do not constitute a motion (and for which no second is needed) include nominations, withdrawal of motion by the person making the motion, request for a roll call vote, and point of order or privilege.

8.3 A motion that receives a tie vote fails. Except where prohibited by law, the Mayor, as presiding official, shall be allowed to vote to break a tie vote.

8.4 Motions shall be stated in the affirmative. For example, "I move to approve" as opposed to "I move to reject." Councilmembers shall be clear and concise and not include arguments for the motion within the motion.

8.5 After a motion has been made and seconded, the Councilmembers may discuss their opinions on the issue prior to the vote.

8.6 If any Councilmember wishes to abstain from a vote on a motion that Councilmember shall so advise the City Council, shall remove and absent themselves from the deliberations and considerations of the motion, and shall have no further participation in the matter. The Councilmember should make this determination before any discussion or participation on the subject matter or as soon thereafter as the Councilmember identifies a need to abstain. Councilmember may confer with the City Attorney to determine whether the Councilmember is required to abstain.

8.7 A motion to table is non-debatable and shall preclude all amendments or debates of the issue under consideration. A motion to table effectively removes the item without a time certain. A motion to table to a time certain will be considered a motion to postpone as identified in Section 8.8. To remove an item from the table requires a two-thirds' majority vote.

8.8 A motion to postpone to a certain time is debatable, is amendable and may be reconsidered at the same meeting. The question being postponed must be considered at a later time at the same meeting, or to a time certain at a future Regular or Special City Council meeting. To remove an item from postponement in advance of the time certain requires a two-thirds' majority vote.

8.9 A motion to postpone indefinitely is debatable, is not amendable, and may be reconsidered at the same meeting only if it received an affirmative vote.

8.10 A motion to call for the question shall close debate on the main motion and is not debatable. This motion must receive a second and fails without a two-thirds' vote; debate is reopened if the motion fails.

8.11 A motion to amend is defined as amending a motion that is on the floor and has been seconded, by inserting or adding, striking out, striking out and inserting, or substituting.

8.12 Motions that cannot be amended include: Motion to adjourn, lay on the table (table), roll call vote, point of order, reconsideration and take from the table.

8.13 A point of order can be raised by any member of the governing body. A member of the governing body can appeal the chair's ruling. An appeal must be immediate and must be seconded. The chair will then explain the ruling. The members of the governing body can debate the matter, each member may speak once. The members of the governing body will then make a decision on the appeal by a majority vote.

8.14 Amendments are voted on first, then the main motion as amended (if the amendment received an affirmative vote).

8.15 Debate of the motion only occurs after the motion has been moved and seconded.

8.16 The presiding officer, City Attorney or City Clerk should repeat the motion prior to voting.

8.17 When a question has been decided, any Councilmember who voted with the prevailing side may move for reconsideration at the same, or the next meeting. In order to afford Councilmembers who voted with the prevailing side the potential basis for a motion for reconsideration, Councilmembers who voted with the prevailing side may inquire of Councilmembers who voted with the minority as to

the reasons for their minority vote, if not stated during debate prior to the vote. A motion for reconsideration is debatable if the motion being reconsidered was debatable. If the motion being reconsidered was not debatable, the motion for reconsideration is not debatable.

8.18 The City Attorney shall act as the Council's parliamentarian and shall advise the Presiding Officer on all questions of interpretations of these rules which may arise at a Council meeting.

8.19 These rules may be amended, or new rules adopted, by a majority vote of the full Council.

SECTION 9
VOTING

9.1 **Voice vote**. A generalized verbal indication by the Council as a whole of "aye or yes" or "nay or no" vote on a matter, the outcome of which vote shall be recorded in the official minutes of the Council. Silence of a Councilmember during a voice vote shall be recorded as a "no" vote except where a Councilmember abstains because of a stated conflict of interest or appearance of fairness issue.

If there is uncertainty as to the outcome of a voice vote, the presiding officer or any councilmember may ask for a raise of hands for the ayes or nays.

9.2 **Roll Call Vote**. A roll call vote may be requested by the presiding officer or by any Councilmember. The City Clerk shall conduct the roll call vote.

9.3 **Abstentions**. It is the responsibility of each Councilmember to vote when requested on a matter before the full Council. A Councilmember may only abstain from discussion and voting on a question because of a stated conflict of interest or appearance of fairness.

9.4 **Votes by Mayor**. Except where prohibited by law, the Mayor, as presiding official, shall be allowed to vote to break a tie vote.

SECTION 10
COMMENTS, CONCERNS AND TESTIMONY TO COUNCIL

10.1 Persons or groups specifically scheduled on a Council meeting agenda may address the Council in accordance with the speaking times included on the agenda.

10.2 Persons or groups that are not specifically scheduled on the agenda may address the council by filling out a speaker sign-in sheet (available at the City Clerk's desk or at a designated location within the council chambers), and (when recognized by

the council) stepping up to the podium and giving their name and address for the record.

Unscheduled public comments to the Council are subject to the following rules:

1. Remarks will be limited to 3 minutes. The City Clerk shall use a suitable device to electronically measure speaker time. The presiding officer may make discretionary exceptions to speaker time restrictions;

2. Speakers may not "donate" their speaking time to any other speaker;

3. Remarks will be addressed to the Council as a whole.

10.3 Meeting interruptions. Any speaker or person who interrupts the orderly conduct of a meeting may be barred from further participation in the meeting by the presiding officer, unless permission to continue is granted by a majority of Councilmembers present. Examples of interruptions under this rule include:

1. failing to comply with an allotted speaking time;

2. committing acts of violence or property destruction;

3. directly or indirectly threatening physical violence against anyone attending the meeting;

4. interfering with the meeting or with other speakers through vocal interruptions or disruptive action.

If a meeting interruption occurs, the Presiding Officer shall address the person(s) causing the interruption by citing the interrupting conduct, ordering it to stop, and warning that continuation may result in removal from the meeting.

The Presiding Officer may remove the interrupting person(s) if the conduct persists after the warning. If removal of the person(s) does not restore the meeting to order, the Presiding Officer may clear the room of spectators and continue the meeting, or adjourn the meeting and reconvene it at a different location selected by Council majority.[8]

[8] RCW 42.30.050

SECTION 11
PUBLIC HEARINGS AND APPEALS

11.1 Quasi-judicial hearings require a decision be made by the Council using a certain process, which may include a record of evidence considered and specific findings made. The following procedure shall apply:

A. The Department Director of the department most affected by the subject matter of the hearing, or that Director's designee, will present the City's position and findings. Staff will be available to respond to Council questions.

B. The proponent spokesperson shall speak first and be allowed (10) minutes. Council may ask questions.

C. The opponent spokesperson shall be allowed ten (10) minutes for presentation and Council may ask questions.

D. Each side shall then be allowed five (5) minutes for rebuttal, with the proponent spokesperson speaking first, followed by the opponent spokesperson.

E. The City Clerk shall serve as timekeeper during these hearings.

F. After each proponent and opponent spokesperson have used their speaking time, Council may ask further questions of the speakers, who shall be entitled to respond but limit their response to the question asked.

11.2 Public hearings where a general audience is in attendance to present arguments for or against a public issue:

A. The Department Director or designee shall present the issue to the Council and respond to questions.

B. A person may speak for three (3) minutes. No one may speak for a second time until everyone who wishes to speak has had an opportunity to speak. The presiding officer may make exceptions to the time restrictions of persons speaking at a public hearing when warranted, in the discretion of the presiding officer.

C. The City Clerk shall serve as timekeeper during these hearings.

D. After the speaker has used their allotted time, Council may ask questions of the speaker and the speaker may respond, but may not engage in further debate.

E. The hearing will then be closed to public participation and open for discussion among Councilmembers.

F. The presiding officer may exercise changes in the procedures at a particular meeting or hearing, but the decision to do so may be overruled by a majority vote of the Council.

SECTION 12
DEPUTY MAYOR

12.1 Annually or more often as deemed appropriate, the members of the City Council, by majority vote, shall designate one of their members as Deputy Mayor for a one year time period, except as provided in Section 12.1, Paragraphs G and H. Elections will be held no later than the last Council meeting of the year.

A. Any member of the City Council who will have served on the Council for one year at the beginning for that Councilmember's terms as Deputy Mayor, may be nominated for the position of Deputy Mayor by having that Councilmember's name placed in nomination by a Councilmember. The nomination of a councilmember for the position of Deputy Mayor does not require a second, and a councilmember may nominate him or herself.

1. Nominations for the position of Deputy Mayor shall be made by members of the City Council on the dates of election for the Deputy Mayor position.

2. In connection with the selection of Deputy Mayor, it is strongly suggested that councilmembers approach the election in an open, transparent and respectful manner, avoiding anything that jeopardizes harmony among councilmembers.

B. The Councilmember receiving a majority of the votes cast by the members of the City Council shall be elected Deputy Mayor. A Councilmember may vote for him or herself.

C. The names of all nominees for the position of Deputy Mayor shall be included in the vote.

D. If no single Councilmember received a majority of the votes cast, a second vote/ballot between the two nominees who received the largest number of votes will be held.

E. The Deputy Mayor shall serve at the pleasure of the Council.

F. In the event of the absence or unavailability of the Deputy Mayor, the senior member of the City Council, other than the Deputy Mayor, shall serve as interim Deputy Mayor until the return of the regular Deputy Mayor.

G. If the designated Deputy Mayor is unable to serve the full term of the position of Deputy Mayor, the Council shall elect the next Deputy Mayor in accordance with Section 12 to serve the remainder of the term. If the appointment is declined the process shall continue until a Deputy Mayor is designated.

H. In the event that the councilmember selected as Deputy Mayor is unable to perform the duties of the position of Deputy Mayor, or fails to act in accordance with the City Council Rules of Procedure, the City Council may, by a majority vote of the full City Council, remove the Deputy Mayor from this position, in which case, the Council shall elect the next Deputy Mayor in accordance with Section 12 to serve the remainder of the term.

[*See* RCW 35A.12.065.]

12.2 The Deputy Mayor, as the head of the legislative branch of the City, shall perform the following duties:

A. Intra-Council Relations:

1. Serve as the Chair of the Council Study Sessions in accordance with Rule 5.1.B;

2. Serve as an ex-officio member of all ad hoc committees of the City Council. If the Deputy Mayor's attendance at an ad hoc committee meeting brings the number of councilmembers attending to four, the meeting shall comply with the Open Public Meetings Act (RCW 42.30), unless expressly exempted;

3. Assist in new councilmember training including conducting a review of the rules of procedure with one to two individual councilmembers;

4. Support cooperative and interactive relationships among council members;

5. Work with Administration to prepare agendas for Council Study Sessions, in accordance with Rules 2.2 and 16.1.B;

6. Preside over the Study Sessions of the City Council, designate Special Focus Area chairs, designate Special Focus Area assignments, and work with the chairs of the Special Focus Areas on the portions of Study Sessions over which the Special Focus Areas chairs preside.

B. Mayor-Council Relations:

1. Help maintain a positive and cooperative relationship between the Mayor and the City Council;

2. Act as conduit between the Mayor and the City Council on issues or concerns relating to their duties;

3. Preside over Regular Meetings of the City Council in the absence or unavailability of the Mayor;

4. In the event of a prolonged absence or incapacitation that exceeds two weeks (a state of disability that prohibits the function of duties) of the Mayor, the Deputy Mayor shall perform the duties of the Mayor.

   (a) A prolonged absence that exceeds two weeks is defined as requiring a leave of absence that prohibits the performance of the duties of the office. Vacation leave for periods up to two weeks, illnesses requiring an absence of less than two weeks, out of state or out of country travel lasting not more than two weeks, or other similar short-term absences shall not be considered prolonged absences.

   (b) In the event of a disaster, emergency, or other similar circumstance, where the Mayor is out-of-town and unable to carry out the duties of the office of Mayor, the Deputy Mayor, in consultation with the Mayor, shall act as Mayor until the return and availability of the Mayor;

5. The Deputy Mayor shall also stand in on behalf of the Mayor in other situations as requested by the Mayor;

6. In the performance of the duties of the Mayor, the Deputy Mayor shall not have authority to appoint, remove, replace, discipline or take other similar action on any director or employee of the City;

7. The Deputy Mayor shall not have veto authority for actions that may be taken by the City Council;

8. The Deputy Mayor shall be aware of City, regional and intergovernmental policies and activities in order to properly execute the role of Mayor.

C. Intergovernmental and Community Relations:

1. Act in absence of Mayor as requested and/or as required;

2. Be aware of all City regional and intergovernmental policies and activities in order to be prepared to step into the role of Mayor if necessary;

3. Serve as the Chair of the City's Emergency Management Compensation Board.

D. Other Duties of the Deputy Mayor:

1. In cooperation with the Mayor and Special Focus Area group's chairpersons and with assistance from Administration, create and establish agendas for all study sessions;

2. Serve as liaison to the Junior City Council, participating as a non-voting member of the Junior City Council, encouraging, guiding and counseling the members of the Junior City Council in connection with its duties and assignments;

3. Facilitate any issue related to the conduct and/or actions of councilmembers that may be inappropriate or that may be in violation of the Council Rules of Procedure (Section 20.1);

4. Conduct regular and periodic meetings with individual councilmembers to address councilmember issues, concerns, legislative processes, councilmember proposals, councilmember training, and other similar related items;

5. Conduct group meetings with councilmembers, including two on one meetings with councilmembers on a rotating basis provided that such meetings shall not have more than two councilmembers at such meetings. All such meetings at which a quorum of the City Council is in attendance shall be in compliance with the Open Public Meetings Act (RCW 42.30), unless expressly exempted.

SECTION 13
COUNCIL POSITION VACANCY OR ABSENCE

13.1 If an unexpired Council position becomes vacant, the City Council has ninety (90) days from the occurrence of the vacancy to appoint, by majority vote of a quorum of the remaining members of the Council, a qualified person to fill the vacancy pursuant to State law. The Council may make such appointment at its next regular meeting, or at a special meeting called for that purpose. If the Council does not appoint a person within the ninety (90) day period, the County may appoint a qualified person to fill the vacancy as provided by RCW 42.12.070.

13.2 If there is an extended excused absence or disability of a Councilmember, the remaining members by majority vote may appoint a Councilmember Pro Tempore to serve during the absence or disability.

SECTION 14
COUNCIL MEETING STAFFING

14.1 Department Directors or designees shall attend all meetings of the Council unless excused by the Mayor.

14.2 The City Attorney, or designee, shall attend all meetings of the Council unless excused by the Mayor, and shall upon request, give an opinion, either written or oral, on legal questions. The City Attorney shall act as the Council's parliamentarian.

SECTION 15
COUNCIL RELATIONS WITH STAFF

15.1 There will be mutual courtesy and respect from both City staff and Councilmembers toward each other and of their respective roles and responsibilities.

15.2 City staff will acknowledge the Council as policy makers, and the Councilmembers will acknowledge City staff as administering the Council's policies under the direction of the Mayor.

15.3 It is the intent of Council that all pertinent information asked for by individual Council members shall be made available to the full Council.

15.4 Individual Councilmembers shall not attempt to coerce or influence City staff in the selection of personnel, the awarding of contracts, the selection of consultants, the processing of development applications or the granting of City licenses or permits. Councilmembers may, at the request of the Mayor, participate in discussions and decisions related to these matters.

15.5 Other than through legislative action taken by the Council as a whole, individual Councilmembers shall not interfere with the operating rules and practices of any City department.

15.6 No individual Councilmember shall direct the Mayor to initiate any action or prepare any report that is significant in nature, or initiate any project or study without the consent of a majority of the Council. This provision, however, does not prohibit individual Councilmembers from discussing issues with the Mayor or making individual requests or suggestions to the Mayor. The Mayor shall endeavor to advise and update the Councilmember(s) on the status or follow-up of such issues.

15.7 All councilmember requests for information, agenda bills and staff analysis, other than requests for legal advice from the City Attorney's Office, shall be directed through the Mayor in order to assign the task to the proper staff. The Deputy Mayor may work with the Mayor's designated staff to prepare Study Session agendas and related materials, and facilitate Study Session work.

15.8 Any written communication with staff shall also include the Mayor as a recipient.

SECTION 16
COUNCIL STUDY SESSIONS, COMMITTEES AND CITIZEN ADVISORY BOARDS

16.1 In addition to the regularly scheduled City Council meetings (Regular Council Meetings) scheduled on the first and third Mondays of the month, City Council shall regularly schedule Council Study Sessions on the second, fourth and fifth Mondays of the month for review of matters that would come back before the City Council at Regular Council Meetings. Different than the format for Regular Council Meetings (identified in Section 3 hereof), Study Sessions shall be less formal than Regular Council Meetings and shall give the City Council the opportunity to discuss and debate issues coming before it for action at Regular Council meetings. The format for these meetings shall be as follows:

A. General Business Focus and Special Focus Areas.

Study Sessions shall consist of (1) a General Business Focus and (2) a Special Focus Area in each meeting. The General Business Focus shall be scheduled first, and shall include agenda items that relate to issues of general City concern, items that will be coming before the City Council at upcoming meetings and presentations and reports to the City Council. The Special Focus Area groups shall, on a rotating basis described below, commence their portion of the Study Session following the conclusion of the Study Session General Business Focus, The Special Focus Area groups shall review matters of Council concern related to their areas of oversight responsibility. The Special Focus Area groups shall consist of the following: (1) Public Works & Community Development; (2) Municipal Services; (3) Community Wellness; and (4) Finance, Technology & Economic Development. These Special Focus Area groups shall be tasked with oversight of Council considerations as follows:

1. Community Wellness
- Health Equity and Wellness
- Neighborhood Services
- Homelessness Prevention
- Social Services

- Diversity, Equity & Inclusion
- Cultural Arts & Community Events
- Housing Policy

2. Finance and Internal Services
- Facilities
- Technology
- Property management
- Risk management & Insurance
- Fiscal Sustainability

3. Public Works and Community Development
- Utilities
- Transportation
- Environmental Policy
- Land Use & Development
- Right of Way Management
- Airport
- Park Development
- Economic Development

4. Municipal Services
- Public Safety
- Courts
- Recreation, Museum & Sr Services
- Animal Control
- Emergency Planning
- Cemetery
- Communications

Aside from the above Special Focus Area topics, there shall be a Finance ad hoc Committee to review vouchers and payroll.

B. Scheduling of Special Focus Area.

1. The Special Focus Areas shall conduct their portion of the Study Sessions on 2nd and 4th Mondays of the month on a rotating basis such as follows: Public Works & Community Development, then Municipal Services, then Community Wellness, then Finance & Economic Development, then Public Works & Community Development, then Municipal Services, and so on.

2. On 5th Mondays of the Month, Study Sessions will not typically include any of the above Special Focus Areas, but may include special topics and issues of general concern to the City Council, including Council operating arrangements and Council Rules of Procedure. It is provided, however, that in order for the City Council to address the matters coming before the City Council, the Mayor and Deputy Mayor may, as they deem appropriate, insert into any Study Session any matters calling for City Council consideration and

discussion, regardless of Special Focus Areas; provided that to the extent feasible such matters will be scheduled to allow sufficient time for preparation of relevant background analysis and information concerning said items and provision to all Council members in advance of the Study Session.

3. Topics for Special Focus Area consideration (for inclusion in the Special Focus Area portion of the Study Session agenda) shall be determined by the Chair of each Special Focus Area along with the Mayor and the Deputy Mayor, the Vice-Chair, and the designated departments director(s) for the Special Focus Area, with the matters to be scheduled to the extent feasible to allow sufficient time for preparation of relevant background analysis and information concerning said items and provision to all Council members in advance of the Study Session. The department director(s) shall review agenda topics and suggestions by other Councilmembers of such topics. The Deputy Mayor may review agenda items and topics with each Special Focus Area chairperson individually when convenient.

C. Meeting Times

Study Sessions shall be scheduled as set forth in Section 2.2, above.

1. Three to four hours maximum timeframe (goal).

2. Agenda items should relate to future policy-making, strategic planning or key state or federal issues affecting current or future city operations.

3. Agenda items should be substantive only (*e.g.*, traffic impact fee increase proposals, comprehensive plan updates, rather than day-to-day operational issues. [Non-substantive items (*e.g.*, accepting a grant, authorizing contract bidding, etc.) should go directly to the Regular City Council meeting.

D. Study Session Meeting Format.[9]

1. Call to Order.

2. Roll Call.

3. Announcements, Reports, and Presentations.

4. Agenda Items for Council Discussion.

[9] It is the intention of the City Council that Study Sessions shall be televised on the City's public access channel if reasonably possible.

5. Ordinances.

6. Special Focus Area (the Chair of the Special Focus Area scheduled for the Study Session shall preside over this portion of the study session.). The Vice Chair shall preside over this portion of the study session in the Chair's absence.

7. Adjournment.

16.2 The Mayor, the Deputy Mayor or a majority of the City Council may establish ad hoc committees as may be appropriate to consider special matters that require special approach or emphasis.

16.3 Ad hoc committees may be established and matters referred to them at study sessions, without the requirement that such establishment or referral take place at a regular City Council meeting.

16.4 The Deputy Mayor shall appoint Councilmembers to Council ad hoc committees, provided that the Mayor shall appoint members to Council ad hoc committees if the Deputy Mayor is disabled or precluded from acting in that capacity.

16.5 The Mayor shall appoint Council representatives to intergovernmental councils, boards and committees.

16.6 Councilmember appointments to intergovernmental councils, boards and committees, including ad hoc committees, shall be periodically reviewed. All councilmembers shall have the opportunity to serve on such councils, boards, and/or committees as assigned by the Mayor and on a rotating basis at the discretion of the Mayor. Councilmember appointments to intergovernmental councils, boards, and committees by the Mayor shall be done with consideration of a councilmember's expertise, background, knowledge, working experience and/or education in that council, board, or committee. Ad hoc committee appointment by the Mayor or Deputy Mayor shall be at their discretion.

16.7 Ad hoc council committees shall consider all matters referred to them. The chair of such ad hoc committee shall report to the City Council the findings of the committee. Committees may refer items to the Council with a committee recommendation or with no committee recommendation.

16.8 Advisory Boards, Committees and Commissions established by ordinance, consisting of citizens appointed pursuant to the establishing Ordinance and serving in the capacity and for the purposes indicated in the Ordinance, shall act as an advisory committee to the City Council.

16.9 Committee Chairpersons shall have broad discretion in conducting their meetings. They will generally follow Roberts Rules of Order, Newly Revised.

16.10 Unless otherwise expressly provided for when forming an ad hoc committee, it is the intention of the City Council that ad hoc committees function informally and not in any way that takes action in lieu of or on behalf of the full City Council. The purpose and function of such ad hoc committees shall be to review matters in advance of their consideration by the full City Council, and perhaps record and make recommendations to the full City Council. They are not "committees of a governing body" subject to the requirements of the Open Public Meetings Act (Chapter 42.30. RCW). Ad hoc committees shall not receive public testimony or allow audience participation in connection with or related to the agenda item being discussed by the Committee.

16.11 Committee Chairpersons shall approve all agenda items and may, at their discretion, remove or add agenda items during the course of the meeting.

SECTION 17
COUNCIL REPRESENTATION AND INTERNAL COMMUNICATION

17.1 If a Councilmember meets with, attends a meeting or otherwise appears before individuals, another governmental agency, a community organization, or a private entity or organization, including individuals, agencies, or organizations with whom or with which the City has a business relationship, and makes statements directly or through the media, commenting on an issue that does or could affect the City, the Councilmember shall state the majority position of the City Council, if known, on that issue. Personal opinions and comments which differ from those of the Council majority may be expressed if the Councilmember clarifies that these statements do not represent the City Council's position, and the statements are those of the Councilmember as an individual. Additionally, before a Councilmember discusses anything that does or could relate to City liability, the Councilmember should talk to the City Attorney or the City's Risk Manager, so that the Councilmember would have a better understanding of what may be said or how the discussion should go to control or minimize the City's liability risk and exposure.

17.2 Councilmembers need to have other Councilmember's concurrence before representing another Councilmember's view or position with the media, another government agency or community organization.

17.3 Councilmembers shall not knowingly communicate with an opposing party or with an opposing attorney in connection with any pending or threatened litigation in which the City is a party or in connection with any disputed claim involving the City without the prior approval of the City Attorney, unless the Councilmember is individually a party to the litigation or is involved in the disputed claim separate from the Councilmember's role as a City official.

17.4 Communication among Councilmembers shall conform to the following parameters:

A. Except in connection with Council members meeting, informally, in committees not subject to the Open Public Meetings Act, to assure that communication on agenda items occurs to the greatest extent possible at the public meetings, and to avoid even the perception that email is being used in a way that could constitute a public meeting, *e.g.*, successive communications on City Council topics that involve a quorum of the Councilmembers. Councilmembers should refrain from emailing Councilmembers about such agenda items. Councilmembers should be prepared to communicate about matters that are on upcoming Council agendas at the public meetings. If Councilmembers wish to share information with other councilmembers about matters that are on upcoming agendas, the councilmembers should forward that information to the Mayor for distribution in the council meeting packets.

B. Councilmembers may communicate via email to other Councilmembers, including to a quorum of the full City Council about matters within the scope of the City Council's authority or related to City business, but not yet scheduled on upcoming Council agendas, to indicate a desire that certain items be included on upcoming meeting agendas; provided that Councilmembers shall never ask for responses from the other Councilmembers in that communication.

C. Email communication among Councilmembers relating to City operations should also include the Mayor as a recipient/addressee.

D. Councilmembers may email the Mayor about City business without limitations or restrictions.

E. The Deputy Mayor from time to time may need to communicate with all councilmembers on various items such as the annual review of the Rules of Procedure. All such correspondence, usually in the form of email, shall be provided to council as a whole through the Council Assistant. Any responses from council shall also be directed to the Council Assistant who shall then provide all councilmembers with email correspondence regarding questions, comments, suggestions, recommendations, or any similar item.

F. City Council email correspondence and all electronic communications shall utilize the designated city email account or city device with no exceptions and within the parameters of the Open Public Meetings Act and the Public Records Act.

17.5 Internet & Electronic Resources/Equipment and Facility Use.

A. Policy. It is the policy of the City Council that Internet and electronic resources equipment use shall conform to and be consistent with the requirements of City of Auburn Administrative Policy and Procedure 500-03, "Internet & Electronic Resources/Equipment Use – Elected Officials."

All letters, memoranda, and interactive computer communication involving City Councilmembers and members of advisory boards and commissions, the subject of which relates to the conduct of government or the performance of any governmental function, are public records.

B. Communications. Each Councilmember is responsible for checking their communication device multiple times on a daily basis and respond to requests by City staff as soon as possible.

C. Electronic Communications.

1. For emergency notifications of absences, and not planned absences, Councilmembers shall send an email to CouncilAlerts@auburnwa,gov to ensure the auto-distribution of communications to necessary people.

2. Messages that relate to the functional responsibility of the recipient or sender as a public official constitute a public record. Those records are subject to public inspection and copying.

3. Electronic communications that are intended to be shared among a quorum of the City Council or of an ad hoc Council Committee, whether concurrently or serially, must be considered in light of the Open Public Meetings Act, if applicable. If the intended purpose of the electronic communication is to have a discussion that should be held at an open meeting, the electronic discussion shall not occur. Further, the use of electronic communication to form a collective decision of the Council shall not occur.

4. Electronic communication should be used cautiously when seeking legal advice or to discuss matters of pending litigation or other confidential City business. In general, electronic communication is discoverable in litigation, and even deleted electronic communication is not necessarily removed from the system. Confidential electronic communications should not be shared with individuals other than the intended recipients, or the attorney-client privilege protecting the document from disclosure may be waived.

5. Electronic communication between Councilmembers and between Councilmembers and staff shall not be transmitted to the public or

news media without the filing of a public disclosure request with the City Clerk.

6. Even if a Councilmember uses their personal electronic devices all electronic communications and documents related to City business will be subject to discovery demands and public disclosure requests.

D. Use of City Equipment and Facilities.

1. City Councilmembers are provided various tools to assist them in handling the business of the City in the role as members of the City Council. These tools include, but are not limited to: (1) an individual office assigned to each Councilmember in which there is (a) office furniture; (b) a computer accommodating access to the City's computer network and (c) a telephone tied to the City's telephone system; (2) and I-Pad or comparable equipment also tied to the City's computer system that can be used remotely (not just in the Councilmember's office); (3) , an I-Phone or comparable equipment accommodating mobile communication needs for (a) telephone calls, (b) emails, and (c) texting; (4) a City badge accommodating physical access to City Hall facilities and Council Offices; and (5) Council mailboxes.

2. In order to assure transmittal of information necessary to conduct business of the City and to avoid Public Records Act liability for the City and Councilmembers for improper or private equipment use, Councilmembers shall use the tools identified above to assist them in being able to receive and work with information related to duties as councilmembers.

17.6 Council Relations with City Boards and Commissions.

A. **Council Liaisons**. In addition to where a City Councilmember is appointed by the City Council or the Mayor to serve as a member of a board, commission, committee, task force or any other advisory body, the City Council may, on limited occasions or under unusual circumstances, appoint a Councilmember to serve as a non-member Liaison to a board, commission, committee, task force or any other advisory body. Anytime a Councilmember is appointed as such a Liaison, the position or role of Liaison is subordinate to that of Councilmember, and the Councilmember's responsibility is first and foremost to the City and to the City Council. The role and responsibility of the Councilmember-Liaison is to keep the City Council apprised of the activities, positions and actions of the entity or organization to which the Councilmember has been appointed Liaison, and not to communicate to the board, commission, committee, task force or other advisory body a statement as the position of the City Council, except as authorized or directed by the City Council. Insofar as a Council Liaison

position does not give all councilmembers equal access to the activities, functions and information of or about a board, commission, committee, task force or any other advisory body, appointments to Council Liaison positions should be reserved to those instances where a Report to the Council by the board, commission, committee, task force or any other advisory body would not be convenient or practical.

B. **Reports to the Council**. Each board, commission, committee, task force or any other advisory body of the City shall be requested to present a report to the City Council at a Regular Meeting or a Study Session of the City Council, as scheduled by the Mayor or Deputy Mayor. Such reports shall be scheduled for a Regular Council Meeting or a Council Study Session, and shall be delivered by the chair of the board, commission, committee, task force or any other advisory body or designee. The reports shall inform the City Council of the activities, functions and information with which the board, commission, committee, task force or any other advisory body has been involved since the previous report, and shall include the opportunity for questions by Councilmembers.

17.7 Whenever a member of the City Council attends any meeting of any other entity or organization, he or she should endeavor to be prudent in what he or she says or does at such meeting. Further, the Councilmember should avoid attending such meeting if that attendance would impose an interference with the meeting or the operations of the other entity or organization, or of the operations of the City.

SECTION 18
TRAVEL AUTHORIZATION

18.1 **Value of Council Travel**. The Auburn City Council recognizes the need of its members to attend conferences, trainings, and meetings to broaden their knowledge of and familiarity with a diverse collection of City-related issues, including, but not limited to Public Works, Communications, Transportation, Economic Development, Public Safety and Energy. These conferences also provide valuable opportunities to network with other city elected officials. Comparing Auburn's specific issues with those of other cities often provides the City Council with established policies already in place in other cities that can be adapted to meet the specific needs of the City of Auburn, as well as expediently and efficiently acquainting Auburn City Councilmembers with ideas of how to address Auburn issues and solve Auburn problems.

18.2 **Annual Budget Amounts for Council Travel**. To accommodate Council travel, the Auburn City Council shall allocate an identified amount of money each year in the City budget process to each Councilmember for City-related travel costs, including transportation, lodging, meals and registration costs.

18.3 **Adjustment of Council Travel Allocations**. If a councilmember needs more than the amount of travel related funds allocated for their use, the councilmember shall (1) see if there are unused funds available from any other councilmember(s) who are willing to transfer funds from their account to the councilmember needing additional travel funds. If so, with the consent of the Deputy Mayor and the other transferring councilmember(s), funds will be transferred to the requesting councilmember's allotment; or (2) shall request a net adjustment to the budget adding additional funds to their allotment, which adjustment shall be approved by a majority of the whole City Council.

18.4 **Receipts and Travel Documentation**. Each City Councilmember shall be responsible for providing to the Mayor or Finance Director, within ten (10) business days of returning from City travel, any and all City travel related receipts and documentation. Quarterly reports of the travel costs incurred by each councilmember shall be provided by the Finance Department.

SECTION 19
CONFIDENTIALITY

19.1 Councilmembers shall keep confidential all written materials and verbal information provided to them during Executive or Closed Sessions and as provided in RCW 42.23.070, to ensure that the City's position is not compromised. Confidentiality also includes information provided to Councilmembers outside of Executive Sessions when the information is considered by the exempt from disclosure under exemptions set forth in the Revised Code of Washington.

SECTION 20
ENFORCEMENT OF RULES OF PROCEDURE

20.1 Councilmembers shall conform their conduct to the requirements, standards and expectations set forth in these Rules of Procedure. In addition to and notwithstanding whatever other enforcement mechanisms may exist for legal, ethical or practical obligations on Councilmember performance or conduct, violations of these Rules of Procedure by Councilmembers may be enforced by action of the City Council through sanctions such as votes of censure or letters of reprimand, and such other action as may be permitted by law.

City Council Rules of Procedure:

Adopted: February 2, 2004
Ordinance No. 5802
Amended by Resolution No. 4282, December 17, 2007
Amended by Resolution No. 4429, December 15, 2008
Amended by Resolution No. 4467, April 6, 2009
Amended by Resolution No. 4615, July 6, 2010
Amended by Resolution No. 4686, February 22, 2011
Amended by Resolution No. 4740, August 15, 2011
Amended by Resolution No. 4813, May 21, 2012
Amended by Resolution No 4909, February 19, 2013
Amended by Resolution No. 5105, November 3, 2014
Amended by Resolution No. 5112, December 1, 2014
Amended by Resolution No. 5115, December 15, 2014
Amended by Resolution No. 5217, May 2, 2016
Amended by Resolution No. 5240, July 5, 2016
Amended by Resolution No. 5283, February 21, 2017
Amended by Resolution No. 5308, August 7, 2017
Amended by Resolution No. 5367, May 7, 2018
Amended by Resolution No. 5399, December 17, 2019
Amended by Resolution No. 5469, November 4, 2019
Amended by Resolution No. 5543, September 8, 2020
Amended by Resolution No. 5676, September 19, 2022
Amended by Resolution No. 5721, June 5, 2023
Amended by Resolution No 5735, September 5, 2023

Chapter 10
Leaving Office

10.01 Return of Materials and Equipment

During their service on the City Council, members may have acquired or been provided with equipment such as computers or other items entailing a significant expense, as well as copies of the Bothell Municipal Code, *Imagine Bothell...,* Comprehensive Plan, mailbox key, etc. These items are to be returned to the City at the conclusion of a member's term.

10.02 Filling Council Vacancies

A. Purpose

The purpose of this section is to provide guidance to the City Council when a Bothell Councilmember position becomes vacant before the expiration of the official's elected term of office. Pursuant to state law, a vacancy shall be filled only until the next regular municipal election, to serve the remainder of the unexpired term.

B. References

RCW 42.30.110 (H) – Executive Session Allowed to Consider Qualifications of a Candidate for Appointment to Elective office.

RCW 42.30.060 – Prohibition on Secret Ballots.

RCW 42.12 – Vacant Position.

RCW 35A.13.020 – Vacancies – Filling of Vacancies in Council/Manager Form of Government.

C. Appointment Process

(1) A Council position shall be officially declared vacant upon the occurrence of any of the causes of vacancy set forth in RCW 42.12.010, including resignation, recall, forfeiture, written intent to resign, or death of a Councilmember. The Councilmember who is vacating their position cannot participate in the appointment process.

(2) The City Council shall direct staff to begin the Councilmember appointment process and establish an interview and appointment schedule, so that the position is filled at the earliest opportunity.

(3) The City Clerk's Office shall prepare and submit a display advertisement to the City's official newspaper, with courtesy copies to all other local media outlets, which announces the vacancy consistent with the requirements necessary to hold public office: that the applicant (a) be a registered voter of the City of Bothell, and (b) have a one (1) year residency in the City of Bothell. This display advertisement shall be published once each week for two (2) consecutive weeks. This display advertisement shall contain other information, including but not limited to, time to be served in the vacant position, election information, salary information, Councilmember powers and duties, the deadline date and time for submitting applications, interview and appointment schedules, and such other information that the City Council deems appropriate.

(4) The City Clerk's Office shall prepare an application form which requests appropriate information for City Council consideration of the applicants. Applications will be available at City of Bothell offices and on the City's official website. Copies of the display advertisement will be provided to current members of the City of Bothell commissions, committees, task forces and other City-sponsored community groups.

(5) Applications received by the deadline date and time will be copied and circulated, by the City Clerk's Office, to the Mayor and City Council. Packets may also contain additional information received such as endorsements, letters of reference and other pertinent materials.

(6) The City Clerk's Office shall publish the required public notice(s) for the meeting scheduled for interviewing applicants for consideration to the vacant position. This meeting may be a regularly scheduled City Council meeting, or a special City Council meeting.

(7) The City Clerk's Office shall notify applicants of the location, date and time of City Council interviews.

(8) Prior to the date and time of the interview meeting, the Mayor shall accept one interview question from each Councilmember.

D. Interview Meeting

Each interview of an applicant/candidate shall be no more than 30 minutes in length as follows:

(1) The applicant shall present their credentials to the City Council. (5 minutes)

(2) The City Council shall ask the predetermined set of questions which must be responded to by the applicant. Each applicant will be asked and will answer the same set of questions, and will have 2 minutes to answer each question. (14 minutes)

(3) An informal question and answer period in which Councilmembers may ask and receive answers to miscellaneous questions. (10 minutes)

(4) The applicants' order of appearance will be determined by a random lot drawing performed by the City Clerk.

(5) The Council may reduce the 30-minute interview time if the number of applicants exceeds six (6) candidates, or alternatively, the Council may elect not to interview all of the applicants if the number exceeds six (6) candidates. The decision as to which applicants to interview will be based on the information contained in the application forms.

E. Voting

Upon completion of the interviews, Councilmembers may convene into Executive Session to discuss the qualifications of the applicants. However, all interviews, deliberations, nominations and votes taken by the Council shall be in open public session.

(1) The Mayor shall ask for nominations from the Councilmembers for the purpose of creating a group of candidates to consider. No second is needed.

(2) Nominations are closed by a motion, second and majority vote of the Council.

(3) Councilmembers may deliberate on such matters as criteria for selection and the nominated group of candidates.

(4) The Mayor shall poll Councilmembers to ascertain that Councilmembers are prepared to vote.

(5) The City Clerk shall proceed with a roll-call vote.

(6) Elections will continue until a nominee receives a majority vote of the remaining Councilmembers.

(7) At any time during the election process, the City Council may postpone elections until a date certain or regular meeting if a majority vote has not been received.

(8) Nothing in this policy shall prevent the City Council from reconvening into Executive Session to further discuss the applicant/candidate qualifications.

(9) The Mayor shall declare the nominee receiving the majority vote as the new Councilmember and shall be sworn into office by the City Clerk at the earliest opportunity or no later than the next regularly scheduled City Council meeting.

(10) If the City Council does not appoint a qualified person to fill the vacancy within 90 days of the declared vacancy, pursuant to RCW 42.12.070(4), the county in which all or the largest geographic portion of the city is located shall appoint a qualified person to fill the vacancy.

2.08 Council Attendance

At the beginning of each Council Meeting, the Mayor will excuse any Councilmember who has contacted the Mayor or City Manager's office prior to the meeting to notify them of their absence.

"Excused" is when the Mayor, Presiding Officer, City Manager's office, or staff liaison (for advisory boards), receives notification of an absence prior to a meeting.

"Unexcused or absent" is when the Mayor, Presiding Officer, City Manager's office, or staff liaison (for advisory boards), does not receive notification of an absence prior to a meeting.

A council position becomes vacant if a Councilmember is unexcused or absent for three consecutive Regular meetings of the Council.

(RCW 35A.12.060 as now or hereafter amended).

2.09 Council Vacancy

A Council position is officially declared vacant upon the resignation, recall, forfeiture of position, or death of a Councilmember. The remaining members of the governing body shall appoint a qualified person to fill the vacant position (RCW 35A.13.020).

Resignation Process

Council must receive a written notice with an effective date of resignation. The resignation is effective as of the date provided in the written notice. Council accepts the resignation by a motion and vote.

Appointment Process

The City Manager's office coordinates the recruitment process.

1. The City Manager's office issues an advertisement to the local paper and other media outlets for a 2-3-week period. The announcement includes the requirements necessary to hold office, time to be served in the vacant position, election information, salary information, Council duties, and the deadline date and time for submitting applications (RCW 35A.13.020).

2. The City Manager prepares an application form that requests appropriate information for Council consideration of the applicants. Applications will be available at City Hall, and posted on the website.

3. Applications received by the deadline are copied and distributed to the Council. Packets may contain additional information, such as resumes and references.

4. Prior to interviews, the Mayor requests and accepts suggested interview questions from each Councilmember.

5. The Clerk's office publishes the required public notice for the meeting scheduled for interviewing applicants for consideration for the vacant position.

6. The Clerk's office notifies applicants of the location, date and time of the Council interviews.

Interview Requirements

- Interviews with candidates must be held in an open public meeting.
- The applicants' order of appearance will be determined by the date and time when the application was received.
- The decision as to which applicants to interview will be determined by the Council based on the information contained in the application form.
- The Council will ask the predetermined set of questions which must be responded to by the applicant. Each applicant will be asked and answer the same set of questions. Follow-up questions, based upon responses, are permitted.
- An informal question and answer period in which Councilmembers ask and receive answers to miscellaneous questions may be set aside for 10 minutes upon approval of a majority of Councilmembers.

Voting

1. Upon completion of the interviews, the Council may convene into Executive Session to discuss the qualifications of the applicants. However, all interviews, deliberations, nominations, and votes taken by Council must be in open public session. The Council may not determine who to select or reach a consensus on a preferred candidate in Executive Session.

2. The Mayor asks for nominations from Councilmembers for the purpose of creating a group of candidates to be considered. No second is needed.

3. Nominations are closed by a motion, second, and majority vote of Council.

4. Councilmembers may deliberate on matters such as criteria for selection and the nominated group of candidates.

5. The Mayor polls the Councilmembers to ascertain if they are prepared to vote. Voting must take place in a manner in which the public is notified as to the vote of each existing Councilmember for which candidate. If there is more than one candidate, a vote must be taken for each candidate to record each Councilmember's vote.

6. The City Clerk records the votes in the meeting minutes.

7. The selection of a candidate to fill the vacancy is made by a majority vote of the remaining six members of the Council.

8. If a majority vote is not received for a candidate, the Council may postpone elections until another date.

9. The Mayor declares the nominee receiving the majority vote as the new Councilmember to be sworn in immediately after the effective date of the resignation.

10. The term of the candidate selected to fill the vacancy will be in effect until a person is elected at the next regular election for municipal officers. The interim term would then end, and the new term begin upon certification of election results.

11. If the Council does not appoint a qualified person to fill the vacancy within 90 days of the occurrence of the vacancy, the County Commissioners will appoint a person to fill the vacancy (RCW 42.12.070).

2.10 New Councilmember Orientation

Newly-elected Councilmembers are an integral part of the City team. The City Manager's office coordinates an orientation process, schedules interviews with the City Manager and Department Directors, and provides opportunities for tours of City facilities and infrastructure. The City Manager's office also coordinates Open Government Trainings, as required by state law (RCW 42.56.150). Councilmembers are encouraged to attend the Association of Washington Cities (AWC) annual new member orientation. The Mayor and existing Councilmembers welcome and mentor new members, share perspectives and insights, and discuss priorities, procedures, and protocols.

2.11 Appointment and Role of City Manager

The City Manager is the chief administrative officer of the City, appointed by and accountable to the Council.

The City Manager is responsible for the effective administration and management of the City and the efficient delivery of all City services. The City Manager appoints and supervises all Department Directors. The City Manager is responsible for all hiring and employment decisions, the approval of all operating rules and procedures, ensuring quality performance, proper financial management of City funds, and carrying out the policy directives of the Council.

The City Manager prepares the annual budget for Council approval, assists in the identification of community priorities, and facilitates public involvement and participation in key areas of policy development and service delivery. The City Manager proposes policy recommendations to the Council, advises on matters of community interest, and supplies facts and information as appropriate to provide the Council with a comprehensive basis for making decisions and establishing annual goals and priorities for the City. The City Manager also attends and represents the City on various intergovernmental committees (RCW 35.A.13.080).

The Council evaluates the City Manager's performance on an annual basis, generally in the first quarter of the calendar year, to ensure that both the Council and the City Manager are in agreement about performance and goals based upon mutual trust and common objectives.

CITY OF Vancouver WASHINGTON

POLICY AND PROCEDURE

CITY OF VANCOUVER WASHINGTON	INDEX Administrative/Council/City Manager			
Subject	**Number** 100-38	**REV.** D	**Effective Date** 12/13/21	**Page 1 of 6**
Filling City Council Vacancies	**Supersedes** 9/24/18	**Prepared by:** [City Manager]		**Approved by:** [Mayor]

1.0 Purpose

The purpose of this policy is to provide guidance to City Council when a Vancouver Councilmember position becomes vacant before the expiration of the official's elected term of office. Pursuant to state law, a vacancy shall be filled only to serve the remainder of the unexpired term until the next regular election.

2.0 Organizations Affected

City Council/City Manager

3.0 References

Vancouver City Charter – Sections 2.01 Terms; 2.02 Qualifications; 2.06 Vacancies Defined; 2.08 Vacancies in Council

RCW 29A.60.270 Beginning of terms; RCW 29A.60.280 Term of office; 42.30.110(h) – Executive Session Allowed to Consider Qualifications of a Candidate for Appointment of Elective Office; RCW 42.30.060 – Prohibitions on Secret Ballots; RCW 42.12 – Vacant Position

City Council Resolution M-3274, January 3, 2000
City Council Resolution, M-3730, January 3, 2011
City Council Resolution M-3980, September 24, 2018
City Council Resolution M-4157, December 13, 2021

4.0 Notification Process

A Council position shall be officially declared vacant upon the occurrence of any of the causes of vacancy set forth in City of Vancouver Charter, Section 2.06, including resignation, recall, forfeiture, written intent to resign, or death of a Councilmember. The

Councilmember who is vacating their position cannot participate in the appointment process.

Vacancies in the City Council shall be filled by a majority vote of the remaining members of the City Council. Such appointee shall hold office only until the next regular general election, at which time the appointee may run to serve the remainder of the unexpired term.

City Council shall direct staff to begin the Councilmember appointment process and establish an interview and appointment schedule so that the position is filled at the earliest opportunity. In the case of a councilmember submitting an intent to resign, the application process may commence prior to the effective date of the resignation. The overall length of the process timeline should allow for the expedient conclusion of the appointment process, but also sufficient time for Council evaluation of candidates. The City Manager's Office will propose an appointment schedule to the Council prior to advertisement of the vacancy.

The City Manager's Office shall prepare and submit a display advertisement to *The Columbian, Oregonian and Daily Insider,* posted on the City's website and social media site, distributed via the City's internal and external newsletter services *(Currents, Emma, Office of Neighborhoods, etc.),* and distributed to all current members of Vancouver advisory boards, commissions, committees, and task forces (per Council policy 100-06) via email to the staff of those bodies with copies to other local media outlets, which announces the vacancy consistent with the requirements necessary to hold public office: that the applicant be a qualified elector[1] and hold no other public office; and have no employment under the city government.

This display advertisement shall be published once each week for two consecutive weeks. This display advertisement shall contain other information, including, but not limited to:; time to be served in the vacant position; election information, including qualifications of an elected official; salary information; Councilmember powers and duties; complete list of materials required to apply for appointment; the deadline date and time for submitting applications; interview and appointment schedules; and such other information that the City Council deems appropriate.

5.0 Application Process

5.1 The Application

The City Manager's Office shall prepare an application form which requests appropriate information for City Council consideration of the applicants. The application form will request the following information from the applicant:

- Pertinent contact information
- Confirmation the applicant is a qualified elector[1]

[1] To be a "qualified elector" a person must be at least 18; a citizen of the United States; have lived in the city for at least 30 days prior to the election at which they offer to vote; have not been convicted of a felony unless their civil rights have been restored. Washington State Constitution Article VI, Section1.

- Answers to the following:
  1. Is there anything in your background that would attract heightened public scrutiny if undisclosed and later discovered?
  2. Please give a brief summary of your background and experience, including education, work history and civic engagement activities.
  3. Why are you seeking appointment to the City Council? What do you feel your qualifications are for the position?

Applications will be available at City of Vancouver offices, on the City's website and such other locations that the City Council deems appropriate.

5.2 Supplemental Materials

In addition to the application form, the applicants will also be required to provide a completed Washington State PDC form F-1 and a current resume. The F-1 form must be provided directly to the City Manager's Office. It should not be submitted on the Washington PDC website.

In addition to the required supplemental materials, candidates may also submit additional supportive information, such as a list of endorsements, up to three (3) letters of reference, and other pertinent materials. Endorsements and letters of reference should include contact information for the person(s) supporting the candidate.

5.3 Conclusion of Application Period

The application period shall be open for at least two weeks and no more than 30 days following the announcement of the vacancy and details of the appointment process. The length of the application period will be included in the proposed appointment schedule, as set forth in section 4.0.

Applications received by the deadline date and time will be copied and circulated by the City Manager's Office to the Mayor and City Council within one (1) business day following the deadline. Candidates who submit completed application packets by the deadline will be required to also submit information necessary for the City to conduct a criminal background check, the results of which will be provided to the City Council.

All completed candidate application packets will be posted on the City's website following the application deadline and delivery of the packets to the City Council. Applicant materials will be redacted for non-disclosable information prior to being made public.

6.0 Council Evaluation of Candidates

City Councilmembers, individually, will conduct an initial review of all completed applications.

Council will meet in executive session at the next Council meeting to discuss applicant qualifications. It is permissible to meet in executive session to "evaluate the qualifications of a candidate for appointment to elective office."[2] The City Manager's Office will provide Council with the results of the candidate criminal background checks during this executive session.

In the event the City receives more than 10 completed applications, each City Councilmember will submit to the Council Assistant an unranked list of names of the candidates the Councilmember wishes to move forward in the process. Each Councilmember's list should contain no more than 15 names. The Council Assistant shall aggregate all Councilmember lists into one unranked master list of the 10-15 candidates most commonly selected among the individual lists provided. The list shall be arranged in alphabetical order and shall only include the names of the candidates. This aggregated list shall be provided to the Council during the executive session held prior to the interview meeting.

Immediately following executive session, Council shall meet in public session to select which candidates to invite to participate in an interview at the next City Council meeting. The decision as to which applicants to interview will be based on the information contained in the application forms and Council's evaluation of the qualifications of the candidates. The decision as to which candidates will be interviewed will be at the sole discretion of the City Council.

The City Manager's Office shall notify applicants selected for interview of the location, date and time and format (per Section 7.0) of City Council interviews. In the event Council does not select all applicants to move forward to the interview, staff in the City Manager's Office will notify those candidates not selected of their status. Information about the interview meeting and those applicants selected for an interview will be announced to the public via a news release and posted on the City's website after all applicants have been contacted.

Prior to the date and time of the interview meeting, each Councilmember shall submit one interview question and one back-up question to the Mayor and Council Assistant. If two or more Councilmembers submit the same primary question, the Mayor shall choose whose to accept, and the back-up question(s) from the other Councilmember(s) will be used. The final list of questions will be provided to all of Council prior to the interview meeting. Each Councilmember will ask their question during the interviews.

7.0 Interview Meeting

[2] RCW 42.30.110(1)(h).

An interview meeting shall be scheduled for a regularly scheduled Council meeting. The meeting will be open to the public and broadcast and live streamed by CVTV.

At the opening of the interview meeting, the Mayor shall provide an overview of the format and ground rules for the meeting. The applicant's order of appearance also shall be determined at this time by a random lot drawing performed by the Council Assistant.

In order to ensure each candidate has a fair and equal opportunity to speak with Council, all candidates shall be sequestered at City Hall for the duration of all candidate interviews. Access to electronic devices shall be prohibited during sequestration. Candidates will be ushered to and from the City Council Chambers by a member of City staff in order to participate in their interview at the pre-determined time. Candidates will be released from sequestration upon conclusion of the final interview and may observe the remainder of the public portion of the Council meeting.

Each candidate interview shall be no more than 30 minutes in length. The Council may reduce the 30-minute interview time if the number of applicants exceeds six candidates. Each interview shall follow the following format:

- The applicant shall present their credentials to the City Council (up to 10 minutes).
- The City Council shall ask the predetermined set of questions, one question per Councilmember, which must be responded to by the applicant. Each applicant will be asked and will answer the same set of questions and will have two (2) minutes to answer each question (up to 14 minutes)
- An informal question-and-answer period during which Councilmembers may ask and receive answers to miscellaneous or follow-up questions (remainder of time).

8.0 Voting

Upon completion of the interviews, Councilmembers may convene into Executive Session to further evaluate the qualifications of the candidates; however, all interviews, nominations and votes taken by the Council shall be in open public session.

Balloting will continue until a nominee receives a majority of votes.

At any time during the balloting process, the City Council may postpone balloting until a date certain or regular meeting if a majority vote has not been received.

Nothing in this policy shall prevent the City Council from reconvening into Executive Session to further discuss the candidate qualifications.

The Mayor shall declare the nominee receiving the majority vote as the new Councilmember and he or she shall be sworn into office at the earliest opportunity, or no later than the next regularly scheduled City Council Meeting.

Councilmember Suggested Edits for Full Council Consideration

E. The City Clerk shall serve as timekeeper during these hearings.

F. After each proponent and opponent spokesperson have used their speaking time, Council may ask further questions of the speakers, who shall be entitled to respond but limit their response to the question asked.

11.2 Public hearings where a general audience is in attendance to present arguments for or against a public issue:

A. The Department Director or designee shall present the issue to the Council and respond to questions.

B. A person may speak for three (3) minutes. No one may speak for a second time until everyone who wishes to speak has had an opportunity to speak. The Ppresiding ~~o~~Officer may make exceptions to the time restrictions of persons speaking at a public hearing when warranted, in the discretion of the Ppresiding Oefficer.

C. The City Clerk shall serve as timekeeper during these hearings.

D. After the speaker has used their allotted time, Council may ask questions of the speaker and the speaker may respond~~,~~ but may not engage in further debate.

E. The hearing will then be closed to public participation and open for discussion among Councilmembers.

F. The Ppresiding Oefficer may exercise changes in the procedures at a particular meeting or hearing, but the decision to do so may be overruled by a majority vote of the Council.

SECTION 12
DEPUTY MAYOR

12.1 Annually or more often as deemed appropriate, the members of the City Council, by majority vote, shall designate one of their members as Deputy Mayor for a one-year time period, except as provided in Section 12.1, Paragraphs G and H. Elections will be held no later than the last Council meeting of the year for determining the Deputy Mayor for the subsequent year.

A. Any member of the City Council ~~who will have served on the Council for one year at the beginning for that Councilmember's terms as Deputy Mayor,~~ may be nominated for the position of Deputy Mayor by having that Councilmember's name placed in nomination by a Councilmember. The nomination of a councilmember for the position of Deputy Mayor does not require a second, and a councilmember may nominate him or herself.

This one should be left the way it was. They should serve at least one year because a brand new councilmember does not know everything yet to serve as Deputy Mayor. The Deputy Mayor elect should also have both Municipal Certificates from AWC to better understand their job.

1. Nominations for the position of Deputy Mayor shall be made by members of the City Council on the dates of election for the Deputy Mayor position.

2. In connection with the selection of Deputy Mayor, ~~it is strongly suggested that C~~councilmembers are expected to approach the election in an open, transparent, and respectful manner, avoiding anything that jeopardizes harmony among ~~c~~Councilmembers.

B. The Councilmember receiving a majority of the votes cast by the members of the City Council shall be elected Deputy Mayor. A Councilmember may vote for themself~~him or herself~~.

C. The names of all nominees for the position of Deputy Mayor shall be included in the vote.

D. If no single Councilmember received a majority of the votes cast, a second vote/ballot between the two nominees who received the largest number of votes will be held.

E. The Deputy Mayor shall serve at the pleasure of the Council.

F. In the event of a prolonged ~~the~~ absence or unavailability of the Deputy Mayor, the Council shall vote on which Councilmember shall serve as the Interim Deputy Mayor. The Interim Deputy Mayor shall be the Councilmember who receives a majority vote. That Councilmember ~~the senior member of the City Council, other than the Deputy Mayor,~~ shall then serve as ~~i~~interim Deputy Mayor until the return of the regular Deputy Mayor. The Interim Deputy Mayor shall have all the rights, duties, and authority of the Deputy Mayor under these rules

as long as they have served one year as a Council Member

G. If the designated Deputy Mayor is unable to serve the full term of the position of Deputy Mayor, the Council shall elect the next Deputy Mayor in accordance with Section 12 to serve the remainder of the term. If the appointment is declined the process shall continue until a Deputy Mayor is designated.

H. In the event that the C~~c~~ouncilmember selected as Deputy Mayor (or Interim Deputy Mayor) is unable to perform the duties of the position of Deputy Mayor, or fails to act in accordance with the City Council Rules of Procedure, the City Council may, by a majority vote of the full City Council, remove the Deputy Mayor (or Interim Deputy Mayor) from this position, in which case, the Council shall elect the next Deputy Mayor (or Interim Deputy Mayor) in accordance with Section 12 to serve the remainder of the term.

2. Roll Call.

3. Announcements, Reports, and Presentations.

4. Agenda Items for Council Discussion.

5. Ordinances.

6. Special Focus Area (the Chair of the Special Focus Area scheduled for the Study Session shall preside over this portion of the Sstudy Ssession–). The Vice Chair shall preside over this portion of the Sstudy Ssession in the Chair's absence.

7. Adjournment.

Council members are encouraged to send questions to directors ahead of the meeting so the Director can answer them during their presentation.

E. Council discussion at Study Sessions of each agenda item shall be managed by the Presiding Officer through recognition of each Councilmember in turn. After presentation of an agenda item, the Presiding Officer will ask each Councilmember whether the member would like to make a statement or ask a question regarding the agenda item. The Presiding Officer will start with the Councilmember at the Presiding Officer's right and address each Councilmember in order of seating, as determined by the Presiding Officer. After all Councilmembers have been addressed, the Presiding Officer will again ask for a statement by each Councilmember in the same order. Invitation by the Presiding Officer to each Councilmember to make a statement or ask a question shall be repeated three times. There shall be a limit of three questions per Councilmember for each round. Further questions by any Councilmember should be sent via email to the appropriate Department Director after the meeting, provided the Mayor is included in that email. Questions posed at Study Session or via follow up email shall be limited to the matter presented at Study Session.

16.2 **Ad Hoc Committees.** The Mayor, the Deputy Mayor, or a majority of the City Council may establish Aad Hhoc Ccommittees as may be appropriate to consider special matters that require special approach or emphasis.

A. Ad Hhoc Ccommittees may be established and matters referred to them at Sstudy Ssessions, without the requirement that such establishment or referral take place at a regular City Council Mmeeting.

B. The Mayor and the Deputy Mayor shall each appoint a Councilmember to each Council Ad Hoc Committee. The Deputy Mayor may appoint themselves. The third Councilmember to be appointed to the Ad Hoc Committee shall be selected by majority vote of the Council. ~~The Deputy Mayor shall appoint Councilmembers to Council ad hoc committees, provided that the Mayor shall appoint members to Council ad hoc committees if the Deputy Mayor is disabled or precluded from acting in that capacity.~~

This one should be left as it was written. you have to put trust in your Deputy Mayor to choose the right people for an Ad Hoc committee. The Mayor should only be involved if the Deputy Mayor is disabled.

items be included on upcoming meeting agendas; provided that Councilmembers shall never ask for responses from the other Councilmembers in that communication.

C. Email communication among Councilmembers relating to City operations should also include the Mayor as a recipient/addressee.

D. Councilmembers may email the Mayor about City business without limitations or restrictions.

E. The Deputy Mayor from time to time may need to communicate with all Ccouncilmembers on various items such as the annual review of the Rules of Procedure. All such correspondence, usually in the form of email, shall be provided to Ccouncil as a whole through the Council Assistant. Any responses from Ccouncil shall also be directed to the Council Assistant who shall then provide all Ccouncilmembers with email correspondence regarding questions, comments, suggestions, recommendations, or any similar item.

F. ~~City~~ Council email correspondence and all electronic communications shall utilize the designated city email account or city device with no exceptions and within the parameters of the Open Public Meetings Act and the Public Records Act.

17.5 Councilmembers shall not communicate with staff regarding their own personal business during times set out to discuss City of Auburn business. Councilmembers shall not discuss personal business with staff immediately before or after Council meetings. This should be taken out. this puts division with staff and council and if it is before a council meeting and after after a council meeting that is not during a council meeting

~~17.5 Internet & Electronic Resources/Equipment and Facility Use.~~

~~A. Policy. It is the policy of the City Council that Internet and electronic resources equipment use shall conform to and be consistent with the requirements of City of Auburn Administrative Policy and Procedure 500-03, "Internet & Electronic Resources/Equipment Use – Elected Officials."~~

~~All letters, memoranda, and interactive computer communication involving City Councilmembers and members of advisory boards and commissions, the subject of which relates to the conduct of government or the performance of any governmental function, are public records.~~

~~B. Communications. Each Councilmember is responsible for checking their communication device multiple times on a daily basis and respond to requests by City staff as soon as possible.~~

~~C. Electronic Communications.~~

17.7 Whenever a member of the City Council attends any meeting of any other entity or organization, he or she should endeavor to be prudent in what he or she says or does at such meeting. Further, the Councilmember should avoid attending such meeting if that attendance would impose an interference with the meeting or the operations of the other entity or organization, or of the operations of the City.

SECTION 18
TRAVEL AUTHORIZATION

18.1 **Value of Council Travel**. The Auburn City Council recognizes the need of its members to attend conferences, trainings, and meetings to broaden their knowledge of and familiarity with a diverse collection of City-related issues, including, but not limited to, Public Works, Communications, Transportation, Economic Development, Public Safety, and Energy. These conferences also provide valuable opportunities to network with other elected City ~~elected~~ officials. Comparing Auburn's specific issues with those of other cities often provides the ~~City~~ Council with established policies already in place in other cities that can be adapted to meet the specific needs of the City of Auburn, as well as expediently and efficiently acquainting Auburn City Councilmembers with ideas of how to address Auburn issues and solve Auburn problems.

18.2 **Annual Budget Amounts for Council Travel**. To accommodate Council travel, the Auburn City Council shall allocate an identified amount of money each year in the City budget process to each Councilmember for City-related travel costs, including transportation, lodging, meals, and registration costs.

18.3 **Adjustment of Council Travel Allocations**. If a Ccouncilmember needs more than the amount of travel related funds allocated for their use, the Ccouncilmember shall (1) see if there are unused funds available from any other Ccouncilmember(s) who are willing to transfer funds from their account to the Ccouncilmember needing additional travel funds. If so, with the consent of the Deputy Mayor and the other transferring Ccouncilmember(s), funds will be transferred to the requesting Ccouncilmember's allotment; or (2) shall request a net adjustment to the budget adding additional funds to their allotment, which adjustment shall be approved by a majority of the whole ~~City~~ Council.

18.4 **Receipts and Travel Documentation**. Each ~~City~~ Councilmember shall be responsible for providing to the Mayor or Finance Director, within ten (10) business days of returning from City travel, any and all City travel related receipts and documentation, and a written report regarding the authorized travel the Councilmember attended. All documentation shall also be sent via email to the CouncilAlerts@auburnwa.gov email address. Quarterly reports of the travel costs incurred by each ~~c~~Councilmember shall be provided by the Finance Department.

need clarification on what kind of report needs to be done

Recommendations for Rules and Procedures Ad hoc Committee

Submitted by Councilmember Kate Baldwin (8/21/2024)

1) Expand **Section 2 Council Meetings**
   a. **Add Section 2.5 for Council Retreats and update numbering in Section 2.**
   b. **This update is intended to provide a framework for Council to build their legislative plans for the city and provide better advanced planning for Council, Mayor and staff. It is also intended to ensure that Listening events are available as a tool for Council to engage with the public.**
   c. Proposed:

Section 2.5 Council Retreats – The Auburn City Council's retreat should be held within the first quarter each year as councilmember and staff availability dictate. **2.5.1 Retreat Agenda/Workplan** - The workplan of council retreats may include but are not limited to: Annual review of previous year's legislative goals, public input on city goals, discussion of priorities, review of forward year's schedule for council, setting travel budgets, and discussion of committee assignments. The agenda may allow time for each Councilmember to present to the body.

2.5.2. Retreat Outcomes - City staff should also be prepared to present to council post-retreat department workplans to support legislative goals and priorities, key metrics to measure progress, and, when applicable, department budgets for approved workplans and priorities.

2.5.3 Pre/Post-Retreat - The council may choose to conduct a follow-up retreat later in the year to monitor progress and adjust council goals and priorities as needed.

The council may choose to conduct a meeting pre-retreat to establish the agenda and workplan, discuss format, and other logistics as needed.

2.5.4 – Retreat Facilitation - Council retreats may be facilitated by the Deputy Mayor or interim Deputy Mayor, a member of staff, or a professional meeting facilitator who is not a member of council or staff.

2.5.5 – Retreat Location – Council retreats will take place within Auburn city limits.

Section 2.6 Council Listening Sessions –

The City Council will hold community listening sessions. The purpose of these meetings will be to provide a forum to hear from the community on a variety of topics. The community listening sessions may be held at various locations throughout the City. The frequency of these meetings will be determined by the City Council annually. These sessions will include one or more agenda items of community interest. The meetings will be chaired by the Mayor and considered Special meetings of the City Council.

2.6.1 – Rules - The Deputy Mayor and Council will work with the Mayor, City Attorney and Clerk to ensure Listening Sessions follow OPMA rules.

[FOR REFERENCE]

RCW 35A.12.110 Council Meetings - "The city council and mayor shall meet regularly, at least once a month, at a place and at such times as may be designated by the city council."

[RE: Council Retreats]

- See Sequim Section 3.13, Page 20 (council-manager)
- See Bonney Lake, Section XXII, Page 33 (code city, council-mayor)

[RE: Listening Sessions/Other Special Meetings]

- See Puyallup, Section 11, Page 9 (council-manager)
- See Issaquah, Section 4.02C, Page 22, "Community Listening Sessions" (code city, mayor-council)
- See Bonney Lake, Article 3, Pages 7-8 (code city, mayor-council)

2) Expand on Section 6.3 Council Training

a. Update to:

i. **6.3 – Council Training –** Councilmembers shall participate in training offered by individuals, agencies, entities, and organization including, but not limited to, the Association of Washington Cities (AWC), Municipal Research and Services Center (MRSC), Jurassic Parliament, and the State of Washington. This includes initial orientation after taking office, and other required or recommended training.

6.3.1 Resources provided to each Council member shall include: 1) a current copy of the "Mayor and Councilmember Handbook" produced by AWC and MRSC, and 2) a current copy of "Mastering Council Meetings: A Guidebook for Elected Officials and Local Governments" from Jurassic Parliament.

6.3.2 Required Training shall be completed by each Councilmember within the first 6 months of joining Council. Council staff will work with Directors, the Deputy Mayor (or interim Deputy Mayor), and Councilmembers to ensure required trainings are scheduled and completed.

6.3.3 Required training will include:

- Elected Officials Essentials Workshop from AWC
- NeoGov Training as assigned by Auburn's HR Department
- An overview of each Department presented by the respective department's Director and/or that Director's delegate
- A review of Council process for submitting New Business provided by the Deputy Mayor or interim Deputy Mayor
- A review on the process for submitting materials for the Council packet provided by the City Clerk
- City of Auburn Facility Tours

        - City Hall
    - White River Valley Museum New Hire Tour

6.3.3.1 Progress against required training shall be tracked by the Deputy Mayor, or interim Deputy Mayor, and reviewed during 1-on-1 meetings with the individual Council members.

6.3.4 Recommended Training is encouraged to be completed within the first year of office. Council staff will work with city Directors and community partners to schedule the following as requested by individual Councilmembers.

- City of Auburn Facility Tours
    - Maintenance and Operations Buildings
    - Airport
- Auburn Police Department Ride Along
- Partner Facility Tours
    - Auburn Resource Center
    - Municipal Court
    - Community Court
    - SCORE Jail

[FOR REFERENCE] The following references provide samples from other Washington cities that include more detailed training guidance within their Rules and Procedures documents.

- See Sequim, Section 3.8, Page 17 (council manager)
- See Issaquah, Section 3.04, Page 15-16 "Councilmember Training" (code city, city-mayor) Covers Orientation, Open Government Training, and General Training requirements.
- See Tukwila, Section 9, Page 16-17, "Joining the City Council" (code city, city-mayor). Covers required orientation, trainings, and readings.

3) Add a new **Section 19 "Community Commitments"**

a. Add a Section to incorporate the short version of the REDI Coalition Vision Statement and to provide a sample set of questions to guide existing and future council members on the types of questions appropriate for supporting the REDI initiative.

b. Add:

Section 19.1 **REDI Commitment** The Auburn City Council acknowledges our role as city leaders to champion a community that fosters a Racially Equitable, Diverse, and Inclusive (REDI) culture.

With this duty, we…

- Invest in trust- and solidarity-building
- Unite for co-liberation
- Emphasize intersectionality, starting with race
- Acknowledge what we don't know and take action to learn anew
- Have courage in the face of resistance

- Equitably use staff and community input to repair past harm and direct future REDI work
- Hold ourselves responsible for and accountable to investing in and modeling a REDI culture.

Section 19.2 **Equity Lens Framework** Members of the Council serve as elected representatives tasked with the responsibility to ensure that the long-term goals of the city meet the changing needs of the community.
This is sample set of questions that Council may choose to ask at meetings to ensure legislative actions are considerate of potential future impacts within the city.

- *Who (what groups) does this resolution/ordinance impact?*
- *Are all groups affected in the same way?*
- *Who has been included in the decision-making process?*
- *Have any groups been left out?*
- *Have we allowed enough time for input?*
- *Can we identify any potential benefit and/or harm from this decision in the near term or in the extended future (10-20+ years)?*
    - *What actions could mitigate potential harm or potential risks?*
- *Are there any historically relevant factors affecting this issue or decision today?*
- *Are there any comparable programs in our city or in other cities that we can learn from?*

4) Addition of an Appendix

a. The Appendix should include reference materials to support Council members in performing their legislative duties. These materials should be presented as simple "How-To" documents produced by the City Clerk and Legal Department and approved by Council during annual review of Rules and Procedures.
b. The Appendix should: 1) make it easier for Council to engage through defined process flows, 2) provide better clarity and guidance for Council to perform their duties, and 3) reduce lag for new Councilmembers
c. Add Appendix for:
    i. How to request a proclamation
    ii. How to add an agenda item to Study Session
    iii. How to add an agenda item to Council Meetings
    iv. How to request a facility tours (internal/external)
    v. How to form an Ad Hoc committee
    vi. How to disband or retire an Ad Hoc committee
    vii. Developing new resolutions
        1. Include template(s)
        2. Include flowchart
    viii. Developing new ordinance with no budget impact

1. Include template(s)
2. Include flowchart

ix. Developing new ordinance with budget impact
    1. Include template(s)
    2. Include flowchart

x. Submitting materials for council packets
    1. Include template(s)
    2. Modify the "Agenda Bill" template format to include a section for "Impacted Groups"

[REFERENCE]

- See Puyallup, Section 12, Page 10; SEE Tacoma, Section 8, Page 16; SEE Port Townsend, Section 3.14 (includes visual flowchart) (city-manager)
- Various/multiple council-mayor cities include different levels of detail on how to do different legislative activities. Ref. MRSC for code city, mayor – council cities.
- See Issaquah, Section 4.14, Page 32-33 "New Business Request" (code city, mayor-council)
- See Issaquah, Section 7.01, Page 47-48, "Council Ad Hoc Committees."
- See Edmonds, Section 3, Page 3, "Agenda Preparation" (code city, mayor-council)

12.1 (A) Deputy (should have to be on council for at least a year to be considered for the Deputy Mayors position)

13.8 Submit at least two questions instead of one just in case one of your questions is similar to another question from another councilperson

16.2 (B) We should leave it the way it was originally written that The Deputy Mayor shall appoint Councilmembers to Council ad hoc committees, provided that the Mayor shall appoint members to Council ad hoc committees if the Deputy Mayor is disabled or precluded from acting in that capacity.

16.2 (E) We should leave this language in there
Ad hoc council committees shall consider all matters referred to them. The chair of such ad hoc committee shall report to the City Council the findings of the committee. Committees may refer items to the Council with a committee recommendation or with no committee recommendation.

16.3 (A) Recommending edits to this section because it says Mayor or Deputy Mayor can assign to Ad Hoc Committees. Should consider removing Mator selecting or appointing Ad hoc committee members
All Councilmembers shall have the opportunity to serve on such councils, boards, and/or committees as assigned by the Mayor and on a rotating basis at the discretion of the Mayor. Councilmember appointments to intergovernmental councils, boards, and committees by the Mayor shall be done with consideration of a Councilmember's expertise, background, knowledge, working experience and/or education in that council, board, or committee. Ad Hoc Committee appointment by the Mayor or Deputy Mayor shall be at their discretion.

17.5 Recommend changing this language. I believe we landed on inside the Council Chambers
Councilmembers shall not communicate with staff regarding their own personal business during times set out to discuss City of Auburn business. Councilmembers shall not discuss personal business with staff immediately before or after Council meetings in Council Chambers.

CITY OF AUBURN WASHINGTON

AGENDA BILL APPROVAL FORM

Agenda Subject:
Ordinance No. 6950 (Hay) (15 Minutes)

Date:
August 21, 2024

Department:
Human Services

Attachments:
Presentation
Ordinance No. 6950
Exhibit A

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

This is a proposed amendment to the City's existing camping regulations in Sections 2.22.210 and 9.50.030. Ordinance No. 6950 restricts camping on City-owned property and facilities. This amendment is focused on protection of public health and safety, and maintaining the intended use and integrity of the City's public spaces, ensuring they remain safe, clean, and accessible for all residents.

Unauthorized camping poses significant public health risks due to inadequate sanitation and can lead to environmental degradation, safety concerns, and a decline in the quality of life for the community. By more consistently implementing its camping regulations, the City can better protect its parks and facilities, promote equitable access for all citizens, and foster a more vibrant, welcoming community. This amendment also aligns with the City's commitment to addressing homelessness through targeted support services rather than permitting encampments in public spaces. City Council is urged to consider this amendment to uphold the safety, cleanliness, and intended use of our City-owned properties.

The presentation aims to provide a comprehensive examination of the proposed amendment to the City's camping ordinance, specifically targeting the restriction of camping on City-owned property and facilities. This presentation will detail the rationale behind the amendments, the anticipated benefits, and the impact on various stakeholders.

Reviewed by Council Committees:

Councilmember: Yolanda Trout-Manuel **Staff:** Kent Hay
Meeting Date: August 26, 2024 Item Number:

Ordinance 6950

Kent Hay / Human Services Department

August 26th, 2024

Homeless Ruling

Boise Idaho

- 9th Circuit Court of Appeals Decision (2018)
  - Martin V. Boise: Court ruling that anti-camping ordinances could be enforced against homeless individuals when no alternate shelter was available.

Auburn Camping Ordinance

- Camping Ordinance
  - Prohibits Camping on City Property

- Exception
  - The person engaged in the prohibited activity is experiencing homelessness and there is no overnight shelter available on the date the activity occurred

Supreme Court Involvement (2024)

- Overturned the Ninth Circuit's decision in *Martin v Boise* through its ruling in the City of *Grants Pass vs Johnson*
- Removed the "cruel and unusual punishment"

Ordinance Details

- Purpose: Regulate camping on city property
  - Protects public parks, infrastructure and sensitive environmental areas
- Section 2: Definitions:
  - City property (lands, facilities owned or managed by the City)
  - Camping: Setting up or using temporary shelters or facilities for overnight stay
    - Includes the use of tents, tarps or other makeshift structures
- Section 3: Prohibits Camping on City Property
- Section 4: Enforcement
- Section 5: Shelter and Resources

Ordinance Details Cont.

- Section 6 Exceptions
  - Does not apply to designated areas where camping is explicitly permitted by City regulations or permits
- Section 7 Implementation
  - Through enforcement mechanisms
  - Ensure City Property remains managed and maintained
- Section 8 Severability

Environmental Concerns

- Environmental Degradation
- Wildlife Disruption
- Fire Hazards
- Water Quality Concerns
- Vegetation Damage
- Public Health Risks
- Aesthetic and Recreational Impacts
- Legal and Compliance Issues

Infrastructure Protection

- Damage to Public Property
- Increased Wear and Tear
- Vandalism and Graffiti
- Utility Strain
- Blocked Access to Infrastructure
- Erosion of Public Spaces
- Health and Safety Hazards
- Impact on Transportation Systems
- Cost of Cleanup and Restoration

Public Health and Safety

- Damage to Public Property
- Increased Wear and Tear
- Vandalism and Graffiti
- Utility Strain
- Blocked Access to Infrastructure
- Erosion of Public Spaces
- Health and Safety Hazards
- Impact on Transportation Systems
- Cost of Cleanup and Restoration



Public Health and Safety cont.

- Infectious Disease
- Access to Healthcare
- Substance Abuse and Overdose Risk
- Mental Health Challenges
- Unsanitary Living Conditions
- Public Safety
- Fire Hazards

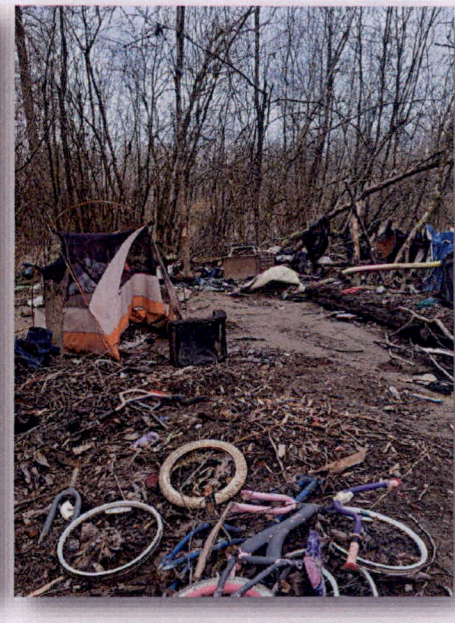
Visualization of Conditions



Visualization of Conditions cont.

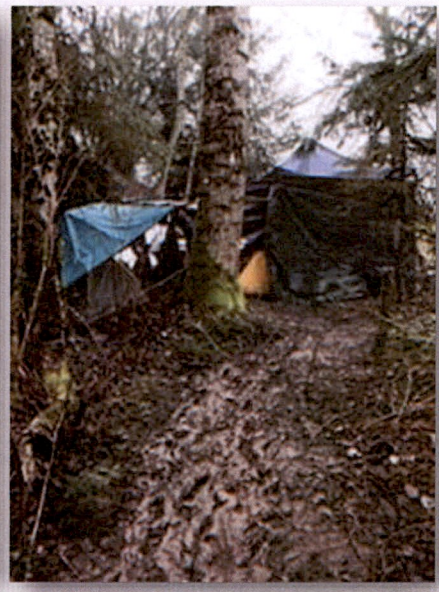
- Children are living in these conditions





Visualization of Conditions cont.







Visualization of Conditions cont.







Visualization of Conditions cont.



Questions?

CITY OF AUBURN WASHINGTON

ORDINANCE NO. 6950

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, RELATING TO CAMPING ON CITY PROPERTY, AMENDING SECTIONS 2.22.210 AND 9.50.030 OF THE AUBURN CITY CODE, AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, homelessness is a significant problem in the City of Auburn, other cities in King County, and throughout the United States;

WHEREAS, the City of Auburn has established camping restrictions and requirements in Auburn City Code Sections 2.22.210 and 9.50.030; and

WHEREAS, fentanyl use is a public health crisis that led to more than 1,100 deaths in 2023 in King County alone; and

WHEREAS, the City of Auburn invests significant resources in parks and public spaces; and

WHEREAS, the City of Auburn has also worked to address issues related to homelessness in a variety of ways including, but not limited to, the following:

- Participating in the South King Housing and Homelessness Partners coalition, which coordinates servicers to the homeless in South King County and seeks funding for affordable housing projects;
- Funding the City's Department of Anti-Homelessness, which provides three outreach workers and one peer specialist and other important public services, and which refers approximately 160 people annually to temporary shelter;
- Partnering with the Auburn Food Bank to run a Day and Night Shelter for

people living outside;

- Partnering with the King County District Court for operation of a Community Court for quality-of-life crimes to reduce recidivism;
- Partnering with King County Homelessness Management Information System for housing people living outside;
- Providing and Clean and Sober Housing Program for individuals in treatment;
- Supporting Health through Housing Permanent Supportive Housing in Auburn;
- Funding the Auburn Community Resource Center at 2814 Auburn Way North, which is available to help anyone in the community in need of assistance with a wide variety of challenges; and
- Providing other services, including: ID assistance, health care, pre-paid ORCA public transportation cards, and mental health and chemical dependency treatment;

WHEREAS, the City of Auburn provides grant funding to non-profit organizations throughout the region to provide services and recourses; and

WHEREAS, despite expanding shelter capacity and providing the public services enumerated above, unsheltered populations in Auburn continue to grow; and

WHEREAS, based on the experience of cities throughout Washington State, encampments on publicly-owned property present significant public health and safety

risks, and often result in garbage, human waste, drug paraphernalia, illegal drug sales and use, drug overdoses (including deaths), assaults, fires, and other crimes;

WHEREAS, over the last several years in the City of Auburn there have been dozens of scenarios where unauthorized camping has interfered with the intended use of and/or resulted in damage to city-owned property; and

WHEREAS, City employees have experienced difficulty in removing unauthorized camping in a manner that protects the City-owned property for use by park users who have paid for or reserved a City facility; and

WHEREAS, City employees have experienced difficultly in removing unauthorized camping prior to damage occurring to city facilities and environmentally sensitive areas; and

WHEREAS, regulating and enforcing limits on public camping is an important and necessary public health and safety measure; and

WHEREAS, the United States and Washington State Supreme Courts have recognized the struggle of cities in this area and recently ruled that the United States and Washington Constitutions allow cities to protect publicly-owned spaces for their residents; and

WHEREAS, the City of Auburn has the authority to adopt laws to protect public safety to the extent such laws are not in conflict with State or Federal law; and

WHEREAS, the amendments to Auburn City Code Sections 2.22.210 and 9.50.030 as set forth in the attached Exhibit A are necessary for the protection of public

health and safety, the protection of city-owned property, and to help ensure that city-owned properties and facilities are available and used for their intended purpose.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF AUBURN, WASHINGTON, DO HEREBY ORDAIN as follows:

Section 1: Incorporation of Recitals. The recitals set forth above are hereby adopted and incorporated herein as if set forth in full.

Section 2. Amendment to Section 2.22.210 and Chapter 9.50 of the Auburn City Code: Section 2.22.210 and Chapter 9.50 of the Auburn City Code are hereby amended as set forth in Exhibit A, which is incorporated by this reference.

Section 3. Implementation of Ordinance. The Mayor and her designee(s) are authorized to take such further actions and implement those administrative procedures necessary to implement and/or carry out the directives of this Ordinance.

Section 4. Severability. If any one or more section, subsection, or sentence of this ordinance is held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portion of this ordinance and the same shall remain in full force and effect.

Section 5. Corrections by City Clerk. Upon approval of the city attorney, the city clerk is authorized to make necessary corrections to this ordinance, including the correction of clerical errors in the body of this ordinance or exhibit(s) thereto; ordinance, section, or subsection numbering; or references to other local, state, or federal laws, codes, rules, or regulations.

Section 6. Effective Date. This ordinance shall take effect and be in force five (5) days following its passage and publication, as provided by law.

DATED and SIGNED this 16th day of September, 2024.

CITY OF AUBURN

_____
NANCY BACKUS, MAYOR

ATTEST:

_____
Shawn Campbell, City Clerk

APPROVED AS TO FORM:

_____
Jason Whalen, City Attorney

2.22.210 Tents and shelters

No person shall erect, maintain, use or occupy a tent or shelter in any city of Auburn park except as permitted under ACC Section 9.50.030(C) ~~unless there is an unobstructed view through such tent or shelter from at least two sides~~. Violation of this section is a civil infraction punishable by a $250.00 fine.

9.50.030 Camping.

A. *Camping Prohibited.* It is unlawful for any person to camp, occupy camp facilities or use camp paraphernalia on city property, except as set forth in subsection C of this section.

B. *Storage of Camping Facilities and Paraphernalia ~~Items~~ Prohibited.* It is unlawful for any person to store camp facilities and camp paraphernalia on city property, except as otherwise provided by ordinance.

C. *Exceptions.* The prohibitions contained in subsections A and B of this section shall not apply if:

~~1.~~ ~~The person is engaged in activity prohibited by subsections A and B of this section because they are experiencing homelessness, and there is no overnight shelter available on the date that the prohibited activity occurs, provided that any tent or shelter shall provide a minimum one foot by one foot opening on at least one side of the tent or shelter that provides transparency into the tent or shelter; or~~

~~21.~~ The person is camping or using camp paraphernalia or camp facilities at a Game Farm Park Campground site after paying the required fees; or

~~3~~2. The person is camping or using camp paraphernalia or camp facilities as permitted under this subsection:

a. The director of the parks, arts, and recreation department may but shall not be required to permit persons to camp, occupy camp facilities, use camp paraphernalia, or store personal property in parks property as defined in Chapter 2.22 ACC and as

listed in the park inventory portion of the parks, recreation and open space plan, within the city's comprehensive plan.

b. The director of the parks, arts, and recreation department may approve a permit for camping on city park property if the director finds, based upon a permit application and information otherwise obtained, that:

i. Adequate sanitary facilities are provided and accessible at or near the camp site;

ii. Adequate trash receptacles and trash collection will be provided;

iii. The camping activity will not unreasonably disturb or interfere with the peace, comfort and repose of park users or adjacent or nearby private property owners;

iv. The camping activity is not reasonably likely to cause injury to persons or property, to provoke disorderly conduct or to create a disturbance; ~~and~~

v. Any tent or shelter being used will provide an unobstructed view through such tent or shelter from at least two sides; and

vi. Allowing ~~T~~the camping is in the public interest.

c. The director of the parks, arts, and recreation department, upon consultation with the City Attorney or designee is authorized to promulgate rules and regulations regarding the implementation and enforcement of this chapter.

d. Seven days is the maximum period of time a permit may authorize camping on city property.

e. Any person denied a permit may appeal the denial to the hearing examiner in the manner described in Chapter 2.46 ACC and ACC 15.07.130 with the director of the parks, arts, and recreation department serving the role of the building or fire official in that code; or

~~4. The person is camping or trespassing on any city utility property identified in ACC Title 13, which shall be regulated by that title; or~~

~~5. The person is camping or trespassing on Auburn Municipal Airport properties or areas identified in Chapter 18.04 ACC, which shall be regulated pursuant to ACC 9.96.900 and/or Chapter 9A.52 RCW.~~

D. *Definitions.* For this section, the following shall apply:

~~1. "Available overnight shelter" means:~~

~~a. A public or private shelter located within the city of Auburn that offers overnight shelter to persons experiencing homelessness and confirms to a city employee that it has an available overnight space at no cost for that person; or~~

~~b. If no shelter described in subsection (D)(1)(a) of this section has available space, a shelter located within King or Pierce County that offers overnight shelter to persons experiencing homelessness and confirms to a city employee:~~

~~i. That it has an available overnight space at no cost for that person; and~~

~~ii. That it is accessible to the person by public transportation or vehicle for hire at no cost for that person.~~

~~c. An overnight shelter is available if an individual is prevented from using an otherwise available shelter space because of their past or present voluntary actions such as unlawful drug use or possession, criminal act(s), unruly behavior or willful violation of shelter rules or restrictions pertaining to such activity.~~

~~d. An overnight shelter is unavailable if:~~

~~i. An individual or family cannot use the shelter's available space because of shelter-imposed restrictions on its use (other than any restrictions the shelter has imposed pursuant to subsection (D)(1)(c) of this section); or~~

~~ii. A city employee, an individual or family attempts to secure a space at the shelter for the day and is denied due to lack of available space.~~

~~2~~1. "City property" as used in this section means all improved and unimproved real property owned or leased by the city of Auburn, and all city of Auburn easements, including but not limited to all portions of city parks, as defined in Chapter 2.22 ACC, city buildings,

rights-of-way, city parking lots, and city environmentally sensitive areas as defined in ACC 16.06.065. City property shall not include:

a. Religious organization property subject to RCW 35A.21.360;

b. City utilities or utility property identified in ACC Title 13; or

c. Airport property or areas identified in Chapter 18.04 ACC.

Camping or trespassing on any city utility property identified in ACC Title 13 shall be regulated by that title. Camping or trespassing on Auburn Municipal Airport properties or areas identified in Chapter 18.04 ACC shall be regulated pursuant to ACC 9.96.900 and/or Chapter 9A.52 RCW, as applicable.

~~3~~2. "Camp" or "camping" means to pitch, create, use, or occupy camp facilities for the purposes of habitation, living accommodation, or dwelling, as evidenced by the storage of personal belongings in "camp facilities" or the use of "camp paraphernalia."

~~4~~3. "Camp facilities" include, but are not limited to, tents, tarps configured for shelter, huts, and temporary shelters. "Camp facilities" does not include shelters when used temporarily in a park for recreation or play, consistent with Chapter 2.22 ACC, during hours when the park is open to the public.

~~5~~4. "Camp paraphernalia" includes, but is not limited to, tarpaulins, cots, beds, sleeping bags, blankets, mattresses, hammocks, or non-city-designated cooking facilities and similar equipment.

~~6~~5. "Store" means to put aside or accumulate for use when needed, to put for safekeeping, to place or leave in a location.

E. *Penalties and Enforcement.*

1. A violation of this section is a misdemeanor punishable by 90 days in jail and/or a $1,000 fine.

2. When any police officer or city official has probable cause to believe that any person has violated this section, the officer or official may:

a. Order such person to immediately leave the property where the violation is occurring. Subject to subsection (C)(1) of this section, any person refusing to comply

with such an order or returning to the property on the same calendar day as such an order is subject to prosecution for criminal trespass pursuant to Chapter 9A.52 RCW and/or ACC 9.96.900; and

b. Issue the person a written admonishment excluding them from the property where the violation is occurring for a period up to one year from the issue date. Subject to subsection (C)(1) of this section, persons who return to the property within the admonishment period are subject to prosecution for criminal trespass pursuant to RCW 9A.52 and/or ACC 9.96.900.

3. Admonishments issued under this section:

a. Are valid and effective whether or not the excluded person is charged, tried or convicted of any crime or infraction;

b. Are valid and effective even if the admonished person refuses a copy of the admonishment; provided, that the issuing city official reasonably notifies the admonished person of the admonishment period, place(s) of exclusion and appeal process under this section;

c. Are valid and effective for the admonishment period unless and until shortened or rescinded by an official ruling after appeal in this section;

d. May be based upon observations by city officials and/or police officers, or upon civilian reports that an official or officer could reasonably rely on in determining probable cause; and

e. Shall include a statement of the appeal rights in this section and a form for appealing the admonishment as provided by this section.

4. Persons receiving admonishments under this section may appeal the admonishment. Any such appeal must:

a. Be in writing, either on the form referenced in this section or in a writing including at least the person's name, the involved property location and the approximate admonishment date to enable processing of the appeal;

b. Be received by the city clerk or postmarked within 14 calendar days of the person's receiving the admonishment; and

c. Be under oath and include all facts that the excluded person believes supports a shortening or rescinding of the admonishment.

5. Admonishment appeals under this section involving city parks shall be processed according to ACC 2.22.240. Otherwise, the director of community development or designee shall review the appeal and issue a ruling upholding, rescinding or shortening the admonishment within 14 calendar days of receiving the appeal. The director or designee may consider the admonishment and any other relevant and trustworthy submitted written materials in deciding the appeal. The admonishment shall be upheld if supported by a preponderance of evidence. The ruling may be transmitted to the excluded person by mail, in person, electronically, or by any other method specified by the person or reasonably likely under the circumstances to give notice.

6. The appeal process in this section cannot be used to appeal any criminal penalties imposed by a court under this section or any other law.