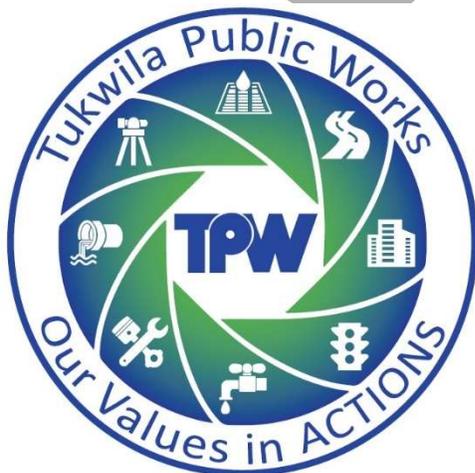




2024

Stormwater Management Program (SWMP)



City of Tukwila
Public Works

TABLE OF CONTENTS

1.0 INTRODUCTION	3
2.0 PERMIT COORDINATION EFFORTS (S5.A.5)	4
2.1 COORDINATION AMONG PERMITTEES	4
2.2 COORDINATION AMONG CITY DEPARTMENTS	4
3.0 STORMWATER PLANNING (S5.C.1)	5
3.1 INTER-DISCIPLINARY TEAM	5
3.2 LONG-RANGE PLAN UPDATES	5
3.3 LOW IMPACT DEVELOPMENT	5
3.4 STORMWATER MANAGEMENT ACTION PLAN (SMAP)	5
4.0 PUBLIC EDUCATION AND OUTREACH (S5.C.2)	6
4.1 REGIONAL PROGRAM ELEMENTS	6
4.2 BUILDING GENERAL AWARENESS	8
4.3 AFFECTING BEHAVIOR CHANGE	8
4.4 STEWARDSHIP OPPORTUNITIES	8
5.0 PUBLIC INVOLVEMENT AND PARTICIPATION (S5.C.3)	9
6.0 MS4 MAPPING AND DOCUMENTATION (S5.C.4)	9
7.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (S5.C.5)	10
7.1 IDDE PROCEDURES	10
7.1.1 <i>Field Screening</i>	10
7.1.2 <i>Incident Response</i>	10
7.2 IDDE COMMUNICATIONS	10
7.2.1 <i>Incoming IDDE Reports</i>	11
7.2.2 <i>External IDDE Notifications</i>	11
7.3 REGULATORY MECHANISMS	11
7.4 EMPLOYEE TRAINING	11
7.5 IDDE RECORDKEEPING	12
8.0 CONTROLLING RUNOFF FROM DEVELOPMENT AND CONSTRUCTION (S5.C.6)	12
8.1 REGULATORY STANDARDS AND ENFORCEABLE MECHANISMS	12
8.2 PROCESS FOR PERMITTING, SITE PLAN REVIEW, INSPECTION AND ENFORCEMENT	13
8.3 NOTICE OF INTENT (NOI)	14
8.4 EMPLOYEE TRAINING	14
9.0 OPERATIONS AND MAINTENANCE (S5.C.7)	14
9.2 MAINTENANCE OF PRIVATE STORMWATER FACILITIES	14
9.3 MAINTENANCE OF PUBLIC STORMWATER FACILITIES	14
9.3.2 <i>Street Waste Disposal</i>	15
9.3.3 <i>Spot Checks</i>	15
9.4 RECORDS MAINTENANCE AND MANAGEMENT	15
9.5 MUNICIPAL PRACTICES	16
9.6 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	17
9.7 STORMWATER BMP EMPLOYEE TRAINING	17
10.0 SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT (S5.C.8)	17
11.0 MONITORING AND ASSESSMENT (S8)	18
12.0 REPORTING AND RECORDKEEPING REQUIREMENTS (S9)	19
12.1 ANNUAL REPORT	19
12.2 RECORDKEEPING REQUIREMENTS	19

FREQUENTLY USED ACRONYMS

<i>AKART</i>	<i>All known, available and reasonable methods of prevention, control, and treatment.</i>
<i>BMP</i>	<i>Best Management Practice</i>
<i>EPA</i>	<i>U.S. Environmental Protection Agency</i>
<i>KML</i>	<i>Keyhole Markup Language</i>
<i>LID</i>	<i>Low Impact Development</i>
<i>MEP</i>	<i>Maximum Extent Practicable</i>
<i>MS4</i>	<i>Municipal Separate Storm Sewer System</i>
<i>NOI</i>	<i>Notice of Intent</i>
<i>NPDES</i>	<i>National Pollutant Discharge Elimination System</i>
<i>Permit</i>	<i>Western Washington Phase II Municipal Stormwater Permit</i>
<i>SAM</i>	<i>Stormwater Action Monitoring</i>
<i>SWMP</i>	<i>Stormwater Management Program</i>
<i>TMDL</i>	<i>Total Maximum Daily Load</i>

1.0 INTRODUCTION

The City of Tukwila manages its stormwater drainage system (MS4) in compliance with the Western Washington Phase II Municipal Stormwater Permit. “Stormwater” is regulated under both the Federal Clean Water Act (CWA) and the State Water Pollution Control Act. Stormwater is defined in the permit as “runoff during and following precipitation and snowmelt events, including surface runoff, drainage or interflow”. Stormwater can become polluted when rain or snow meets human development like roads, parking lots and buildings, and can become polluted by activities such as illegal dumping, illicit stormwater connections or improper maintenance of stormwater systems. Most outside drains carry stormwater to local surface waters, like creeks and rivers, and ultimately flow into Puget Sound. Our permit requires us to reduce the discharge of stormwater to the “Maximum Extent Practicable”.

The Surface Water Management Program (SWMP) is targeted at reducing stormwater pollution generated from all lands owned and operated by the City of Tukwila, including rights-of-way, parks, and all other facilities. Managing stormwater and meeting permit requirements is reliant on enacting operational and structural best management practices. This is termed *AKART* or *All Known, Available and Reasonable methods of prevention, control, and Treatment*. When we find a better way of working that reduces pollution and meets the many other factors to consider, like cost, we include those new efforts. This is known as adaptive management. The City provides an Annual Report for the previous year’s activities that documents adaptive management efforts. Both current and past annual reports and SWMPs are on the City’s website at: <https://www.tukwilawa.gov/departments/public-works/npdes/>

STORMWATER MANAGEMENT PROGRAM COMPONENTS

The Permit has the following program components:

- S5.C1 Stormwater Planning
- S5.C2 Public Education and Outreach
- S5.C3 Public Involvement and Participation
- S5.C4 MS4 Mapping and Documentation
- S5.C5 Illicit Discharge Detection and Elimination
- S5.C6 Controlling Runoff from New and Redevelopment, and Construction Sites
- S5.C7 Operations and Maintenance
- S5.C8 Source Control Program for Existing Development

In addition to the SWMP components, the Permit contains special conditions covering:

- Total Maximum Daily Load Requirements (none currently applicable to Tukwila)
- Monitoring and Assessment
- Reporting Requirements

2.0 PERMIT COORDINATION EFFORTS

2.1 Coordination Among Permittees

To help clarify roles and responsibilities for the control of pollutants between physically interconnected and permitted MS4s, Tukwila implements Permit coordination efforts with adjacent entities as necessary. Also, to avoid conflict related to plans, policies and regulations, the City coordinates management activities for shared water bodies and or watersheds. As a matter of course, the City interacts with the following regional groups and stormwater management forums:

- Regional Permit Coordinators (Phase I and Phase II jurisdictions)
- Stormwater Outreach for Regional Municipalities (STORM)
- Regional Operations and Maintenance Program (ROADMAP)
- Business Inspection Group (BIG)
- Lower Duwamish Source Control Working Group and Duwamish Inspectors Group (DIG)
- WRIA 9 (Water Resource Inventory Area) Stakeholder Watershed Planning (17 different participating jurisdictions)
- The Stormwater Action Monitoring Work Group (SAM)

2.2 Coordination Among City Departments

Internally, implementation of Tukwila's SWMP Plan is coordinated through a City Administration Policy (900-08) that defines departmental responsibilities and actions. Coordination elements include program development, reporting, notification, documentation, recordkeeping, data tracking and employee training. A coordinator works with all representatives to ensure timely actions are taken.

3.0 STORMWATER PLANNING

In 2024, Tukwila will continue City-wide stormwater management planning with the participation of many departments within the city and the skills of many individuals. These professionals are brought together to determine how to improve the quality of water entering and leaving through the MS4. Stormwater Planning includes the following four elements:

3.1 Interdisciplinary Team

Stormwater Planning Interdisciplinary Team members represent Public Works, Engineering Review, Capital Improvement Program, Planning, Maintenance & Operations, Asset Management, and Information Technology. The team informs and assists in the development of the Permit-required Stormwater Planning program. The team meets to discuss overlapping stormwater topics as they relate to efforts like the SMAP and the development of the City's update to the Surface Water Comprehensive Plan and SWM Rate Study.

3.2 Long-range Plan Updates

Tukwila reviews water quality and watershed protection policies, strategies, codes and other measures to identify stormwater management needs. This work also informs whether locally initiated or state-mandated long-range land use plan updates are called for (those designed to accommodate growth or transportation for protecting/improving receiving water health). Per Permit section S5.C.1.6.i (b), the City developed a report describing long-range planning coordination that has taken place during the current Permit term.

3.3 Low Impact Development

The City continues to require implementation of Low Impact Development (LID) Principles and LID BMPs as needed. Accordingly, LID BMPs and LID principles are encouraged as a preferred and commonly used approach to site development. Annual assessments help identify administrative or regulatory barriers. Changes may be implemented when local development-related codes, rules, standards, or other enforceable documents support their need.

3.4 Stormwater Management Action Plan (SMAP)

This year, Tukwila will implement the Stormwater Management Action Plan (SMAP) developed in the last permit term. The multi-step SMAP effort conducted with the help of OTAK included development of a watershed inventory, identification of existing water quality conditions for each receiving water catchment area in the city, and assessment and prioritization of identified receiving waters. SMAP assessment and prioritization functions to:

- Conserve, protect and/or restore receiving waters through stormwater and land management strategies that act as water quality management tools.
- Reduce pollutant loading.
- Address hydrologic impacts from existing development and help plan for expected future buildout conditions.

4.0 PUBLIC EDUCATION AND OUTREACH

The City's Public Education and Outreach program serves a diverse Tukwila community. Our Public Education efforts are strategically driven to deliver effective personal messaging to residents, property owners, fixed and mobile businesses, to build general awareness, effect behavior change, and create stewardship opportunities for residents and interested outside parties.

4.1 Regional Program Elements

The City utilizes various regional resources and public partnerships, including but not limited to: Stormwater Outreach for Regional Municipalities (STORM)

- Incorporation of practical municipal stormwater information obtained from regular STORM meetings, symposiums, networking, programs, and resources.
- Co-branding Puget Sound Starts Here (PSSH) on printed materials; and linking PSSH events, materials, and tools from the City's stormwater management web page.

Washington Stormwater Center (WSC)

- Utilization of WSC municipal stormwater management and training resources to improve public education and outreach communications, framing of messages, designing of ideas for targeted audiences, engagement of overburdened communities, and creation of appropriate outreach materials.

Municipal Resource Service Center/ Washington Cities Insurance Agency

- Utilizing the expertise and cumulative knowledge of these resources to educate citizens.

Regional Meetings

- Participating in regional groups (see Section 2.1) to collaborate on Permit-related public education opportunities.

4.2 Building General Awareness

The City of Tukwila implements a multi-media Stormwater General Awareness Program that utilizes many messaging media via the City of Tukwila Facebook Page and the City of Tukwila Hazelnut Publication. Table 1 identifies the various Permit-required General Awareness program elements, target audiences, and outreach approaches used by Tukwila.

Table 1. Permit-required public education and outreach general awareness program elements

	Target Audience	Description	Subject Area
City Website and Facebook Page	General Public (including school-age children); and businesses (home-based or mobile)	Permit information, Stormwater Design/BMP Manual, Spill Hotline, volunteer opportunities (curb marker, lake monitoring), stormwater/surface water issues and events, residential & charity car washing, rain barrels, pet waste management, GIS maps and private water quality facility inspection information.	General impacts of stormwater on surface waters (including impervious)
City Web Page	Engineers, contractors, developers, land use planners	Various types of information including LID infeasibility study, LID criteria, GIS maps, technical guidance and focus sheet.	Low impact development (LID) principles and LID BMPs
Public Displays and Printed Materials at City Hall	General Public and businesses (home-based or mobile), engineers, contractors, developers, land use planners	Various types of information including spill hotline, volunteer opportunities (curb marker, lake monitoring), residential car washing, rain barrels, pet waste management, LID infeasibility study, criteria, maps, technical guidance and focus sheet.	General impacts of stormwater on surface waters (including impervious); Low impact development (LID) principles and LID BMPs
Green Tukwila	General Public (including school-age children)	Municipal stormwater management educational, natural yard care and green-clean literature distribution at the annual event. City subsidized rain barrels for purchase.	General impacts of stormwater on surface waters (including impervious)
Recycling Events (Spring and Fall)	General Public (including school-age children)	Municipal stormwater management educational, natural yard care and green-clean literature at the two annual events. City subsidized rain barrels for purchase.	General impacts of stormwater on surface waters (including impervious)
Partnering with Sabey Corporation Salmon Incubator Hatchery	General Public (including school-age children)	A salmon incubator installation designed to educate the public regarding the salmon lifecycle (from eggs to fry) and the connection to surface water resources (school aged participation). Salmon release in Spring.	General impacts of stormwater on surface waters (including impervious)
City Recycling Webpage	General Public	Garbage, recycling and food & yard waste management (including household hazardous waste issues and composting)	General impacts of stormwater on surface waters
Pet Waste Signage in City Parks	General Public	Signage encouraging citizens utilizing City parks to pick up after their pets.	General impacts of stormwater on surface waters

4.2 Building General Awareness

The City collaborates with StormFest, an annual program that aids to reduce and/or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The program’s target audience is school-age children. In 2024, StormFest will be a three-day interactive stormwater festival held at Des Moines Beach Park. StormFest members include Highline School District, the Environmental Science Center, and Enviro-Issues. Tukwila has sent educators and staff for the past several years to this outdoor in-stream education.

In 2022, StormFest was held at six separate Highline School District middle school campuses. Over the course of the ten-day event, educators, interpreters, and volunteers with StormFest taught over 1,400 sixth and seventh grade students about stormwater pollution and pollution prevention solutions. Behavior Change assessment surveys measured overall student stormwater knowledge. In total, 433 students completed the pre-event and post-event surveys.

The 2022 Behavior Change Assessments were used to document student understanding regarding StormFest concepts. One key finding (measured by a paired sample t-test), showed that the students’ total stormwater knowledge increased significantly from pre-event testing to post-event testing. Data generated from the assessments will be used to measure behavior change throughout future StormFest programs.

4.4 Stewardship Opportunities

The City uses a variety of activities and events to raise stormwater quality awareness and to encourage community engagement and adoption of environmentally friendly behaviors. Table 2 describes stewardship outreach efforts that are offered or promoted by the City throughout 2024.

Table 2. Permit-required public education and outreach stewardship program elements Activity

	Description	Subject Area
Green Tukwila	Volunteers are encouraged to assist the King County Department of Natural Resources monitor the water quality of Angle Lake. This work helps to identify potential environmental problems and/or illegal discharges.	General impacts of stormwater on surface waters
Adopt-a-Drain Program	Individuals, community organizations and businesses can participate to adopt a storm drain in their neighborhood. Their efforts are tracked in an online account.	Encourages and enforces a commitment to stormwater pollution prevention.
Solid Waste/Recycling Volunteer	The annual <i>Get your Green On</i> event hosted by the City educates the public regarding recycling and sustainable practices, Natural Yard Care, household hazardous waste, water conservation (rain barrels), and composting. The event also utilizes volunteers to set out native plantings.	General impacts of stormwater on surface waters

5.0 PUBLIC INVOLVEMENT AND PARTICIPATION

Within the Surface Water and Transportation Comprehensive Plans, SWMP Plan and SMAP frameworks, the City provides ongoing public involvement, participation, and decision-making opportunities. Furthermore, Tukwila continues to identify and implement more effective ways to engage the overburdened community. These efforts include translation of printed materials into some of the eighty-nine (89) languages spoken in Tukwila Schools.

Throughout the year, the public is encouraged to comment on Comprehensive Planning, the SWMP Plan, and SMAP. Public involvement and participation outreach efforts involve mailings and postings of important and timely messages and meeting invitations on the Public Works Stormwater Management web page, and through specialized media, including the Hazelnut and the Tukwila Web Page and Facebook Page.

The following includes specific public involvement and participation opportunities highlighted for 2024:

- Posting of the 2024 SWMP Plan by March 31
- An informational public meeting in mid-March to discuss the SMAP for Riverton Creek
- Public opportunities as necessary during 2024-2025 as a new Surface Water Comprehensive Plan is developed and updated
- Posting of routine state and local public notices when required for certain construction and planning efforts

6.0 MS4 MAPPING AND DOCUMENTATION

The City implements a comprehensive program to map and document the municipal separate storm sewer system (MS4). Ongoing mapping involves procedures to identify, analyze and process Geographic Information Systems (GIS) data. Maintained feature mapping data includes stormwater conveyance infrastructure, outfalls, discharge points, receiving waters, treatment and flow control facilities, tributary conveyances, drainage areas, land use, connections, and other components.

IT, GIS, and Public Works Operations, and Asset Management work together to generate MS4 feature data. These efforts help the City meet Permit-required stormwater management program goals. Municipal work that benefits from mapping information includes future planning, economic development, engineering review, public education, spill response, private water quality facility and source control inspections, construction, operations, and maintenance. Through an external web-based application portal, Tukwila also provides map-based information resources for residents, visitors, engineers, planners, designers, and emergency responders.

In 2024, the City of Tukwila plans to support existing MS4 mapping by continuing to:

- Improve stormwater data as needed within the Geographic Information System (GIS) to enhance user experience, ensure current and future regulatory requirements, and to serve as a system of record.

- Further Implement a Computerized Maintenance Management System (CMMS) called Lucity designed to provide and track work orders and service requests. The CMMS may also help manage stormwater assets and perform risk/cost analyses.
- Continue to perform CCTV video inspection program and documentation of MS4 asset conditions as needed.
- Integrate various asset management program software to assist in stormwater resource allocation, prioritization, funding strategies and maintenance schedules.

To fully meet Permit requirements, the City will respond to all mapping requests in compliance with national security laws and directives. Tukwila makes these GIS geospatial data easily available to the public via the internet on the Tukwila Maps and GIS webpage, with viewable and downloadable MS4 mapping formats.

7.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City carries out a comprehensive Illicit Discharge Detection and Elimination (IDDE) program for preventing, detecting, characterizing, tracing, and eliminating stormwater pollution. Permit-required minimum performance measures involve:

- Methods for initiating investigations.
- Procedures for recordkeeping, reporting and correcting or removing illicit connections, spills, and other illicit discharges.
- Processes for informing public employees, businesses, and the public of hazards associated with illicit discharges and improper disposal of waste.
- Public education and code enforcement mechanisms that effectively prohibit non-stormwater discharges into the MS4 to the maximum extent allowable.
- Training programs for all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges (including spills and illicit connections).

7.1 IDDE Procedures

Tukwila uses the Illicit Discharge Detection and Elimination Field Procedures and Response Plan (IDDE Plan) provided in the MANUAL which provides a framework for:

- Characterizing any found or reported illicit discharges.
- Tracing illicit discharge sources (visual inspections monitoring of pollutants).
- Eliminating discharges: notification of appropriate authorities, notification of property owner, technical assistance, follow-up inspections and use of compliance strategies (escalating enforcement and legal actions).
- Developing and implementing employee training and recordkeeping programs.

7.1.1 Field Screening

Field screening is used for the inspection and evaluation of the City's MS4 to identify and eliminate potential sources of stormwater pollution; our procedures consider local stormwater system characteristics to help identify water quality concerns. Field screening is performed in tandem with ongoing program assessment, inspection, and cleaning of the MS4 (see Section

9.0). In accordance with Permit requirements, the City field screens a minimum of 12% of the MS4 on average each year.

7.1.2 Incident Response

Tukwila implements procedures for spill response and improper disposal into the MS4. In doing so, designated city personnel respond to incidents and implement procedures to control and eliminate sources of stormwater pollution (with priority given to incidents that impact public safety, public health, and the environment). IDDE Incident Response Procedures provide for:

- Definition of roles and responsibilities (both internal and external).
- Spill response, emergency response, and outside agency coordination as needed.
- Standardized reporting procedures, investigations, documentation, and follow-up procedures.

7.2 IDDE Communications

Established communication processes result in well-coordinated IDDE incident responses. Public Works M&O Stormwater staff that are assigned to track IDDE complaints obtain all necessary and relevant information for the purpose of evaluating potential public health, public safety, or environmental threats.

If the report is credible, a formal IDDE compliance investigation is launched to address the nature of the discharge, determine the source of the discharge, identify the responsible party, and eliminate the contamination. The elements of an effective investigation include immediate characterization of the illicit discharge threat, initiation of notifications, site investigation, documentation of conditions and completion of recordkeeping.

7.2.1 Incoming IDDE Reports

Receipt of illicit discharge reports are communicated to the City in various ways including, but not limited to:

- Direct calls to the Spill Hotline (206-433-1860), e-mail, SeeClickFix® web/mobile application complaints, after-hours dispatch calls, and in-person communication.
- Information received from internal city operations (staff communication, personal observation, inspection program referrals and MS4 field screening operations).
- Referrals from Ecology's Environmental Report Tracking System Reports.
- External agency referrals.

7.2.2 External IDDE Notifications

Once information concerning a suspected or known illicit stormwater discharge is reported to or received by City staff, proper notification sequences are triggered that are based upon the severity of the incident. If necessary, appropriate external entities are notified, which may include:

- Local Fire District
- Department of Ecology
- Local Sanitary Sewer Authority

- Public Water Utility
- Tukwila Police
- King County Public Health
- Adjacent jurisdictions or agencies

7.3 Regulatory Mechanisms

Ordinances, Tukwila Municipal Code (TMC) and other enforceable documents enable the City to implement the IDDE program through three regulatory mechanisms:

- TMC 14.30.180: Surface and Stormwater-Illicit Discharge Detection and Elimination
- TMC 14.30: Surface and Stormwater Management
- TMC 8.45: Code Enforcement

7.4 Employee Training

All affected City employees receive in-house Permit-required IDDE training as needed. Affected staff include those who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges. Follow-up training is provided as needed to address changes in procedures, techniques, requirements, or staffing, which may include annual refreshers, review of case-studies and informal training in the form of staff meetings.

7.5 IDDE Recordkeeping

IDDE compliance investigations involve rapid assessment of threats to public health, public safety, or the environment. Effective Tukwila IDDE investigations begin with procedures that involve the collection and recording of relevant and accurate incident information and documentation such as photos and field indicator tests. Accordingly, IDDE incident recordkeeping utilizes the City SAW Account to document each effort for annual reporting.

Requests that contain the following standard information: date of incident, location, reporting source, pollutant, cause, corrective actions, photos, various forms of written communication and progress summary notes. In 2024, IT is developing an improved web-based portal workflow within Lucity that will produce a more comprehensive IDDE investigatory format for reporting and compliance.

Pursuant to Special Condition S9.A, the City provides a yearly summary of IDDE incidents with the permit required Annual Report (Section 12.1).

8.0 CONTROLLING RUNOFF FROM NEW AND REDEVELOPMENT, AND CONSTRUCTION SITES

Tukwila's Development and Construction Runoff Control program promotes public health, safety, and welfare by establishing a comprehensive approach to surface and storm water problems. This program reduces flooding, erosion and sedimentation, prevents/mitigates habitat loss, enhances groundwater recharge, and prevents water quality degradation. Drainage review is required for any proposed project (except those proposing only maintenance) that is subject to a City of Tukwila development permit or approval. Specific program elements include

permitting, basin and sub-basin planning, land use regulation, facility construction approval, and post construction inspections.

The City of Tukwila implements and enforces this Permit-required program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites. The minimum performance measures of this Permit-required program are:

- Utilizing ordinances or other enforceable mechanisms to address runoff from new development, redevelopment, and construction site projects.
- Using requirements, limitations and criteria approved by Ecology.
- Implementing a permitting process with site plan review, inspection, and enforcement capability to meet the standards.
- Making available, as applicable, the link to the electronic Construction Stormwater General Permit Notice of Intent (NOI) form for construction activity and, as applicable, a link to the electronic Industrial Stormwater General Permit NOI form for industrial activity to representatives of proposed new development and redevelopment.
- Enforcing local ordinances to control runoff from sites covered by stormwater permits issued by Ecology.
- Ensuring proper training for all development and construction staff involved with this program.

8.1 Regulatory Standards and Enforceable Mechanisms

In compliance with current Permit requirements, a combination of codes and adopted standards enable the City to control runoff from new development, redevelopment, and construction sites. In 2022, Tukwila updated the necessary standards and enforceable mechanisms through the adoption of the 2021 King County Surface Water Design Manual (KCSWDM). This effort achieves equivalency with Ecology's Stormwater Management Manual for Western Washington. Additionally, Tukwila employs the following applicable local regulations, rules, and standards:

- TMC 14.30: Tukwila Surface and Stormwater Management Code, including adoption of the most current KCSWDM.
- TMC 8.45: Code Enforcement
- **TMC 15.700: Critical Areas**
- Tukwila Infrastructure Design and Construction Standards

The Ecology-approved KCSWDM specifies limitations and criteria used to implement the minimum requirements in Appendix 1 of the Permit to protect water quality and to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). It also satisfies the State requirement under Chapter 90.48 RCW to apply All Known, Available and Reasonable Methods of Prevention, Control and Treatment (AKART) prior to discharge.

KCSWDM limitations and criteria include:

- Site planning requirements
- Best Management Practice (BMP) selection criteria
- BMP design criteria
- BMP infeasibility criteria

- LID competing needs criteria
- BMP limitations

8.2 Process for Permitting, Site Plan Review, Inspection and Enforcement

Tukwila administers and reviews site engineering plans and development permits to address clearing, grading, paving, stormwater management system, roadway, and right-of-way activities. Furthermore, internal procedures provide for: project approval processing, inspection authority, inspection processes, inspection criteria, pre-acceptance review, re-inspection, and enforcement.

The City's stormwater permitting process involves:

- Review of all stormwater site plans for proposed development activities.
- Inspection, prior to clearing and construction, of all permitted development sites that have a high potential for sediment transport as determined through plan review.
- Inspection of all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls.
- Management of maintenance activities to inspect all stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every six months, 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.
- Inspection of all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verification that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities.
- Compliance with Permit requirements to achieve at least 80% of required inspections.

The Runoff Control program also includes recordkeeping and documentation that uses modular TRAKiT® e-Gov software, a system that creates, stores, and processes all permitting information. TRAKiT® documents formal permit applications, inspection records, administrative entries, attachments, alerts, project holds and enforcement. TRAKiT® is tightly linked with the City's GIS system to provide real time inspection tracking status.

8.3 Notice of Intent (NOI)

The City of Tukwila continues to make Notices of Intent (NOI) available to new development and redevelopment proponents and representatives when appropriate. These include NOIs triggered under the NPDES Construction Stormwater General Permit and the NPDES General Industrial Stormwater Permit.

8.4 Employee Training

The City ensures proper formal training (for example CESCL) for all staff whose primary job duties involve Permit-required activities associated with the Development and Construction Runoff Control Program. When necessary, follow-up training occurs in the form of review during routine staff meetings to address changes in procedures, techniques, or staffing. The City documents and maintains all required training records.

9.0 OPERATIONS AND MAINTENANCE

To prevent or reduce stormwater impacts, Tukwila implements a Permit-required program to regulate, inspect and document private and public maintenance activities. Implementation of standards under this program are as protective, or more protective, of facility function than those specified in Ecology's Stormwater Management Manual for Western Washington. To meet these requirements, Tukwila uses the 2021 King County Surface Water Design Manual (KCSWDM), and other enforceable mechanisms.

Condition assessments and inspections of private and public stormwater systems involve measuring sediment levels, evaluating vegetation growth, inspecting for structural damage, and noting defects and problems. Proper system maintenance is necessary to protect downstream natural resources from flooding and water quality impacts. Private and public facilities and components inspected include, but are not limited to: detention ponds, infiltration facilities, detention tanks/vaults, flow control structures and catch basins.

9.2 Maintenance of Private Stormwater Facilities

Established KCSWDM standards, City ordinances, and other enforceable mechanisms identify requirements and responsibilities for the operation and maintenance of private stormwater systems. Tukwila Public Works has established a program for long-term O&M inspection and enforcement of privately-owned stormwater treatment and flow control BMPs/facilities that discharge to the MS4. The following local regulations apply:

- TMC 14.30: Tukwila Surface and Stormwater Management Code
- TMC 8.45: Code Enforcement

The Private Maintenance Inspection program includes annual inspections of all Permit-regulated facilities. In the first half of each year, property owners are notified via letter of planned facility inspections. Scheduled inspections are conducted throughout the spring and summer. After inspections, comprehensive written findings are issued to property owners to indicate compliance, or to direct the need for corrective action. Work orders documenting each private maintenance inspection are tracked within Tra\kit© (see Section 9.4).

9.3 Maintenance of Public Stormwater Facilities

Public stormwater infrastructure owned or operated by Tukwila includes the system (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) designed or used for collecting or conveying stormwater. Publicly owned assets are inspected to identify structural concerns, sediment levels, or other functional defects. All inspection data are recorded in Lucity©. Permit-required maintenance timelines for public stormwater conveyances include:

- Annual inspection of all stormwater treatment and flow control BMPs/facilities (including but not limited to detention facilities, permanent treatment BMPs/facilities; and bioretention, and permeable pavements).
- Inspection of all catch basin circuits and outfalls every year. This program utilizes location data and GIS capabilities to assess larger drainage systems with limited resources. An entire circuit is cleaned once the inspections indicate the need.

9.3.2 Street Waste Disposal

The City manages the collection and disposal of routine stormwater-related wastes (both liquids and solids) that are generated from City-owned property. These wastes are properly disposed in compliance with Permit requirements, and in accordance with Appendix 6 - Street Waste Disposal guidelines.

- A limited amount of decant stormwater liquids are discharged into Valley View Sewer District sanitary sewer at an approved and permitted Tukwila Maintenance facility trash rack location.
- Uncontaminated solids are transported to the King County Renton Decant Station. This regional disposal facility is available for use by public agencies (including Tukwila) to manage and treat uncontaminated MS4 solids.
- PRS Group Washington in Tacoma serves as a disposal option when the King County facility is not available; or when known or suspect contamination is encountered.
- Maintenance and disposal operations are contracted out occasionally on an as-needed basis.

9.3.3 Spot Checks

Tukwila tracks precipitation amounts by recording King County Watershed and Ecological Assessment Program hydrological data. Public Works staff log these data from two spatially representative rain gauge sites located in Tukwila and calculate their running totals (24-hr/10-year recurrence) to determine if major storm events have resulted. **The two rain gauges continually monitored in Tukwila are:**

- **List of rain gauges use in Tukwila**

In-person spot checks of all Tukwila-owned stormwater treatment and flow control BMPs/facilities occur immediately after all documented major storm events. Corrective actions are then implemented as needed in accordance with 2021 King County Surface Water Design Manual Maintenance Requirements.

9.4 Records Maintenance and Management

Public Works utilizes Lucity© for private and public stormwater systems records maintenance and management. Lucity© is a GIS-centric enterprise asset management system that manages, tracks and analyzes stormwater infrastructure assets.

Lucity© offers a custom database of work orders, service requests, and inspection records generated for Permit-required activities. Using an ArcGIS geodatabase, Lucity© delivers spatial work activity and mobile field operation applications that generate Permit-compliant service requests and work orders. Comprehensive tracking of records includes inspections, investigations, maintenance, and enforcement. The City continues to modify Lucity© processes and functionality to improve levels of service and to better meet Permit requirements.

9.5 Municipal Practices

Tukwila implements stormwater pollution prevention practices that address municipal activities and operations associated with all lands owned or maintained by the City. Affected public lands include streets, parking lots, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.

In 2022, a Stormwater BMP Policy was created to provide coordination of City-wide efforts to reduce polluted stormwater runoff into and out of municipal drainage systems, facilities and properties to the maximum extent practicable. The policy ensures that practices and procedures are fully implemented, and that they comply with the applicable NPDES Permit requirements.

Per the BMP Policy, all affected city operations, and activities (including outside contracted work) must adhere to a combination of guidance documents and materials referenced below that describe specific stormwater pollution best management practices which have been adopted for all lands owned or maintained by the City of Tukwila. Affected staff include those that work in Public Works, and Parks, Community Programs & Services.

- a. 2021 King County Stormwater Design Manual (KC SWDM), adopted per Tukwila Municipal Code (TMC) 14.30 and the NPDES Permit (Section S5.C.6.a). This document provides minimum inspection and maintenance requirements (Appendix A) for all publicly owned stormwater treatment and flow control BMPs/facilities and components.
- b. 2021 King County Stormwater Pollution Prevention Manual (SPPM). This document provides best management practices (BMPs) for managing stormwater; it lists detailed information and description of actions to prevent/eliminate stormwater, surface water, and groundwater contamination. Municipal-related stormwater pollution prevention practices and procedures covered in the SPPM involve activities such as storage of pesticides and fertilizers, pressure washing, stationary fueling operations, vehicle and equipment repair and maintenance, and snow response operations.
- c. 2016 King County Site Management Plan (KCSiMPla). This document addresses site-specific BMPs: roadway maintenance operations, utility maintenance, maintenance of stormwater facilities, and other right-of-way (ROW) structure work. Maintenance activities covered under these guidelines include, but are not limited to street sweeping, maintaining and cleaning enclosed drainage systems, and mowing bio-swailes and cleaning water quality vaults.

9.6 Stormwater Pollution Prevention Plan (SWPPP)

The City implements a written Stormwater Pollution Prevention Plan (SWPPP) for the Public Works Maintenance facilities. These sites function as a heavy equipment maintenance and material storage yards subject to Permit requirements. The SWPPP was updated in 2022 to fully meet permit requirements per S5.C.8.f. The SWPPP includes the following information:

- A detailed description of the operational and structural BMPs in use.
- A BMP implementation schedule.
- Annual inspections of the facility (including visual observations of discharges, to evaluate the effectiveness of the BMPs).
- An inventory of the materials and equipment stored on-site.
- Activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.
- A site map showing the facility's stormwater drainage, discharge points, and areas of potential pollutant exposure.
- A plan for preventing and responding to facility spill incidents.

9.7 Stormwater Pollution Prevention Training (SWPPP)

The City implements an ongoing stormwater BMP training program for all Tukwila employees that conduct municipal-related job functions that may impact stormwater quality (construction, operations, or maintenance). Training addresses the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selection of appropriate BMPs, ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training is provided as needed to address changes in procedures, techniques, requirements, or staffing, which may include annual refreshers and informal training in the form of staff meetings. The City documents and maintains municipal-related training records, including dates, activities, course descriptions, and names and positions of staff in attendance.

10.0 SOURCE CONTROL FOR EXISTING DEVELOPMENT

In 2024, the City will fully implement a new Permit-required Source Control Program to prevent and reduce contamination discharging into the MS4 from stormwater pollution-generating sites and businesses in Tukwila. Elements of the Source Control Program include:

- Developing an inventory that includes approximately 156 publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4.
- Performing annual inspections on a minimum 20% of the total inventory sites (779).
- Establishing effective BMPs for each individual site to control pollution potentially discharging into the MS4.
- Implementing a progressive enforcement program that requires sites to comply within a reasonable period.
- Providing ongoing staff training for those responsible for implementing the source control program.

To help prepare for the implementation of the new program, stormwater personnel participate in the Business Inspection Group (BIG), a collaborative group of municipal stormwater permittees hosted by the Washington Stormwater Center. BIG periodically convenes to share resources and guidance on best practices, enforcement strategies, public education, and inspection tracking and management.

11.0 MONITORING AND ASSESSMENT

The Department of Ecology-facilitated Stormwater Action Monitoring (SAM) forum helps municipal stormwater permittees understand and develop water quality monitoring strategies required under Western Washington municipal stormwater permits. SAM provides structure, transparency, and accountability for permittees and stakeholders. The group also aims to improve stormwater management, reduce pollution, improve water quality, and reduce flooding.

The City of Tukwila meets Permit monitoring and assessment requirements by paying into an Ecology-managed collective fund that finances the following programs:

- Regional small streams and marine nearshore areas status and trends monitoring.
- Stormwater effectiveness and source identification studies.

- The City committed in 2019 to pay into the collective SAM monitoring fund.
- Annual contribution amounts for next five years:

S8.A – Regional Status and Trends Monitoring, the City will pay **\$3,252**.

S8.B – Stormwater Management Program (SWMP) Effectiveness and Source Identification Studies, the City will pay **\$5,943**. The **total fee of \$9,195** is due each year by August 15 until the permit expiration date of July 31, 2024.

12.0 REPORTING REQUIREMENTS (SPECIAL CONDITION S9)

12.1 Annual Report

No later than March 31 of each year, the City of Tukwila submits an electronic Annual Report to Ecology's Water Quality Permitting Portal (WQWebPortal). The Annual Report covers activities performed during the previous calendar year. Each Annual Report includes the following:

- A copy of Tukwila's current SWMP Plan.
- As provided by Ecology, the Annual Report form documents SWMP Plan implementation status during the reporting period.
- Attachments including summaries, descriptions, reports, and other information as required, or as applicable.
- Certification and signature pursuant to G19.D, and notification of any changes to authorization pursuant to G19.C.

The City makes the most current Annual Report and SWMP Plan available on the Tukwila Stormwater Management Program Webpage

12.1 Annual Report

The City of Tukwila keeps all records related to the Permit and the SWMP for at least five years. All records related to the Permit and the SWMP are made available to the public at reasonable times during business hours. The City will provide a copy of the most recent Annual Report upon request to any individual or entity (a reasonable cost is charged for making photocopies of records). The City may require an advanced notice of intent for review of Permit-related records.

CONCLUSION

The current Permit expires July 31, 2024. This SWMP Plan is a working document with updates annually until the expiration date. The City has submitted its required Notice of Intent to Reapply and retain coverage under the National Pollution Discharge Elimination System and the accompanying State Waste Discharge permit.

Additional information on the City's NPDES program can be found online at <https://www.tukwilawa.gov/departments/public-works/npdes/>.

Many thanks to the City of SeaTac and Dan Smith for his example and assistance, as well as the unfailing watershed coordination. The public is encouraged to participate in the development of the SWMP Plan. Please contact Russell Betteridge of the City of Tukwila's Public Works Department with questions or comments at:

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