Water Pollution Control Facilities (WPCF) Permit

Class V Stormwater Underground Injection Control Systems

DEQ Permit Number 102830

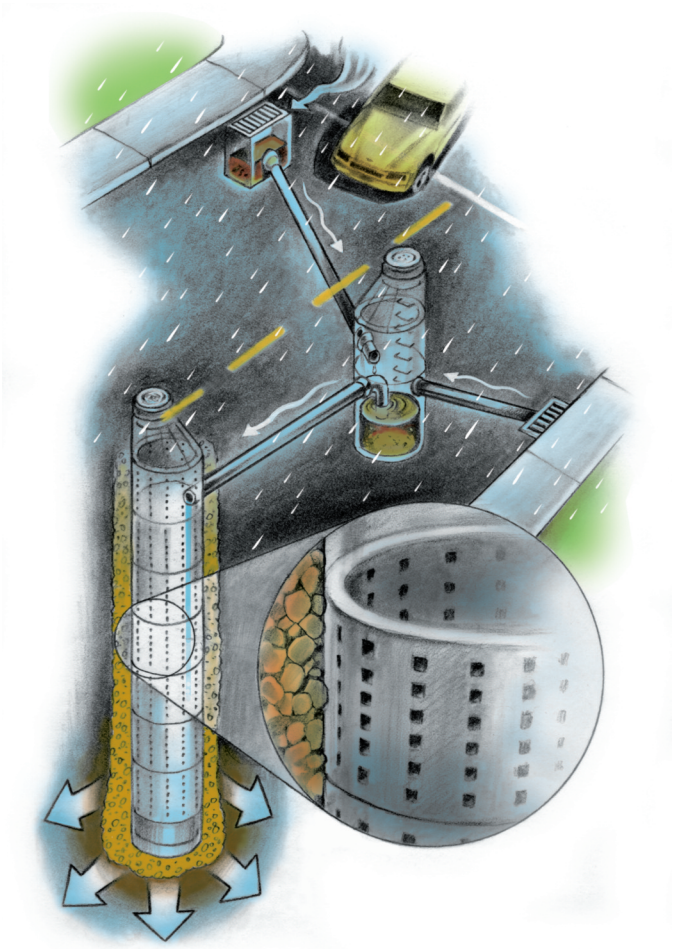
ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Bureau of Environmental Services • City of Portland

Underground Injection Control Management Plan

■

Annual Report
Year 8 (2015 Permit)
Fiscal Year 2022-2023
(July 1, 2022 – June 30, 2023)



November 1, 2023

Ted Wheeler, Mayor • Dawn Uchiyama, Director

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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. 8 (2015 Permit)

Fiscal Year 2022–2023
(July 1, 2022, to June 30, 2023)

November 1, 2023

Prepared By:
City of Portland, Bureau of Environmental Services

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Acronyms and Abbreviations

BDS	Bureau of Development Services
BES	Bureau of Environmental Services
BIPOC	black, indigenous, and people of color
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
FY	fiscal year
GWPD	groundwater protectiveness demonstration
MIP	Maintenance Inspection Program
ODOT	Oregon Department of Transportation
OM	operations and maintenance
PC	Pollution Control
PBOT	Portland Bureau of Transportation
PM	Program Management
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
YDO	Your DEQ Online

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Executive Summary

Introduction

This *Underground Injection Control Management Plan (UICMP) Annual Report No. 8 (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 8 (July 1, 2022, through June 30, 2023).

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, 2022, through June 30, 2023 (FY 2022–23) 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 90 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 City's Bureau of Development Services on UIC design standards and the City's review and approval process for UICs registered on private property.
- Cleaned approximately 1,356 UIC sedimentation and sump maintenance holes.
- Repaired UIC sedimentation and sump maintenance holes, and storm inlets and inlet leads as needed.
- Continued evaluation of the review and approval process for private UICs to achieve a more streamlined and consistent registration process for both public and private UICs.

Citywide Management Actions

- Issued 52 enforcement actions in response to pollution complaints citywide, with proposed penalties and costs totaling $79,223.
- Conducted 158 groundwater-related inspections in the Columbia South Shore Well Field Wellhead Protection Area (CSSWF WHPA) of regulated businesses.
- Partnered to provide technical assistance to 67 businesses affected by the CSSWF Wellhead Protection Program.
- Conducted 320 land use reviews for source control measures (citywide) at commercial and industrial properties subject to the City's *Source Control Manual* requirements.
- Involved approximately 8,782 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.
- Conducted and approved 4,230 erosion control-related inspections of construction sites citywide. (Erosion control inspections resulted in 667 enforcement actions and corrections notifications).
- Approximately 2,675 permits were issued that required erosion and sediment control plan review and inspection.

- Awarded Community Watershed Stewardship grants, Neighborhood to the River grants, and Percent for Green Program grants totaling over $1.4 million.
- Updated and posted fact sheets, brochures, and educational materials on the BES website and Facebook page.
- Mailed 1,733 maintenance reminders to single-family residential homeowners with vegetated stormwater management facilities (SMFs).
- Inspected 2,418 private SMFs for OM requirements.
- Recorded 183 OM Agreements for 304 SMFs.
- Implemented 457 citywide projects with constructed SMFs managing 112 citywide acres of impervious surface.
- Issued nine enforcement actions (i.e., warning notices, notices of violation, and compliance orders) and 325 corrective actions.
- Removed 4,459 cubic yards of material from storm inlets and catch basins.
- Cleaned and inspected 12,386 inlets and 3,057 trash racks.
- Swept major arterials five to six times during the year, and residential streets one to two times per roadway.

System Monitoring

- Implemented FY 2022-23 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 2022-23 exceedances of 2015 Permit action levels.

Response

- Evaluated UICs for corrective action response due to database updates, monitoring results, or spill response.
- Evaluated FY 2022-23 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 2022-23.

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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 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 eighth fiscal year of permit implementation (July 1, 2022, through June 30, 2023, also known as FY 2022-23) 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 and ninth-year annual reports 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 2022-23.

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 27 years.[3] The revenue requirements for FY 2022-23 totaled approximately $210.0 million.

At the beginning of FY 2021-22, the City reorganized BES and altered the financial structure of the bureau. As such, the previous reporting methodology for revenue requirements by a major program category can no longer be replicated. The former structure no longer fully represents stormwater program expenditures. Additionally, the City is conducting a consultant-led cost-of-service study for sewer and stormwater revenues. Thus far, the cost-of-service study has identified higher expenditures toward stormwater than had been identified in earlier cost-of-service studies. Next year, the City intends to replace the historical major-program category structure with one available in the new financial structure.

[3] The 27-year time period reflects the implementation period of the City's National Pollutant Discharge Elimination System permit.

In FY 2023-24, the City plans to invest $210.0 million in stormwater management services and facilities, which reflects the updated cost-of-service results. Direct monthly user fees will pay for 75% of these investments. Direct monthly user fees are lower than in prior years because the consultant-led cost-of-service study will influence utility rates in FY 2023-24.

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.

Table 1-3 reports the change in the monthly single-family stormwater management charge and in the residential and nonresidential monthly stormwater rate per 1,000 square feet of impervious area, between 2010 and 2023.

Table 1-3. Stormwater Management Charges and Rates

Stormwater Management Monthly Charges and Rates	2010–11	2022-23	Percent Change
Single-family residential charge	$21.79	$31.20	43.2%
Residential rate ($/1,000 ft^2 impervious area)	$9.08	$13.00	43.2%
Nonresidential rate ($/1,000 ft^2 impervious area)	$9.66	$14.46	39.3%

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.

The methodology for assessing SDCs includes two components. The first component, onsite runoff management, represents the charge for stormwater facilities that handle runoff from individual properties. For FY 2022-23, this onsite portion is assessed based on $259 per 1,000 square feet of impervious area (see Table 1-4). Riparian properties that drain directly to the Columbia Slough, Columbia River, or Willamette River are eligible for 100% in credit for the onsite portion of the SDC.

The second component, public right-of-way (ROW) runoff management, represents the cost of stormwater facilities that handle runoff from public ROWs. This portion is assessed based on the use of the transportation system, using road frontage, and vehicle trips associated with the proposed development to allocate the costs. For FY 2022-23, the rates were $8.36 per linear foot and $4.67 per vehicle trip.

Discounts may be granted only for the "onsite" part of the charge for facilities constructed as part of new development. Discounts range from 80% for retention of the 100-year event to zero discount for control of the 10-year storm.

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

SDC Charges and Rates	2010–11	2022-23	Percent Change
Onsite portion ($/1,000 ft^2)	$154.00	$259.00	68.2%
ROW portion ($/linear foot of frontage)	$4.78	$8.36	47.9%
ROW portion ($/vehicle trips)	$2.51	$4.67	86.1%

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 2022-23. The following appendices provide additional detail about System Management activities:

> **Appendix A** identifies UICs added and removed from service during FY 2022-23 (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 2022-23 and those projected for the next fiscal year (FY 2023-24).

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 2022-23. 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, 2023, to DEQ's Your DEQ Online (YDO), 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 98 new public UIC[4] records in UIC Registration Database updates. These UIC records are listed in Appendix A and include:
    - 1 retrofit of an existing hybrid UIC to a horizontal perforated pipe and sedimentation maintenance hole
    - 78 new active or under construction registrations
    - 19 UICs that were discovered in the field

  One hybrid UIC (a vegetated swale) was retrofitted in response to water quality concerns arising from nearby encampments. A 4-foot deep perforated pipe with a sedimentation maintenance hole was installed. This UIC is located on non-ROW waterfront property and drains the Saturday Market Pavilion roof. The separation distance remains 0 feet for the UIC.

- Removed or changed the status[5] of 33 public UIC records in UIC Registration Database updates. These records are listed in Appendix A.

- Decommissioned 21 UICs during FY 2022-23. Of these 21, three UICs were found to have been removed in previous years, but notifications were sent to DEQ in FY 2022-23. 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
1	Maintenance period
45	Operational status
0	Addresses
45	Latitude
45	Longitude
45	Distance to the nearest water well
38	Distance to the nearest wetland
36	Distance to the nearest surface water

[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
0	Size of impervious area
5	UIC pretreatment
6	Installation date
55	UIC depth and diameter
116	Depth-to-groundwater
10,301	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 2022-23, 52 enforcement actions were issued citywide, with proposed penalties and costs totaling $79,222.91.[6]

- 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.

[6] Penalties are for 50 of the 52 cases, as two cases remain open due to request for administrative review.

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 90 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 90 reported spills, seven reached a UIC system. Three UICs 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. Two of the six impacted UICs were inspected and not cleaned because the volume of sediment in the system was not significant. One of the UICs was impacted by pool water; it was inspected but not cleaned because there was no evidence of chlorine odor or cleaning agents. Lastly, one UIC was impacted by saltwater draining a hot tub. It was 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

SPCR participates in the Regional Spill Response Committee, which solicits input about new participants and meeting topics, and the committee increases coordination with emergency responders and planners. The Regional Spill Response 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. The committee has not convened since 2020 due to a combination of the ongoing COVID-19 pandemic and SPCR's prioritization of backlogged enforcement actions but is anticipated to be re-started in FY24.

Columbia South Shore Well Field Wellhead Protection Program

The City provides outreach and technical assistance to businesses and residents in the 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 2022-23, 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 158 groundwater-related site inspections in the CSSWF WHPA of regulated businesses for compliance with the City's *Wellhead Protection Area Reference Manual*.
- Provided technical assistance to 67 businesses within the CSSWF Wellhead Protection Program by holding two groundwater protection compliance workshops, which included topics on pollution prevention and spill control.
- Distributed six free spill kits and approximately eight free spill-response signs. Spill-response signs were also produced in Spanish and Russian.

Source Control Measures

BES's Development Planning and Pollution Prevention Plan Review teams 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 *Stormwater Management Manual* [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. 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 320 land use reviews for source control measures at commercial and industrial properties subject to SWMM requirements.

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

    - For projects with 500 square feet or more of impervious area, onsite infiltration is required to the maximum extent feasible. The SWMM includes a BMP hierarchy to promote infiltration-based and vegetated facility implementation. UICs constructed in the public ROW or on private streets must 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.

    - If onsite infiltration is not feasible, onsite stormwater management that overflows to an offsite discharge location is required. City-owned UICs are not approved discharge points for offsite drainage from private sites. Stormwater discharged offsite must reduce pollutants or concern (in those watersheds with Total

Maximum Daily Loads or that are listed on DEQ's 303d list of impaired waters) and for total suspended solids.

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). The City implemented a series of community collection events focused on low-income multifamily properties during Spring and Summer 2023.

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 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 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 4,230 erosion control-related construction site inspections.
- Issued a combined total of 667 enforcement actions as a result of erosion control inspections.
- Issued approximately 2,675 permits requiring erosion and sediment control plan review and inspection.

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 343 education programs.
- Developed partnerships with equity-priority organizations and BES staff from multiple work groups to provide 19 career-based field and classroom programs. Staff with expertise in natural area restoration, water quality monitoring, engineering, green infrastructure maintenance, and stormwater taught students about their work and career paths.
- Partnered 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 2,998 Clean Rivers Education webpage views by 1,345 users.
- Equity criteria designed to track access to the program's education and information showed:
    - 59% of Clean Rivers Education programs were delivered to groups and schools meeting equity criteria.
    - 74% 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 2022-23 examples included the following:
    - Awarded Community Watershed Stewardship grants totaling $96,839. Grant recipients included a group working in a prison, two groups working with unhoused community members, and several groups serving school groups. The program generally provides up to $12,000 per project to citizens and organizations to encourage watershed protection in Portland.
    - Awarded Neighborhood to the River grants totaling $64,593.
    - Awarded Percent for Green Program grants totaling $1,263,328 for two large projects. This grant includes a collaboration between BES, Portland Bureau of Transportation (PBOT), Portland Parks and Recreation (PP&R) Urban Forestry, and residents in SE Portland for a "Trees in the Curb Zone" pilot project to develop a framework for increasing tree canopy. The pilot, an early implementation project of the recently adopted Pedestrian Design Guide, will depave portions of the street and plant trees in the parking zone in places where there is not enough room for trees behind the curb. In addition to stormwater

management, the trees will help reduce the urban heat island effect and help calm traffic.

- Involved approximately 8,782 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.

Stormwater-Related Information

- Updated and posted fact sheets, brochures, and educational materials on the BES website and Facebook page. Posts on the BES Facebook page received 694 likes during FY 2022-23.

Ecological Business Program

- Continued to work with the Regional Pollution Prevention Outreach Team (P2O Team), and the Eco-Logical Business Program (EcoBiz). The EcoBiz program provides free technical assistance, tools, and training resources to businesses, and it certifies automotive and landscaping businesses to ensure sustainable and environmental practices. The program will sunset in early FY 2023-24; however, the following activities were accomplished in FY 2022-23:
    - 335 businesses received EcoBiz outreach.
    - 37 spill kits were distributed, with an estimated 111 employees trained in spill control and prevention.
    - 30 businesses received pollution prevention resources.
    - Eight businesses received technical assistance.
    - One new business completed all steps for certification. Five businesses completed all steps for recertification. Seven businesses started the certification process, which is ongoing.

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 2022-23 included the following:

- The Open Streets and Active Transportation Engagement program shifted its focus of bike rides and workshops to communities of color and people new to biking. The intent is to grow the bike community in areas that currently experience lower ridership and score high in the PBOT Equity Matrix. Three Sunday Parkways were attended by 64,384 community members.

- Partnered with community organizations to offer Portlanders more transportation programming. The American Association of Retired Persons led seven walks with a total of 330 walkers, Oregon Walks hosted 31 walk-focused events with over 500 attendees, and Organizing People Activating Leaders hosted two workshops with their Youth Environmental Justice Alliance cohort of six students.
- In Spring 2023, PBOT staffed activated the Rose Lanes in downtown Portland with a Ride Every Wednesday campaign. The effort is focused on accelerating a return to transit, supporting downtown recovery from the pandemic, and motivating people to go to their downtown office.
- PBOT staff worked to solidify permanent funding and expansion plans for the Transportation Wallet Access For All program. This program includes offering a package of free transportation options, such as transit fare and bike or scooter credits. A 20-cent equitable mobility fee was added to parking transactions in metered districts, and those revenues were allocated to the program. Funding was also secured through the Portland Clean Energy Fund as it supports decarbonization efforts in the City.

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 BDS development review staff on UIC design standards and the review and approval process for UICs registered on private property.

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.

Maintenance Inspection Program (MIP)

The MIP 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 stormwater management facilities (SMFs), and provide guidance on pollution prevention BMPs for site activities that may impact the functionality of SMFs. In September 2019, the MIP changed the method of retrieving new OM agreements to include only finalized permits, to more accurately track the number of SMFs installed on private property. The program also collects information on SMF deficiencies and corrective actions taken to address them.

MIP activities in FY 2022-23 included the following:

- Inspected 2,418 private SMFs for OM requirements.
- Recorded 183 OM agreements for 304 SMFs.
- Implemented 457 citywide projects with constructed SMFs managing 112 citywide acres of impervious surface.
- Issued nine enforcement actions (i.e., warning notices, notices of violation, and compliance orders) and 325 corrective actions.
- Mailed 1,733 maintenance reminders to single-family residential homeowners with vegetated SMFs.
- Maintained a webpage with program information and links to standard operation and maintenance tools and resources.
- Included outreach materials and information with their inspection reports.
- Implemented new asset management software during the reporting year. Most staff training focused on use of the new database, including data entry of OM details of SMFs, inspection planning and scheduling, and inspection documentation. MIP also updated City Code violation descriptions and enforcement response related to SMF modification. In addition, an annual all MIP staff field inspection was implemented to promote cross-training and inspection consistency across all inspectors.

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 2021-22 included the following:

- Provided technical assistance to 67 businesses within the CSSWF.
- Held 2 groundwater protection compliance workshops, including pollution prevention and spill control content.
- Distributed 6 free spill kits and approximately 8 free spill-response signs.
- Produced Spanish and Russian translations of spill-response signs.
- Conducted 158 groundwater-related site inspections in the Portland area.

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. BDS 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 4,459 cubic yards of material from storm inlets and catch basins citywide.
- Cleaned 1,356 UIC sedimentation and sump maintenance holes.
- Cleaned and inspected 12,386 inlets and 3,057 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 all UIC systems that were part of the transfer within the next 3 to 4 years.

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

- The City swept major arterials five to six times and residential streets one to two times per roadway.
- Street sweeping removed 14,053 cubic yards of material from City roadways in FY 2022-23.

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 858 cubic yards of salt and 161,369 gallons of magnesium chloride anti-icing liquid throughout the city for snow and ice events in FY 2022-23. 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 to include running 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 not only a mutual agreement that more training is needed, but also 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 on other City property, 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 2022-23, 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 as part of its Climate Action Plan and sustainability strategies.

- Portland Fire and Rescue (PF&R) 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 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.

- The City holds a Salmon-Safe certification and continues to comply with practices for Salmon-Safe 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 habitat. BES and PP&R will partner on PP&R's 2023 recertification to help improve stormwater and salmon habitat throughout their shared assets portfolios. BES is also coordinating with the BPS to strengthen the City's salmon recovery efforts through more landscape-level and zoning code improvements. Environmental and floodplain zoning code updates will protect critical habitat functions in the City and require stricter environmental mitigation regulations on E-, P-, and C-zoned[7] parcels slated for development.

- 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.

[7] The E-zone is the river overlay zone, which generally promotes the protection, conservation, restoration, enhancement, and maintenance of the economic, natural, scenic, and recreational qualities of lands along the central reach of the Willamette River. P- and C-zones are environmental overlay zones that require protection of some resources and functional values that have been identified by the City as providing benefits to the public.

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, 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 is revised every 2 to 5 years and provides implementation requirements for stormwater management activities within the City of Portland.

Climate Change Planning

- Adopted the 2015 *Climate Action Plan* to reduce local carbon emissions and build resilience to the projected impacts of climate change. The Plan provides a roadmap to achieve an 80% reduction in carbon emissions by 2050, with an interim goal of a 40% reduction by 2030. 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. With this Declaration, the City is committing to using a new climate justice and equity-focused approach that centers on communities of color and youth from those communities, in the next chapter of climate action planning and implementation. A progress report on the Climate Emergency Declaration was provided to the City Council in July 2021, followed by a Draft Climate Emergency Workplan in Spring 2022 that focuses on mitigation and adaptation priorities. The Climate Emergency Workplan replaced the 2015 Climate Action Plan by City Council resolution in August 2022.

City Organization

- 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 is being proposed that will include PBOT, PWB, and BES. Final organizational decisions will be made to complement the new form of government that will go into effect on January 1, 2025, that align with the benefits of continuing to collaborate closely on policy, planning, and implementation efforts. Ongoing conversations between these bureaus will lead to recommendations for how the City can best approach natural resources and the environment, including climate. This may align with the desired outcome for greater coordination and standardization of related goals, plans, resolutions, and policies that have citywide impacts.

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 2022-23 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 2022-23 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 2022-23 that was pooled with other jurisdictions' monies. The City also participated in the selection and development of messages. The PSAs aired throughout the year in the Portland metropolitan area.

2.7 Projected Main Activities for FY 2023-24

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 2023-24. 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. Therefore, for UIC construction, the City has a registration process to ensure that all new UIC installations meet the conditions of its current WPCF Permit prior to construction. Also, 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. As of October 4, 2023, 98 new UICs have either been approved for installation or were newly discovered in the field, and 33 UICs have been reported for decommissioning.

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 21 decommissioned UICs in FY 2022-23, two were sumps without pretreatment. These were converted to sedimentation maintenance holes providing pretreatment to two newly installed sumps. 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). In addition, the City evaluates its available resources to implement the UIC Program. The evaluation for FY 2023-24 indicates that Portland is facing concerning funding limitations citywide. The FY 2023-24 Adopted Budget forecasts funding limitations due, in part, to inflation, loss of one-time federal resources, and the maintenance needs of aging infrastructure.[8] Limited funding, increased expenses, and the need for massive infrastructure investments (particularly in wastewater infrastructure), means that City budget reductions will occur at levels that may affect stormwater programs and necessitate modifications to management activities. Details about the events and dynamics influencing the need for these modifications are described in Section 3 of the City's 2022-2023 Municipal Separate Storm Sewer System (MS4) Annual Report.[9] Modifications identified in that section are specific to education and outreach relative to MS4 Permit required activities, and are not expected to affect WPCF Permit compliance.

Budget-related constraints beyond FY 2023-24 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.

[8] 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.

[9] City of Portland Annual Compliance Report No. 28, Fiscal Year 2022-2023. National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Discharge Permit No. 10134. Prepared for Oregon Department of Environmental Quality. November 2023.

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 8 (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, 2022, and June 30, 2023, 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 8 (2015 Permit) Results

- All six pollutants in Table 1 of the City's 2015 Permit were detected in Year 8 (2015 Permit). Specific constituent concentrations are provided in Appendix C.

Action Level Exceedances and Response Actions

- No pollutants were detected in Year 8 (2015 Permit) at concentrations above their respective action levels and, thus, no response actions were required.

3.1.2 Key Accomplishments

- Implemented Year 8 (2015 Permit) stormwater compliance monitoring. Fifteen UICs were sampled and tested for pollutants as defined by the Permit.
- Compiled and evaluated Year 8 (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 9 (2015 Permit) UIC compliance monitoring in accordance with the 2015 WPCF Permit and 2015 Permit SDMP. As described in the SDMP, Year 9 monitoring will repeat the shallow groundwater locations sampled in Year 4 (2015 Permit).

- Document, analyze, and report results of Year 9 (2015 Permit) stormwater monitoring to DEQ by November 1, 2024 (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 2022. Ongoing evaluation and annual response activities for FY 2022-23 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 9 (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 2022-23.

4.2.2 Projected Main Activities

- Implement actions, as needed and appropriate, in response to any Year 9 (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 2022-23 included the following:
    - Received and responded to approximately 1,972 calls (citywide) regarding pollution complaints. Out of this total, 556 were related to a spill or a discharge, and 673 resulted in investigations.
    - Promoted pump-out services for individuals living in RVs in the ROW. BES and associated contractors performed 1,139 sewage pump-outs of RVs and collected 17,214 pounds of trash.

During FY 2022-23, 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 2022-23 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 2023-24 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 8 (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 8 (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 8 (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.

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PP2011 SEP2020

Appendix A
UICs Added and Removed from Service
During FY 2022-23

(Closure reports for decommissioned UICs are provided electronically)

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Appendix A: UIC Records Added to the UIC Registration Database (2022-2023)

UNIT ID	UIC #	Well #	DEQ Type Code	Well Depth (feet)	Well Diameter (feet)	Max Discharge Rate (gpm)	DEQ Waste Type [1]	Operational Status [2]	Install Date [3]	Maintenance Period (years)	Location	Latitude	Longitude	Distance to Nearest Water Well (feet)	Distance to Nearest Wetland (feet)	Distance to Nearest Surface Water (feet)	Separation Distance to Groundwater (feet)	Size of Impervious Area (square feet)
ASU035	10102	10266 [4]	5D2	19	4		1	PA		10	9150 SE DIVISION ST	45.504337	-122.568743	583	9399	6413	104	
R00808	10102	10267 [4]	5D2	12	4		1	PA		10	8335 SE DIVISION ST	45.504723	-122.576789	1611	10606	4398	121	
R00809	10102	10268	5D2	17.3	4		1	UC		1	4807 SE HARNEY ST	45.464804	-122.614167	1287	362	467	12	
ASU482	10102	10269	5D2	30	4	1310	1	AC	8/5/2021	4	5970 NE AINSWORTH ST	45.566422	-122.600596	2429	2619	2156	40	22500
ATM056	10102	10270	5D2	20	4	1248	1	UC		4	9005 SE DIVISION ST	45.504717	-122.570473	428	9659	6016	105	98010
ASK026	10102	10271	5D2	30	4		1	AC		4	8200 NE SANDY BLVD	45.552434	-122.578584	3248	3877	4265	126	
R00811	10102	10272	5D2	30	4	1017	1	UC		4	1121 SE 174TH AVE	45.514841	-122.484762	3214	6777	4771	28	19167
R00812	10102	10273	5D2	30	4	606	1	UC		4	813 SE 174TH AVE	45.516379	-122.484562	3718	6974	4793	27	11492
R00813	10102	10274	5D2	30	4	604	1	UC		4	735 SE 174TH AVE	45.517097	-122.484564	3947	7101	4850	27	11392
R00814	10102	10275	5D2	30	4	1025	1	UC		4	620-636 SE 174TH AVE	45.517843	-122.484569	4189	7241	4924	28	19323
AST280	10102	10276	5D2	30	4	56	1	AC		4	4937 SE TENINO DR	45.46605	-122.611663	1118	497	493	17	18165
AST262	10102	10277	5D2	25	4	72	1	AC		4	4730 SE TENINO DR	45.465659	-122.613794	1367	527	532	10	40757
AST275	10102	10278	5D2	30	4	226	1	AC		4	4904 SE TENINO DR	45.465988	-122.612808	1267	486	484	8	34457
AST257	10102	10279	5D2	30	4	27	1	AC		4	7815 SE 48TH AVE	45.46701	-122.613895	1731	940	939	20	8799
AST270	10102	10280	5D2	30	4	27	1	AC		4	4628 SE MALDEN DR	45.467081	-122.613885	1750	962	960	21	8799
AST276	10102	10281	5D2	30	4	226	1	AC		4	4836 SE TENINO DR	45.465976	-122.612924	1283	492	491	7	34457
R00815	10102	10282	5D2	30	4	262	1	UC		4	4804 SE WOODSTOCK BLVD	45.478452	-122.612634	1784	3350	3434	97	9888
R00816	10102	10283	5D2	30	4	670	1	UC		4	3255 NE 82ND AVE	45.546319	-122.578968	3149	2066	2118	162	13025
R00817	10102	10284	5D2	30	4	670	1	UC		4	3255 NE 82ND AVE	45.546319	-122.579054	3136	2082	2108	162	13025
R00818	10102	10285	5D2	30	4	720	1	UC		4	3150 NE 82ND AVE	45.546318	-122.578489	3222	1977	2172	162	13900
R00819	10102	10286	5D2	30	4	1100	1	UC		4	1707 NE 82ND AVE	45.535638	-122.579315	2217	2170	1860	127	21700
R00820	10102	10287	5D2	30	4	530	1	UC		4	1750 NE 82ND AVE	45.535497	-122.578916	2330	2265	1974	128	10320
R00821	10102	10288	5D2	30	4	1020	1	UC		4	2707 SE 82ND AVE	45.503423	-122.578941	2107	10577	4086	100	19770
R00822	10102	10289	5D2	30	4	880	1	UC		4	2700 SE 82ND AVE	45.503426	-122.578406	1969	10490	4207	101	17060
R00823	10102	10290	5D2	30	4	830	1	UC		4	4718 SE 82ND AVE	45.488007	-122.578565	2518	6562	6752	58	16130
R00824	10102	10291	5D2	30	4	918	1	UC		4	8126 NE BEECH ST	45.549618	-122.579996	3492	3149	3184	157	20503
R00825	10102	10292 [4]	5D2	20	4		1	PA		4	5404 NE PRESCOTT ST	45.55542	-122.607459	1939	6183	6274	159	
R00826	10102	10293	5D2	30	4	100	1	UC		4	6535 SE 82ND	45.475204	-122.579413	4283	3071	3406	35	1900
R00827	10102	10294	5D2	30	4	750	1	UC		4	6705 SE 82ND AVE	45.474529	-122.579331	4038	2854	3183	33	14600
R00828	10102	10295	5D2	30	4	640	1	UC		4	6731 WI/ SE 82ND AVE	45.474126	-122.579183	3886	2711	3037	31	12500
R00829	10102	10296	5D2	30	4	1590	1	UC		4	6933 SE 82ND AVE	45.472363	-122.579177	3257	2214	2507	26	31000
R00830	10102	10297	5D2	30	4	1270	1	UC		4	7143 SE 82ND AVE	45.471046	-122.579327	2802	1928	2154	20	24700
R00831	10102	10298	5D2	30	4	530	1	UC		4	7304 WI/ SE 82ND AVE	45.469428	-122.578966	2211	1516	1615	13	10300
R00832	10102	10299	5D2	30	4	340	1	UC		4	7451 SE 82ND AVE	45.469427	-122.579155	2226	1539	1632	13	6500
R00833	10102	10300	5D2	30	4	1270	1	UC		4	7483 SE 82ND AVE	45.468818	-122.579164	2019	1352	1427	10	24800
R00834	10102	10301	5D2	30	4	920	1	UC		4	8202 SE FLAVEL ST	45.46851	-122.579064	1905	1246	1314	8	17900
R00835	10102	10302	5D2	21	4	1410	1	UC		4	7763 SE 82ND AVE	45.466929	-122.579298	1419	885	843	7	27500
R00836	10102	10303	5D2	21	4	1410	1	UC		4	7763 SE 82ND AVE	45.46693	-122.579405	1435	906	860	7	27500
R00837	10102	10304	5D2	30	4	1290	1	UC		4	5669 NE HALSEY	45.533755	-122.604917	2808	6008	4942	119	
ASQ083	10102	10305	5D2	30	4		1	AC		10	3511 NE 82ND	45.548296	-122.57885	3257	2586	2797	172	
ATL294	10102	10306	5D2	19	4		1	AC		10	2626 SE 122ND AVE	45.502422	-122.537572	656	8140	9763	64	
R00838	10102	10307	5D2	30	4		1	UC		4	COLOMBIA & PORTSMOUTH	45.593945	-122.721111	2990	1952	1939	23	
R00839	10102	10308	5D2	30	4		1	UC		4	COLOMBIA & PORTSMOUTH	45.593881	-122.721114	3012	1963	1956	24	
R00840	10102	10309	5D2	30	4		1	UC		4	COLOMBIA & VAN HOUTEN	45.59404	-122.723164	3136	2431	2284	28	
R00841	10102	10310	5D2	30	4		1	UC		4	COLOMBIA & CLARENDON	45.594205	-122.724188	3202	2422	2433	30	
R00842	10102	10311	5D2	30	4		1	UC		4	NEWARK & PORTSMOUTH	45.589691	-122.720861	4494	2865	3118	49	

UNIT ID	UIC #	Well #	DEQ Type Code	Well Depth (feet)	Well Diameter (feet)	Max Discharge Rate (gpm)	DEQ Waste Type [1]	Operational Status [2]	Install Date [3]	Maintenance Period (years)	Location	Latitude	Longitude	Distance to Nearest Water Well (feet)	Distance to Nearest Wetland (feet)	Distance to Nearest Surface Water (feet)	Separation Distance to Groundwater (feet)	Size of Impervious Area (square feet)
R00843	10102	10312	5D2	30	4		1	UC		4	NEWARK & PORTSMOUTH	45.589707	-122.721284	4507	2929	3181	50	
R00844	10102	10313	5D2	30	4		1	UC		4	NEWARK & EXETER	45.58969	-122.722203	4562	3091	3323	54	
R00845	10102	10314	5D2	30	4		1	UC		4	NEWARK & VAN HOUTEN	45.589598	-122.723155	4657	3286	3492	55	
R00846	10102	10315	5D2	30	4		1	UC		4	FESSENDEN & GENEVA	45.591424	-122.727276	4477	3405	3451	55	
R00847	10102	10316	5D2	30	4		1	UC		4	CECILIA & PORTSMOUTH	45.59275	-122.720909	3401	2118	2228	31	
R00848	10102	10317	5D2	30	4		1	UC		4	CECILIA & VAN HOUTEN	45.592751	-122.723026	3556	2584	2593	37	
R00849	10102	10318	5D2	30	4		1	UC		4	FESSENDEN & ADRIATIC	45.591196	-122.719176	3898	2168	2420	35	
R00850	10102	10319	5D2	30	4		1	UC		4	FESSENDEN & HODGE	45.591218	-122.71989	3908	2280	2525	36	
R00851	10102	10320	5D2	30	4		1	UC		4	FESSENDEN & PORTSMOUTH	45.591206	-122.721268	3970	2533	2735	41	
R00852	10102	10321	5D2	30	4		1	UC		4	FESSENDEN & EXETER	45.591214	-122.722	4010	2674	2841	43	
R00853	10102	10322	5D2	30	4		1	UC		4	FESSENDEN & CLARENDON	45.591225	-122.724205	4185	3129	3204	49	
R00854	10102	10323	5D2	30	4		1	UC		4	FESSENDEN & BERKLEY	45.591229	-122.725362	4303	3378	3408	50	
R00855	10102	10324	5D2	30	4		1	UC		4	FESSENDEN & VAN HOUTEN	45.591212	-122.723404	4116	2962	3071	47	
R00856	10102	10325	5D2	30	4		1	UC		4	FESSENDEN & VAN HOUTEN	45.591234	-122.722958	4072	2864	2989	45	
ABW060	10102	10326 [4]	5D2	20	4	28106	1	PA		10	9005 SE DIVISION ST	45.504589	-122.570423	385	9682	5973	105	
R00857	10102	10327	5D2	30	4		1	AC		1	1949 SE 122ND AVE	45.509182	-122.537994	1396	10475	12167	75	22000
R00858	10102	10328	5D2	30	4		1	AC		1	1949 SE 122ND AVE	45.509217	-122.538221	1442	10473	12171	75	22000
R00859	10102	10329	5D2	30	4		1	AC		1	1949 SE 122ND AVE	45.509231	-122.538269	1454	10475	12174	75	22000
R00860	10102	10330	5D2	11.25	4	143	1	UC		1	NW of 114TH & RAMONA CT	45.480838	-122.546631	631	201	1690	5	117823
R00861	10102	10331	5D2	28	4	53	1	UC		1	15635 SE MILLMAIN DR	45.513704	-122.505304	562	8543	9908	38	6641
R00862	10102	10332	5D2	31	4	62	1	UC		1	15635 SE MILLMAIN DR	45.513521	-122.505182	564	8477	9893	35	9863
R00863	10102	10333	5D2	26	4	53	1	UC		1	15640 SE MILLMAIN DR	45.513961	-122.501852	391	8700	9092	35	6641
R00864	10102	10334	5D2	26	4	62	1	UC		1	15640 SE MILLMAIN DR	45.513905	-122.501821	405	8681	9080	35	7726
R00865	10102	10335	5D2	15	4	30	1	UC		1	15635 SE MILLMAIN DR	45.514927	-122.506742	912	8990	10393	56	6080
R00866	10102	10336	5D2	31	4	74	1	UC		1	15635 SE MILLMAIN DR	45.513534	-122.505254	578	8482	9912	35	9863
R00867	10102	10337	5D2	30	4	350	1	UC		4	14921 NE COUCH ST	45.523322	-122.50945	1374	7989	11084	92	6534
ATM148	10102	10338	5D2	21	4		1	AC		10	SE 111TH & STARK ST	45.519067	-122.549453	1126	10332	11587	107	
R00868	10102	10339	5D2	30	4	578	1	UC		4	3306 SE 90TH PL	45.498213	-122.569732	1458	7621	7088	72	10890
R00869	10102	10440	5D2	30	4	637	1	UC		4	3139 SE 85TH AVE	45.499247	-122.57507	1926	8778	5750	75	12000
R00870	10102	10441	5D2	30	4	706	1	UC		4	8448 SE BROOKLYN ST	45.5003	-122.575015	1618	9058	5538	74	26600
R00871	10102	10442	5D2	30	4	854	1	UC		4	2712 SE 85TH AVE	45.503209	-122.574876	1071	9870	5058	93	16100
R00872	10102	10443	5D2	30	4	934	1	UC		4	2626 SE 84TH PL	45.503377	-122.575326	1181	9988	4927	96	17600
R00873	10102	10444	5D2	30	4	960	1	UC		4	2701 SE 87TH AVE	45.503044	-122.573524	741	9621	5400	90	18100
R00874	10102	10445	5D2	30	4	217	1	UC		4	3105 SE 79TH AVE	45.500012	-122.582089	3187	10252	4236	85	4100
R00875	10102	10446	5D2	30	4	918	1	UC		4	3115 SE 79TH AVE	45.499844	-122.581996	3191	10194	4297	85	34600
R00876	10102	10447	5D2	30	4	1016	1	UC		4	615 SE 84TH AVE	45.518355	-122.577531	4938	8344	5125	131	38300
R00877	10102	10449 [4]	5G30	4	2		5	PA		1	SE MAIN & SE 155TH	45.513621	-122.505177	545	8514	9899	62	
R00878	10102	10450	5D2	30	4	778	1	UC		4	15640 SE MILLMAIN DR	45.513818	-122.502146	345	8639	9154	31	14545
R00879	10102	10451	5D2	30	4	914	1	UC		4	15574 SE MILLMAIN DR	45.512998	-122.503603	486	8307	9460	32	17091
ATM898	10102	10452	5D2	30	4		1	UC		4	5390 SE MALDEN ST	45.463962	-122.607507	581	623	1170	41	
ATM895	10102	10453	5D2	30	4		1	UC		4	530 NE 102ND AVE	45.526882	-122.558041	780	6739	8097	168	
ATM896	10102	10454	5D2	30	4		1	UC		4	1438 NE ALBERTA ST	45.558862	-122.650734	7625	7784	7510	163	
ATM897	10102	10455	5D2	30	4		1	UC		4	4338 N HOUGHTON ST	45.58713	-122.712098	5583	3166	3032	43	
R00880	10102	10456	5D2	30	4	563	1	UC		4	7227 SE 82ND AVE	45.470639	-122.579168	2648	1811	2017	18	10610
R00881	10102	10457	5D2	30	4	1160	1	UC		4	5732 NE HALSEY ST	45.533599	-122.604093	2934	5846	4764	118	22617
R00882	10102	10458	5D2	30	4	771	1	UC		4	4529 NE 72ND AVE	45.556052	-122.589008	1525	5227	5047	101	14553
R00883	10102	10459	5D2	30	4	769	1	UC		4	7134 ne 72ND AVE	45.556779	-122.588996	1372	5010	4794	95	14514

UNIT ID	UIC #	Well #	DEQ Type Code	Well Depth (feet)	Well Diameter (feet)	Max Discharge Rate (gpm)	DEQ Waste Type [1]	Operational Status [2]	Install Date [3]	Maintenance Period (years)	Location	Latitude	Longitude	Distance to Nearest Water Well (feet)	Distance to Nearest Wetland (feet)	Distance to Nearest Surface Water (feet)	Separation Distance to Groundwater (feet)	Size of Impervious Area (square feet)
R00884	10102	10460	5D2	30	4	1393	1	UC		4	5122 NE 72ND AVE	45.559971	-122.588877	1284	4111	3695	68	26289
R00885	10102	10461	5D2	30	4	1393	1	UC		4	5122 NE 72ND AVE	45.560028	-122.588882	1290	4098	3676	67	26289
R00886	10102	10462	5D2	30	4	502	1	UC		4	7136 NE ROSELAWN ST	45.560447	-122.589073	1310	3972	3557	63	9472
R00887	10102	10463	5D2	30	4	232	1	UC		4	5256 NE 72ND AVE	45.561258	-122.588886	1512	3679	3271	56	4375
ASQ113	10102	10448 [5]	5D2	4	2		1	AC		4	10 NW NAITO PKWY	45.523362	-122.669829	2066	8835	153	0	

Notes

[1] Stormwater = 1, Drinking water = 5

[2] AC = Active, PA = Permanently abandoned, UC = Under construction or not yet built

[3] Install date is not applicable to UICs under construction.

[4] Five wells (well #10266, 10267, 10292, 10326, 10449) were both registered and decommissioned in FY23. Therefore these wells are in both the UIC Records Added and the UIC Records Removed tables.

[5] Well #10448 is a 4-foot deep perforated pipe with a sedimentation manhole (from retrofitting of a hybrid UIC Well # 10166). This UIC drains the Saturday Market Pavilion roof on the Portland Waterfront. The separation distance remains 0-foot for the retrofitted facility and UIC.

Subbasin is the Lower Willamette River.

gpm = gallons per minute

Data last updated July 1, 2023.

Appendix A: UIC Records Removed from the UIC Registration Database (2022-2023)

UNIT ID	UIC #	Well #	DEQ Type Code	Well Depth (feet)	Well Diameter (feet)	Max Discharge Rate (gpm) [1]	DEQ Waste Type [2]	Operational Status [3]	Install Date	Maintenance Period (years)	Location	Latitude	Longitude	Distance to Nearest Water Well (feet)	Distance to Nearest Wetland (feet)	Distance to Nearest Surface Water (feet)	Separation Distance to Groundwater (feet)	Size of Impervious Area (square feet) [4]
ABD764	10102	929	5D2	22	4	1000	1	PA		10	8308 NE HANCOCK ST	45.536358	-122.577381	2499	2242	2125	133	85775
ADR223	10102	998	5D2	28	4	1000	1	PA		10	8308 NE HANCOCK ST	45.536469	-122.577824	2413	2177	2066	127	85775
ABD765	10102	999	5D2	19	4	1000	1	PA		10	8254 NE HANCOCK ST	45.536359	-122.577524	2443	2200	2087	136	85775
ADR222	10102	1000	5D2	24	4	1000	1	PA		10	8308 NE HANCOCK ST	45.536350	-122.577269	2550	2281	2160	131	85775
ABD775	10102	1009	5D2	19	4	1000	1	PA		10	9012 NE BROADWAY ST	45.534415	-122.570969	4279	2898	3784	137	104782
ADW094	10102	1704	5D2	23	4	1000	1	PA		10	3100 NE 72ND AVE	45.544567	-122.588971	2038	1803	2002	153	235927
ADW170	10102	4170	5D2	17	4	1000	1	PA		10	3027 NE 127TH AVE	45.536335	-122.577375	1514	5704	5711	114	1349
ADQ557	10102	4172	5D2	16	4	1000	1	PA		10	12633 NE MORRIS ST	45.543535	-122.532621	1348	5870	5878	116	65953
AAZ746	10102	4391	5D2	19	4	1000	1	PA		10	12633 NE MORRIS ST	45.543539	-122.532405	1350	5868	5875	112	65953
ADW820	10102	4982	5D2	30	4	1000	1	PA		10	13714 SE CLAYBOURNE ST	45.474798	-122.522199	1020	3290	717	36	20900
ADT375	10102	6368	5D2	29	4	1000	1	PA	4/30/1996	4	3700 SE 100TH AVE	45.494611	-122.560603	1599	5279	7017	69	35733
ADW635	10102	6758	5D2	20.5	4	1000	1	PA		10	12661 SE POWELL BLVD	45.497331	-122.533089	1212	6613	6632	34	140177
ACA223	10102	6991	5D2	20	4	1000	1	PA		10	8400 SE DIVISION ST	45.504183	-122.576761	1568	10513	4475	113	13181
ADU184	10102	6992	5D2	22	4	1000	1	PA		10	8400 SE DIVISION ST	45.504133	-122.576752	1560	10513	4475	110	13181
ADU528	10102	7521	5D2	19	4	1000	1	NB	1/1/1989	10	9435 SE DIVISION ST	45.504533	-122.567054	1007	9257	6817	99	37472
ADP098	10102	7523	5D2	20	4	1000	1	PA		10	9005 SE DIVISION ST	45.504580	-122.570399	383	9675	5983	105	28106
ADV734	10102	8013	5D2	16	4	1000	1	PA		10	9901 SE STARK ST	45.519271	-122.562285	2119	8827	8654	150	73837
ADR243	10102	8863	5D2	18	4	1000	1	PA		10	9004 NE SCHUYLER ST	45.535265	-122.570631	4139	2609	3663	144	182054
APJ334	10102	9105	5D2	6	4		1	PA		1	15309 SE MAIN ST	45.513511	-122.505304	627	8438	7522	60	
R00398	10102	9771	5D2	30	4	1000	1	NB		4	NE SISKIYOU ST & 82ND AVE	45.544494	-122.575758	3003	1012	2127	160	37472
R00400	10102	9773	5D2	30	4	1000	1	NB		4	NE SISKIYOU ST & 82ND AVE	45.544492	-122.575064	389	894	2272	160	37472
ASB802	10102	9992	5D2	20	4		1	NB		4	9005 SE DIVISION ST	45.504580	-122.570279	510	9646	6003	105	
ASB804	10102	9995	5D2	30	4		1	NB		4	2440 SE 89TH AVE	45.504625	-122.572010	3168	9878	5577	97	
ASJ796	10102	10087	5D2	30	4		1	NB		4	1700 NE 102nd AVE	45.534605	-122.557607	870	4762	6806	151	
R00683	10102	10092	5D2	10.1	4	108	1	NB		4	9245 SE DIVISION ST	45.504554	-122.567644	870	9327	6668	112	
R00684	10102	10093	5D2	20	4	360	1	NB		4	9226 SE DIVISION ST	45.504554	-122.567644	1935	9327	6668	102	
APJ714	10102	10166 [6]	5D2	5	0.67	275	1	PA		4	NW NAITO & BURNSIDE BR	45.522973	-122.669755	1935	8729	130	0	
ASQ438	10102	10175	5D2	12	4	100	1	PA		10	15309 SE MAIN ST	45.513911	-122.501979	367	8678	9120	39	
ASU035	10102	10266 [5]	5D2	19	4		1	PA		4	9150 SE DIVISION ST	45.504337	-122.568743	583	9399	6413	104	
R00808	10102	10267 [5]	5D2	12	4		1	PA		4	8335 SE DIVISION ST	45.504723	-122.576789	1611	10606	4398	121	
R00825	10102	10292 [5]	5D2	20	4		1	PA		4	5404 NE PRESCOTT ST	45.555420	-122.607459	1939	6183	6274	159	
ABW060	10102	10326 [5]	5D2	20	4		1	PA		10	9005 SE DIVISION ST	45.504589	-122.570423	385	9682	5973	105	
R00877	10102	10449 [5]	5G30	4	2		5	PA		1	SE MAIN & SE 155TH AVE	45.513534	-122.505182	545	8514	9899	62	0

Notes:

[1] Default value = 1,000 gallons per minute

[2] Stormwater = 1, Drinking water = 5

[3] PA = Permanently abandoned, NB = Not built

[4] Default value = 37,472 square feet

[5] Five wells (#10266, 10267, 10292, 10326, 10449) were both registered and decommissioned in FY23. Therefore these wells are in both the UIC Records Added and the UIC Records Removed tables.

[6] Well # 10166 was a hybrid UIC well (vegetated swale) that drained the Saturday Market Pavilion roof on the Portland Waterfront. A new 4-foot deep perforated pipe (UIC well #10448) with a sedimentation manhole was installed during the retrofitting of the vegetated swale.

Subbasin is the Lower Willamette River.

gpm = gallons per minute

Data last updated July 1, 2023.

Appendix B
Spills That Have Occurred within Areas Serviced by UICs

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Appendix B: Spills That Have Occurred within Areas Serviced by UICs

Date	Release Type	Volume	Spill Location	Did Fluids Reach City-owned UIC? (Y/N)	Closest City-owned UIC
7/4/2022	RV Fluids	Unknown	15528 SE Alder St	N	ADN994
7/5/2022	Auto Fluids	7 quarts	1712 SE 104th Ave	Y	ADW362
7/8/2022	Auto Fluids	3x3' stain	6940 N Greenwich Ave	N	ADP228
7/9/2022	Auto Fluids	10-15 gal	6435 N Burrage Ave	N	ADP463
7/20/2022	Auto Fluids	Unknown	6212 NE 78th Ct	N	ANB185
7/21/2022	Auto Fluids	Unknown	1539 NE 129th Pl	N	AMN806
7/25/2022	Auto Fluids	Unknown	7620 N Delaware St	N	ARJ403
7/26/2022	Auto Fluids	Unknown	6807 SE 64th Ave	N	ARS633
8/1/2022	Salt water	Hot tub	3028 NE Alameda Street	Y	ADU094
8/8/2022	RV Fluids	Unknown	12326 SE Ivon Ct	N	AMN974
8/9/2022	Sewage	Unknown	5846 SE 136th Ave	N	ADT720
8/17/2022	Paint	Unknown	SE Oak St and SE Sandy Blvd	N	AQS467
8/22/2022	Auto Fluids	Unknown	7925 NE Mason St	N	ADQ914
8/31/2022	RV Fluids	Unknown	8395 SE Brooklyn St	N	ADU173
9/9/2022	Sewage	Unknown	SE 160th Ave and SE Division St	N	ADS779
9/14/2022	Auto Fluids	5 gal	6415 N Wilbur Ave	N	ADP462
9/17/2022	Auto Fluids	Unknown	6423 SE 94th Ave	N	ADV164
9/19/2022	Auto Fluids	Unknown	247 SE 160th Ave	N	ADS112
9/20/2022	RV Fluids	Unknown	NE Skidmore St and NE 72nd Ave	N	ADQ836
9/21/2022	RV Fluids	Unknown	NE Skidmore St and NE 72nd Ave	N	ADQ836
9/21/2022	Auto Fluids	Unknown	13420 SE Steele St	N	ANZ687
9/23/2022	RV Fluids	Unknown	NE 72nd Ave and NE Skidmore St	N	ADQ836
9/29/2022	RV Fluids	Unknown	NE 72nd Ave and NE Skidmore St	N	ADQ836
9/30/2022	RV Fluids	Unknown	3541 SE 111th Ave	N	AMZ489
9/30/2022	RV Fluids	Unknown	NE Mason St and NE 57th Ave	N	ADQ815 ADQ817 ADQ798
10/4/2022	Auto Fluids	Unknown	NE 113th Ave and Thompson St	N	ADV557
10/5/2022	RV Fluids	Unknown	6836 NE 7th Ave	N	ADP378
10/5/2022	Auto Fluids	Unknown	SE 82nd Ave and Yamhill St	N	AQT513 ADS931
10/5/2022	Auto Fluids	3'x2'	NE 67th Ave and Mason St	N	APJ427
10/18/2022	RV Fluids	Unknown	727 SE 122nd Ave	N	ADT017
10/23/2022	RV Fluids	Unknown	4546 SE 97th Ave	N	ADU669
10/23/2022	RV Fluids	Unknown	4546 SE 97th Ave	N	ADU669
10/28/2022	RV Fluids	Unknown	SE Ramona and 84th Ave	N	ADV070
11/2/2022	Auto Fluids	Unknown	6705 SE Clatsop St	N	ADV915
11/6/2022	Auto Fluids	Unknown	335 SE 108th Ave	N	ADR956
11/10/2022	RV Fluids	Unknown	NE Roselawn St and NE 62nd Ave	N	ADQ298
11/29/2022	Erosion	Unknown	N Emerald Ave and N Halleck St	Y	ADN805
12/1/2022	Auto Fluids	Unknown	335 SE 108th Ave	N	ADR956
12/7/2022	RV Fluids	Unknown	N Michigan Ave and N Wygant St	N	ADP931
12/8/2022	Auto Fluids	Unknown	1934 NE 56th Ave	N	ABD527 ADR165

Date	Release Type	Volume	Spill Location	Did Fluids Reach City-owned UIC? (Y/N)	Closest City-owned UIC
12/9/2022	RV Fluids	Unknown	N Michigan Ave and Wygant St	N	ADP931
12/20/2022	White Substance	Unknown	SE 46th Ave and Ramona St	N	ARB031
12/21/2022	Auto Fluids	Unknown	5523 SE 66th Ave	N	AMQ805
12/21/2022	Sewage	Unknown	1856 NE 66th Ave	N	AEA177
12/20/2022	Auto Fluids	Unknown	6020 NE Grand Ave	N	APY897
12/22/2022	non-PCB trans-former oil	8 gal	4870 NE 76th Ave	N	APZ067
1/5/2023	Paint	<2 gal	SE 11th Ave and Nehalem St	N	ANS558
1/14/2023	Auto Fluids	Unknown	NE 72nd Ave and NE Prescott St	N	ADQ944
1/19/2023	Oil	Unknown	8011 N Newman Ave	N	ADN720
1/23/2023	Gas	Unknown	SE Tolman St and SE 85th Ave	N	ADV103
1/24/2023	Auto Fluids	Unknown	SE 148th Ave and SE Clinton St	N	AMU786 AMU782
1/30/2023	Gray Water	Unknown	1415 SE 122nd Ave	N	ADT025
2/7/2023	Hydraulic Fluid	10-15 gal	8422 SE 70th Ave	N	ADV916
2/10/2023	Wash Water	Unknown	12404 NE Halsey St	N	ANS681
2/22/2023	RV Fluids	Unknown	SE 133rd Ave and SE Division St	N	ADS673
2/28/2023	Gas	3'x6' area	16932 SE Division St	N	ADS796 ADS797
3/6/2023	RV Fluids	Unknown	SE 166th Pl and SE Division St	Y	ADW507
3/8/2023	Sewage	100s gals	4344 NE 40th Ave	N	ADQ737
3/17/2023	RV Fluids	Unknown	4828 SE 84th Ave	N	ADU658
3/23/2023	RV Fluids	Unknown	NE 83rd Ave and NE Siskiyou St	N	ADW105
3/23/2023	Auto Fluids	Unknown	8913 N Fortune Ave	Y	AAF285
3/24/2023	Auto Fluids	Unknown	SE Main St and SE Millmain Dr	N	ABT105
3/24/2023	Oil	Unknown	2426 NE 60th Ave	N	ADN492
3/27/2023	RV Fluids	Unknown	5524 N Campbell Ave	N	ADP547
3/27/2023	Auto Fluids	Unknown	NE 35th Ave and NE Killingsworth St	N	AQA758
4/6/2023	Sewage	Unknown	4445 NE Cully Bd	N	ADQ800
4/8/2023	non-PCB trans-former oil	13 gal	827 NE Lombard St	N	ADN942
4/11/2023	RV Fluids	Unknown	8025 NE Mason St	N	ADQ918
4/13/2023	RV Fluids	Unknown	4307 SE 50th Ave	N	ADS899
4/17/2023	Sewage	Unknown	6745 SE 60th Ave	N	ARB362
4/23/2023	Auto Fluids	*de minimis*	SE 128th Ave and SE Harold St	N	ADU738
4/21/2023	RV Fluids	Unknown	145 SE 108th Ave	N	ADR956
4/30/2023	Auto Fluids	10-15 gal	3538 N Winchell St	N	ADR956
5/3/2023	Auto Fluids	Unknown	NE 8th Ave & NE Holman St	N	ADP725
5/7/2023	non-PCB trans-former oil	Unknown	NE 111th and Halsey St	N	ADR697 ADR698
5/10/2023	Auto Fluids, fire fighting fluids	Unknown	N Baldwin and N Wabash	N	ADN834 AAH629
5/11/2023	RV Fluids	Unknown	2200 SE 148th Ave	N	ADS397
5/15/2023	Gas	Unknown	4720 NE Going St	N	ARG813

Date	Release Type	Volume	Spill Location	Did Fluids Reach City-owned UIC? (Y/N)	Closest City-owned UIC
5/15/2023	Turbid water	Unknown	4812 NE 100th Ave	N	ADQ398
5/19/2023	Gas	Unknown	N Hurst Ave and N Kilpatrick St	N	ADN759
5/19/2023	Paint	Unknown	NE 55th Ave and NE Killingsworth St	N	ADP889
5/23/2023	Sewage	Unknown	16115 SE Sherman St	N	ANL320
6/8/2023	Oil	Unknown	NE 138th between Stephens and Mill St	N	ADS359
6/8/2023	Turbid water	Unknown	NE 46th Ave and Prescott St	Y	ADQ762
6/14/2023	RV Fluids	Unknown	1735 N Terry St	N	AAG859
6/16/2023	Auto Fluids	Unknown	6701 SE 71st Ave	N	ARB559
6/23/2023	Oil	Unknown	14158 NE Flanders Ct	N	ANW049
6/26/2023	Erosion	Unknown	3612 N Farragut St	N	ADN779
6/27/2023	Pool water	Residential Pool	6415 SE Tibbetts St	Y	ADU094
3/9/2023	Auto Fluids	1-2 gal	8447 SE Lafayette St	N	ADT333

Notes

gal = gallon

PCB = polychlorinated biphenyl

RV = recreational vehicle