Water Pollution Control Facilities (WPCF) Permit

Class V Stormwater Underground Injection Control Systems

DEQ Permit Number 102830

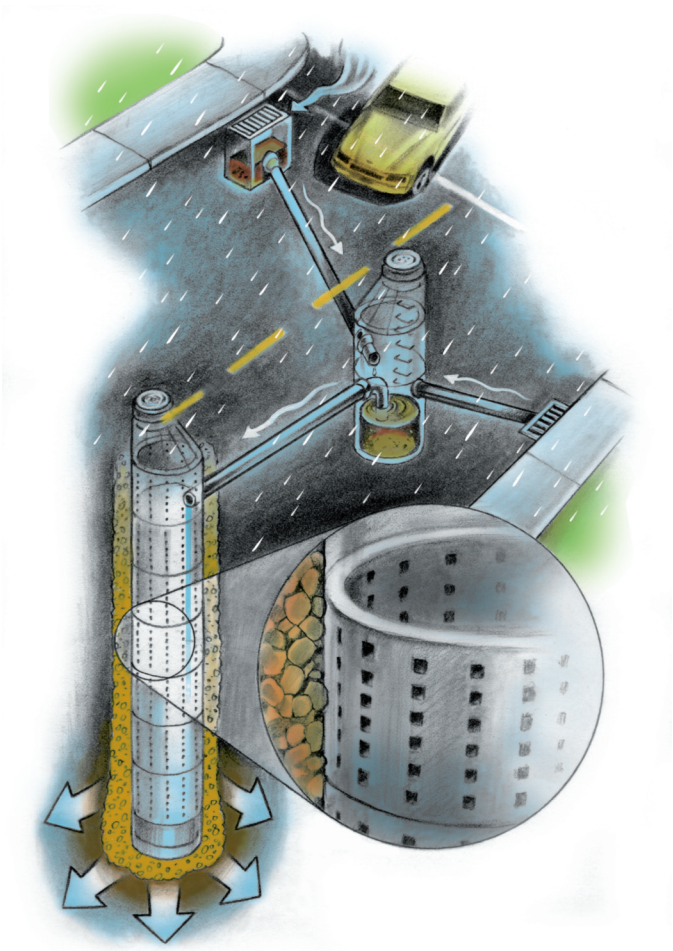
ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Bureau of Environmental Services • City of Portland

Underground Injection Control Management Plan

■

Annual Report
Year 9 (2015 Permit)
Fiscal Year 2023-2024
(July 1, 2023 – June 30, 2024)



November 1, 2024

Ted Wheeler, Mayor • Dawn Uchiyama, Director

This page left intentionally blank

City of Portland, Oregon

Water Pollution Control Facilities (WPCF) Permit For
Class V Stormwater Underground Injection Control Systems

Permit Number: 102830

Underground Injection Control Management Plan Annual Report No. 9 (2015 Permit)

Fiscal Year 2023–2024
(July 1, 2023, to June 30, 2024)

November 1, 2024

Prepared By:
City of Portland, Bureau of Environmental Services

This page left intentionally blank.

Contents

Tables

Appendices

Acronyms and Abbreviations

BDS	Bureau of Development Services
BES	Bureau of Environmental Services
BMP	best management practice
BPS	Bureau of Planning and Sustainability
CSSWF	Columbia South Shore Well Field
DEQ	Oregon Department of Environmental Quality
ET	Education and Training
FIT	Stormwater Facility Inspection Team
ft^2	square foot/feet
FY	fiscal year
GWPD	groundwater protectiveness demonstration
N2R	Neighborhood to the River
OM	operations and maintenance
PC	Pollution Control
PBOT	Portland Bureau of Transportation
PM	Program Management
PP&D	Portland Permitting and Development
PP&R	Portland Parks and Recreation
PWB	Portland Water Bureau
ROW	right-of-way
RV	recreational vehicle
SA	Systemwide Assessment
SCM	*Source Control Manual*
SDC	system development charge
SDMP	Stormwater Discharge Monitoring Plan
SMF	stormwater management facility
SPCR	Spill Protection-Citizen Response
SWMM	*Stormwater Management Manual*
UIC	underground injection control
UICMP	*UIC Management Plan*
WHPA	Wellhead Protection Area
WPCF	Water Pollution Control Facility

This page left intentionally blank.

Executive Summary

Introduction

This *Underground Injection Control Management Plan (UICMP) Annual Report No. 9 (2015 Permit)* is submitted to the Oregon Department of Environmental Quality (DEQ) to fulfill reporting requirements for the City of Portland's (City's) Water Pollution Control Facilities (WPCF) Permit for Class V Stormwater Underground Injection Control (UIC) Systems. This report summarizes UIC Program activities during the 2015 Permit reporting year, Year 9 (July 1, 2023, through June 30, 2024).

Background

DEQ issued the City's second WPCF Permit on May 19, 2015. As required by the Permit, the City submitted a UICMP, which DEQ approved on March 24, 2015. The UICMP describes the activities the City will implement throughout the second permit term (June 1, 2015, to May 31, 2025) to protect groundwater and meet WPCF Permit requirements. The Permit also requires the City to submit a UICMP annual report that summarizes the status of implementing the UICMP and each of its components.

The UICMP and the annual report are organized into the following major program elements:

- **System Management** includes ongoing, programmatic activities (best management practices, or BMPs) that prevent, minimize, or control pollutants.
- **System Monitoring** includes ongoing actions to demonstrate that UICs are operated in a manner that protects groundwater and meets WPCF Permit conditions.
- **Response** describes the process and criteria used to identify and implement actions needed to protect groundwater and meet Permit requirements. Corrective actions address UICs that do not meet WPCF Permit requirements.

This annual report describes the activities that occurred from July 1, 2023, through June 30, 2024 (Fiscal Year [FY] 2023–24) in each of these areas. Key accomplishments are summarized below and described in more detail in the body of the report.

Key Accomplishments

Many City stormwater programs focus on preventing adverse impacts to its stormwater management system. In turn, these programs increase the level of protection for groundwater and surface water and improve the overall health of the City's watersheds. Though some of the key accomplishments summarized below are UIC-specific management actions, many are implemented on a citywide basis and help the City manage stormwater as a whole and not just in the areas where stormwater is discharged through UICs.

System Management

UIC-Specific Management Actions

- Continued ongoing evaluation of City UIC characteristics to update the UIC Registration Database; submitted updates to DEQ with this report.
- Received and responded to 105 calls regarding spills located within or near an area where UICs are the primary method of stormwater management.
- Continued to educate and train employees on WPCF Permit requirements and groundwater protection, including duty officer training on the Bureau of Environmental Services (BES) spill-response hotline and procedures.
- Coordinated with other bureaus on source control, operations and maintenance (OM), spill prevention and response, and development review for UICs and groundwater protection.
- Provided ongoing coordination with other City bureaus that own UICs. Responded to UIC site-specific questions and discussed OM practices.
- Coordinated with the Portland Permitting and Development (PP&D), formerly the City's Bureau of Development Services, on UIC design standards and the City's review and approval process for UICs registered on private property.
- Continued evaluation that led to implementing improvements to the registration process for both public UICs in the ROW and private UICs on City property.
- Cleaned approximately 2,523 UIC sedimentation and sump maintenance holes.
- Repaired UIC sedimentation and sump maintenance holes, and storm inlets and inlet leads as needed.

Citywide Management Actions

- Issued 46 enforcement actions in response to pollution complaints citywide, with proposed penalties and costs totaling $32,905.
- Conducted 148 groundwater-related inspections of regulated businesses in the Columbia South Shore Well Field Wellhead Protection Area (CSSWF WHPA).
- Partnered to provide technical assistance to 40 businesses affected by the CSSWF Wellhead Protection Program.
- Involved approximately 11,908 participants and volunteers in community events, including paddling events, natural planting projects for students in natural areas and developed parks, trash clean-ups and education for unhoused community members, and restoration events using Indigenous Traditional Ecological and Cultural Knowledge.
- Delivered 321 Clean Rivers Education programs to students, despite challenges affecting Portland Public Schools, such as a 1-month closure and school bus shortages.
- Conducted and approved 3,474 erosion control-related inspections of construction sites citywide. (Erosion control inspections resulted in 41 enforcement actions and corrections notifications).

- Approximately 1,785 development permits were issued that required erosion and sediment control plan review and inspection.
- Conducted 295 land use reviews at properties subject to *Stormwater Management Manual* (SWMM) requirements. Implemented 470 SWMM-related development projects with constructed stormwater management facilities (SMFs) citywide during the reporting period. Managed 145 acres of impervious area via SMFs constructed citywide area during the reporting period.
- Awarded Community Watershed Stewardship grants, Neighborhood to the River grants, and Percent for Green Program grants totaling over $1.8 million.
- Updated and posted fact sheets, brochures, and educational materials on the BES website and Facebook page.
- Mailed 1,692 maintenance reminders to single-family residential homeowners with vegetated SMFs.
- Inspected 2,102 private SMFs for OM requirements.
- Recorded 232 OM Agreements for 519 SMFs.
- Issued eight enforcement actions (i.e., warning notices, notices of violation, and compliance orders) and 409 corrective actions.
- Implemented 470 citywide projects with constructed SMFs managing 145 citywide acres of impervious surface.
- Removed 5,928 cubic yards of material from storm inlets and catch basins.
- Cleaned and inspected 13,021 inlets and 1,615 trash racks.
- Swept arterial roadways five to six times during the year.
- Removed 3,672 tons of material from City roadways.

System Monitoring

- Implemented FY 2023-24 stormwater compliance monitoring. Sampled 15 UICs located in areas of shallow groundwater and tested for pollutants required by the 2015 Permit.
- Compiled and evaluated stormwater data included with this report. There were no FY 2023–24 exceedances of 2015 Permit action levels.

Response

- Evaluated UICs for corrective action response due to database updates, monitoring results, or spill response.
- Evaluated FY 2023–24 data to ensure that no major changes occurred in the City's depth-to-groundwater estimates and evaluated monitoring data to confirm the results of groundwater protectiveness demonstrations conducted during the 2005 Permit term.
- Confirmed no new UICs needed corrective action during FY 2023–24.

This page left intentionally blank

1 Introduction

1.1 Overview

The Oregon Department of Environmental Quality (DEQ) renewed the City of Portland's (City's) Water Pollution Control Facilities (WPCF) Permit for Class V Stormwater Underground Injection Control Systems (UICs; Permit No. 102830) on May 19, 2015.[1] As required by this 2015 Permit, the City submitted a UIC Management Plan (UICMP), which was submitted as part of the permit renewal package and DEQ approved on March 24, 2015. The UICMP describes the activities the City will implement throughout the 2015 Permit term (June 1, 2015, to May 31, 2025) to protect groundwater and meet WPCF Permit requirements.

The 2015 Permit also requires the City to submit a UICMP annual report that summarizes the status of implementing the UICMP and each of its components. Accordingly, this annual report provides information about key accomplishments during the ninth fiscal year (FY) of permit implementation (July 1, 2023, through June 30, 2024, also known as FY 2023–24) and identifies activities planned for implementation in the next fiscal year where applicable.

Table 1-1 summarizes the 2015 Permit requirements for the annual report and identifies where the requirements are addressed in this annual report.

Table 1-1. Summary of the City's 2015 Permit Annual Report Requirements

Annual Report Requirement (as identified in Schedule B.5 of the 2015 Permit)	**Where Requirement Is Addressed in this Annual Report**
System Monitoring	
Results of stormwater monitoring conducted in accordance with the Stormwater Discharge Monitoring Plan	Appendix C and Section 3.1.1
Spreadsheet of all data from sampled UICs provided in analytical laboratory reports	
Evaluate and report trends in emerging pollutant types and concentrations required by Schedule D, Condition 6 (*fourth-year report and for permit renewal only*)	
Discuss any Schedule A, Table 1, action-level exceedances, and actions taken to address the exceedances	

[1] Information about the City's first WPCF Permit term (2005–2015) can be found in its annual UICMP reports for 2005 through 2015.

System Management	
Description of actions taken to implement the UICMP. *UICMP requirements are as follows:*	Section 2: Key accomplishments are listed for each best management practice (BMP)
Decommissioning activities	Section 2.2.1 and Appendix A
Employee education and public outreach	ET-1, ET-2 (Section 2.4)
Operations and maintenance and inspection protocols	OM-1, OM-2, OM-3, ET-2 (Sections 2.4 and 2.5.3)
Accidental spills/illicit disposal	ET-1, ET-3, PC-1, PC-2 (Sections 2.4 and 2.6 and Appendix B)
Preventing discharge of stormwater from refueling areas, hazardous/toxic material storage/handling areas, materials storage/ handling areas, or other discharges that may contain pollutants above levels of concern[2]	ET-2, ET-3, OM-3, PC-1, SA-1 (Sections 2.4, 2.5.3, 2.3.1, and 2.2)
Housekeeping practices to protect groundwater quality	ET-2, ET-3, OM-1, OM-2 (Sections 2.4 and 2.5)
Facility designs and practices that block discharges to UICs	PC-1, PM-1 (Sections 2.3.1 and 2.6.1)
Site control measures and BMPs (Schedule A, Condition 7)	OM-1, PC-1 (Sections 2.5.1 and 2.3.1)
Description of any proposed modifications to the UICMP	Section 1.5
Description of any additional actions taken to manage the UIC system to ensure groundwater protection	Section 2.8
Description of any actions included in the UICMP that were not completed and why	Section 2.9
Identification of UICs closed, retrofitted, or installed during the year	Section 2.2.1 and Appendix A
Future (in the next year) plans to install, modify, convert, or close any UIC	Section 2.7
Changes to key personnel or areas of responsibility for the Permit	Section 1.4.2
Identification of any newly discovered UICs	Section 2.2.1 and Appendix A
Adaptive Management	Section 2.10

[2] The Systemwide Assessment (2015) did not identify any City-owned or -operated UICs located in refueling areas, hazardous or toxic material storage or handling areas, or materials storage or handling areas.

Response	
Progress reporting on corrective actions	Section 4
Report of all instances of noncompliance and other Permit violations that are not reported per Schedule F.4.e. (compliance schedule) or F.4.f (24-hour and 5-day reporting)	Section 4.5

1.2 Overview of the UICMP

The UICMP meets the requirements of the City's 2015 UIC WPCF Permit. These requirements specify that the City prepare and implement a written UICMP that includes a systemwide assessment, system controls, monitoring, and a plan for recordkeeping and reporting.

The UICMP is organized into the following three major elements:

- **System Management** includes ongoing, programmatic activities (best management practices, or BMPs) that prevent, minimize, or control pollutants before they discharge to a UIC. BMPs include structural, nonstructural, and institutional controls. They are organized into the following five categories:

  - Systemwide Assessment
  - Pollution Control
  - Education and Training
  - Operations and Maintenance
  - Program Management

- **System Monitoring** includes ongoing actions to demonstrate that UICs are operated in a manner that protects groundwater and meets WPCF Permit conditions.

- **Response** uses data and information from system monitoring and system management to identify any UICs that may be a threat to groundwater protection and thus are out of compliance with the Permit. When a UIC is identified as such, corrective action is required to evaluate the threat and may result in either further action to bring the UIC into compliance or closure of the UIC. The objective of the response is to improve or correct conditions at a UIC or group of UICs.

1.3 Legal Authority

The Charter of the City of Portland grants broad authority to the City "to exercise any power or authority granted to the City by statute… and [provides that the City] may do any other act necessary or appropriate to carry out such authority, or exercise any other power implied by the specific power granted." Such authority includes, among other things, "all powers commonly

known as the police power to the same extent as the State of Oregon has or could exercise said power… and to make and enforce… all necessary or appropriate water, local, police, sanitary and safety laws and regulations" (Chapter 2-105, *Charter of the City of Portland, Oregon*).

In addition, the Portland City Code addresses the regulation of stormwater discharges, building requirements, zoning, erosion and sediment control, and public improvements in Chapters 10, 17, 24, 29, and 33, respectively. Chapters 17.38 and 17.39 specifically address Drainage and Water Quality and Stormwater Discharges, respectively.

1.4 UIC Program Staff

1.4.1 Key Roles and Responsibilities

The 2015 Permit designates the Bureau of Environmental Services (BES) as the bureau responsible for implementing the Permit and for identifying and managing the regulatory and technical components of the UIC Program citywide and across bureaus. Key staff roles and responsibilities for the UIC Program are summarized in the UICMP.

1.4.2 Personnel Changes

There were no personnel changes in UIC Program staff in FY 2023–24. It is important to note that though there were no personnel changes in the past Permit year, the City is going through a change in structure, which is discussed in more detail in Section 2.6 (Program Management). It is not expected that this change will affect immediate UIC Program staff; however, it is expected that the overall leadership structure could be impacted in the upcoming year.

1.5 Proposed Changes to the UICMP

There are no proposed changes to the UICMP at this time.

1.6 City Budget and Funding

The City has invested more than $2 billion in stormwater management services and facilities over the past 29 years.[3] The revenue requirements for FY 2023–24 totaled approximately $178.1 million.

In FY 2024–25, the City plans to invest $219.5 million in stormwater management services and facilities, which reflects the updated cost-of-service results. Direct monthly user fees will pay for 83.6% of these investments.

[3] The 29-year time period reflects the implementation period of the City's National Pollutant Discharge Elimination System permit.

Stormwater Management Charges

Portland City Council approves revised stormwater system monthly user fees at the start of each fiscal year. Monthly system user fees are adjusted to reflect the operating, maintenance, and capital costs of the City's sanitary sewer and drainage system. The rate adjustments are based upon cost-of-service principles, ensuring equity by charging ratepayers according to the amount of sewer and drainage service they use.

The City completed a rate study with implementation beginning in FY 2024–25. The rate study produced several revenue-neutral changes for stormwater charges:

- The term used for the rate per 1,000 square feet (ft^2) is now "stormwater billable area" (SBA), as opposed to "impervious area." These terms are defined in Portland City Code 17.36.020.
- The rate study added a new billing statistic to the stormwater charge—Equivalent Service Units (ESUs)—based on dwelling units for residential customers and the SBA for nonresidential customers. ESUs reflect impacts on the stormwater system that are not solely impacted by the built environment.
- Single dwelling customers are charged a tiered rate based on the SBA instead of a flat rate per dwelling.

Table 1-3 reports the change over the Permit term (2015–2025) in the monthly single-family stormwater management charge and in the monthly stormwater rate per 1,000 ft^2 of impervious area. It also includes the anticipated monthly stormwater management charges for the next fiscal year (2024–25), which were adopted in March 2024.

Table 1-3. Stormwater Management Charges and Rates

Stormwater Management Monthly Charges and Rates	2015	2023–24	Percent Change	Adopted 2024–25
Single-family residential charge	$26.59	$32.00	20.3%	$38.59
Residential rate ($/1,000 ft^2 of stormwater billable area)	$11.08	$13.335	20.4%	$13.680
Nonresidential rate ($/1,000 ft^2 of stormwater billable area)	$11.55	$13.907	20.4%	$14.252
Residential and Nonresidential Rate ($/service unit)	$0	$0	0	$5.76

Stormwater System Development Charges

In addition to stormwater system monthly user fees, Portland City Council also approves revised stormwater system development charges (SDCs) for new development and significant redevelopment at the start of each fiscal year. All development projects that create a new or increased demand on the public sewer and drainage system are subject to SDCs. These charges are intended to promote equity between new and existing customers by recovering a proportionate share of the cost of existing and future capital facilities that serve or will serve the developing property.

Stormwater SDCs for residential and nonresidential development are based on the net increase of impact on the storm system using measured square feet of SBA on a site. The City determines the stormwater SDC by multiplying the development's net increase of SBA by the current stormwater SDC rate.

Table 1-4 reports the change over the Permit term (2015–2025) in the monthly SDC charges. It also includes the anticipated monthly SDC charges for the next fiscal year (2024–25), which were adopted in March 2024.

Table 1-4. Stormwater System Development Charges (SDCs) and Rates

SDC Charges and Rates	2015	2023–24	Percent Change	Adopted 2024–25
Onsite portion ($/1,000 ft^2 of stormwater billable area)	$183.00	$259.00	41.5%	$507
ROW portion ($/linear foot of frontage)	$5.84	$8.36	43.1%	$0
ROW portion ($/vehicle trips)	$3.12	$4.67	49.7%	$0

1.7 Organization of the Annual Report

The remainder of this annual report contains the following sections:

Section 2: System Management identifies citywide BMPs implemented to prevent, minimize, and control pollutants before infiltration. Where relevant, it also identifies projected main activities for FY 2024–25. The following appendices provide additional detail about System Management activities:

> **Appendix A** identifies UICs added and removed from service during FY 2023–24 (including closure reports for decommissioned UICs, provided electronically).
>
> **Appendix B** identifies spills that occurred within areas serviced by UICs.

Section 3: System Monitoring summarizes compliance monitoring.

> **Appendix C** presents the annual results of the City's 2015 Permit-required UIC monitoring.

Section 4: Response identifies response actions conducted during FY 2023–24 and those projected for the next fiscal year (FY 2024–25).

2 System Management

2.1 Overview

The System Management program element involves a series of actions, called BMPs, which serve to prevent, minimize, and control pollutants in stormwater prior to discharge to a UIC. These BMPs are organized into the following five general categories and are applied to the entire UIC system on an ongoing basis:

- Systemwide Assessment (SA-1)
- Pollution Control (PC-1 and PC-2)
- Education and Training (ET-1, ET-2, and ET-3)
- Operations and Maintenance (OM-1, OM-2, and OM-3)
- Program Management (PM-1 and PM-2)

These BMPs are presented in the following sections in bold and shaded text, together with key accomplishments for FY 2023–24. Additional information about each BMP can be found in the 2015 UICMP.

Although this report is focused on the City's management of its UIC system, it is important to understand that many programs detailed in this section provide stormwater management benefits (improved water quality, groundwater and stormwater protection, and increases in overall watershed health) across the entire city and not just to areas that discharge stormwater to UICs.

2.2 Systemwide Assessment (SA)

The purpose of the SA BMP is to identify, evaluate, track, and report on spatial and physical characteristics of existing and new City-owned and -operated UICs. This enables the City to evaluate whether drainage entering individual UICs may pose a risk to groundwater, as well as to overall watershed health, as a result of these characteristics. Ongoing activities necessary to provide stormwater drainage infrastructure include the registration and construction of new UICs, replacement of existing UICs, and decommissioning of existing UICs. This BMP category focuses on updating information related to the location and physical characteristics of existing and new UICs. It fulfills two WPCF Permit requirements:

- Develop and implement a comprehensive UIC Registration Database.
- Evaluate UICs for factors that could present a risk to groundwater quality.

The 2015 Permit requires the SA to be revised at the end of the fifth year of the Permit term. A review was completed and the revised SA was submitted as part of the FY 2019–20 annual UIC report.

SA-1: Inventory and Assess City-Owned UICs

2.2.1 SA-1: Key Accomplishments

- Submitted UIC Registration Database updates to DEQ with this report. All updated UIC database information will be posted by November 1, 2024, to DEQ's Your DEQ Online, the Environmental Data Management System for DEQ. The files provide information on all new and removed UICs as well as any attribute changes to existing information currently included in the UIC database.

- Identified 78 new public UIC[4] records in UIC Registration Database updates. These UIC records are listed in Appendix A and include:
    - 15 UICs that were discovered in the field.
    - 5 of the 15 UICs that were found in the field (Well #10464, 10465, 10466, 10467, and 10468) and were both registered and decommissioned in FY 2023–24, and in both the UIC Records Added and the UIC Records Removed tables.
    - 63 new Active or Under Construction registrations.

- Removed or changed the status[5] of 12 public UIC records in UIC Registration Database updates. These records are listed in Appendix A.

- Decommissioned 16 UICs during FY 2023–24. Of these 16, three UICs were found to have been removed in previous years, but notifications were sent to DEQ in FY 2023–24. Closure reports are provided electronically as part of Appendix A.

- Other changes to database records made as part of the update included the following:

Updates	Database Record
83	Maintenance period
79	Operational status
0	Addresses
72	Latitude
72	Longitude
0	Distance to the nearest water well
64	Distance to the nearest wetland
64	Distance to the nearest surface water
0	Size of impervious area
15	UIC pretreatment
371	Installation date

[4] Some UICs identified as new facilities may not be recently discovered or newly constructed UICs. UICs may be identified as new due to database management. For example, correcting a database identifier for a facility from "sedimentation manhole" to "UIC" would make the UIC appear to be a new sump in the BES database, even though the facility itself is not new.

[5] The reasons for removal may include being identified as not existing through field investigations, change in ownership, or data error. The reason for changing status (e.g., from "active" to "closed") is UIC decommissioning.

Updates	Database Record
31	UIC depth and diameter
155	Depth-to-groundwater
10,375	Date updated
0	Discharge rate

2.3 Pollution Control (PC)

Activities and practices such as spills, illegal disposal, improper site management, and erosion can increase the discharge of pollutants to public UICs, with potential negative impacts to groundwater. This BMP category focuses on reducing such pollutant discharges from both public and private sites and activities. It fulfills two 2015 Permit requirements:

- Implement spill prevention and pollution control.
- Identify activities conducted on commercial/industrial properties that may result in a violation of action levels in stormwater discharging to a public UIC.

PC-1: Identify, prevent, minimize, and control activities that can increase pollutant discharges to public UICs. These activities include illegal dumping of solid and liquid wastes (such as paint, used motor oil, or solvents) into catch basins; accidental or unplanned discharges (such as car accidents and firefighting activities); site uses that may generate pollutants; and construction site activities.

2.3.1 PC-1: Key Accomplishments

Spill Prevention and Pollution Control

- Continued to respond to pollution complaints citywide and issued enforcement actions for violations of Portland City Code 17.39 for prohibited discharges. During FY 2023–24, 46 enforcement actions were issued citywide, with proposed penalties and costs totaling $32,905.

- Continued to implement City programs, which included improving ongoing citywide pollution control activities to identify and control activities on private properties and commercial/industrial properties where site activities (e.g., illegal disposal, improper storage and handling of materials, and erosion) could result in a violation of action levels in stormwater discharging to a UIC.

Spill Protection-Citizen Response (SPCR) Team

The SPCR team responds immediately to spill emergencies and investigates pollution complaints regarding spills, illegal disposal, improper site management, and erosion. The team supports the entire City, including areas that use UICs for stormwater management. Citizens can call in reports on a dedicated spill-response hotline 7 days a week, and staff are available 24 hours a day to respond to spills, slicks, and other suspicious or inappropriate discharges. The program refers problems to other local or state agencies for response and enforcement as appropriate. The SPCR

team also provides education and technical assistance to property owners to improve site management and address work practices that may impact stormwater discharges (see ET-3, Education and Training, Key Accomplishments).

The SPCR team received 105 calls regarding spills located within or near an area where UICs are the primary method for stormwater disposal. Appendix B shows this information in table format, including date, release type, volume, location, identification of the closest City-owned UIC catch basin, and if the spill entered a City-owned UIC.

Of the 105 reported spills, 20 reached a UIC system.

- Sixteen UIC systems were inspected and cleaned. It was determined that once cleaned, the volumes of turbid water and recreational vehicle (RV) and auto fluids entering these UIC systems did not pose a threat to groundwater, and the cases were closed.
- One of the impacted UIC systems (four sumps in series) was located in Cully Park. This case was referred to DEQ for response, which included input from the DEQ UIC Program. Because the discharges were from an adjacent property, no cleaning was required.
- One of the UICs was impacted by wash water from a carpet cleaning business; it was not cleaned due to a major snowstorm.
- Lastly, two UIC systems were impacted by either soapy or chlorinated water. These UICs were inspected but not cleaned.

Follow-up activities were conducted regarding a release that occurred in 2018 at Starks Auto Shop at 5330 N Columbia Court. In FY 2019–20, the City worked with Starks to develop a stormwater pollution control plan that was accepted in June 2020. The City continues to inspect and review site management activities in accordance with the pollution control plan.

Regional Spill Response Committee

The Regional Spill Response Committee reconvened in FY 2023–24 after a 4-year hiatus due to a combination of the COVID-19 pandemic and SPCR's prioritization of backlogged enforcement actions. SPCR participates in the committee, which solicits input about new participants and meeting topics, and increases coordination with emergency responders and planners. The committee typically includes representatives from various City bureaus, DEQ, the U.S. Coast Guard, Clackamas County Water Environment Services, the Port of Portland, and the City of Gresham.

Columbia South Shore Well Field Wellhead Protection Program

The City provides outreach and technical assistance to businesses and residents in the Columbia South Shore Well Field Wellhead Protection Area (CSSWF WHPA) to help them comply with local drinking water source protection regulations. These regulations are designed to prevent contamination of groundwater used as the drinking water source. During FY 2023–24, the City continued to implement the CSSWF Wellhead Protection Program and reference manual for the City of Portland (also in effect in Gresham and Fairview) within the CSSWF WHPA overlay zone. Businesses in the area are required to implement structural and operational BMPs to manage harmful chemicals, reduce the occurrence of spills, and minimize spill impacts. The

program also includes education and outreach efforts to affected residents and businesses and one-on-one technical assistance to help businesses comply with program requirements (See ET-3).

Key accomplishments included the following:

- Conducted 148 groundwater-related site inspections in the CSSWF WHPA of regulated businesses for compliance with the City's *Wellhead Protection Area Reference Manual*.

Source Control Measures

Development Planning and Pollution Prevention Plan Review teams, now part of Portland Permitting and Development (PP&D), conduct land use and pollution source control permit reviews associated with commercial and industrial properties subject to requirements in the City's *Source Control Manual* (SCM). The SCM (formerly part of the SWMM) requires storm and sanitary source controls for site uses and characteristics that generate, or have the potential to generate, specific pollutants of concern. These requirements apply to new development and post-development activities that are considered "high-risk" or pollutant-generating. The manual identifies structural, operational, and treatment BMPs designed to prevent or control conventional and toxic pollutants in stormwater, groundwater, and wastewater.

Also, in Spring 2021, BES hired a new Toxics Reduction Program Manager to oversee the SCM and develop a program to inspect and ensure proper maintenance of required BMPs.

Key accomplishments included the following:

- Conducted 295 land use reviews at properties subject to SWMM requirements. Implemented 470 SWMM-related development projects with constructed stormwater management facilities (SMFs) citywide during the reporting period. Managed 145 acres of impervious area using SMFs constructed citywide during the reporting period.

- Continued to require and install source control measures at commercial and industrial properties. (Note: When the SWMM is applied, drainage from high-risk areas is prohibited from entering public UICs, and stormwater is managed onsite.) Continued to implement the SCM during the reporting period.

- Continued to implement the City's 2020 SWMM and 2020 SCM.

    - Completed substantive revisions to the SWMM, conducted public outreach, and hosted an associated public comment period during this reporting period. Progress is underway for SWMM revisions to be adopted early 2025.

    - Completed a technical evaluation of the SWMM impervious area threshold. BES developed technical memos related to this evaluation, and presented findings to the leadership team that ultimately supported a change to a standardized 1,000-ft^2 impervious area threshold and removal of this threshold from City Code. This change is consistent with the City NPDES MS4 Permit and will be implemented in FY 2024–25.

- The SWMM prevents offsite migration of stormwater that could impact public UICs in the right-of-way (ROW). That is, City-owned UICs are not approved discharge points for offsite drainage from private sites. The SWMM requires that UICs constructed to manage stormwater in the public ROW have a sedimentation maintenance hole.

- For the protection of groundwater from potential discharges to private UICs, the SWMM also requires that UICs constructed to manage stormwater on private streets have a sedimentation maintenance hole. UICs in driveways or small parking lots must have either a sedimentation maintenance hole or a lynch-style catch basin. If these are not possible, a vegetated stormwater management facility is required for pollution reduction.

- City staff ensure implementation of these requirements through extensive development plan review and site inspection procedures, as well as enforcement activities.

Prevention of Illegal Disposal

To help prevent illegal dumping, the City continued to implement curbside collection services (residential garbage, recycling, yard debris, and food scrap collection). In addition, Solid Waste & Materials Management Outreach & Education staff of the Bureau of Planning and Sustainability (BPS) conducted the following related outreach activities about proper disposal:

- Contacted about 50,000 individuals weekly using garbage day reminder emails.
- Participated in 23 citywide events, totaling 1,043 community interactions (conversations).
- Mailed the annual newsletter *Curbsider* to approximately 190,000 residential homes in June 2024. Topics included proper waste management, instructions on how to handle "other wastes" (used oil, e-waste, etc.), collection schedules and reminders, and recycling and reuse options for bulky materials.

PC-2: Focus on erosion control during construction activities, on both public and private sites.

2.3.2 PC-2: Key Accomplishments

The City has an erosion control program that applies to both public and private construction projects. Portland Permitting and Development, formerly Bureau of Development Services (BDS), Site Development staff review permit applications with ground-disturbing activities to determine if erosion control plan review and inspection are required. When plans are required, the staff review submitted materials, which consist of either a graphical plan or a new simple site plan form, for compliance with the City's 2022 *Erosion and Sediment Control Manual* and Portland City Code Title 10.

These documents outline requirements and provide technical guidance for temporary and permanent erosion prevention and construction-related sediment and pollution control. Program requirements apply to all ground-disturbing activities, regardless of whether a development permit is required unless such activities are otherwise exempted by Portland City Code. As part of its comprehensive plan to manage stormwater, protect water quality, and promote watershed health, the City implemented the following erosion control actions citywide:

- Conducted 3,474 erosion control-related construction site inspections.
- Issued 41 enforcement actions for erosion control violations.
- Issued approximately 1,785 development permits requiring erosion and sediment control plan review and inspection.

A significant challenge during this reporting period was a reduction in staffing starting in January 2024, due to a decrease in construction activity. This resulted in a reduction of Site Development Plan review staff from five to four engineers.

2.4 Education and Training (ET)

The purpose of this Education and Training (ET) BMP category is to inform and educate the public; businesses; and City employees about UICs, groundwater protection, and WPCF Permit conditions. It is also used to promote pollution prevention and source control.

ET-1: Provide education and outreach to members of the public living and working in areas served by UICs. Implement public information, education, involvement, and stewardship activities that will raise awareness, foster community stewardship, and promote pollution prevention, stormwater and groundwater management, and environmental protection.

2.4.1 ET-1: Key Accomplishments

As part of its comprehensive plan to manage stormwater, protect water quality, and promote watershed health, the City has implemented the following actions citywide.

Clean Rivers Education Program

- Delivered 321 education programs to students, despite challenges affecting Portland Public Schools, such as a 1-month closure and school bus shortages.
- Developed partnerships with equity-priority organizations and BES staff from multiple work groups to provide 11 career-based field and classroom programs. Staff with expertise in natural area restoration, water quality monitoring, engineering, and stormwater taught students about their work and career paths.
- Continued partnerships to engage elementary students and high school peer mentors in the hands-on restoration of a local natural area. The program enabled high school students to complete graduation requirements while gaining valuable work experience.

- Continued to develop web-based resources for educators for background information, student research, and curricular extensions. Recorded 2,355 Clean Rivers Education webpage views by 985 users.

- With the BES Toxics Program Manager, developed a fact sheet on mercury pollution prevention for students and families. The fact sheet was provided to Portland Public Schools Sustainability Team for distribution and will be available on the Clean Rivers Education webpage.

- Equity criteria designed to track access to the program's education and information showed:

    - 60% of Clean Rivers Education programs were delivered to groups and schools meeting equity criteria.

    - 85% of student field trip transportation funding was spent on groups and schools meeting equity criteria.

Stewardship Activities and Community Events

- Sponsored, cosponsored, funded, and participated in numerous community activities and events throughout the City's watersheds that involved stormwater management and watershed protection issues and actions (e.g., workshops, educational presentations and activities, training, and restoration projects). FY 2023–24 examples included the following:

    - Awarded Community Watershed Stewardship grants for eight projects, totaling $92,946, and mini-grants totaling $7,500. Grant recipients included the Ethiopian and Eritrean Cultural Resource Center, SOLVE, Black Men in Training, and Division Midway Alliance. Projects included education, restoration activities, and clean-ups.

    - Awarded Neighborhood to the River (N2R) grants for six projects, totaling $90,981. Grant recipients included Verde, Blueprint Foundation, Color Outside the Lines, Friends of Trees, and Bird Alliance of Oregon, formerly Portland Audubon. Future N2R activities or reporting is not expected since this program has been sunsetted.

    - Awarded Percent for Green Program grants totaling $1,648,321, which included stormwater facilities at Creston and Glencoe schools and a Street Tree pilot in the curb zone in partnership with the Portland Bureau of Transportation (PBOT).

    - Provided funding for planting and clean-up events in all watersheds and in partnership with Columbia Slough Watershed Council, Johnson Creek Watershed Council, Westside Watershed Center, Tryon Creek Watershed Council. Also aligned with events such as the Leach Back5 Project, Blueprint Mindfulness, Children's Clean Water Festival, Portland State University Oak Savanah, Slough Celebration and Explorando, Vanport Spaces at Rose Cup Races, among many others.

- Involved approximately 11,908 participants and volunteers in community events, workshops, stewardship projects, and restoration events. These included paddling events, natural planting projects for students in natural areas and developed parks, trash clean-ups and education for unhoused community members, and restoration events using Indigenous traditional ecological and cultural knowledge.

BES Community Engagement Initiative

In FY 2023-24, findings from the Fall 2022 BES Community Engagement Initiative supported extensive outreach to gather feedback and refine recommendations for improving the way BES charges its customers. BES staff engaged with hundreds of individuals and organized more than 40 outreach events to reach residential; multi-family; commercial and industrial customers; and the broader community, including nonprofit and affinity organizations. Feedback revealed widespread support for many of the proposed changes, as well as opposition from some highly impacted communities. Input gathered will inform future decision-making. The BES Community Engagement Initiative concluded in FY 2022-23 and future reporting of outcomes is not expected.

Stormwater-Related Information

- Updated and posted fact sheets, brochures, and educational materials on the BES website and Facebook page.

Toxics Reduction Program

BES maintains a Toxics Reduction Program, which focuses on source control and pollution prevention activities, including outreach and education. Program activities evolve based on bureau needs. Recent actions include:

- Updated detailed BMP fact sheets for industrial businesses, which were posted on the City's website and are available for distribution by other City programs.
- Participated in and coordinated on regional pollution prevention activities, such as an educational mailing about BMPs for regional carpet cleaners.
- Contributed technical information to a mercury minimization fact sheet for use in school curricula.
- Provided educational webinars for City staff regarding emerging contaminants.

Alternative Transportation

PBOT promotes carpooling, public transportation, and alternative commuting strategies to reduce emissions of toxic pollutants and to support climate change prevention measures. Specific activities during FY 2023–24 included the following:

- Open Streets and Active Transportation Program: This program engaged community members through bike rides, bike workshops, and events. The focus on bike rides and

workshops was intentionally shifted to communities of color and people new to biking. Over 60,000 attendees participated in three Sunday Parkways events.

- Partnerships: The City partnered with community organizations to offer Portlanders more transportation programming and information. AARP led 10 walks with a total of 347 walkers, and OPAL hosted a Bus Riders Unite program with travel workshops. PBOT hosted 13 community bike rides and eight workshops to help educate and encourage the community to ride for daily trips. Through the mail marketing program SmartTrips and via partner organizations, the City distributed 35,105 Portland Walk & Bike Maps, which provide climate-friendly travel information.
- Community bike fairs: PBOT hosted five neighborhood-scale community bike fairs that helped people new to biking connect with this transportation option. Events were held in partnership with schools and community organizations. Across all events, 56 people learned to ride a bike for the first time or greatly improved their riding skills, and 94 bikes were repaired.
- Transportation Wallet Access for All program: This program offers a package of free transportation options, such as transit fare, bike or scooter-share rides, and ride-shares (Uber/Lyft) or taxi rides for people and households living on low incomes. The program is focused on reducing barriers to using transportation options such as cost, technology access, credit/debit card requirements, and low-income verification processes for different providers. In FY 2023–24, PBOT staff provided over 1,300 transportation wallets for people across 18 community partner organizations.

ET-2: Promote knowledge of WPCF Permit conditions and requirements for City staff responsible for implementing UIC Program elements and BMPs and ensure that City practices related to UICs are protective of groundwater.

2.4.2 ET-2: Key Accomplishments

- Continued to educate employees and develop training on groundwater protection and WPCF Permit requirements, including duty officer training on the BES spill-response hotline and specific duty officer procedures.
- Coordinated with other bureaus on source control, erosion control, OM, spill prevention and response, and development review for UICs and groundwater protection.
- Provided ongoing coordination with bureaus that own UICs. Responded to UIC site-specific questions and discussed OM practices.
- Coordinated with PP&D development review staff on UIC design standards and the review and approval process for UICs registered on private property.
- Erosion Control staff conducted internal training related to new digital inspection reports and enforcement fees.
- SWMM staff attended trainings, including ongoing peer learning circles hosted by the Green

Infrastructure Leadership Exchange, and the Oregon Association of Clean Water Agencies stormwater conference.

- The Stormwater Facility Inspection Team (FIT), formerly the Maintenance Inspection Program, continued to train on new asset management software for tracking onsite SMFs and associated OM activities and in-field inspection software for tracking inspection activities. Staff attended the bi-annual Sustainable Stormwater Symposium that focuses on the most current research, studies, and program implementation of sustainable stormwater strategies. Other internal training and education occurred across groups, including:
  - Development Review on the permitting process.
  - Changes to the forthcoming 2025 SWMM.
  - Confined Space Entry-Competent Persons for inspections.

- Stormwater OM field crew training during FY 2023–24 focused on safety and community hazards.

ET-3: Provide outreach and technical assistance to businesses to reduce and control pollutant discharges from industrial and commercial facilities to protect groundwater quality.

2.4.3 ET-3: Key Accomplishments

As part of its comprehensive plan to manage stormwater, protect water quality, and promote watershed health, the City has implemented the following actions citywide.

Facility Inspection Team (FIT)

FIT ensures that property owners follow site-specific, BES-approved OM agreements. Program staff conduct inspections, provide technical assistance to property owners on the OM of their onsite SMFs, and provide guidance on pollution prevention BMPs for site activities that may impact the functionality of SMFs. In September 2019, FIT changed the method of retrieving new OM agreements to include only finalized permits, to more accurately track the number of SMFs installed on private properties. The program also collects information on SMF deficiencies and corrective actions taken.

FIT activities in FY 2023–24 included the following:

- Inspected 2,102 private SMFs for OM requirements.

- Recorded 232 OM agreements for 519 new SMFs.

- Issued 417 corrective and enforcement actions, including three notices of violation and five warning notices, and 409 corrective actions with deadlines to correct.

- Mailed 1,692 maintenance reminders to single-family residential homeowners with vegetated SMFs. This is done on an annual basis for properties with OM agreements.

- Mailed 997 informational notices to residents and owners at shared facility locations (private streets, condominium associations, homeowners associations, and multi-family complexes). This mailer is largely informational and provided information on the shared ownership and responsibility to maintain various types of SMFs, both vegetated and structural.

- Maintained a webpage with program information and links to standard OM tools and resources.

CSSWF Wellhead Protection Program

The City's CSSWF Wellhead Protection Program provides education and outreach to affected residents and businesses to help them comply with local drinking water source protection requirements of the program, which are designed to prevent contamination of groundwater. The Program works in conjunction with the Columbia Corridor Association and Columbia Slough Watershed Council. Businesses in the area are required to implement structural and operational BMPs to manage harmful chemicals, reduce the occurrence of spills, and minimize spill impacts. Activities in FY 2023–24 included the following:

- Provided technical assistance to 40 businesses within the CSSWF. Provided technical assistance to 20 businesses at one groundwater protection compliance workshop, which included spill control content.

- Distributed five free spill kits and approximately 18 free spill-response signs, with increased demand for Spanish language signage. Additional signage and kits were distributed at the groundwater protection compliance workshop. Efforts to advance the reach of the groundwater protection program resulted in multiple new language translations of the free spill-response sign, which is now available in English, Spanish, Russian, Mandarin, and Vietnamese.

- Maintained the City of Portland and Columbia Corridor Association webpages on the Groundwater Protection Program, with information for businesses and residents.

Erosion Control Program

The City's erosion control program applies to both public and private construction projects. Portland City Code Title 10 and the City's *Erosion and Sediment Control Manual* outline requirements and provide technical guidance for temporary and permanent erosion prevention, sediment control, and control of other site development activities that can cause pollution during the construction process. The City's erosion control requirements apply to all ground-disturbing activities, regardless of whether a development permit is required unless such activities are otherwise exempted by City Code.

The City continues to provide educational training to staff on OM and construction practices to protect water quality. The COVID-19 pandemic resulted in the cancellation of the annual construction inspector training for BES staff. PP&D staff continue to pursue continuing education credits for current erosion control certifications.

2.5 Operations and Maintenance (OM)

OM BMPs for City UICs are important to both remove pollutants from UICs (e.g., UIC cleaning) and prevent pollutant discharges into UICs (e.g., street sweeping and catch basin cleaning). This BMP category identifies OM practices both for UICs located in City-managed ROWs and for UICs on other City-owned properties.

OM-1: Address the inspection, maintenance, cleaning, and repair of City-owned UICs in public ROWs.

2.5.1 OM-1: Key Accomplishments

UIC Inspection, Maintenance, Cleaning and Repair

- Removed 5,928 cubic yards of material from storm inlets and catch basins citywide.
- Cleaned 2,523 UIC sedimentation and sump maintenance holes.
- Cleaned and inspected 13,021 inlets and 1,615 trash racks.
- Repaired UIC sedimentation and sump maintenance holes, storm inlets, and inlet leads as needed.

On June 1, 2022, a 7-mile stretch of 82nd Avenue in East Portland changed from state to local control. The City of Portland now owns the 7-mile stretch of 82nd Avenue from Killingsworth Street to Clatsop Street and is responsible for maintenance and upgrades. The transfer agreement included a state funding commitment to help the City with street and asset improvements needed to bring the corridor up to City standards. The City is finishing construction on some projects and is on track to upgrade most UIC systems that were part of the initial transfer within the next 4 years. However, a few remaining UIC systems will be upgraded by FY 2030–31.

OM-2: Address operation and maintenance activities that are conducted in public ROWs and may affect City-owned UICs.

2.5.2 OM-2: Key Accomplishments

The City implements practices in and around ROWs to prevent and limit pollutant discharges, such as street sweeping, spill control, erosion control, and material testing, and the City also conducts leaf removal. PBOT is the primary bureau responsible for maintaining the City's roads and other transportation-related facilities and infrastructure. The PBOT *Maintenance Environmental Handbook* is a guide provided to PBOT Maintenance and Operations (PBOT-MO) field crews to ensure they have easily accessible information on waste handling, erosion control measures, spill control and prevention practices, and vehicle washing.

Street Sweeping

- Swept arterial roadways five to six times.

- Removed 3,672 tons of material from City roadways.

PBOT-MO BMPs

- Continued to implement BMPs within the ROW to protect water quality, including:
    - Following the Oregon Department of Transportation *Routine Road Maintenance Water Quality and Habitat Guide*.
    - Controlling erosion during all sediment-disturbing activities.
    - Using cured-in-place pipe technology when replacing stormwater piping in the ROW to reduce the amount of excavation needed.
    - Using low-disturbance sign installation methods to avoid or minimize digging.
    - Using mild, solvent-free cleaners to clean signs.
    - Using a UV-protection and anti-graffiti coating on new street signs to reduce the need for chemical cleaners.
    - Monitoring weather conditions during asphalt grinding to avoid runoff.
    - Hand-applying asphalt where necessary to prevent these materials from entering the storm drain system.

- Coordinated with BES on environmentally responsible practices for the use of roadway anti-icers and deicers, including road salt. PBOT used approximately 2,658 cubic yards of salt and 99,794 gallons of magnesium chloride anti-icing liquid throughout the city for snow and ice events in FY 2023–24. Deicing procedures and BMPs were integrated into overall winter road maintenance activities, including adaptive management of priority route identification and evaluation of application rates. More information about how PBOT manages winter road maintenance activities can be found at Winter Weather Basics and FAQ | Portland.gov.

- Implemented the *PBOT Snow and Ice Response Plan 2023*. In addition to providing guidance on best practices, the Response Plan requires supervisors and field personnel to receive training and perform an equipment dry run on their assigned routes prior to November each year.

- Continued to provide staff training on the use of the 2011 PBOT *Maintenance Environmental Handbook* for street maintenance. The Handbook includes guidance to ensure that field crews have easily accessible information on waste handling, erosion control measures, spill control and prevention practices, and vehicle washing.

Water Bureau

- Maintained the program that requires the Portland Water Bureau (PWB) to submit requests to BES for potable water discharges from hydrants and water mains to ROWs. Discharges are approved on a case-by-case basis with a letter of authorization. The authorization requires DEQ/BES BMPs to reduce the impacts of flow rate, volume, and suspended solids from these activities, in addition to the state guidelines for chlorinated discharges. A report is required for each discharge to track volume and respond to any complaints.

- The City's stormwater compliance staff has increased coordination with PWB staff responsible for training employees who work in the ROW. This coordination has resulted in a mutual agreement that more training is needed and the development of *Water Bureau Maintenance and Construction Erosion Control Best Management Practices* (4/17/2023) to reduce the discharge of suspended solids and hydraulic loading and complete de-chlorination for planned and emergency work.

OM-3: Address OM of UICs <u>on other City property</u>, as well as good housekeeping practices that may affect UICs.

2.5.3 OM-3: Key Accomplishments

- Continued discussions with other City bureaus to standardize OM procedures for UICs on City property, based on the OM templates established in the City's SWMM.

- The City's Procurement Services engaged in green purchasing best practices to spend public funds on goods and services that minimize negative impacts on human health and the environment. In FY 2023–24, the program included environmentally preferable product and service specifications in City solicitations and contracts, such as the use of untreated wood for boardwalks and similar exterior wood features. Additional specifications include zero-sediment runoff at construction sites and onsite stormwater management (eco-roofs, rain gardens, etc.).

- Continued to incorporate electric and other low-carbon fuel vehicles into the City fleet to promote sustainability.

- Portland Fire and Rescue continued to control discharges from equipment washing, maintenance, and nonemergency firefighting training by routing discharges to the sanitary sewer system. Washwater is discharged typically through an oil/water separator to the sanitary sewer.

- PBOT-MO and Portland Parks and Recreation (PP&R) inspected and maintained, as necessary, all stormwater and stormwater containment and pollution prevention facilities in City maintenance yards. The City employs a variety of structural stormwater and nonstructural source controls in its maintenance yards. Typical controls include the use of covers, berms, and other containment strategies for waste and recyclables; sweeping and good housekeeping practices; installation of filtration and absorbent inlet inserts in catch basins; and use of oil-water separators and other pollution prevention facilities.

- PP&R holds a Salmon-Safe certification and continues to comply with practices for certification, including integrated pest management, reduction of water and fertilizer inputs on park properties, riparian and upland habitat restoration, and use of pesticide alternatives. Facility managers are committed to additional actions to limit water pollution, conserve water use, and restore habitats. BES is also coordinating with the BPS to strengthen the City's salmon recovery efforts through more landscape-level and zoning code improvements.

PP&R continued to implement practices and City-integrated pest management activities in parks, which reduce fertilizer and pesticide inputs. These activities include:

- Utilizing plants with natural resistance to pests.
- Proper mowing and irrigation of park turf to increase vigor and reduce weed populations.
- Mulching of planting beds to reduce the establishment of weeds.
- Application of selected herbicides to control invasive weeds and prevent their spread.
- Release of natural biological control insects to minimize invasive weed infestations.
- Aerating and overseeding athletic fields to reduce the need for fertilizers.

Site-specific OM actions conducted as a response action are discussed in Section 4: Response.

2.6 Program Management (PM)

The purpose of the Program Management (PM) BMP is to ensure effective program management, coordination, and reporting for effective implementation of the UICMP and compliance with the WPCF Permit. This approach involves strong relationships and coordination with multiple City bureaus, state agencies, and other jurisdictions and organizations. This BMP category includes City initiatives, such as policies that promote the implementation of green streets as alternatives or retrofits for UICs, as well as code and administrative rules pertaining to groundwater protection.

PM-1: Facilitate internal City coordination regulations to enhance groundwater protection.

2.6.1 PM-1: Key Accomplishments

Development Review Process and UICs

- Continued evaluation of the review and approval process for private UICs, identifying issues and process gaps and identifying strategies for a more streamlined and consistent registration process for both public and private UICs.

SWMM Revision

- Continued to participate in quarterly meetings for System Planning and SWMM revisions, which provide policy and design requirements for stormwater management citywide. Participation enables the UIC Program to provide input on new and retrofitted UICs on private and public property and in the public ROW. The most recent update to the SWMM went into effect on December 14, 2020. This manual was being updated, and underwent public comment in August 2024. It is expected to go into effect in early 2025. This manual is revised every 2 to 5 years and provides implementation requirements for stormwater management activities within the City of Portland.

Climate Change Planning

- In June 2020, the City declared a climate emergency and prioritized key actions for climate and community health. In July 2020, the City Council adopted a Climate Emergency Declaration that acknowledges that the Portland metro area faces a human-made climate emergency, with frontline communities being the least responsible for but most impacted by climate change. The 2015 Climate Action Plan was replaced by the Climate Emergency Workplan (CEW) in August 2022. Since City Council adopted the CEW, multiple City bureaus have worked to advance the 47 priority actions to work toward achieving Portland's collective decarbonization and community resilience goals. Over the past year, City staff notably advanced these CEW priorities:

    - Invested $600 million into City projects and $700 million in community-wide projects over five years from the Portland Clean Energy Fund.
    - Led the way on industrial decarbonization.
    - Acquired approximately $7 million in external grant funds
    - Made the most of one-time general fund investments.

    - The City will continue to work on these actions and develop strategies to help reach net zero carbon by 2050. The newly formed Sustainability and Climate Commission and Chief Sustainability Officer will direct the next iteration of Portland's climate plan, informed by the findings of the climate justice audit underway from the City Auditor's Office.

City Organization

- All development-focused BES personnel were moved from BES into a new permitting bureau, PP&D, on July 1, 2024. This includes all land use review, building plan review, and public works permitting staff. PP&D reviews and approves UICs on private property.

- Portland is changing its form of government and updating the organizational structure so that all bureaus and offices will report to a City Administrator instead of five City Council members. To support the new form of government, a public works service area was approved November 2023 that will include PBOT, PWB, and BES and went into effect July 2024. Ongoing conversations between these bureaus will lead to recommendations for the City's best approach to protect natural resources and the environment, including the climate. This may align with the desired outcome for greater coordination and standardization of related goals, plans, resolutions, and policies that have citywide impacts.

- The schedule for the change in City government that occurred leading up to and including FY 2023–24 is as follows:

    - Early 2023: Ranked-choice voting implementation underway.

    - January 2023: Independent District Commission appointed to begin establishing geographic districts.

    - September 2023: New geographic districts adopted, elected official salaries established.

- In November 2024, Portland voters will elect new leaders using ranked-choice voting and geographic districts. The mayor and half of the Portland City Council will run for 4-year terms; the City Auditor and the other half of the City Council will run for initial 2-year terms. In January 2025, a new City Council will enter the new form of government's roles and responsibilities.

PM-2: Coordinate with external partners, including state agencies, other jurisdictions, and outside organizations.

2.6.2 PM-2: Key Accomplishments

Regional Coordination

- The City is an acting member of the Association of Clean Water Agencies (ACWA). UIC Program staff currently co-chair the Groundwater Committee as well as attend this and other ACWA committee meetings. The Groundwater Committee discusses and tracks many topics, such as monitoring proposals and permit negotiations with other municipal permittees, tracking the issuance of individual and general municipal WPCF Permits and permit conditions, and promoting consistency in required Permit activities (e.g., adaptive management).

- Participated in coordination activities for the statewide Clean Rivers Coalition clean water communications campaigns. The initial campaign focus is on pesticides and insecticides. The City's participation in FY 2023–24 included a $5,000 sponsorship contribution supporting website design and maintenance, outreach campaign tools, and digital advertising focusing on values-based storytelling and residential pesticide use reduction.

- Participated in the Regional Coalition for Clean Rivers and Streams campaign, "The River Starts Here." This coalition seeks to help Portland residents make informed home and automobile care decisions that reduce stormwater pollution and features clean-up events. The City's participation in FY 2023–24 included a $5,000 sponsorship to support online tools and community events.

- Participated in and contributed to the development and delivery of the "Clean Water — It's Our Future" campaign with a group of regional clean water partners. The campaign comprises a series of public service announcements (PSAs), social media posts, and website content focusing on practical advice for implementing clean water practices such as alternatives to herbicide use. The PSAs air during KPTV news segments and complementary information is posted on the KPTV Community webpages and shared via Facebook posts. The City contributed $5,000 to this campaign in FY 2023–24 and also participated in the development of messages. The PSAs aired throughout the year in the Portland metropolitan area.

2.7 Projected Main Activities for FY 2024–25

All stormwater management BMPs discussed in Sections 2.2 through 2.6 are intended to help prevent, minimize, and control pollutants in stormwater prior to discharge to a UIC. Unless otherwise noted as a one-time activity, implementation of these BMPs is expected to continue and be tracked in FY 2024–25. As discussed further in Section 2.10, citywide budget forecasts may result in changes to some BMPs; however, these are not expected to affect WPCF Permit compliance. The following additional PM activity may also be added:

- Participate in the UIC rules revision process (which will include revision of Oregon Administrative Rules [OAR] 340-044, UIC Rules, and OAR 340-040, Groundwater Quality Protection Rules) when initiated by DEQ.

Due to the large amount of development and redevelopment in the City of Portland, the City UIC Program is unable to forecast how many new UICs will be added or removed from the system a year in advance. For UIC construction, the City has a registration process to track proposed UICs although these UIC may not get constructed during the year. This process allows the City to approve the UICs for construction to ensure that all new UIC installations meet the conditions of its current WPCF Permit prior to construction. As of October 2, 2024, 62 new UICs have either been approved for installation or were newly discovered in the field. This total reflects currently available project information on UICs added after July 1, 2024.

In addition, for UIC closure, part of the City's decommissioning process is to inform DEQ directly (either by phone or email) prior to any actions in the field. The date that DEQ is informed is not necessarily within the same year that the UIC is closed; DEQ can be informed a year or more in advance of the closure evaluation. As of October 2, 2024, 69 UICs are currently in the closure process and expected to be closed. Reports for these will be included in FY 2024-25. DEQ was informed about 67 pending closures prior to July 1, 2024, and two additional closures since that time.

All newly constructed or identified UICs will continue to be evaluated for characteristics that may potentially create adverse impacts on groundwater. The resulting information will be incorporated into the Response process, as appropriate.

2.8 Additional Actions Taken to Manage the UIC System

Additional actions taken to manage the UIC system to ensure groundwater protection for this reporting year included the following:

- UIC Program policy requires adding pretreatment to a UIC system when a construction project impacts a UIC that does not have a sedimentation maintenance hole or other form of pretreatment. Of the 16 decommissioned UICs in FY 2023–24, 11 were replaced with new standard sump systems that include pretreatment, and five were not replaced with UICs. The UIC Program will continue to work with BES Engineering staff to ensure that pretreatment is added.

2.9 UICMP Actions Not Completed

All actions identified in the UICMP have been completed for this reporting year.

2.10 Adaptive Management

Adaptive management measures are evaluated annually. To fulfill this requirement, the City collects and evaluates annual monitoring data to assess the need to modify its management approach (Section 3). Based on the City's UIC water quality monitoring, discharges to City-owned UICs from ROWs are protective of groundwater and do not require changes to the City's UIC management strategy as described in the UICMP.

In addition to stormwater monitoring, the City evaluates its available resources to implement the UIC Program. The evaluation for FY 2024–25 indicates that Portland continues to face funding limitations. The FY 2024–25 Adopted Budget forecasts funding limitations due, in part, to efforts to reduce and respond to the local homelessness crisis, inflation impacts on project and staffing costs as well as partnerships, the City governance structure overhaul and the associated reallocation of budget and resources, and the investment needed in aging and failing infrastructure.[6]

Limited funding and increased expenses mean that City budget reductions will occur at levels that may affect stormwater programs and necessitate modifications to management activities. Implementation of a BES rate increase is projected to address higher current and expected costs over the next few years related to environmental remediation, deferred capital investment, increased capital construction costs, as well as manage commitments to other large projects. However, due to the change in form of government, it is uncertain whether adequate increases will be approved in the FY2025-26 budget and beyond. The feasibility is being investigated of a "OneWater" model to determine if integrating water management services is practical and beneficial, as well as of an EPA-supported concept called "Effective Utility Management". These efforts could prompt both large and small-scale changes to the City's stormwater programs and organization to improve alignment and collaboration.

Details about the events and dynamics influencing the need for these modifications are described in Section 3 of the City's 2023–2024 *Municipal Separate Storm Sewer System (MS4) Annual Report.*[7] Modifications that occurred in 2023 to 2024 relevant to the UIC Program include the curtailment of residential street sweeping due to budget constraints, the replacement of P2O/EcoBiz Program participation with the City's Toxics Reduction Program for source control and pollution prevention, and the reduction in education and outreach relative to MS4 Permit-required activities. These changes are not expected to affect WPCF Permit compliance.

[6] City of Portland FY 2023-24 Adopted Budget, Volume I: https://www.portland.gov/cbo/2023-2024-budget/documents/fy-2023-24-adopted-budget-volume-1-citywide-summaries-and-bureau/download.

[7] City of Portland Annual Compliance Report No. 29, FY 2023-2024. National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Discharge Permit No. 10134. Prepared for Oregon Department of Environmental Quality. November 2024.

Budget-related constraints beyond FY 2024–25 are expected. The City WPCF Permit manager will continue to communicate with the DEQ WPCF Permit manager regarding any changes to activities that may impact future WPCF Permit compliance.

To prepare for Permit renewal in 2025, the City is evaluating potential changes to the UICMP that would address new draft WPCF Permit requirements, address the implications of significant findings from the September 2022 *Emerging Pollutants Evaluation for Individual UIC Permit Renewals* (GSI, 2022), and align more closely with the City's NPDES MS4 Stormwater Management Plan (SWMP). The UICMP and SWMP both provide information about citywide stormwater management strategies.

3 System Monitoring

The System Monitoring program element involves ongoing UIC monitoring to demonstrate that UICs are operated to meet WPCF Permit requirements and protect groundwater as a drinking water resource. Stormwater discharge monitoring is conducted annually on a representative subset of UICs, as identified in the *Stormwater Discharge Monitoring Plan* (SDMP). This is referred to as "compliance monitoring" and is discussed in Section 3.1 below.

3.1 Compliance Monitoring

3.1.1 UIC Stormwater Discharge Monitoring Summary – Year 9 (2015 Permit)

The City's UIC monitoring program was implemented in accordance with the 2015 SDMP. The monitoring program under the City's 2015 Permit was designed to focus on UICs located in areas of shallow groundwater, defined as having less than 5 feet of separation distance between the UIC and estimated seasonal high groundwater. Fifteen UIC locations were sampled between July 1, 2023, and June 30, 2024, to implement the required compliance monitoring described in the SDMP. Stormwater discharge samples were analyzed for pollutants as defined in Table 1 of the 2015 Permit. Specific information concerning site details, monitoring results, and quality assurance/quality control can be found in Appendix C.

Year 9 (2015 Permit) Results

- All six pollutants in Table 1 of the City's 2015 Permit were detected in Year 9 (2015 Permit). Specific constituent concentrations are provided in Appendix C.

Action-Level Exceedances and Response Actions

- No pollutants were detected in Year 9 (2015 Permit) at concentrations above their respective action levels and, thus, no response actions were required.

3.1.2 Key Accomplishments

- Implemented Year 9 (2015 Permit) stormwater compliance monitoring. Fifteen UICs were sampled and tested for pollutants as defined by the Permit.

- Compiled and evaluated Year 9 (2015 Permit) stormwater data; there were no exceedances of the Permit's action levels.

- Prepared and submitted annual stormwater discharge monitoring results to DEQ with this report (Appendix C).

3.1.3 Projected Main Activities

- Implement Year 10 (2015 Permit) UIC compliance monitoring in accordance with the 2015 WPCF Permit and 2015 Permit SDMP. As described in the SDMP, Year 10 monitoring will repeat the shallow groundwater locations sampled in Year 5 (2015 Permit). Year 10 will be the final year of the 2015 Permit. Work to prepare for the 2025 Permit is noted in Section 2.10, Adaptive Management.

- Document, analyze, and report results of Year 10 (2015 Permit) stormwater monitoring to DEQ by November 1, 2025 (per the 2015 WPCF Permit).

- Continue to work with DEQ to demonstrate (through SDMP-required compliance monitoring) that discharges to public UICs meet Permit action levels and are protective of groundwater quality (see Section 4).

3.2 Stormwater Discharge Monitoring Plan Update

The 2015 Permit required the SDMP to be evaluated and updated after 5 years. The evaluation conducted at that time did not result in any monitoring changes to the current SDMP. As part of the WPCF UIC permit renewal process to be conducted in 2025, the City will review the current SDMP and propose changes and updates at that time.

4 Response

The Response program element uses data and information from System Management and System Monitoring activities (Sections 2 and 3) to assess UIC compliance status. It also defines the process and criteria used to identify, evaluate, and prioritize actions necessary to protect groundwater and meet WPCF Permit requirements.

During the first Permit term (2005 to 2015), the City completed numerous actions to ensure UICs were compliant with the state and federal UIC rules and protective of groundwater. Actions included required and voluntary annual monitoring, on-the-ground UIC retrofits, and decommissioning, as well as data evaluation and numerous modeling efforts to demonstrate groundwater protectiveness for various discharge scenarios. Detailed information about these activities can be found in the annual UICMP reports for 2005 through 2015.

In addition, detailed information about response activities conducted so far during the second Permit term can be found in the annual UICMP reports for 2016 through 2023. Ongoing evaluation and annual response activities for FY 2023–24 are discussed in this section.

4.1 Assessment Response

Data generated through the systemwide assessment and ongoing database updates and evaluations are used to identify whether spatial and physical characteristics of UICs could result in drainage that may pose a risk to groundwater. Assessment response includes an evaluation of the appropriate actions to correct the condition and protect groundwater quality. Responses may include a variety of corrective actions, and they may apply to individual UICs or groups of UICs.

4.1.1 Key Accomplishments

- No UICs were identified that required a corrective action.

4.1.2 Projected Main Activities

- Implement actions as appropriate to respond to any Year 10 (2015 Permit) UICs identified as needing correction.

4.2 Monitoring Response

Response actions are intended to reduce elevated stormwater discharge concentrations at the ground surface to meet Permit action levels. Meeting Permit action levels at the “end of pipe” demonstrates compliance with state and federal requirements for the protection of “underground sources of drinking water” and “waters of the state.” Response actions are intended to be implemented in a timely manner and are considered interim in nature until a final compliance determination is made or a final corrective action is implemented.

4.2.1 Key Accomplishments

- No monitoring response actions were needed during FY 2023-24.

4.2.2 Projected Main Activities

- Implement actions, as needed and appropriate, in response to any Year 10 (2015 Permit) individual stormwater discharge monitoring action-level exceedances, unusual conditions observed during UIC sampling, inspections, or citizen complaints.

4.3 Spill Response

Spills and illicit discharges are reported to the SPCR team through the spill-response hotline or by the Oregon Emergency Response System, or they are discovered by staff during site inspections. If a spill that could impact a UIC is discovered, the City will undertake a response as identified in the UICMP.

4.3.1 Key Accomplishments

- Continued to operate the BES 24-hour spill-response hotline. Activities in FY 2023–24 included the following:
    - Received approximately 2,071 calls (citywide) regarding pollution complaints. Out of this total, 644 were related to a spill or an illicit discharge, 55 were erosion-control related, and 788 resulted in investigations.
    - Received 108 calls/emails related to RV discharges and complaints of RV discharges or requests for information regarding the RV pump-out program. The SPCR program provided individual RV occupants with referrals to the RV pump-out program and left a door hanger on RVs whenever possible.
    - Promoted pump-out services for individuals living in RVs in the ROW. BES and associated contractors performed 1,266 sewage pump-outs of RVs and collected 705 bags of trash.

During FY 2023–24, no spills of note occurred that required larger response actions (see Section 2.3 of this report for details).

Appendix B contains a table of all spills during FY 2023–24 that occurred within areas serviced by UICs, including any triggered response-related activities that are described in Section 2.3.1.

4.3.2 Projected Main Activities

- Implement actions as needed and appropriate in response to any FY 2024–25 spills that may impact a UIC.

4.4 Groundwater Protectiveness Demonstration and Verification

During the first Permit term (2005 to 2015), the City completed multiple groundwater protectiveness demonstrations (GWPDs). These GWPDs showed that the operation of all City-owned UICs is protective of groundwater, including UICs with direct discharge and UICs that are within close proximity to a drinking water well. To maintain the validity of the demonstrations, the City evaluates monitoring data and depth-to-groundwater information

annually to confirm that the basis of the protectiveness demonstrations has not changed and that groundwater continues to be protected.

4.4.1 GWPD Verification

The following data were evaluated to ensure that the City's GWPDs are still valid.

- **Verification of vertical separation distance:** U.S. Geological Survey depth-to-groundwater data were used in combination with existing construction information to calculate the vertical separation distance between the bottom of the UIC and seasonal high groundwater. All vertical separation distances are reported and updated as part of the UIC database annual reporting.
- **Verification of stormwater discharge monitoring results:** In general, pollutants detected in Year 9 (2015 Permit) monitoring are similar to the detections, frequency, and concentration ranges identified during the first Permit term. Common pollutants detected during the first Permit term and Year 9 (2015 Permit) are at low concentrations and below their respective action levels. Concentrations are generally low and within narrow ranges at individual UIC locations.

4.4.2 Key Accomplishments

- Evaluated UICs for WPCF Permit compliance.
- Evaluated Year 9 (2015 Permit) monitoring information for compliance.

4.4.3 Projected Main Activities

- Continue identification and evaluation of UICs as new data become available.
- Perform compliance determinations on any new UICs.
- Review and update as appropriate the Decision Making Framework for Groundwater Protectiveness Demonstrations to reflect any identified changes.
- Apply the protocols in the Decision Making Framework for Groundwater Protectiveness Demonstrations to any new UICs as appropriate to determine if groundwater is protected or corrective action is required.

4.5 Other Noncompliance or Violations

No instances of noncompliance or other unreported Permit violations were identified.

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

The Bureau of Environmental Services is committed to providing meaningful access. To request translation, interpretation, modifications, accommodations, or other auxiliary aids, please call 503-823-7740 or Oregon Relay Service 711.

PP2011 SEP2020