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# The City of SeaTac

## 2021 Stormwater Management Program (SWMP) Plan

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**City of SeaTac**  
**Public Works Department**  
**4800 South 188<sup>th</sup> Street**  
**SeaTac WA 98188-8605**

Prepared in compliance with the 2019 Phase II Municipal Stormwater National Pollutant Discharge Elimination System and State Discharge General Permit for discharges from Small Municipal Separate Storm Sewer Systems, Permit #WAR045541

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## 1.0 INTRODUCTION

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In 2007, the City of SeaTac began operating under the Western Washington Phase II Municipal Stormwater National Pollutant Discharge Elimination System Permit (Permit). The Permit authorizes discharges from the City's municipal separate storm sewer system (MS4) to surface waters and to groundwaters. The City implements the Permit in compliance with the Federal Water Pollution Control Act (the Clean Water Act) Title 33 United States Code, Section 1251, and the State of Washington Water Pollution Control Law Chapter 90.48 Revised Code of Washington.

The current five-year Permit went into effect on August 1, 2019 and expires on July 31, 2024. The Permit requires the development of a Stormwater Management Program (SWMP). For the adaptive management of activities and work, the SWMP provides a set of programmatic actions and activities including an on-going system for gathering, tracking, maintaining, evaluating and using information.

This document constitutes the *City of SeaTac 2021 SWMP Plan*. It provides written documentation prepared by the City to inform the public of planned Permit activities for the upcoming calendar year. The *2021 SWMP Plan* organizational structure includes these listed components and associated Permit sections:

- Coordination Efforts (S5.A.5)
- Stormwater Planning (S5.C.1)
- Public Education and Outreach (S5.C.2)
- Public Involvement and Participation (S5.C.3)
- MS4 Mapping and Documentation (S5.C.4)
- Illicit Discharge Detection and Elimination (S5.C.5)
- Controlling Runoff from Development, Redevelopment and Construction Projects (S5.C.6)
- Operations and Maintenance (S5.C.)
- Source Control for Existing Development (S5.C.7)
- Monitoring and Assessment (S8)
- Reporting and Recordkeeping (S9)

The Annual Report submittal to Ecology includes the *2021 SWMP Plan*. The City posts the final version on the web at: [2021 City of SeaTac SWMP Plan](#)

## 2.0 PERMIT COORDINATION EFFORTS (S5.A.5)

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### 2.1 Coordination Among Permittees

To help clarify roles and responsibilities for the control of pollutants between physically interconnected and permitted MS4s, the City of SeaTac implements coordination efforts with adjacent entities as necessary. The City also coordinates management activities for shared water bodies and or watersheds to avoid conflict related to plans, policies and regulations. To meet Permit coordination requirements, the City is involved with the following regional groups and stormwater management collaborative forums:

- Regional Permit Coordinators (Phase I and Phase II jurisdictions)
- Stormwater Outreach for Regional Municipalities (STORM)
- Regional Operations and Maintenance Program (ROADMAP)
- The Stormwater Action Monitoring Work Group (SAM)

- Des Moines Creek Basin Committee (King County, City of Des Moines, Port of Seattle)
- Miller/Walker Creeks Stewardship Program (King County, City of Burien, City of Normandy Park, Port of Seattle)
- WRIA 9 (Water Resource Inventory Area) Stakeholder Watershed Planning (17 different participating jurisdictions)
- Informal arrangements with adjacent jurisdictions (City of Burien, City of Des Moines, City of Tukwila and City of Normandy Park) on shared opportunities for employee training, services and equipment as needed.

## **2.2 Coordination Among City Departments**

Internally, the Public Works Department coordinates the implementation of SeaTac’s *2021 SWMP Plan*. Accordingly, Public Works unifies municipal efforts through an internal policy that defines departmental responsibilities and actions concerning Permit compliance. Coordination elements include program development, reporting, notification, documentation, recordkeeping, data tracking and employee training.

## **3.0 STORMWATER PLANNING (S5.C.1)**

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In 2021, the City will continue implementing Permit Stormwater Planning requirements that establish policies, strategies and water quality management tools for long-term planning and protection of receiving waters. Stormwater Planning includes the following four phased elements:

### **3.1 Inter-disciplinary Team Formation**

A City inter-disciplinary team convenes to inform and assist in the development, progress and influence of the Stormwater Planning program. Municipal stormwater management team include members representing Public Works, Engineering Review, Capital Improvement Program, Planning, Inspections, Maintenance & Operations, Asset Management and Information Technology.

### **3.2 Long-range Plan Updates**

The City’s Annual Report submitted this year describes water quality and watershed protection policies, strategies, codes and other measures completed during the previous Permit period (2013-2019). Succeeding Annual Reports will describe equivalent work undertaken during the current Permit term (2019-2024). The outcome from these two exercises will inform whether the Comprehensive Plan and other locally initiated or state-mandated long-range land use plans (used to accommodate growth or transportation) will require updating.

### **3.3 Low Impact Development**

The City will continue, as needed, to require Low Impact Development (LID) Principles and LID BMPs when updating, revising and developing new local development-related codes, rules, standards or other enforceable documents. Annual assessments help identify administrative or regulatory barriers to implementation of LID Principles or LID Best Management Practices (BMPs). The goal is to encourage LID as a preferred and commonly-used approach to site development.

### 3.4 Stormwater Management Action Plan (SMAP)

This Permit term, SeaTac is required to initiate and complete a Stormwater Management Action Plan (SMAP) program. For the assessment and prioritization of local receiving waters, the SMAP functions to:

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

This multi-step SMAP effort takes place over the next several years under the current Permit cycle. The development of a watershed inventory identifies existing water quality conditions for each receiving water catchment area in the City. Prioritization then determines which listed receiving waters receive the most benefit from stormwater management action implementation. By 2023, a final SMAP for one of the high priority catchment area establishes an implementation schedule and budget for the following (as needed):

- Additional stormwater retrofits or best management practices.
- Land management and development strategies.
- Targeted, enhanced or customized stormwater management actions.
- Possible changes to long-range plans.

## 4.0 PUBLIC EDUCATION AND OUTREACH (S5.C.2)

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The City of SeaTac has had a long-standing Public Education and Outreach program uniquely created for our locally diverse community (residents, property owners, businesses and visitors served by the MS4). The program identifies subject areas and/or BMPs to offer strategic opportunities and mechanisms that communicate consistent messaging to recipients. This work occurs through delivery of education and outreach materials to targeted high priority audiences, including the general public (overburdened communities and school age children) and local small businesses.

The City of SeaTac will continue adopting elements from various regional programs to meet Permit requirements. This effort involves leveraging and interfacing with other permitted local governments to focus on known water quality problems in our jurisdiction.

### 4.1 Building General Awareness

The City of SeaTac implements a comprehensive multi-media public education and outreach general awareness program. In 2021, we will begin implementation of an enhanced stormwater general awareness program through the development of short social media messages posted on the [City of SeaTac Blog](#) and the [City of SeaTac Facebook Page](#).

The following table identifies the various Permit-required public education and outreach general awareness program elements, target audiences and outreach approaches for SeaTac. (Note that the status of in-person events may be affected by COVID-19 restrictions).

| <b>Approach</b>  | <b>Target Audience</b>  | <b>Description</b>  | <b>Subject Area</b>  |
|--|---|---|--|
| City Website, Blog 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), residential & charity car washing, rain barrels, pet waste management, GIS maps and private 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 |
| Environmental Coalition of South Seattle (ECOSS) Spill Kit Program | Businesses (including overburdened communities)   | ECOSS conducts annual small business inspections focused on stormwater pollution prevention. Emergency spill kits and training provided. Selected messages delivered in languages other than English.   | General impacts of stormwater on surface waters (including impervious), and business-specific BMPs                           |
| Get your Green On  | 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 yearly events. City subsidized rain barrels for purchase.  | General impacts of stormwater on surface waters (including impervious)   |
| Miller and Walker Creeks Stewardship Web Page                      | General Public  | Cooperative effort involving the cities of Burien, Normandy Park, and SeaTac, the Port of Seattle, the Washington State Department of Transportation, and King County.  | General impacts of stormwater on surface waters (including impervious); volunteer opportunities.                             |
| Salmon Tank and Display at City Hall                               | General Public (including school-age children)  | A prototype salmon aquarium installation designed to educate the public regarding the salmon lifecycle (from eggs to fry) and the connection to surface water resources (poster display). 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  |
| WA Green Schools   | Secondary teachers and children   | Cooperative effort to model stormwater teaching practices through training, and develop hands-on classroom/field opportunities.   | General impacts of stormwater on surface waters  |



Our public education and outreach program also uses resources, methods obtained through regional partnerships, including but not limited to:

#### [Stormwater Outreach for Regional Municipalities \(STORM\)](#)

- Obtaining practical information regarding municipal stormwater communications programs by participating in annual STORM Symposiums.
- Co-branding *Puget Sound Starts Here* (PSSH) printed materials and links on the City's stormwater management web page to PSSH events, materials and classroom tools.
- Incorporation of communication messaging ideas for overburdened communities.

#### [Washington Stormwater Center \(WSC\)](#)

- Utilizing WSC information (website and Municon Conference presentations). WSC stormwater education and outreach information helps the City to: improve communications, frame messages, design ideas for targeted audiences, engage overburdened communities and create appropriate outreach materials (including non-English language products).

#### [King County Local Hazardous Waste Program \(KCLHWP\)](#)

- KCLHWP is a regional partnership delivering services to protect public health, environment, and to reduce exposure risks to hazardous materials found at home and at work. The City promotes the KCLHWP Voucher Incentive Program by informing local eligible businesses regarding reimbursement options for disposal of sediment or contaminants accumulated within private flow control, conveyance or water quality facilities.

#### [Regional Permit Coordinator Meetings](#)

- SeaTac participates in Central Sound Phase II, South Sound Phase II, and Road Map forums. These meetings provide opportunities for Permit-related learning and collaboration.

## **4.2 Affecting Behavior Change**

The City implements several education and outreach programs to affect behavior change:

#### [StormFest](#)

This effort models the STORM Drain Rangers curriculum and made possible by an Ecology GROSS Grant awarded to the City of Burien. SeaTac functions as a Project Management Team Member to help develop, implement, manage, and evaluate Storm Fest through an Interlocal Agreement between the following partners: City of Burien, King County, City of Des Moines, City of Normandy Park, Environmental Science Center, Zero Waste Washington Enviroissues and Highline Public Schools.

StormFest is a three-day, in-person hands-on outdoor stormwater education experience developed for Highline District 6th graders. Although it was originally scheduled to begin the spring of 2020, the Coronavirus (COVID-19) pandemic completely upended the expected format. Therefore, StormFest partners promptly began exploring ideas for a reasonable transition to virtual learning and healthy options that would meet both state restrictions and Permit requirements.

As a result, the StormFest Committee met virtually over a dozen times in 2020. Committee members focused on creating virtual lesson plans by comparing Nature Vision learning packets (Watersheds & Water Quality) to the StormFest tool kit and curricula. Members were also assigned roles and responsibilities and began working with HSD educators. The process led to development of a hybrid program involving the following elements: virtual lesson plans, videos featuring local environmental professionals, EnviroScapes model, learning stations, and a final culminating event. Currently, an in-person StormFest is not expected to occur until 2022.



### [Environmental Coalition of South Seattle \(ECOSS\)](#)

SeaTac has contracted with ECOSS for more than five years to provide stormwater pollution inspections and outreach to small businesses in the City. The program provides pre- and post-surveys to measure business understanding of polluted stormwater runoff management. ECOSS also supplies non-English language spill training and support materials. Data from annual visits measure awareness and behavior changes both within SeaTac itself and across the Puget Sound region. Implementation is planned again for 2021

Each year, inspections target different business types. This rotating system allows the program to reach new audiences on a routine basis. For example, 2020 inspections included multifamily properties. In addition to receiving information on their individual stormwater systems, multi-family property managers also learned about BMPs (solid waste, landscaping, pest management and LID principles).

### 4.3 Stewardship Opportunities

Through stewardship opportunities, the City uses a variety of media and volunteer events to raise stormwater quality awareness. This program encourages community engagement and adoption of environmentally friendly behaviors. The Permit-required stewardship outreach efforts offered by the City throughout 2021 include:

| Activity or Event                   | Description  | Subject Area                                    |
|-------------------------------------|--|---|
| Drain Markers                       | Volunteers install plastic curb markers adjacent to stormwater catch basins with the message "Puget Sound Starts Here" to remind people of the connection between stormwater pollution, local streams and Puget Sound.   | General impacts of stormwater on surface waters |
| Lake Water Quality Monitoring       | Volunteers can 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 |
| Miller and Walker Creek Stewardship | Volunteer opportunities include: planting of native trees and shrubs; pulling out invasive non-native plants; and cleaning up litter.  | General impacts of stormwater on surface waters |
| Parks Clean Up Volunteer            | Individuals or groups can organize park cleanup events at designated parks.  | General impacts of stormwater on surface waters |
| 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 (5.C.3)

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The City provides ongoing public involvement, participation and decision-making opportunities to the public within SWMP and SMAP frameworks. During the course of stormwater project planning and construction projects, public comment is encouraged and made available to interested parties where applicable by means of state and local public notice requirements.

The City realizes that overburdened communities are groups that may potentially experience disproportionate environmental harms and risks. Therefore, SeaTac is implementing better and more effective ways to reach out to minority, low-income and indigenous populations.

In 2020, SeaTac's Census Program Coordinator completed an effort towards development of an effective outreach program to overburdened communities. The identified benefits of the work included: an increase in collaboration and trust; a better understanding of the community we serve; and the creation of more responsive programs and services.

The Community Outreach Program identified SeaTac's overburdened community as one of the most racially diverse places in the US (24% of city residents are Black or African American, 18% are Hispanic, and 15% are Asian). Additionally, almost 40% of SeaTac's population is foreign born. This work also pointed out that more than 25 overburdened community groups represent SeaTac.

The program helped to define potential language barriers (for example, Somali, Amharic, Punjabi, Spanish). Best methods for outreach were described (social media, mail, one-on-one). The effort also identified different ways to effectively communicate, build relationships and trust (meet people where they are; enlist community gatekeepers to serve as information conduits; and get people involved through constant conversation.

The City recently created a Digital Communications Strategist staffing position. This new role will be able to create a more focused, dynamic, progressive and effective Permit-required Public Involvement and Participation program geared toward the overburdened community. Among the expected tools utilized include specialized media posts on the [City of SeaTac Blog](#) and the [City of SeaTac Facebook Page](#).

Established outreach efforts also include Public Works Stormwater Management web page postings announcing a public comment period for the draft *2021 SWMP Plan*. The final *2021 SWMP Plan* web page posting occurs by May 31, and then available for public review throughout the year.

## 6.0 MS4 MAPPING AND DOCUMENTATION (S5.C.4)

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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.

Asset management, IT, and GIS teams 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 source control inspections, construction, operations and maintenance. SeaTac also provides map-based information resources for residents, visitors, engineers, planners, designers and emergency responders through an external web-based application portal.

In 2021, the City of SeaTac will work to improve and implement software to support MS4 mapping. These efforts include:

- Revamping stormwater data within the Geographic Information System (GIS) to enhance user experience, ensure current and future regulatory requirements, and serve as a system of record.
- Implementing a Computerized Maintenance Management System (CMMS) to provide work order and service request tracking, manage stormwater assets effectively and efficiently, and perform risk/cost analyses.

- Upgrading the current CCTV pipe inspection software and continuing stormwater video inspection of MS4 asset condition.
- Integrating various software as part of SeaTac’s asset management program 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. SeaTac makes these GIS geospatial data easily available to the public via the internet on the [SeaTac Maps and GIS](#) webpage, with viewable and downloadable MS4 mapping formats.

## 7.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (S5.C.5)

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The City carries out a comprehensive Illicit Discharge Detection and Elimination (IDDE) program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4. Permit-required minimum performance measures implemented for 2021 involve:

- Procedures for reporting and correcting or removing illicit connections, spills and other illicit discharges. Investigations of all suspected illicit discharges takes place.
- Processes for informing public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.
- Regulatory mechanisms that effectively prohibit non-stormwater discharges into the MS4 to the maximum extent allowable under state and federal law.
- 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).
- IDDE records tracking, reporting and maintenance.

### 7.1 IDDE Procedures

A written *SeaTac Illicit Discharge Detection and Elimination Field Procedures and Response Plan (IDDE Plan)* has been prepared pursuant to Permit requirements. The *IDDE Plan* provides procedures for:

1. Characterization of any illicit discharges found or reported (nature, or potential public or environmental threats).
2. Tracing of illicit discharge sources: visual inspections, opening manholes, using mobile cameras and pollutant monitoring.
3. Elimination of discharges: notification of appropriate authorities, notification of property owner, technical assistance and follow-up inspections and use of compliance strategies (escalating enforcement and legal actions).
4. Compliance timelines, employee training and recordkeeping.

#### 7.1.1 Field Screening

The objective of *SeaTac Field Screening Procedures* is to inspect, evaluate and investigate the City’s MS4 to identify and eliminate potential sources of stormwater pollution. Local stormwater system characteristics and identified water quality concerns are given due consideration. Field screening targets both known and potential illicit discharges and is performed in tandem with ongoing MS4 Operations

and Maintenance program assessment, inspection, cleaning and camera inspection efforts (see Section 9.0). According to Permit requirements, the City field screens 12% of the MS4 on average each year.

### **7.1.2 Incident Response**

SeaTac implements procedures for response to spills and improper disposal into the MS4, including illegal dumping. Incidents that impact public safety, public health and the environment are specifically addressed. In 2021, maintenance crews will respond to all reported incidents by implementing procedures to control and eliminate various sources of stormwater pollution. *IDDE Incident Response Procedures* include the following:

1. A procedural framework for spill responses.
2. Definition of roles and responsibilities (both internal and external).
3. Mechanisms for emergency responder and outside agency coordination.
4. Standardized reporting procedures, investigations, documentation, and follow-up procedures.
5. Training requirements.

### **7.2 Notification**

The City has developed thorough notification processes that lead to well-communicated, well-coordinated and successful IDDE incident responses. Publically-generated illicit discharge reports received by SeaTac through various means include:

- Direct calls to Spill Hotline (206-973-4770), e-mail, SeeClickFix<sup>®</sup> web/mobile application complaints, after-hours dispatch calls and in-person communication.
- Internal city operational notifications may be generated through: staff communication, personal observation, inspection program referrals and MS4 field screening operations.

Additionally, the City continues to proactively notify and inform the local community (small businesses and the general public) of hazards associated with illicit discharges and improper disposal of waste through the delivery of multi-media education and outreach materials (see Section 4.0). These comprehensive notification efforts help advance the success of City-wide incident response and will continue throughout 2021.

### **7.3 Regulatory Mechanisms**

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

- SMC 12.12: Surface and Stormwater-Illicit Discharge Detection and Elimination
- SMC 12.10: Surface and Stormwater Management
- SMC 1.15: Code Enforcement

### **7.4 Employee Training**

All affected City employees receive effective in-house Permit-required IDDE training as needed. The ongoing program includes review of all applicable procedures (awareness, assessment, response, notification, and cleanup). Current and future IDDE training covers the following topics:

- Initial and refresher IDDE
- Facility Stormwater Pollution Prevention (SWPPP-based)
- Source control
- Erosion and sediment control

## 7.5 IDDE Recordkeeping

The first step in a formal IDDE compliance investigation involves the receipt and management of complaints or reports. Efficient incident response and follow-up requires proper and accurate recording of all relevant information necessary for investigating potential public health, public safety or environmental threats.

IDDE incident recordkeeping utilizes CityWorks®, a web-based work management system that prepares internal Service Requests for IDDE staff. Ongoing internal recordkeeping involves documentation of reports, notification and tracking of all data and information associated with incident response and follow-up. Standardized recordkeeping required for Permit IDDE reporting includes, but is not limited to: date of incident, location, reporting source, pollutant, cause, corrective actions, photos, various forms of written communication and progress summary notes.

## 8.0 CONTROLLING RUNOFF FROM DEVELOPMENT AND CONSTRUCTION (S5.C.6)

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The City of SeaTac continues to implement and enforce a Permit-required program to reduce pollutants in stormwater runoff from new development, redevelopment and construction site activities. Public Works and Community Economic Development departments lead these private, public and transportation-related efforts.

SeaTac's Development and Construction Runoff Control program promotes public health, safety and welfare by establishing a comprehensive approach to surface and storm water problems to reduce flooding, erosion and sedimentation, prevent/mitigate habitat loss, enhance groundwater recharge, and prevent water quality degradation. The program includes: permitting, basin and sub-basin planning, land use regulation, construction of facilities, inspections, maintenance and provision of surface water management services.

The minimum performance measures of this Permit-required program are:

- Preparing ordinances or other enforceable mechanisms that 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 the Construction Stormwater General Permit Notice of Intent (NOI) available to proponents; and continuing to enforce local ordinances controlling runoff from sites covered by stormwater permits issued by Ecology.
- Ensuring proper training for all staff whose primary job duties involve this program.

### 8.1 Regulatory Standards and Enforceable Mechanisms

A combination of current codes and adopted standards enable the City to control runoff from new development, redevelopment and construction sites in compliance with regulations. SeaTac will be meeting new Permit requirement milestones by updating necessary standards and enforceable mechanisms no later than June 30, 2022.

In part, enforceable mechanisms achieve equivalency with Ecology's Stormwater Management Manual for Western Washington through enactment of the following applicable local regulations, rules and standards:

- SMC 12.10: SeaTac Surface and Stormwater Management Code, including adoption of the 2016 King County Surface Water Design Manual (KCSWDM) and the City of SeaTac Addendum to the KCSWDM, collectively referred to as the Surface Water Design Manual (SWDM).
- SMC 1.15: Code Enforcement
- SMC 15.700: Critical Areas
- 2016 King County Road Design and Construction Standards

The KCSWDM includes the following limitations and criteria that, when used to implement the minimum requirements in [Appendix 1](#) of the Permit. As such, they will protect water quality, reduce the discharge of pollutants to the Maximum Extent Practicable (MEP), and satisfy 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.

Limitations and criteria include:

1. Site planning requirements
2. Best Management Practice (BMP) selection criteria
3. BMP design criteria
4. BMP infeasibility criteria
5. LID competing needs criteria
6. BMP limitations

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

SeaTac administers and reviews submitted site engineering plans and development permits including activities addressing clearing, grading, paving, stormwater management system, roadway and right-of-way use. Internal procedures provide inspection authority, maintenance of files, inspection processes, inspection criteria, pre-acceptance review, re-inspection, enforcement and project approval processing. Using qualified personnel, the City's 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 using modular TRAKiT® e-Gov software. This system creates, stores, and processes all permitting information. TRAKiT® is able to document 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 SeaTac continues to make available applications, where appropriate, for Notices of Intent (NOI) under the [NPDES Construction Stormwater General Permit](#) and the [NPDES General Industrial Stormwater Permit](#) to new development and redevelopment proponents and representatives.

### 8.4 Employee Training

The City ensures proper training for all staff whose primary job duties involve Permit-required activities associated with the Development and Construction Runoff Control Program. Follow-up training addresses changes in procedures, techniques or staffing when necessary. The City documents and maintains all required training records.

## 9.0 OPERATIONS AND MAINTENANCE (S5.C.7)

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SeaTac implements a Permit-required program to regulate, inspect and document MS4 Operations and Maintenance (O&M) activities designed to prevent or reduce stormwater impacts. The minimum performance measures of this program are:

1. Implementation of maintenance standards that are as protective, or more protective, of facility function than those specified in Ecology's Stormwater Management Manual for Western Washington. To meet this requirement, SeaTac has adopted the 2016 King County Surface Water Design Manual (KCSWDM)\*.
2. Establishment of maintenance procedures: within one year for typical facilities (except catch basins); within six months for catch basins; and within two years for projects that require capital construction of less than \$25,000.

\* SeaTac will be meeting new Permit requirement milestones by updating necessary standards and enforceable mechanisms no later than June 30, 2022.

### 9.1 Stormwater Systems Maintenance Standards

Proper stormwater systems maintenance is necessary to protect downstream natural resources from flooding and water quality impacts. KCSWDM [Maintenance Requirements](#) are used to determine Permit compliance for typical stormwater control and water quality facilities and components (both public and private). Primary water quality facilities and components include, but are not limited to: detention ponds, infiltration facilities, detention tanks/vaults, control structures and catch basins.

### 9.2 Maintenance of Private Stormwater Facilities

SeaTac Public Works has established a program for long-term O&M of post-construction private stormwater facilities that discharge to the MS4. These include facilities constructed pursuant to the City's Permit-required development permitting program (see Section 8.0).

Enforcement linked to established KCSWDM standards for the Private O&M Inspection Program includes implementation of ordinances and other enforceable mechanisms that clearly identify the party responsible for facility maintenance. The following local regulations apply:

- SMC 12.10: SeaTac Surface and Stormwater Management Code, including adoption of the 2016 King County Surface Water Design Manual (KCSWDM) and the City of SeaTac Addendum to the KCSWDM, collectively referred to as the Surface Water Design Manual (SWDM).
- SMC 1.15: Code Enforcement

Private Maintenance Inspection program compliance uses an established program designed for the annual inspection of 100% of regulated facilities. Private property owners receive annual correspondence from the City (notifications by mail). This occurs near the end of February. Compliance inspections performed by Public Works staff then follow throughout the year. Additional action may include issuance of inspection reports and enforcement as warranted (30-day notices, warning letters, notices of violations). Cityworks© (See Section 9.4) is used to track private system maintenance inspection records.

### **9.3 Maintenance of Public Stormwater Facilities**

Public stormwater infrastructure owned or operated by SeaTac includes the system of conveyances (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. The City assumes maintenance of public MS4 stormwater facilities and catch basins after all bonds and liability insurance conditions of SMC 12.10 are met.

#### **9.3.1 Assessments and Inspections**

Performance of annual Permit-required MS4 condition assessments and inspections occur in compliance with KCSWDM Maintenance Standards (see Section 9.1). Assessment and inspection work may involve measuring sediment levels, inspecting for structural damage, evaluating vegetation and noting defects and problems. All MS4 assets are inspected 100% annually under this program.

The opportunity to assess the MS4 may also take place during routine video inspection of the public stormwater infrastructure. Video inspections using an IBAK© mainline camera system provides for accurate location, sizing and condition assessments of the MS4. To align with asset management program objectives, underground pipes are inspected using Pipeline Assessment Certification Program (PACP), an industry standard that implements best practices set by the National Association of Sewer Service Companies (NASSCO). Currently, the City is upgrading the CCTV pipe inspection software, moving from the previously used ITpipes to WinCan. Approximately 91% of underground MS4 has been comprehensively videotaped and the goal is to have 100% videotaped by the end of 2021.

In addition, more comprehensive procedures for tracking inspections and maintenance through CityWorks© will be implemented. Program-wide improvements may include further development of condition criteria, rating scales, performance measures, evaluation of maintenance schedules and prioritization of work orders.

#### **9.3.2 Street Waste Disposal**

The City operates a vactor truck to collect MS4 wastes (liquids and solids). Condition assessments, inspections and incident response actions all impact MS4 waste management activity. Vactor-collected MS4 wastes are disposed in compliance with Permit requirements and in accordance with [Appendix 6 - Street Waste Disposal](#).

- Decant stormwater liquids are disposed into Valley View Sewer District sanitary sewer at an approved SeaTac Maintenance facility location.
- King County Renton Decant Station\* handles uncontaminated solids. This is a regional disposal facility available for use by public agencies (including SeaTac) to manage and treat uncontaminated MS4 solids.
- The PRS Group Washington Facility in Tacoma handles solids from stormwater drainage systems with known or historic contamination.

\* The King County decant facility was closed the majority of the year due to COVID-19 restrictions.

### 9.3.3 Spot Checks

SeaTac implements procedures for tracking rainfall amounts and conducting spot checks of stormwater treatment and flow control BMPs/facilities after major precipitation (a 24-hour storm event with a 10-year or greater recurrence interval). Inspection of all stormwater treatment and flow control BMPs/facilities that may be affected occurs if spot check procedures indicate widespread damage/maintenance needs. In accordance with 2016 King County Surface Water Design Manual [Maintenance Requirements](#), proper storm event actions (inspections, repairs or other maintenance) occur.

The King County Watershed and Ecological Assessment Program [Hydrologic Information Center](#) website provides public access to data collected at local sites. Public Works staff monitor these data and calculate running 24-hour cumulative precipitation totals. The 24-hour/10-year recurrence storm event is approximately 3 inches of precipitation. The following two rain gauge sites within SeaTac are used for this evaluation:

- Lake Reba (#42u), north of airport
- Des Moines Creek (#11u), south of airport

### 9.4 Records Maintenance and Management

Public Works utilizes Cityworks<sup>®</sup> for private and public stormwater systems records maintenance and management. Cityworks<sup>®</sup> is a GIS-centric enterprise asset management system that manages, tracks and analyzes stormwater infrastructure assets.

Cityworks<sup>®</sup> offers a custom database of work orders, service requests, and inspection records generated for Permit-required activities. Using an ArcGIS geodatabase, Cityworks<sup>®</sup> allows spatial work activity and mobile field operation applications to generate Permit-compliant service requests and work orders. Comprehensive tracking of records includes inspections, investigations, maintenance and enforcement. In 2021, the City plans to increase Cityworks<sup>®</sup> processes and functionality to improve levels of service and to better meet Permit requirements.

### 9.5 Municipal Practices

SeaTac implements stormwater pollution prevention practices that address municipal activities and operations associated with all lands owned or maintained by the City. Activities and operations involve those undertaken by Public Works Maintenance, Parks Department and Facilities. 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.

The City is in the process of updating municipal stormwater pollution prevention practices, policies, and procedures. Full completion of documented efforts according to Permit requirements will occur no later than December 31, 2022.

SeaTac uses the following combination of reference and guidance to meet current Permit requirements:

- *2016 King County Stormwater Pollution Prevention Manual (SPPM)*. This document provides best management practices (BMPs) for managing stormwater by listing detailed information and description of actions for to reduce 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 street anti-icing operations.

- *Regional Road Maintenance ESA Program Guidelines*. This document addresses site-specific BMPs involving: roadway maintenance operations, utility maintenance, maintenance of stormwater facilities, and other right-of-way (ROW) structure work. Maintenance activities covered under ESA Guidelines include, but are not limited to: street sweeping, maintaining and cleaning enclosed drainage systems, and mowing bio-swales and cleaning water quality vaults. (The City is a WSDOT-led Regional Road Maintenance Program Forum Member that periodically participates in workshops and training geared toward the use of Best Management Practices to achieve positive environmental outcomes, including the protection of habitat and water quality.)

### **9.6 Stormwater Pollution Prevention Plan (SWPPP)**

The City implements a written Stormwater Pollution Prevention Plan (SWPPP) for the Public Works Maintenance facility. This single site functions as a heavy equipment maintenance and material storage yard subject to Permit requirements.

The Maintenance Facility SWPPP is dynamic and undergoes modification and improvement as needed. The SWPPP will be updated by December 31, 2022 to fully meet permit requirements per S5.C.8.f. Currently, the SWPPP includes the following information:

- A detailed description of the operational and structural BMPs in use.
- Schedule for implementation of additional BMPs.
- 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 spills at the facility which could result in an illicit discharge.

### **9.6 Employee Training**

The City implements an ongoing training program for all SeaTac employees that conduct municipal-related job functions that may impact stormwater quality (construction, operations, or maintenance). The training program addresses the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting 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. The City documents and maintains municipal O&M training records, including dates, activities, course descriptions, and names and positions of staff in attendance.

## 10.0 SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT (S5.C.8)

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The City has begun work to develop a Permit-required Source Control Program for the prevention and reduction of pollutants in stormwater runoff from areas that discharge to the MS4. Phased program implementation of performance measures is allowed over a multi-year period.

When fully developed, the Source Control Program will include:

- Establishment of an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4.
- Implementation of a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period.
- Inspection of pollutant generating sources at inventory sites to enforce implementation of required BMPs to control pollution discharging into the MS4.
- Ongoing staff training for those responsible for implementing the source control program.

## 11.0 MONITORING AND ASSESSMENT (S8)

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The City of SeaTac meets Permit monitoring and assessment requirements by making payments into an Ecology-managed collective fund to finance and implement the following programs:

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

The Department of Ecology-facilitated [Stormwater Action Monitoring \(SAM\)](#) forum brings together municipal stormwater permittees to collaborate on monitoring needs required under Western Washington municipal stormwater permits. SAM provides structure, transparency, and accountability for permittees and stakeholders. The group aims to improve stormwater management, reduce pollution, improve water quality, and reduce flooding.

## 12.0 REPORTING AND RECORDKEEPING REQUIREMENTS (S9)

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### 12.1 Annual Report

No later than March 31 of each year, the City of SeaTac 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 SeaTac's current *SWMP Plan*.
- The Annual Report form as provided by Ecology describing the status of implementation of the requirements of the Permit 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 available on the [SeaTac Stormwater Management Program Webpage](#)

## **12.2 Recordkeeping Requirements**

The City of SeaTac 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.