A student paints a sidewalk mural adjacent to a downtown Gresham storm drain.

GRESHAM AND FAIRVIEW NPDES ANNUAL REPORT 2022
PERMIT YEAR 27

MS4 DISCHARGE PERMIT NO. 101315 EPA REF. NO. ORS 108013

CITY OF GRESHAM

November 2022

CITY OF GRESHAM 1333 N.W. Eastman Parkway | Gresham, OR 97030 | 503-618-2525

November 1, 2022

Pablo Martos, Municipal Stormwater Permit Coordinator
Environmental Solutions Division
Oregon Department of Environmental Quality
700 NE Multnomah St.
Suite 600
Portland, Oregon 97232

RE: Gresham/Fairview NPDES Stormwater Permit #101315
Permit Year 27, 2022 Annual Report

Dear Pablo Martos:

I am pleased to submit a copy of the twenty seventh National Pollutant Discharge Elimination System (NPDES) Annual Report for the City of Gresham, and the City of Fairview, under Permit No. 101315, File No. 108013, reissued on September 15, 2021, effective on October 1, 2021 and expires on September 30, 2026.

Gresham's report template reflects a hybrid approach to bridging the past year's work with the updated template for reporting metrics as submitted with the City's updated Stormwater Management Program document in July 2022. The report includes a narrative section that describes our actions and standard policies for areas within the permit and also include some reporting metrics for Fiscal Year 21-22 that do not appear in the new table. The new table features explanations of changes for the reader's understanding of how the program has adjusted.

Because DEQ requested that the monitoring raw data be submitted to the new Aquatic Water Quality Management System (AWQMS) template, the Gresham, Fairview, and Multnomah County raw data (collected with an IGA for the two partner agencies is no longer included. However, the Environmental Monitoring Program (EMP) summary and conclusions along with maps of the locations sampled are included in Section 2. Section 3 describes the Best Management Practices Program Summary and reporting metrics for Gresham and Section 4 is Fairview's report.

The goals of the annual report are to: 1) document progress on the implementation of best management practices for pollution prevention, reduction, and removal; 2) evaluate program results for continuous improvement; and 3) share this information with municipal decision makers and the public. The EMP summary and the Gresham and Fairview SWMP Reports will be posted on their respective websites.

If you have any questions regarding this report or would like an additional copy, please contact Keri Handaly at (503) 618-2657. For questions specific to the City of Fairview's activities, please contact Allan Berry at (503) 674-6235.

Sincerely,

Keri M. Handaly
NPDES MS4 Permit Coordinator
Department of Environmental Services
cc: Allan Berry, City of Fairview
Torrey Lindbo, Water Science & Policy Program Manager
Steve Fancher, Department of Environmental Services Director
Enclosures: (1) hard copy
(1) flash drive

CONTENTS

PREFACE

This Stormwater Management Program report contains a summary of the City's activities to comply with NPDES MS4 Permit #101315 renewed on October 1, 2021 and has four major sections. Section 1, Overview, provides the historical background, location of required elements within the report, and a description of Gresham and Co-permittee's watersheds. Section 2, Environmental Monitoring Program, is the summary of the City of Gresham's data collection efforts conducted on behalf of the Co-permittees and includes corresponding Tables and Figures and Sections 3 through 4 consist of the Stormwater Management Plan (SWMP) implementation status reports for the City of Gresham and the City of Fairview, respectively.

SECTION 1: OVERVIEW

This section provides a description of Gresham's portion of the permit area and changes that have occurred since the first NPDES MS4 permit was issued in 1995, watershed boundaries within the permit area, and the history of the co-permittees.

I. Gresham Permit Area & Watersheds

Permit & Reporting History

In accordance with Clean Water Act (CWA) requirements, the Oregon Department of Environmental Quality (DEQ) issued a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (MS4) Permit on September 7, 1995, to the City of Gresham and co-permittees: the City of Fairview, Multnomah County, and the Oregon Department of Transportation. This permit (101315) expired on August 31, 2000. The Oregon Department of Transportation (ODOT) sought separation from their multiple joint NPDES MS4 permits and obtained approval from DEQ to implement their own statewide permit.

In 2010, Multnomah County separated as a co-permittee and Gresham and Fairview's Stormwater Management Plan/Programs were approved as co-permittees. The 2010 permit expired on December 29, 2015, but was administratively extended until the renewal in October 2021. In July 2022, Gresham submitted its updated Stormwater Management Program document which was approved by DEQ and will be implemented as of November 1, 2022. This annual report represents the second annual report under this permit and will still report measurable goals as defined in the previous SWMP. Next year's third annual report will cover the newly defined measurable goals. This report will function as a "hybrid" in that it uses the new template developed for the updated program, but includes previous measures and explanations of differences, where they occur.

Permit Boundary

The NPDES MS4 permit area for Gresham includes the incorporated areas (the city limits) of the City of Gresham except the portions of the City's stormwater system that drain to Underground Injection Control (UIC) systems. UICs drain to groundwater and are subject to a Water Pollution Control Facility (WPCF) permit. The Best Management Practices (BMPs) described within this Stormwater Management Plan (SWMP) are applied throughout the entire city urban services boundary, including the areas draining to groundwater.

Metro's urban growth boundary in the Gresham area was adjusted in 1998 and 2002 to include the areas known as Pleasant Valley, Kelley Creek Headwaters and Springwater Plan Areas. Gresham's city limits were adjusted in

2003 to exclude area that was de-annexed to the City of Troutdale within the Beaver Creek watershed. As acres are annexed into the city and develop, the City's Stormwater Management Manual standards are applied that require all new impervious area created greater than 1,000 square feet to be treated by stormwater facilities. All new UGB permitted development is reported in the City's Annual Report Appendix A. Much of the almost 2,000 UGB acres are farmland and heavily degraded riparian buffers, so the restoration of buffers, the halting of broad use of pesticides on farmland, and the treatment of stormwater runoff is likely to improve overall stream condition over the next twenty years.

Another change occurred related to jurisdiction of roads within the permit boundary. Effective January 1, 2006, the jurisdiction of Multnomah County's arterial roads within Gresham were transferred to Gresham, along with the UICs that manage the street runoff.

The City of Gresham area *excluding* Pleasant Valley and Springwater is about 15,142 acres or about 23.4 square miles. The area *including* the urban growth boundary of Pleasant Valley and Springwater represents almost 17,000 acres or approximately 26.5 square miles. As described in Schedule A 1. a. of the permit, "The *co-permittees are responsible for compliance within their respective jurisdictions as identified in this permit and are not responsible for compliance outside of its jurisdiction."* Therefore, the contents of the SWMP are specific to the City of Gresham and do not apply to its co-permittee, City of Fairview and vice versa. The City assists Fairview with some compliance elements such as monitoring and education & outreach, per an Intergovernmental agreement.

II. Water Protection Areas

Gresham is comprised of four watersheds: Fairview Creek, Johnson Creek, Kelly Creek, and the Columbia Slough. All these watersheds cross multiple jurisdictions, such as Fairview, Wood Village, Troutdale, Portland, and the management area of the Multnomah County Drainage District. Gresham communicates with its neighbors and the local watershed councils to ensure efficient outcomes and activities regarding water protection. The City's streams drain to either the Willamette River, the Columbia Slough (which drains to the Willamette) or the Sandy River. All these waterbodies are within the Columbia River basin.

Kelly Creek & Beaver Creek

The Kelly Creek watershed within Gresham encompasses about 2,597 acres (4.1 square miles) and is tributary to the Beaver Creek watershed and ultimately to the Sandy River. In addition to the Kelly Creek watershed, there is an additional 293 acres (0.5 square miles) of Gresham that flow directly into Beaver Creek. As described above, the urban service boundary was adjusted in 2003 to exclude a 48-acre parcel of protected Metro open space within

the Beaver Creek canyon area at Mount Hood Community College. Notably, juvenile salmon have been found in this reach of Beaver Creek. Kelly Creek originates east of Gresham and enters the city limits east of SE 282 Avenue and north of SE Dodge Park Boulevard. It flows in a northwesterly direction until its confluence with Burlingame Creek; its main tributary which lies just northwest of NE Kane Road and NE 18th Court. The confluence of Kelly Creek and Beaver Creek is on the Mount Hood Community College campus. Most of east Gresham drains to Kelly Creek.

Johnson Creek

The entire Johnson Creek watershed encompasses 54 square miles and is a tributary of the Willamette River in the Milwaukie/Portland area. About 5,622 acres (8.6 square miles) lie within Gresham's permit area. Although Johnson Creek does not originate in Gresham, some of the upper reaches of the creek flow through the City of Gresham. Presently, Johnson Creek enters the Gresham city limits at SE 252 Avenue and SE Telford Road, flows in a northwesterly direction to Powell Boulevard and Main Avenue, then generally westward until it leaves the city limits near its intersection with SE 174 Avenue. Butler Creek, a significant tributary of Johnson Creek in Gresham, enters Johnson Creek a few hundred yards east of SW Pleasant View Drive. The largest tributary to Johnson Creek that is within Gresham is Kelley Creek. Kelley begins on buttes in south-central Gresham and flows west through Pleasant Valley to join Johnson Creek just downstream of where it leaves Gresham. Much of south Gresham, including the downtown area, is in the Johnson Creek watershed. Notably, Johnson Creek is the longest free flowing urban stream in Multnomah County that still hosts returning oceanic salmon.

Figure 1.0. Note: This map includes both the portions of the City of Gresham that drain to surface waters subject to the NPDES MS4 permit (~15,142 acres) and the Underground Injection Control Facility areas draining to groundwater (~2,258 acres) that are covered under the City's WPCF Permit. The city runs its programs and services consistently across both areas to ensure environmental protection goals are met. The City and surrounding agencies also collaborate to create and update an interjurisdictional map that illustrates inlets, pipe, and other asset ownership so that agencies can coordinate cleanup management for spills. This map is housed as an ARC GIS tool on the Multnomah County website: Urban Drainage System Map of Multnomah County (arcgis.com) (hyperlink inserted).


Figure I-I: Municipal Separate Storm Sewer Discharge Permit Boundary with Area Watersheds
Unincorporated Multnomah County - 150 Acres
City of Fairview - 2,258 Acres
City of Gresham - 15,142 Acres
Surface Water
Watersheds within Gresham & Fairview Permit Boundary*
BEAVER CREEK - 293 Acres
COLUMBIA RIVER - 883 Acres
COLUMBIA SLOUGH - 4,567 Acres
FAIRVIEW CREEK - 3,453 Acres
JOHNSON CREEK - 5,622 Acres
KELLY CREEK - 2,597 Acres
Future Annexation Areas - 1,782 Acres
Drains to Groundwater - 2,250 Acres
* A portion of the watersheds drain to groundwater.
City of Fairview
City of Gresham
City of Portland
Multnomah County
Clackamas County

Fairview Creek

The entire Fairview Creek watershed encompasses approximately 3,453 acres (5.4 square miles) and is a tributary to Fairview Lake. About 4.3 sq. miles lie within Gresham's permit areas. Fairview Creek is also recognized as the headwaters of the Columbia Slough. The creek originates within Gresham city limits near West Powell Boulevard and SE 182 Avenue. The creek flows in a northeasterly direction though Gresham and enters Fairview just west of 223rd at NE Glisan Street and remains within the City of Fairview's jurisdiction for its remaining length. The Fairview Creek watershed encompasses roughly half of the City of Fairview and the north-central part of Gresham.

Columbia Slough

The entire Columbia Slough watershed encompasses approximately 62 square miles, of which about 4,567 acres lie within the Cities of Gresham and Fairview. About 6 sq. miles are within Gresham's permit area and is located within northwest Gresham. The headwaters of the slough begin with Fairview Creek in the City of Gresham, flowing north to Fairview Lake in the City of Fairview, then paralleling the Columbia River west from the lake to its confluence with the Willamette River. While there are several major piped stormwater outfalls within west Gresham that drain and discharge directly to the slough, most of west Gresham's drainage is served by drywells, also known as underground injection controls, that drain to groundwater.

Groundwater

Discharges to groundwater are not subject to the requirements of the NPDES MS4 permit. As shown on **Figure 1.0.,** there are approximately 2,250 acres within the city that drain to groundwater. The City implements a groundwater protection program for industrial and commercial businesses that use and/or store hazardous chemicals, which includes the Business Inspection Program in the SWMP. All the BMPs described within the SWMP are applied across the city, irrespective of the above or below-ground nature of the receiving water body. The City's Water Pollution Control Facilities (WPCF) Permit was issued on December 10, 2012 and is expected to be renewed in the near future. Adjustments will be made to the SWMP and Environmental Monitoring Program, as needed for compliance.

III. Total Maximum Daily Loads (TMDLs)

The City of Gresham is subject to TMDL requirements that set Wasteload Allocations (WLAs) for certain pollutants that are found in area waterbodies. Sources are evaluated for each TMDL pollutant, and the WLA is set so that each contributing source knows the reduction needed to bring the stream back into compliance with water quality standards set to protect humans, fish, or both. The Willamette River basin has TMDLs that apply to

Gresham and Fairview for mercury, E. coli, DDT (legacy pesticide in Johnson Creek for Gresham only). The Columbia Slough has TMDLs that apply to Gresham and Fairview for E. Coli, DDT, dieldrin, polychlorinated biphenyls (PCB), dioxin, lead, dissolved oxygen, chlorophyll a/pH. Parameters also measured as a proxy for these pollutants include total suspended solids, biochemical oxygen demand, and total phosphorus. The Sandy River basin has a TMDL for E. Coli that applies to Gresham.

The SWMP outlines the Best Management Practices (BMPs) that are conducted to help the city meet its TMDL pollutant reduction requirements. Although, DEQ and the regulated communities acknowledge that it will take years or even decades to reduce pollutant levels to desired levels. This is primarily due to decades of cities developing without regard for how to best protect our waterways and not developing stormwater regulatory programs until the late 90s. Further, investments to add/upgrade pollution control facilities across an entire city could cost 100s of millions of dollars, so must be planned and spread-out to be affordable when considering all a community's needs.

IV. Description of Co-permittee Coordination Efforts

With respect to NPDES MS4 permit co-permittees, the City of Gresham acted as the lead permit applicant for the Gresham NPDES MS4 submittal in 1993, 1995, 2000, 2006, 2008, and 2015. However, as of the 2010 NPDES MS4 permit reissuance, Multnomah County was issued its own permit and is no longer a co-permittee of the City of Gresham or the City of Fairview. A complete overview of the permit history may be found in **Section 1.0 of the City's SWMP.** Although Gresham is the lead permit applicant, the co-permittees are responsible for development, implementation, and tracking of their jurisdictions' BMPs as well as submitting their respective annual reports to be collated with Gresham's annual compliance report and then submitted to DEQ. Gresham's responsibility is coordination of the program, communication with DEQ, and submittal of the annual report from each co-permittee. Costs associated with the implementation of the Environmental Monitoring Plan are shared to meet watershed science & outreach objectives with Multnomah County and the City of Fairview using intergovernmental agreements (IGAs).

V. Table 1.1 Reporting Requirements Summary

1. Submit an annual report for July 1 to June 30 of the previous year's activities in paper and electronic format. When DEQ Online submission becomes available, paper will be eliminated as a requirement.
2. Post the annual reports to the City's website.
    a. Available at GreshamOregon.gov/Watershed-Documents-and-Forms
3. Implementation summary for the SWMP metrics, tracking, and assessment of the required elements in Schedule A.3 (Public Outreach, Public Involvement, Illicit Discharge Detection & Elimination, Erosion Control, Development Stormwater Controls, Pollution Prevention/Good Housekeeping, Business Inspection, Hydromodification & Retrofit Strategy, Mercury Minimization Assessment)
4. Summary of Adaptive Management
5. Summary of proposed changes designed to reduce TMDL pollutants
6. Summary of Education & Outreach & Public Involvement activities
7. Summary of Illicit Discharge screening, inspections, enforcement, and outreach
8. A list of entities referred to DEQ for possible 1200-Z NPDES coverage, list of facilities inspected, an overview of the results
9. A summary of stormwater program expenditures, funding sources for the reporting year, and those projected for the next fiscal year
10. A summary of monitoring program results, including submission of data into the DEQ template and any evaluations of the data conducted by the permittee or consultant.
11. Proposed modifications to the monitoring plan
12. An overview of concept planning, land use changes, and new development that occurred in the Urban Growth Boundary (UGB) expansion area
13. The details of corrective actions in Schedule A. 1. B. iii (Water Quality Standards)

VI. Legal Authority

The City has maintained its authority to implement the permit requirements since the earliest years of its program. It has adequate legal authority to implement the requirements of the October 2021 renewed permit.

SECTION 2: Cities of Gresham & Fairview Environmental Monitoring Program Summary

I. History

The City of Gresham has continued to adaptively manage its Environmental Monitoring Program (EMP) document every few years based upon the addition of parameters and scientific inquiries to answer questions about green infrastructure pollution reduction performance, etc. The document was revised in 2015 and this report reflects those commitments. The City of Gresham submitted a revised document to DEQ in July 2022 that reflects the new permit requirements. The elements in the newly approved EMP will be monitored in fiscal year 22-23 (Permit Year 28) and reported in November 2023.

II. Table 2.1 Program Commitments[1] (Fiscal Year 21-22, Permit Year 27)

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
Instream Monitoring	Three (3) sites in the Columbia Slough basin: 1. Fairview Lake @ Lake Shore Park (FVL1) 2. Fairview Creek @ mobile estates (FCI0) 3. Fairview Creek @ Stark (FCI1)	Four (4) events/year	*DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS, Chlorophyll-a (May-Oct); nutrients (nitrate, ammonia, Total P, ortho-phosporus); Total recoverable and dissolved metals (copper, lead and zinc); legacy pesticides (JC only)*	The City of Portland collects data on the entire Columbia Slough, but based on their probabilistic sampling design, locations monitored any permit year will be reported to DEQ by Portland.
	Two (2) sites in the Sandy River basin: 1. Kelly Creek @ Mt. Hood Community College Pond (KCI1) 2. Kelly Creek @ Detention Pond (KCI4)			

[1] This table will be replaced with new requirements and commitments in the next Annual Report.

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
	Four (4) sites in the Johnson Creek subbasin: 1. Johnson Creek @ Jenne Rd (JCI1) 2. Johnson Creek @ Palmblad (JCI2) 3. Kelley Creek @ Pleasant Valley Grange (KI1) 4. Kelley Creek @ Rodlun Rd (KI2)			
Continuous Instream Monitoring	*Two (2) continuous monitoring stations:*1. Johnson Creek @ Regner2. Fairview Creek @ Glisan*	*Ongoing*15-minute interval	*Temperature and flow*	Flow data collected by USGS through Joint Funding Agreement #3225. *Fairview gage does not collect temperature. City of Gresham periodically collects summer temperature at Glisan location, as well as other locations throughout city.
Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
Stormwater Monitoring - Storm Event	*Three (3) sites.* Monitored 10 random and spatially balanced stormwater locations.	*Three (3) events/year* Monitored 1 event at each location (totaling 10)	*DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS; nutrients (nitrate, ammonia, Total P, ortho-phosphorus); Total recoverable and dissolved copper, lead and zinc; pesticides*	The permit requirements as described by Schedule B)2) e) ii) would result in 9 data points annually. The City's approved monitoring approach results in 10 data points (5 fixed sites and 5

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
				randomly selected rotating sites).
Macro-Invertebrate Monitoring	*One (1) site in the Columbia Slough basin:* 1. Fairview Creek @ mobile estates (FCI0) 2. Fairview Creek @ Stark (FCI1)	One (1) event/year during summer/low flow conditions	*Macroinvertebrates*	Collected during same week as instream water quality data collection occurred in summer.
	One (1) site in the Sandy River basin: 1. Kelly Creek @ Mt. Hood Community College Pond (KCI1) 2. Kelly Creek @ Detention Pond (KCI4)			
	Two (2) sites in the Johnson Creek subbasin: 1. Johnson Creek @ Jenne Rd (JCI1) 2. Johnson Creek @ Palmblad (JCI2) 3. Kelley Creek @ Pleasant Valley Grange (KI1) 4. Kelley Creek @ Rodlun Rd (KI2)			

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
Structural BMP Monitoring	One (1) site - inlet and outlet: 1. Brookside Regional Facility 2. West Gresham Elementary ditch 3. Operations Center swale One sample from all long-term in-stream monitoring locations	*Two (2) events/year through Dec. 31, 2013.* Monitored 1 event at 3 facilities, and 2 events at Kane Road	*DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS; nutrients (nitrate, ammonia, Total P, ortho-phosphorus); Total recoverable and dissolved metals (copper, lead and zinc)*	

III. Monitoring Program Summary

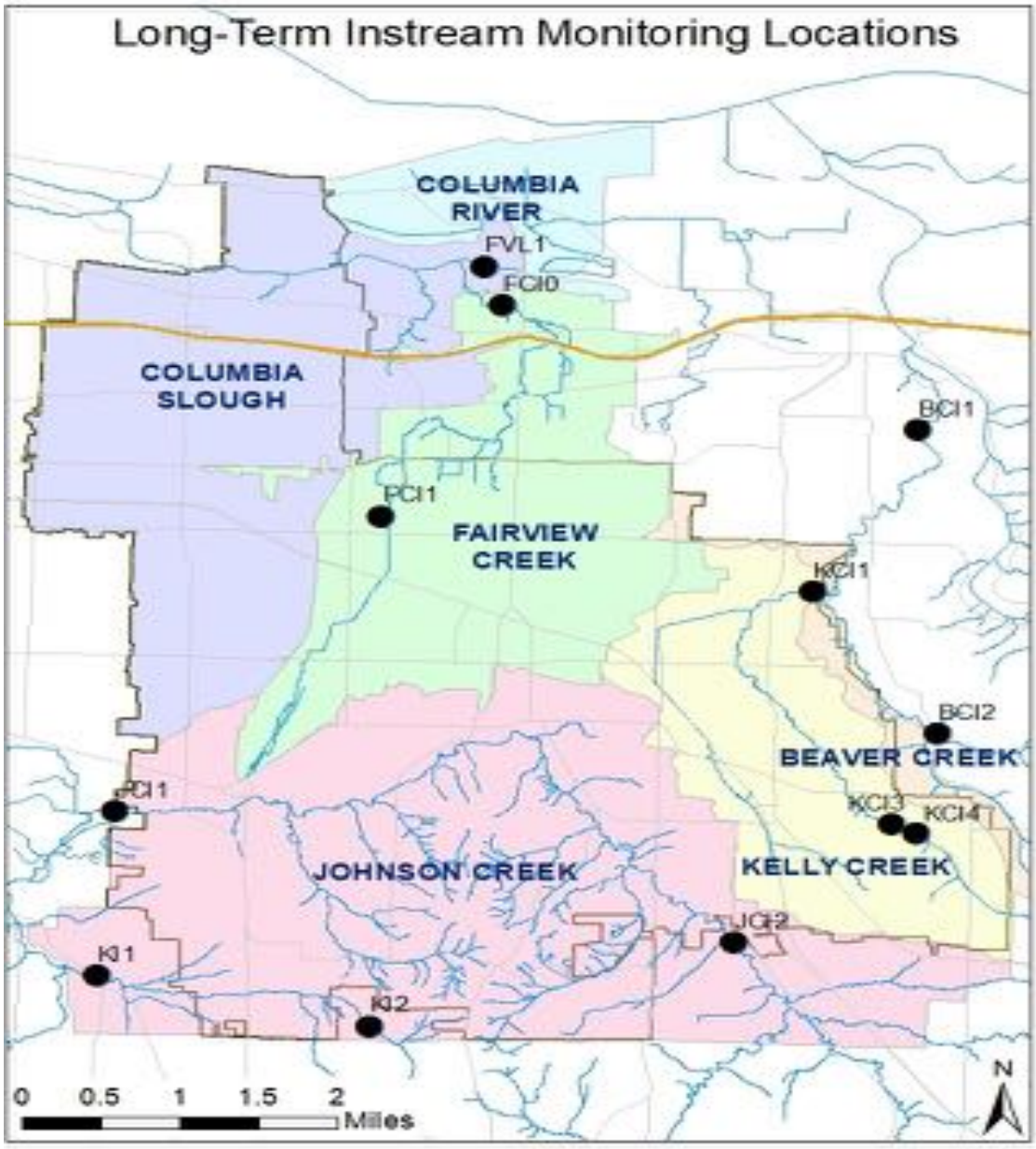
The raw data collected in Permit Year 27 are summarized below and have been submitted through the AWQMS database. The instream data have been compared to the relevant DEQ water quality criteria, and values that do not meet the water quality standards are discussed below. Data from Stormwater (wet weather sampling) and Structural BMP (green infrastructure) Monitoring have not been compared to water quality standards because of the mixing that occurs in-stream. Sampling locations are shown in **Figures 2-1 through 2-5.**

A. Instream Monitoring

This year the instream monitoring locations were sampled during the typical quarterly sampling and one additional event was added at these sites in December to target a storm.

Instream monitoring results were generally within expected ranges. There were some exceedances of water quality standards for pH, temperature, chlorophyll-a, total phosphorus, total Hg, total Cu, dissolved Zn, E. coli, and DDT. The greatest number of exceedances were for total Hg and stream temperature.

Figure 2.1 Long-Term Instream Monitoring Site Locations



Stream temperature

Stream temperature was above the 18 °C 7-day average of the daily maximum (7DADM) salmon rearing standard in most streams in the summer sampling event. The streams which did not exceed the standard during summer sampling included Kelley Creek (tributary to Johnson) and the headwaters of Fairview and Kelly Creeks, all of which have substantial connections to groundwater. This indicates that these urban streams have the potential to attain the temperature standards in some areas. The City continues to focus efforts on increasing shade along streams, identifying other sources of heat (such as inline ponds), and working to reduce the impacts from those

sources. The City is working with the Johnson Creek Watershed Council to study and identify privately-owned inline ponds which contribute substantial heat loading to the streams. In the past few years, several new pond removal or retrofit projects have been initiated.

Stream pH and Dissolved Oxygen

Stream pH results were above the 8.5 standard at Fairview Lake during summer sampling. This was likely related to photosynthesis from the abundant algae and is recorded most years. Stream pH was below the 6.5 standard in Johnson and Kelley Creeks during the spring sampling and at the downstream location in Johnson Creek during the winter sampling. The low pH readings may be related to recent rain events which delivered water with low pH into the streams (typical pH of rainwater ~5.6).

An analysis of the complete dataset revealed that dissolved oxygen numbers were lower throughout the entire year as compared to past years. The field probe was brought into a professional calibration service which installed the probe the previous year, and it was detected that there was an issue causing erroneous readings. Therefore, after consulting with DEQ Aquatic Water Quality Management System staff, the decision was made to not submit dissolved oxygen data this year because there is not high confidence in the accuracy of the result values to be combined with the state's dataset.

Chlorophyll-a and Total Phosphorus

Fairview Lake exceeded the Columbia Slough TMDL levels for chlorophyll-a and total phosphorus in the summer sampling, with the chlorophyll-a level ~60x the TMDL. High chlorophyll and phosphorus levels have been noted here before, particularly during the summer when planktonic algae are common throughout the water column in the lake. Fertilizer run off from residential yards can contribute additional phosphorus to this lake that already has large amounts present in the sediment. Cyanobacteria (common name blue-green algae) has been noted in the lake during mid- to late-summer when the presence of phosphorus and their ability to fix nitrogen allow them to thrive in the warm lake water. Green algae and cyanobacteria can reduce oxygen needed by aquatic organisms, and cyanobacteria can produce a toxin that can make people and pets sick. The City continues efforts to educate the public on the effect of fertilizers on water quality in its own work and will discuss outreach measures with the City of Fairview regarding lake residents.

Mercury (Hg) inorganic form

All sites likely exceeded the new total Hg (inorganic) instream water quality target of 0.14 ng/L established by the December 2019 TMDL. Of the 66 samples, 37 were below a quantification limit of 1.67 ng/L, which is above the target. The updated Monitoring Plan includes lower quantification limits. The major sources of Hg in general are atmospheric sources from natural sources (ocean and volcanoes) and anthropogenic sources like industrial emissions, coal combustion and mining. The primary contribution of mercury in Gresham streams is understood to be atmospheric deposition carried to the streams in runoff. Mercury is highly correlated with total suspended solids due to its affinity with organic matter. The highest values were found in Johnson Creek upstream of Gresham, where agricultural soil disturbances may allow sediment laden runoff to enter streams. The City continues to prioritize stormwater treatment BMPs which remove suspended sediment and to implement our erosion control program.

Total Copper & Zinc

Two sites in Beaver Creek exceeded the instream total copper standard during the fall sampling, and one site in Kelley Creek exceeded the standard for dissolved zinc during the winter sampling. Follow-up investigations did not yield any suspected source, and resampling produced results below the standards.

E. Coli

Four sites exceeded the E. coli 406 MPN/100ml standard for bacteria during one sampling event each. All of the exceedances were within typical ranges (470-1,600 MPN/100ml). These levels are typical of Gresham streams, and past follow-up monitoring indicates that they are likely due to wildlife use and/or biofilms.

DDT Pesticide

Both Johnson Creek sites exceeded the chronic water quality criterion for DDT. The levels of DDT were higher in the long-term site upstream of Gresham than in the site downstream of Gresham, indicating that much of the contamination of this pollutant in this creek is originating in the upper watershed where there is historic and ongoing farming that has been observed to cause sediment-laden runoff to enter the stream. This legacy pesticide

is thought to enter the creek through erosion of contaminated soil and resuspend during disturbances such as storm events. The City continues to implement a rigorous Erosion Prevention and Sediment Control Program for development to reduce soil erosion.

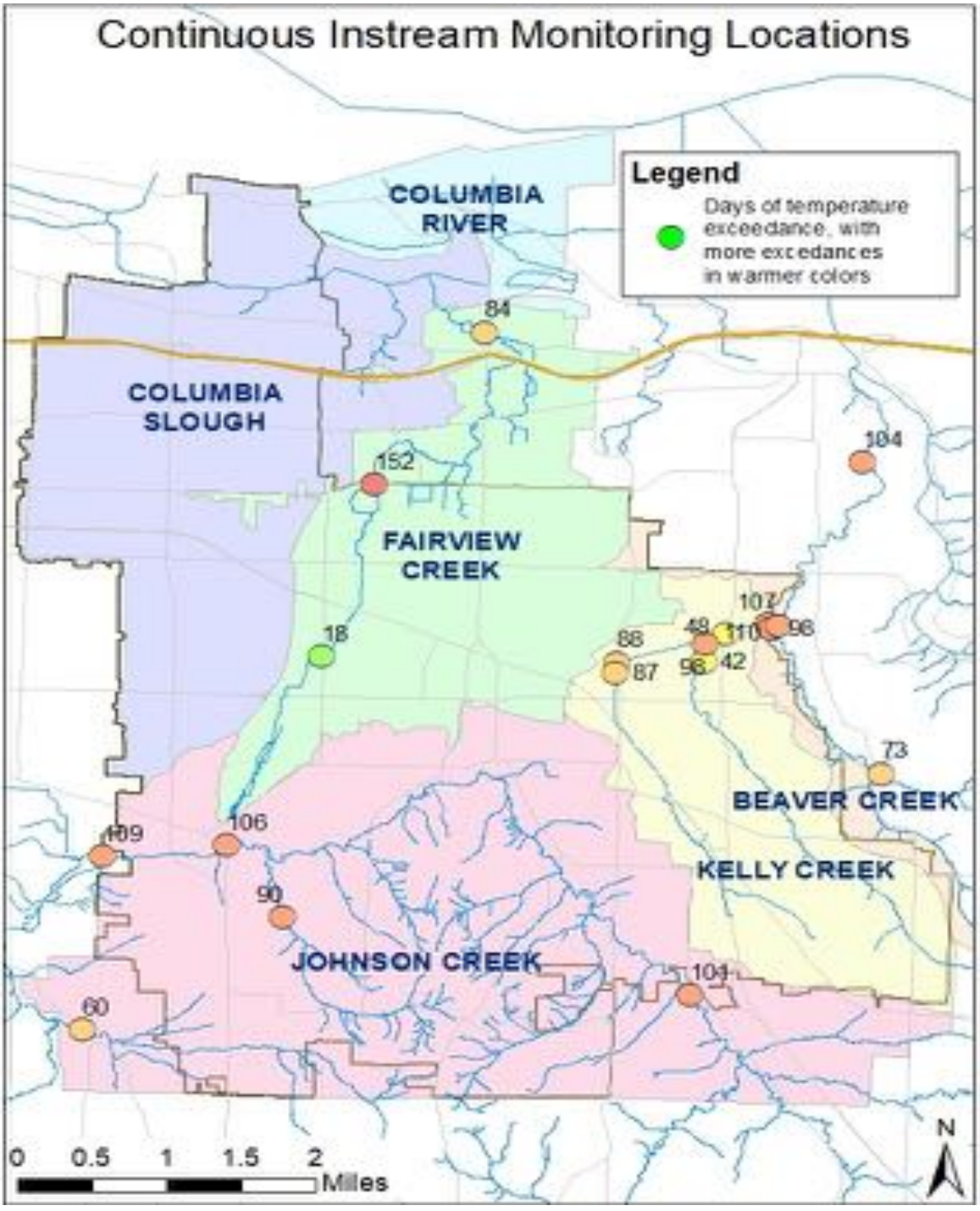
Inquiry Sampling – 6PPD-quinone

During the targeted additional storm sampling at the instream locations in December, somewhat higher concentrations of most pollutants were found when compared to sampling events with no precipitation, however, there was not an increase in water quality exceedances and there were no unusual outlier values detected. During that event, 6PPD-q was sampled to examine typical concentrations in the streams during a storm. This tire-derived compound was generally at non-detectable levels (<0.020 ug/L) at the sites upstream of urban land use and was found at detectable levels (0.0045 – 0.0616 ug/L) downstream. These values are all below the current published LC_{50} for Coho salmon of 1.0 ug/L; however, recent research indicates that the true value is likely an order of magnitude lower at 0.095 ug/L, which is close to the highest values found during this sampling. The City plans to continue to measure this compound at instream locations.

B. Continuous Temperature Instream Monitoring

The City of Gresham collected continuous instream temperature data at several sites within the city and collaborated with other jurisdictions to collect data at several sites upstream and downstream of the city.

Figure 2.2 Continuous Instream Monitoring Site Locations



The data range is different for this parameter than for others because loggers are placed in the field in spring and removed in the fall for processing. Therefore, the time-period reported here is from May – October 2021. Together with USGS, Multnomah County, and East Multnomah Soil and Water Conservation District, continuous temperature data was collected at 18 stream sites, representing Beaver, Kelly, Fairview, and Johnson Creek basins. Table 2.2 and Figure 2-2 show summaries of the number of days that the 7-Day Average of the Daily Maximum (7DADM) at each site exceeded the salmon rearing temperature standard of 18 °C, as well as the highest 7DADM temperature reached at each site.

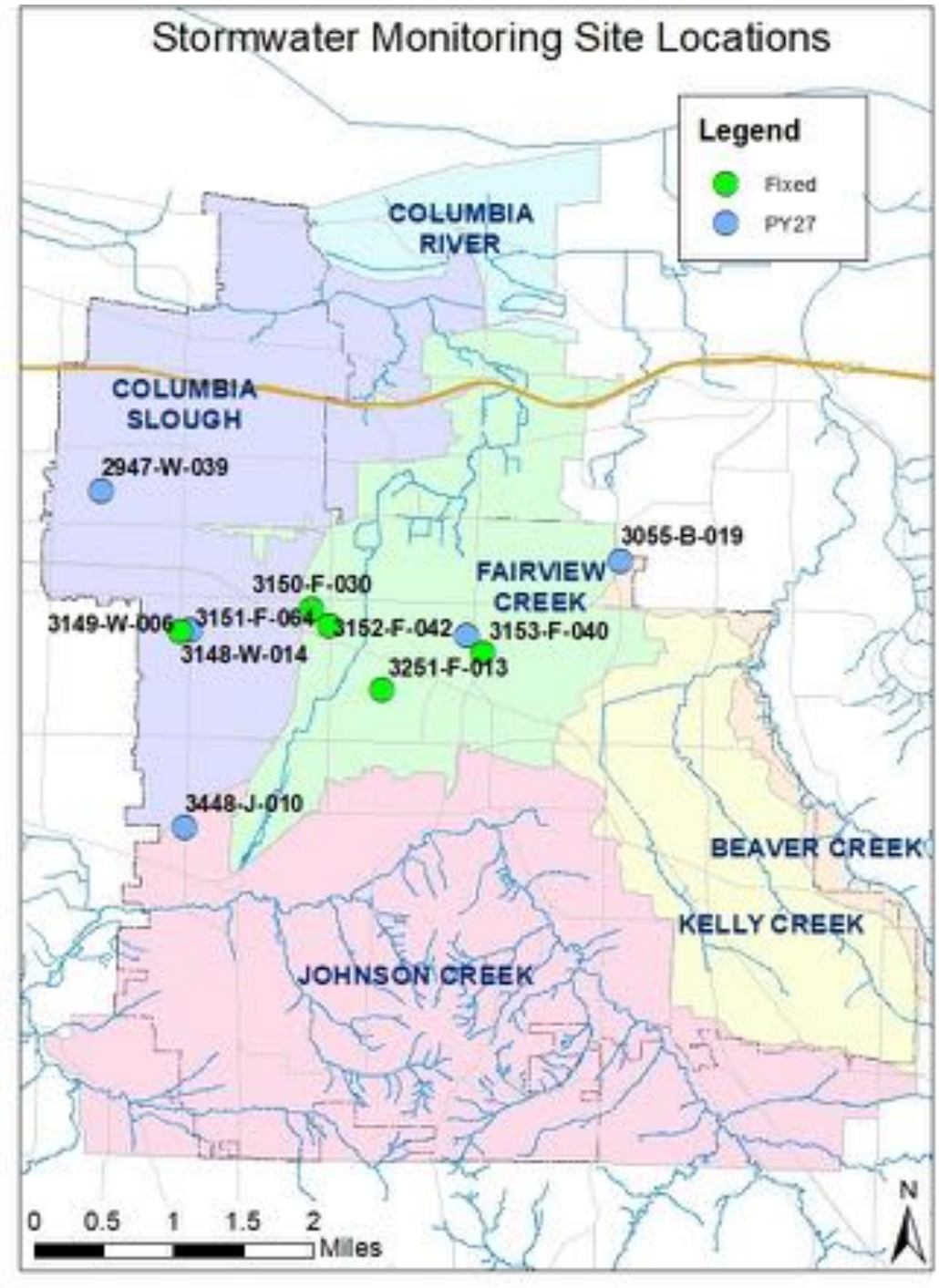
Table 2.2 Summary of Temperature Exceedances by Location

Watershed	Creek	Location	Max 7DADM temp (*C)	Exceedances (# of days)
Fairview	Fairview	Birdsdale Road	19.9	18
Beaver	Burlingame	Hogan Road culvert	20.1	87
Beaver	Burlingame	Country Club Estates	20.2	88
Beaver	Kelly	Tee Off Estates	21.7	42
Johnson	Kelley	Foster Road	22.7	60
Fairview	Fairview	Mouth to Fairview Lake	23.7	84
Beaver	Kelly	Upstream of MHCC pond	25.0	48
Beaver	Beaver	Division St.	24.8	73
Johnson	Butler	22nd Ave.	24.9	90
Beaver	Beaver	Upstream of Kelly Creek	24.7	98
Beaver	Burlingame	On golf course	25.0	98
Johnson	Johnson	Palmblad Road	26.1	101
Beaver	Beaver	In canyon	26.0	104
Johnson	Johnson	Pleasant View Dr.	26.3	106
Beaver	Kelly	Downstream of MHCC pond	27.4	107
Johnson	Johnson	Jenne Road	27.6	109
Beaver	Beaver	Downstream of Kelly	28.2	110
Fairview	Fairview	Downstream of Fujitsu ponds	30.2	152

The summer of 2021 was fairly warm, and there was an unprecedented heat dome where air temperatures reached new records for several days. Stream temperatures reflected this with elevated temperatures, where one site even reached over 30 *C for the 7DADM. No sites this year attained the temperature standard for the entire summer, while half of the sites exceeded the standard for more than three months. Of note, temperature loggers were lost at two sites (likely theft), which often attain the standard, one in a forested headwaters on Kelley Creek and another with a strong groundwater connection on Fairview Creek. The hottest sites were generally downstream of large inline ponds. The City is aware of the impact in-line ponds can have on temperature - Fujitsu Pond is a highly ranked Natural Resource CIP (Capital Improvement Program) project, and the City is also studying ways to reduce temperature loading from public and private ponds on Butler and Hogan Creeks. The city produced a technical memorandum recently which analyzed the instream pond temperature data in the Johnson Creek basin over the past decade. The analysis demonstrated that most inline ponds added substantial heat to streams, typically warming them by several degrees Celsius in the summer. The greatest effects were seen when ponds had large surface areas, were on cool streams, and had surface release structures.

C. Stormwater Monitoring

Figure 2-3 Stormwater Monitoring Site Locations (Permit Year 27)



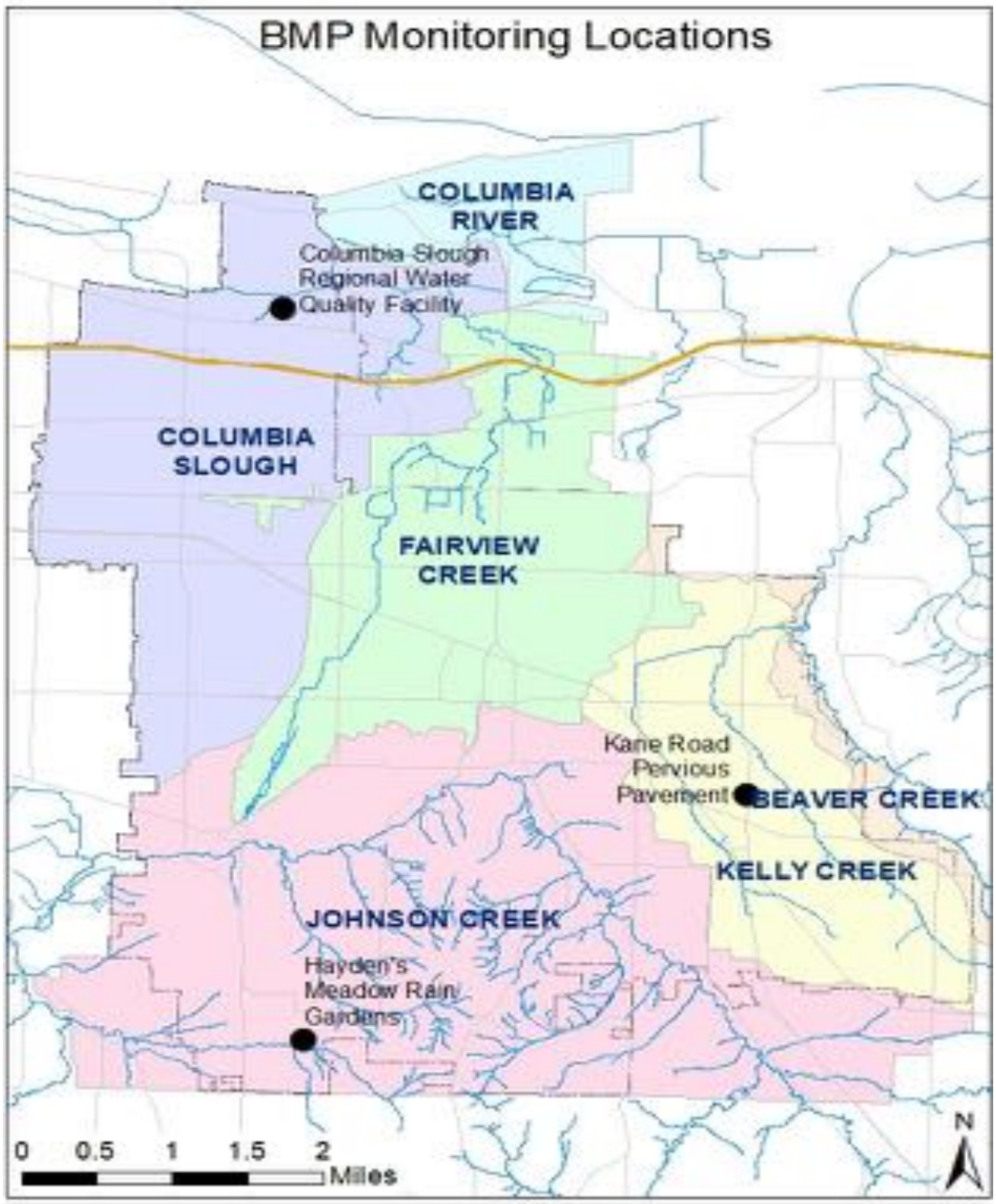
Similar to previous years, stormwater monitoring data revealed that higher traffic sites (>1000 vehicle trips per day) have higher pollutant concentrations for many pollutants in comparison to residential streets (<1000 trips/day), especially for heavy metals and PAHs. Also similar to previous years, relatively high levels of several heavy metals (including mercury, copper, and especially zinc) were found at a few sites. Per scientific studies, cars are understood to be a major source of these pollutants.

This year the tire-derived compound 6PPD-quinone was sampled at the stormwater sites. It was detected at 9 out of 10 sites and ranged from < 0.040 – 0.361 ug/L. It was in higher concentrations on higher traffic roads. These values are all below the current published LC_{50} for Coho salmon of 1.0 ug/L; however, recent research indicates that the true value is likely an order of magnitude lower at 0.095 ug/L. Four out of the 10 sites were above this latter LC_{50}. There are plans to continue to measure this compound at stormwater locations.

D. Structural Stormwater Facility BMP Monitoring

The structural stormwater facility best management practice (BMP) monitoring consisted of sampling one storm at our long-term instream sites and one storm at three facility locations: Hayden's Meadow neighborhood rain gardens, Columbia Slough regional water quality constructed wetland, and Kane Road pervious pavement installation.

Figure 2-4 Stormwater Structural Facility Monitoring Sites



The sampling at our long-term instream locations provided useful insight into pollutant levels in our streams during runoff events. Our typical long-term instream samples are collected on a set schedule and often miss runoff events. This sampling event produced generally higher levels of several pollutants when compared to background levels, especially TSS, zinc, and pentachlorophenol (a wood preservative used on power poles). This will help to add to our long-term dataset to assess the effect of stormwater BMPs on stream pollutant levels.

Hayden's Meadow is a housing sub-division which was constructed in 2016. The neighborhood includes many streetside stormwater planters, some of which are lined and have underdrains due to their location on top of unconsolidated fill. Sampling the inlets and outlets of the lined facilities allows for comparison of the influent and effluent. The soil media and plants in these facilities were installed by the City, and the soil media was selected and placed in order to provide a replicated experiment comparing two soil compositions: the "Portland mix" and the "Gresham mix." The Portland mix is specified using soil particle gradations and ended up being ~60% sand and ~40% compost, while the Gresham mix is equal parts sand, compost, and topsoil. This was the fifth year of water quality monitoring at these sites and was the last planned year of this investigation. The full results of the study will be written up in a technical memorandum. Preliminary results indicate that there was no substantial difference between the soils in pollutant removal or plant health. Both soils showed export of several pollutants in the months immediately following placement (as has been found in other studies), but with pollutant-removal performance improving after the first few months. Plant health was more related to facility type (lined vs. unlined) and summer water from nearby lawns than to media type.

The Columbia Slough Regional Water Quality Facility is a 9-acre constructed wetland treating almost 1,000 acres of industrial/commercial and residential land. It was constructed in 2008 as a retrofit and has been monitored intermittently since then. One of the biggest changes the site has seen is colonization by beavers. The long-term BMP monitoring data combined with dam removal experiments provided evidence that the facility was removing more pollutants when the dams were present. This year the City hired Beaver State Wildlife Solutions to construct beaver coexistence devices that prevent clogging maintenance concerns at the facility such as a pond leveler and culvert protector. Thus far, these structures are allowing the beavers to persist at the site and provide water quality benefits while protecting infrastructure and reducing maintenance. This case study has been highlighted by some media outlets recently, including Oregon Field Guide (still in production at the time of writing), and a new book by Kristin Ohlson titled: Sweet in Tooth and Claw, Stories of Generosity and Cooperation in the Natural World.

The Kane Road pervious pavement project occurred on a major arterial street in Gresham which was widened and resurfaced in 2008. Portions of the street were paved in various types of pervious pavement as a pilot project and to comply with stormwater water quality standards to protect Kelly Creek which receives road runoff.

One section was paved with full-depth pervious with an underdrain conveying water to the stormwater pipe system, and another was paved with a pervious overlay on top of conventional asphalt. These sections have been sampled in previous years and remarkably demonstrated the ability to remove a wide variety of pollutants, often as well as other vegetated facilities. This project is especially effective at removal of total phase metals (including Hg), total suspended solids, and PAHs.

This year the City of Gresham partnered with the Cities of Milwaukie and Portland to expand this project and monitor two new aspects. The City of Milwaukie recently paved an arterial road with a pervious overlay, and this road was sampled during the same storm as Kane Road to determine if a new road was removing pollutants at a similar rate to a 13-year-old road. The final report is not complete, but preliminary results indicate that the two roads removed pollutants at similar rates, indicating that pervious pavement can provide benefits immediately after installation and many years down the road.

The second aspect of this study was to include sampling for a new pollutant: 6PPD-quinone. This pollutant was recently discovered to come from small bits of car tire wear on the road surface and contribute to aquatic mortality, especially in coho salmon. This study is the first known to examine 6PPD-quinone removal with pervious pavement. We found ~90% removal of this pollutant at both roads and with both an overlay and full-depth pervious asphalt. The reduction often took levels from above the LC_{50} to below it. This is encouraging preliminary data and has been shared with the Washington 6PPD-quinone workgroup in hopes of further study and discussion. These results indicate that pervious pavement may be a relatively easy and low-cost way[2] to build or retrofit roads to be less toxic to salmon and other aquatic life.

[2] Pervious pavement requires specialized paving knowledge/training to install correctly. As compared to constructing additional vegetated treatment structures for roads that can be more intensive to maintain.

E. Macroinvertebrate Sampling

Macroinvertebrates were monitored at 23 sites throughout the watershed of Gresham, including long-term sampling locations. This represents the twelfth year of macroinvertebrate data at long-term sites. The City has submitted raw macroinvertebrate data for Permit Year 27 through the AWQMS (Ambient Water Quality Management System) database. The new format does not allow an immediate calculation of an index for discussion or direct comparison with previous data. However, the City is working with Shannon Hubler at DEQ to assess the macroinvertebrate data from the database in a way that allows these comparisons over time. It is anticipated that a more thorough assessment will be provided in a future Annual Report. Sites sampled are reflected on Figure 2.1 Long-Term Instream Monitoring Site Locations.

IV. Illicit Discharge Detection & Elimination program

A. Dry Weather Screening Summary

Staff inspected 30 sites: 8 fixed high-priority sites and 22 new rotating sites. The rotating sites were all 12-18" pipes. See Figure 2.4 below. The 8 fixed sites were selected based on size and land use of contributing area, and on past illicit discharge issues. The 22 new sites were selected based on size of outfall, starting with the largest.

Seven sites had flow and data is included in Table 2.3 below. The remaining 23 sites were dry. The only action level which was exceeded was turbidity at four sites. Most of these sites had elevated turbidity due to sediment on the bottom of the pipe which was scraped during sampling. Turbidity is a secondary measure to help identify an illicit discharge, not a primary measure indicating one. Follow-up investigations did not produce any illicit discharges from these sites

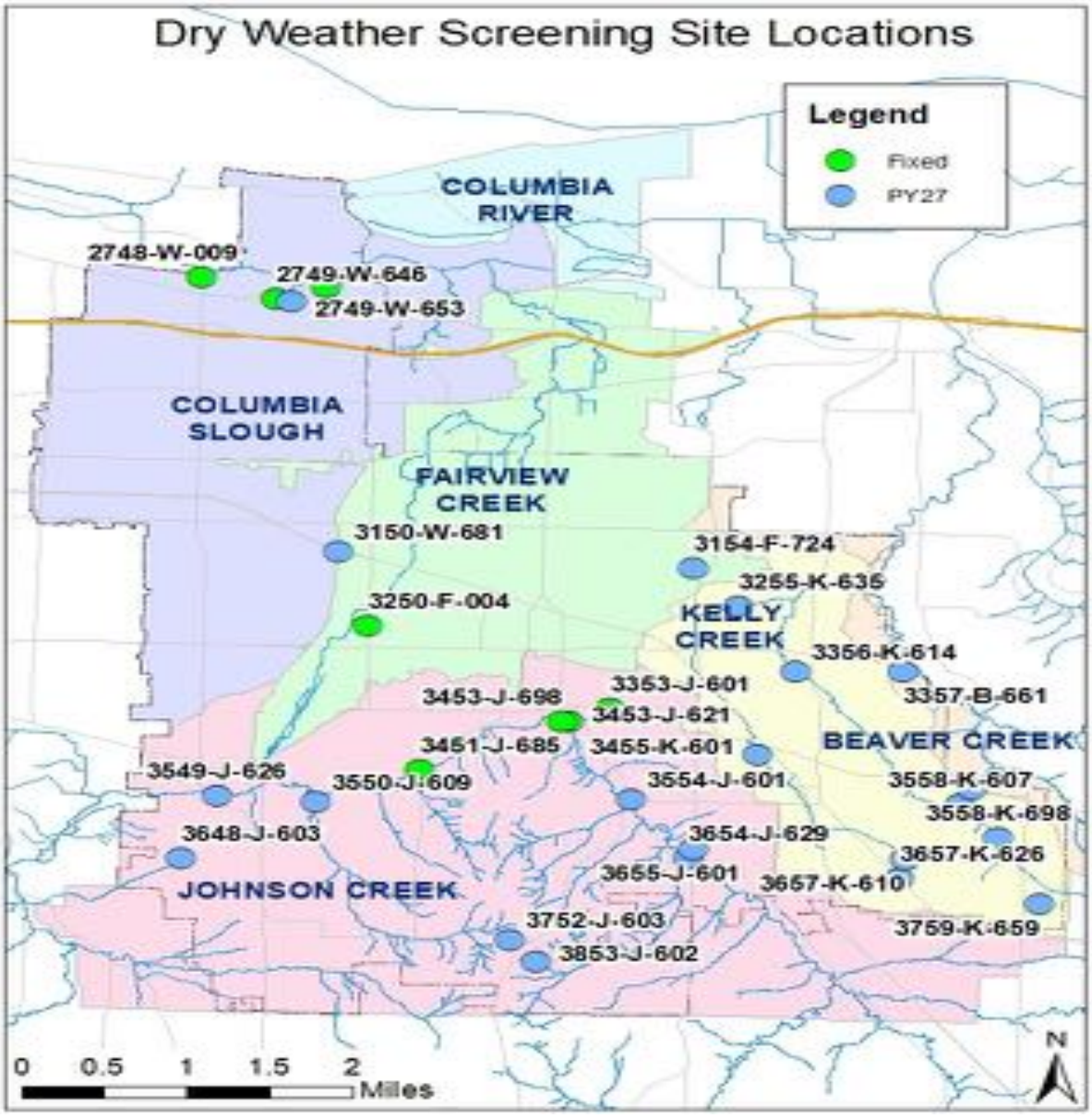
The City's illicit discharge enforcement response procedures are described in Section 7 of the Environmental Monitoring Plan on the City's website at: www.greshamoregon.gov/watershed

Table 2.3 Dry Weather Screening Flow Sampling Results

Site Code	Date	DO (mg/L)	pH	Temp. (*C)	Cond. (uS/cm^3)	Turbidity (NTU)	Chlorine (mg/L)	Ammonia (mg/L)
2750-W-066	8/3/2021	5.40	7.25	18.3	222	3.79	<0.25	<0.25
3250-F-004	8/5/2021	3.98	7.42	18.3	165	5.77	<0.25	<0.25
3353-J-601	8/5/2021	3.98	7.3	17.4	114	26.0	<0.25	<0.25
3451-J-685	8/5/2021	4.04	7.24	16.5	133	49.6	<0.25	<0.25

3453-J-621	8/5/2021	4.53	6.82	18.4	152	25.7	<0.25	<0.25
3453-J-698	8/3/2021	5.42	6.97	18.3	195	15.7	<0.25	0.25
2648-W-700	8/3/2021	5.22	7.64	19.3	115	5.78	<0.25	<0.25

Figure 2.5 Dry Weather Screening Site Locations



B. EMP Adaptive Management

Updates to the 2015 Environmental Monitoring Program were made in 2022 and submitted to DEQ for approval in July 2022. The DEQ approved plan is being implemented in Fiscal Year 22-23.

SECTION 3: Stormwater Best Management Practices Summary

I. Overview

A. Requirement to Reduce Discharge of Pollutants

The pollutants described in Section 2 are addressed by the overall Stormwater Management Program and the Best Management Practices outlined in the narrative and the Tables in this section. Pollution reduction actions in the program fall into six categories: 1) Prevention 2) Absorption/Adsorption processes 3) Infiltration 4) Phytoremediation (uptake from plants) 5) flow reduction and 6) restoration, stabilization & shading of streams.

City code and inspection procedures prevent pollution that might otherwise occur like businesses washing or repairing vehicles outside of bays that drain to the wastewater treatment plant or offering public collection events for products that might get dumped on the ground or in the stormwater system. Some processes such as removing sediment and leaves from streets and stormwater facilities will remove pollutants that adsorb to soil particles and changing cartridges inside proprietary devices captures pollutants absorbed and adsorbed.

Having a Stormwater Manual for development is preventative and also requires stormwater facilities to capture and infiltrate water using low impact development approaches and vegetated facilities to replicate the natural hydrologic cycle to the maximum extent practicable. This infiltration prevents dissolved pollutants from reaching streams and the vegetation provides some uptake of pollutants (phytoremediation) in plant matter as well as the evapotranspiration of water. By capturing, infiltrating, and slowly releasing stormwater to streams (flow reduction) helps prevent erosion and downcutting, also called hydromodification. Further, reducing high velocity flows helps keep from stirring up pollutants attached and resting in the stream bed, such as legacy pesticides like DDT. The City's Natural Resource Program and Education & Outreach Program conduct restoration on public land and encourage the enhancement of private land that collectively work to restore, stabilize, and shade streams.

B. Water Quality Standards

In accordance with the goal of Schedule A 1.b., the City outlined its investigative procedure in the Environmental Monitoring Plan if there is a water quality exceedance caused or contributed to by stormwater. Historically, the City has maintained an illegal discharge and spills investigation procedure that often addresses this permit section. However, it is possible, as outlined in the procedure, that if a laboratory result is unusually high for a stream sample that there may be a pollutant source from upstream activities that are identifiable but would not have

otherwise come to our attention. The procedure is being utilized as of Fiscal Year 22-23. Investigations will be recorded in the City's Spill Response database and reported in the Instream Monitoring narrative.

C. Allowable Non-Stormwater Discharges

Gresham Revised Code 3.23.010 (2) complies with Schedule A. 1. d. Best management practices are described in Table 3.2 for the city's activities such as water line flushing and firefighting training that are taken to protect the stormwater system. The City's Education & Outreach program directs the public to drain pools and hot tubs to sanitary sewer clean outs at their home or their landscape to prevent spa chemicals from entering the stormwater system. See Table 3.1 for examples of Outreach.

D. Stormwater Management Program Control Measures

Public Education and Outreach

The City directly implements and/or partners with watershed councils and other agencies & nonprofits to deliver a wide variety of focus areas which include but are not limited to: K-12 youth, single family home outdoor maintenance practices, dog owners, DIY auto maintainers, businesses (green certification), general community education with workshops, community science, restoration/storm drain marking volunteering, etc. Whenever possible, information is translated into Spanish and Russian. The City also offers translation services which are available via phone for real time conversations. Recently, the City hired a diversity, equity, and inclusion program coordinator and a committee has been formed to examine internal culture, hiring, and external facing programs for its residents. Watershed staff will assist with the review of the external facing programs, documents, and language in coming years.

The City maintains residential and business program information related to stormwater on its website. Examples of information the City provides includes a Downspout Disconnection Manual and Rain Garden Installation Manual, as well as cross links to Metro's Yard and Garden pages which are comprehensive and do not need duplication. The City's staffing is small, therefore, its strategy is to provide grants to watershed councils to assist with outreach, as well as recurring use of interns and temporary project-based staff. Additionally, the City participates in three collaborations at the state and regional levels to conduct advertising to residents in a variety of communication channels that can vary over time depending on the campaign. Watershed staff sit on both The Regional Coalition for Clean Rivers and Streams and the Clean Rivers Coalition steering committees. These committees have committed to building relationships with Native American Tribes and unrecognized groups to amplify their voices related to natural resource protection and enhancement. The committees are also working to

ensure that historically excluded and underserved populations are addressed related to natural resource access, culture, and recognition of their values. Outreach examples provided in Table 3.1.

Stewardship Opportunities & Restoration

The City's stewardship efforts related to restoration on public land are overseen by staff in the Natural Resources Program which also has a small staff, and as such, partners with local watershed councils to help deliver community events. Stormwater staff have historically worked with private property owners on a variety of former streamside projects, but is currently contracting to deliver the Backyard Habitat Certification Program, which is cost-shared with Natural Resources. See Table 3.4 for details of the Stewardship Opportunities provided.

Table 3.1 Stormwater Program Education & Outreach Examples[3]

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
For Residents			
Backyard Wildlife Habitat home visits	All	**33 site visits in Gresham and 3 in Fairview** E-news: 11,000 gardeners Facebook: 6,400 gardeners	Consultation visits with homeowners regarding qualifying for "Backyard Wildlife Habitat" status thru a partnership with Audubon/Columbia Land Trust Includes stormwater management, pesticide reduction, and tree education elements among others and ongoing education with E-news and social media
Johnson Creek Watershed Council Partnership	Johnson	Supports outreach: JCWC e-list to over 700 Gresham contacts; list goes to over 6,000 residents Social media: ~3,000 followers City supported six events that involved **250+ adults and 100+ youth.**	Assisted city with 13 acres, 1.05 stream miles, 3160 native trees and shrubs planted and almost 3 acres of invasive plant removal Held first time dragonfly education event and community science data collection, as well as the recurring frog/salamander community surveys

[3] This table includes a summary of major activities but is not necessarily comprehensive. E&O Program questions: contact Keri.Handaly@GreshamOregon.gov or 503-618-2657.

Columbia Slough Watershed Council--Gresham and Fairview support of Slough School program	Fairview & Columbia Slough	150 programs were delivered to **~2,500 student contacts** in the Gresham Barlow and Reynolds School Districts serving Gresham and Fairview students.	General education of watershed protection, native plants, ecosystems, wildlife, water quality sampling for science, and stormwater pollutant treatment with vegetated facilities.
Regional Coalition for Clean Rivers and Streams Metro area water health campaign	All	Digital marketing campaign: **182K Metro region adults and youth** (student video contest) reached via Facebook and Instagram Facebook: 2000 followers Instagram: 600 Student Video Contest: ~800 views of entry videos YouTube video page: Total ~2.1K views across all videos	This work is primarily digital advertising that promotes the work of local watershed councils and community volunteer events, as well as tips and news articles that inform the public about actions they can take to reduce pollution. The group is also beginning to look at the lens of the intersectionality of racial, social, and environmental issues and the disproportionate impacts to historically marginalized populations.
City of Gresham and Regional partners with KPTV--"It's Our Water" campaign	All	Clean Water Partners Campaign: https://www.kptv.com/water/Page was visited ~3,800 times 12 months of residential water protection messages that aired 815 times, resulting in the **engagement of 18,000 adults in the Metro region** **Total impressions: 19.2M** (TV, social, web)	Topics: variety of lawn care messages, car washing, fall leaf disposal, pressure washing, safe deicing at home, plant a tree

Follow the Water – Connect the Drops and *What's Your Lawn Style*- a statewide collaboration campaign for building water protection culture and encouraging water safe behaviors	All	Lawn Care Campaign Impact: (June 2022) **3,000+ adults engaged*** **Total impressions: 430,000+** A Gresham focused lawn video delivery resulted in over **100 views** *Engagement includes video views, OSU lawn page site visits, ad likes, comments, shares. Only $3,000 of $100,000 spent for advertising-much more to come next year	During FY 21-22, Gresham supported the funding and steering committee staffing for completing the structure and launch of this brand-new campaign shared with all state water stakeholders. This included the development of a 3-part "River Connection, Disconnection, & Reconnection" video series, as well as a series of lawn care videos (English/Spanish) for the level of effort a person is interested in investing with water safe practices and a series of commercials for the lawn videos for digital marketing and television. A followthewater.info website was developed along with social media channels.
Play Grow Learn, PGE Project Zero Partnership	Columbia Slough	2 adult interns 4 adult staff **30+ youth**	Staff mentored two adult interns to provide nature programming to at-risk, underserved youth of color. Outreach included native plant identification, control of noxious weeds, forest restoration & trail maintenance, native plant propagation, introduction to bird watching, introduction to Gresham wildlife, salmon migration, hiking and paddling with the Columbia Slough Watershed Council.

Public Involvement: City Website & Stormwater pages	All	Entire city website: ~100,000 annually Water Resources page: ~ 1,000 annually (drinking water, stormwater, wastewater landing page) Watershed/Stormwater page: 400+	Most popular Water Resources webpages by unique visits (uv): Stormwater documents: 560+ uv Backyard Habitat Page: ~200 uv, Stormdrain Cleaning Program: 500+ uv Reporting Spills/Illegal Dumping: ~300 uv Car washing tips: 200+ uv Downspout Disconnection: ~200 uv Natural Resources: ~200 uv Rain Gardens: 160 uv
Fish friendly Car wash kit	All	Unknown	The City has made car wash kit that divert soapy water to landscaping available for charity car washes and posts to website and social media.
Doggie Bag Distribution	All	Unknown	Social science survey data reveals that it is a social norm to pick up after your pet. The number one reason for not doing so is forgetting a bag. To overcome this barrier, the City has installed doggie bag dispensers broadly across parks where trash service is available. We have found that without a trashcan, people will leave doggie bags on the ground as litter.
Storm drain murals project	Johnson Creek	**~40 students,** 4 teachers, many more residents	Students from three local schools painted murals on sidewalks adjacent to storm drains to raise awareness of the connection between storm drains and streams.

For Businesses			
City of Gresham Green Business E-Newsletter	All	9 issues/yr**. ~1200 subscribers**	Stormdrain Cleaning Assistance Program, General Best Practices, Haz Waste Training, Sustainability
City of Gresham Stormdrain Cleaning Assistance Program (SCAP)--offered to City of Fairview businesses as well (spring and fall)	All	**393 Businesses** participated~2150 drains cleaned	Business Outreach was direct mailed to ~1,800 and emailed to ~1,000. Notices were also promoted in City's E-news, Print News, Green Biz E-news, and Economic Development. Pollution prevention via removal of sediment and debris.
EcoBiz program partnership	All	**Provided outreach to 32 Automotive businesses**. 9 will recertify. Others were provided example guidance materials and will be recontacted. 3 were not interested.	Technical assistance in the areas of recycling, energy, waste reduction, and stormwater management for landscaping, automotive, and manufacturing businesses.
Illegal Dumping Business Letter	Columbia Slough	**135 businesses received outreach** about milky substance in their pipeshed and proper disposal instructions with regard to using indoor plumbing and how to report violators	Staff observed cloudy water in a stormwater facility. No responsible party could be identified, so a general awareness letter notifying that outdoor dumping of liquid waste was prohibited by City Code was mailed. See Appendix A for example.

Landscaping Company Business Letter	All	**~20 firms**	Staff notified landscaping firms from the City's business license database with regard to City Code for obtaining tree removal permits and that tree topping, or removal of public trees is a violation.
Mobile Carpet Cleaner Business Letter	All	**~110 firms in the Metro Region**	Gresham staff led an effort to create a regional letter with area cities to inform firms that no dumping of wash water may occur. Legal options for waste are outlined. See Appendix A.

Urban Growth Boundary Permits and Forecasting

In FY 21-22:

- Planning approved an Annexation (7505 & 7519 SE Hogan Road - Springwater); however, that has not gone through the full routing and, therefore, is not in effect yet.
- Sunset Village Subdivision (SE Richey Rd and SE 190th Ave – Pleasant Valley) was approved in 2018 and constructed over FY 20-21 and 21-22, with home construction starting in FY 21-22.
- Telford Estates Subdivision (SE Talford Rd – Springwater) was approved and constructed.
- Brookside North (SE 190th Ave and SE Butler Rd) was approved in 2018 and constructed over FY 20-21 and 21-22, with home construction starting in FY 21-22.
- Telford Estates Subdivision (SE Talford Rd – Springwater) was approved and constructed.
  See Table 3.6 for List of Development Sites.

In FY 22-23 (all Pleasant Valley, except as noted):

- Planning expects to have the above-mentioned annexation become effective.
- Planning is processing an annexation for 16900, 17036, 17112, 17116, and 17320 SE McKinley Rd.

- Planning has been processing (since the end of 2020) on SE 190th Ave (across from SE Richey Rd) a 180-lot (the number has varied) subdivision in Pleasant Valley and expect that to be decided upon during this fiscal year.
- The Sycamore Vista Subdivision (SE 182nd Ave, north of SE Giese Rd) was approved in 2018 and is expected to be constructed during this fiscal year (uncertain when home-building will occur).
- Brookside Townhomes (SE 190th Ave) was approved and constructed FY 21-22 and has been constructed – the homes are under review and construction in FY 22-23.
- Review and construction of homes in Sunset Village and Brookside North continue.
- Construction of homes in the Telford Estates Subdivision (Springwater).
- Construction of Terrace @ Pleasant Valley (Giese Rd) is expected, maybe beginning of home construction.
- Continued construction of homes in the Brookside North Subdivision.
- Land use permit review and maybe start of construction of 12-apartment units in the Brookside North Subdivision.

Planning will be starting this fiscal year (22-23) a "re-look" at the Pleasant Valley Concept Plan. The review is expected to conclude in FY 23-24, though any potential code changes might not become effective until FY 24-25. This effort does not directly affect development or development potential for FY 22-23.

F. Stormwater Program Adaptive Management

A few minor notations are made in Table 3.2 which are mostly describing how the program changed either from the previous SWMP to now or that some metrics will not be reported until FY 22-23, as that is the year in which the new SWMP will be implemented. Additionally, some minor language clarifications were made in order to aid DEQ's compliance review and these nomenclature updates will be updated in the SWMP and provided to DEQ in the weeks following the submission of this report.

G. TMDL Summary

The City evaluated its entire programmatic effort with regard to the new mercury TMDL and did not find any best management practices to add to its program. During the process of updating the SWMP, activities that were already being conducted, for example, construction site plan review and inspections by the Operations group, were added to call out a program area that ensures future stormwater facilities are evaluated and inspected before the construction site receives final approval. After which, private facilities are managed via the Private Facility Inspection Program. As part of its program evaluation and ongoing evolution (Adaptive Management), the Water Quality Science & Policy group continually attends conferences and other specialized trainings and reads scientific papers with regard to stormwater best practices and data findings to keep the program as up to date, to the maximum extent practicable.

The City has two nonpoint source plans for bacteria and temperature. For bacteria, this illuminates a few things that the City addresses related to private property which may or may not drain directly to the stream (or perhaps groundwater). For example, private septic tanks, which are estimated to be less than 200 left in the City. The City tracks its total utility accounts and examines properties with stormwater fees but no wastewater fees. This is an ongoing process to QA/QC the data and ensure sites have either a city connection to wastewater pipes or a functioning septic tank. Decommissioned septic tanks are reported in the TMDL nonpoint source bacteria plan Table 3.10.

For temperature, this is a plan to produce additional shading of stream corridors over time in order to meet temperature reduction goals. Stormwater is not connected to temperature issues as rain is cold and there is little to no rain during warm months. The Nonpoint Source Annual Report for Temperature is included as Table 3.11.

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Stormwater Assets Maintenance Program (SMP) A-J. BMP Owner: Stormwater Operations & Maintenance Group, supported by GIS and Stormwater Science & Policy & Engineering				
Pollutants addressed	Actions from these BMPs remove sediment and total phase pollutants, but do little to address dissolved pollutants. Pollutants that attach to sediment include bacteria & other pathogens, nitrogen, phosphorus, organic compounds, legacy pesticides, polycyclic aromatic hydrocarbons, and total phase metals. While removal of total metals is important, since benthic organisms are found in stream sediments, dissolved metals can still impact aquatic organisms. Metals that are in dissolved form*and* known to be acutely toxic to fish include cadmium, copper, lead, mercury, silver and zinc. Control of sediment also reduces turbidity; clearer water creates better conditions for fish to hunt, breathe, and lay eggs. Controlling sediment also helps reduce nutrients, particularly phosphorus, which can cause excess algae growth impacting both dissolved oxygen, pH, and other water quality parameters.			
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
A. Pipe Cleaning	The City's stormwater system currently consists of approximately 231 miles of pipes that drain to both surface and groundwater. The City inspects a portion of its existing pipes each year for assets management that record the condition and repair needs in the near and long term. Pipes are cleaned to remove excessive buildup, if the SOP threshold for cleaning is met.	Inspect 10 to 15 miles, clean if SOP threshold is met	Inspect: annually/ongoing Cleaning projected to be an average of 1-5 miles over permit cycle	2 yds of debris removed. 10 miles inspected, 3.5 miles cleaned.
Adjustment to pipe cleaning	During the past ten years of the City's previous permit, data from the inspection and cleaning of pipes revealed that from a cost benefit perspective, the City was cleaning pipes that were often fairly free of sediment. In the current SWMP, the City updated its cleaning metric to reflect an amount more commonly needed to clean pipes, remove sediment and associated pollutants and keep pipes flowing freely to avoid minor flooding during heavy rain events.			
B. CCTV Pipes (new/existing)	Inspect new development pipe systems to ensure proper connections. CCTV inspect existing city pipes for repair, cleaning, asset management rating, resident concerns, illicit discharge investigation. This serves as part of the City's asset management program and also as a proactive measure to ensure there are no cross connections from new development, and also finds can find cross connections as efforts to inspect and clean pipes move about the city.	CCTV 100% of new pipe (reported metric also contains cctv miles for existing pipe as miles are not tracked separately)	annually/ongoing	CCTV: 1,269 hours 10 miles
C. Storm Drain Cleaning	The City's stormwater system currently consists of approximately 8,100 stormdrains that drain to both surface and groundwater. Arterial drains are priority due to higher pollutant loads than lower traffic streets and residential are also a priority due to potential for clogging and minor flooding. Inspection of all drains is a goal, but due to parked cars (even after notices are given) 100% is not attainable. Note that drain inventory has historically grown by 50-100/yr. Studies have shown that drains tend to remobilize trapped sediment once 2/3 or more full, and at this time is the City's SOP cleaning threshold. Typically, the City cleans all drains regardless of reaching the threshold, which is a higher performance standard. The range quoted allows flexibility in work load shifting to address other significant water quality facility rehabilitation activities in the future, as needed, while still meeting objectives over the permit cycle.	Inspect 90% of all drains, at a minimum clean if SOP threshold is met. Sediment removal from 5,000 to 8,000 drains/yr.	annually/ongoing	Residential 6,249; 158 yds debris removed. Arterial 1,428; 74 yds debris removed.

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Adjustment to Storm Drain Cleaning	An analysis of data trends over the past ten years of the previous permit provided improved accuracy with regard to metric objectives. For example, in a given annual cleaning cycle, about 300-400 drains cannot be accessed due to parked vehicles blocking them. Inspection data also tells us that we have historically been cleaning drains that do not require cleaning. The adjustment in the metric allows work hours to flex to other tasks such as green infrastructure maintenance in the future, if drains are clean and we want to begin only cleaning those that meet the 2/3 full threshold. This provides a clear process for why the range of drains cleaned may vary in future years, but additional work efforts will also be highlighted and reported.			
D. Maintain Green Infrastructure	Inspect and maintain vegetated facilities. Staff inspects and maintains as needed publicly owned: ~50 detention ponds & swales, ~650 rain gardens, plus private multiple owner facilities: 30 detention ponds & swales. Maintenance activities include control of noxious weeds that are threats to public land and sediment removal. Plant removal over time is beneficial, as some plants uptake pollutants in their roots and leaves (phytoremediation). The smaller neighborhood ponds require sediment removal based on capacity for accumulation (varies from 5-12 year lifecycle). Staff maintains larger regional facilities designed with forebays to capture large amounts of sediment annually. There are ~650 rain gardens/swales and 15 miles of ditches. All ditches were reshaped for conveyance during the last permit cycle. The staff can now use the vactor truck to remove sediment build up and prevent fill in. The inventory of rain gardens has grown significantly and represent the highest work load because they are managed three times/year (vegetation, overflow drain & scupper cleaning). Lastly, a smaller portion of annual hours are utilized for misc. stream vegetation/woody debris support work, off road system management, culvert checks/maintenance after storms is important for street safety and flood prevention.	Inspect pond facilities, rehab/remove sediment based on facility capacity. Maintain regional facilities and remove forebay sediment. Inspect 100% rain gardens/swales/ditches. Maintain vegetation and control weeds using Integrated Pest Management techniques. Remove sediment build up per SOP.	Sediment removal projected to be annually for rain gardens, and most swales and ditches. Annually/ongoing Sediment removal from approx. 2-5 ponds annually	Inspected all ditches and collected 57 cu yds from ditch cleaning 334 cu yds of sediment from 5 publicly maintained ponds Inspected 650 rain gardens and 68 ponds and swales and collected 6.75 cu yds of sediment Repairs/Maint: 4,263 hours (staff) Repairs/Maint: 4,612 hours (contractors)
Adjustment to Green and Grey Infrastructure	The City's stormwater staff is moving towards forming two dedicated crews, one who specializes in green maintenance and one who specializes in grey maintenance. Our time keeping tracking software and tasks were reviewed to separate these two areas of maintenance and establish work load metrics achievable by predicted resources and staffing, including separated BMP for maintenance of proprietary devices (formerly lumped in).			
E. Maintain Grey Infrastructure	Inspect and maintain underground structures. There are 500+ sedimentation manholes which are very cost effective for capture and removal of sediment. The inventory for these structures has grown significantly. There are 212 Flow Control Manholes (FCMH) inspected annually. There are 231 Detention lines that vary from 30' to 96' long. All were cleaned during this past permit cycle and most will not require cleaning for many years. There are 204 Detention manholes, which have minimal sumped areas and are of less water quality benefit. Follow SOP thresholds for determining sediment removal.	Inspect 100% of sedimentation/inlet MH Clean per SOP criteria Inspect 100% FCMH Clean per SOP criteria Inspect 50% Detention lines Clean per SOP criteria Inspect 50% Detention MH Clean per SOP criteria	Annual inspection; cleaning typically results in: Sediment removal from approx. 50-60 Sedimentation MH 25-35 FCMH over permit cycle Detention lines, if meets threshold 1-5 Detention MH annually	5,097 hours Sedimentation manholes 51 cu yds of debris from 57/500 structures Flow control manholes 57 cu yds of debris from 63/216 structures Detention line cleaning 1 cu yd of debris removed from 5/237 structures Detention manholes 3 cu yds of debris from 3/204 structures

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Stormwater Assets Maintenance Program (SMP) A-J. BMP Owner: Stormwater Operations & Maintenance Group, supported by GIS and Stormwater Science & Policy & Engineering				
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
F. Proprietary Devices (grey)	There are 133 Proprietary Devices with multiple filter cartridges (varies 1-12 per device) which are maintained at the frequency recommended by the manufacturer.	Inspect 100% of Proprietary Devices Clean based on Manufacturers threshold rec. (about 150-300 cartridges replaced/yr.)	Annual inspection, cleaning typically includes Sediment removal from about 50-60 proprietary devices annually	501 hours 303 cartridges replaced from 133/133 Incidental debris not captured in the cartridges is estimated to be ~24 cu yds
G. System Repair & Maintenance	Maintain and repair pipes, ditches, culverts, inlets, off road systems, etc. to ensure proper function and limit impacts to surface water, as well as underground injection control devices and appurtenances that drain to groundwater.	Maintain and repair based upon SOP criteria.	annually/ongoing	Inspection of new construction/customer concern calls 1,192 hours Mapping Updates 60 hours Trouble Loop: 1,174 hours Repairs & Maintenance: 1,359 hours Utility Locates: 1,984 hours
H. Spills, Illicit Discharge Investigation, Emergency Response	Respond to community reports of spills or illegal dumping & emergency flood concerns. Investigate and/or assist with spill response, illicit discharge concerns, emergency stormwater controls for other department assistance, natural disaster response (flooding, downed trees, etc.)	Follow City Spill Response and Illicit Discharge Investigation procedures Conduct Spill Response all Department training and procedure review twice during the permit cycle	annually/ongoing	Emergency Response: 242 hours 9.7 miles of new & existing pipe were inspected to prevent cross connections
Added Spills, Illicit Discharge, Emergency Response	Added this BMP to reflect an important activity of the O&M staff who assist with controlling spills primarily from vehicle accidents or things falling off trucks in the road, etc. from entering the stormwater system. They also help investigate and deploy absorbent booms in streams or stormwater ponds to absorb spilled or dumped substances, as well as assist with emergency response for clearing roads and culverts, etc. after weather events.			

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

I. Construction Inspections and Plan Review, Resident Concerns (O&M)	O&M staff plan review and construction site inspections of connections to the public system.	Conduct reviews and inspections to ensure compliance with Code	annually/ongoing	General administration time includes staff time spent reviewing construction plan reviews and conducting new facility inspections 32 MyGresham online reports of drainage and stormwater facility concerns were addressed in addition to spill/dumping response. 5,220 hours* *Also includes staff meetings, supervisory duties, and budgeting
Added BMP Construction Inspections and Plan review	This BMP was not previously reflected explicitly in the former SWMP. These activities represent important program control areas to ensure stormwater facilities are built to specification and are planted correctly. Added to reflect the importance and to be consistent with the emphasis in the City's permit.			
J. Good Housekeeping: O&M Yard	Manage the Operation yard, shop, and equipment in cooperation with other city departments to clean up spills, keep sediment from entering drains. The yard has a covered decant station and equipment wash area to prevent pollutants from entering the stormwater system. Runoff from the yard also enters a stormwater facility prior to release to the stream.	Follow City best practices for storage, repair, dumping, washing, etc.	annually/ongoing	Shop duties: 481 hours
Added BMP Good Housekeeping O&M Yard	This BMP has existed since the City's first SWMP and was a work in progress. For example, the City eventually was able to build a covered decant facility and equipment wash down station to prevent dirt or sediment laden water from entering the stormwater system during the first permit cycle. This BMP was removed from the next SWMP because these activities are built into the City's training of new employees and operation's yard procedures. Shop duties hours for stormwater staff were still reported under "System Repair & Maintenance" BMP. This BMP has been explicitly added back into the SWMP to be consistent with the emphasis in the City's permit.			
K. Underground Injection Controls (UICs) Maintenance & Cleaning	Maintain the City's active UICs to ensure function and comply with the WPCF permit requirements.	Document and report maintenance and cleaning.	annually/ongoing	Number of hours for UIC maintenance or cleaning 11 UICs inspected, 2/1005 cleaned 6.7 cu yds of debris removed

L. Proper Waste Disposal (O&M)	Ensure the debris collected from City O&M activities are handled and disposed of in a safe and responsible manner. The City has three locations that it can stockpile facility maintenance debris: Powell Loop, Hogan Building (Operations yard), and the Wastewater Treatment Plant. All debris is stored in a manner to prevent erosion and to dry out the debris to make the hauling more cost effective. Composite samples of debris from all types of activities are tested and are classified as "special waste" but not "hazardous." There are two facilities in the region approved to take special waste: Waste Management in Hillsboro and the Wasco County landfill in the Dalles. The City is currently contracted with Dietrich trucking to haul its debris to these facilities.	Follow City best practices for handling, storing, and disposing of O&M generated debris. Retain debris testing results per file retention standards	annually/ongoing	Debris is tested annually Dietrich trucking hauls to Wasco disposal facility Quantities disposed are reported per maintenance activity
Public Land Management (PLM A-E) **BMP Owner: Water Resources Division**				
Pollutants addressed	The BMPs within this section address both sediment control via soil stabilization restoration and also dissolved pollutants of concern via aiding infiltration, uptake, and evapotranspiration. These aid pollutant removal such as CO2 and sulfur compounds generated by vehicles and dissolving in water that can change pH. Pollutants of concern improved by infiltration include E.coli, mercury, copper and zinc. Some current use pesticides widely available for residential use such as glyphosate, dicamba, MCPP and 2,4-D readily dissolve in water and also benefit from landscape buffers and infiltration.			
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
A. Master Plan Update	In 2022, the City completed a City-wide Stormwater Master Plan that focused on pipe capacity limitations. The projects identified will become CIP expenditures over this permit cycle. It is unlikely that smaller basin Master Plans will be updated during this permit cycle.	Plan, design, and build CIPs.	annually/ongoing	Citywide stormwater master plan was completed and will be approved by City Council next fiscal year (22-23). FY 21-22 CIP work included: Local Roads Repair in conjunction with Transportation paving Deep Drywell Pilot 10th Dr Stormwater pipe repairs Fairview Creek Culvert repair CIP spent $1.38M as reflected in Table. 3.3. Due to staffing turnover, in part, the Stormwater CIP had $5.1M in carryover to FY 22-23, making it inflate to over $9M. However, Engineering is still not fully staffed and will likely see another year with fewer projects implemented than forecasted.

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

B. Water Quality Projects	Stormwater infiltration or treatment is a component of City funded projects are required by the Stormwater Manual. Occasionally, the City also conducts projects in partnership with private development and/or grant funding. This BMP reports retrofit projects.	Implement Stormwater Manual requirements.	annually/ongoing	See Table 3.2 for Mt. Hood Community College Campus retrofit description.
C. Integrated Pest Management	Limit the number of pesticides and fertilizers from city operations by implementing an Integrated Pest Management Plan to manage public land.	Update the Plan at least once during the permit cycle. At least biennially discuss land management strategies with staff. Applicators are licensed and complete licensure renewal schedule.	Update goal: FY23-24	Facilities contracts with Relay Resources to manage City Building Properties Transportation has 2 applicators Wastewater has no applicators Stormwater has 1 applicator Parks has 4 applicators Natural Resources has 2 applicators, but generally contracts these services See Table 3.5

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Public Land Management (PLM A-E) BMP Owner: Multiple (As included in the Activity Description)				
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
D. Urban Canopy Program	This BMP is supported by Parks Planning staff and coordinated with other departments as needed. Enhance the urban canopy relative to Parks properties and street trees to support the City's Climate Action Plan.	Code enforcement of tree removal violations Annual replacement of dead/dying street trees Urban Forestry Committee (public participation)	annually/ongoing	900 trees planted on Gresham Butte 100 trees planted in under treed areas of Rockwood, N Gresham, Centennial (400 total so far with EMSWCD, Mult Co, Friends of Trees support) 25 Tree violations, 2 fines were issued. Most violations are required to replace trees. Urban Forestry Committee led tree walks in 6 neighborhoods Staff tabled at National Night Out and I Heart Rockwood events
E. Natural Resource Program	The Water Resource Division's Natural Resource Program focuses on enhancing & preserving the health of public lands which are undeveloped (not Parks) totaling just over 800 acres, this includes implementing projects identified in the NR Master Plan and ongoing restoration, monitoring of flora and fauna health, and community engagement.	Implement NR CIPs Actively manage and restore on average ~100 acres/yr. Track volunteers and community organizations engaged.	annually/ongoing	See Table 3.3 for CIPs See Table 3.4 Stewardship Activities The City purchased almost 8 acres at the Fairview Creek Headwaters with Metro Bond funding
Pollution Prevention from City Activities (PPCA A-F) **BMP Owner: Multiple as described in each Activity Description**				
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

A. O&M for Public Roads, bridges: sweeping	The City's Transportation Division oversees street sweeping and winter road safety measures and manages some of the vegetated right of ways following the Integrated Pest Management Plan. For road maintenance, staff follow ODOT's Standard Operating Procedure for Road Maintenance to limit impacts to stormwater and buffers.	Prioritize sweeping of arterial roads Conduct 8-10 sweeps/yr.	annually/ongoing	9.5 residential sweeps 12 arterial sweeps 5,870 miles swept 5,118 cu yd of debris removed and disposed at Wasco landfill City sweeps included 627 hours City leafy street sweeps 402 hours 680 tons of debris collected Adaptive Management: the City created a new debris storage facility at the wastewater treatment plan location which creates efficiency for truck unloading locally and allows debris to decompose which reduces hauling volumes and costs. This site is managed so there are no impacts to the stormwater system.
B. O&M for Public Roads, bridges: deicing	The Transportation Division oversees the application of winter road safety chemicals follows the City's Winter Road Plan to minimize risk to the environment while achieving safe driving conditions. The Winter Road Operating Plan is available on the City's website GreshamOregon.gov Transportation page	Remove winter road traction materials, as soon as practical post storm	annually/ongoing	~16,650 gallons of Magnesium Chloride used for anti/deicing on priority roads 30 cyd of 1/4-10 sanding rock used Adaptive Management: City is currently planning to install a GPS system that will track vehicle miles and locations of materials, beyond the general system map which is available at GreshamOregon.gov The number of weather events is a new tracking metric that will be reported next year.
C. Limit Releases from Fire Training Activities	The Fire Department Training Center follows a procedure to implement storm drain protection during training activities that may result in runoff. The Stormwater staff support ongoing informational check-ins to update Fire on stormwater technology and research, as applicable.	Deploy storm drain protection techniques during training that cause runoff	annually/ongoing	Fire follows SOPs related to protecting the stormwater system. In FY 22-23, Stormwater purchased and installed Biochar filter media inserts for the drains at 4 fire stations and the training center to add additional pollutant removal capabilities.
D. Water Line Flushing	The Water Operations Division is responsible for minimizing impacts to the stormwater system by implementing an SOP for water line flushing, which involves using a dechlorination injector and applicable treatment chemicals. Staff deploy sweeping or drain protection to limit debris from entering the nearest stormdrains because of flushing.	Use of dechlorination	annually/ongoing	Staff conducted flushing at 32 locations releasing 532,008 gallons of dechlorinated water per the City's protocol

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

E. Limit Wastewater Pipe Seepage	The Wastewater Group is responsible for overseeing the system maintenance. This includes ongoing asset management with a CIP that repairs aging pipes that are more prone to seepage.	Implement wastewater pipe repairs as approved by the City budget.	annually/ongoing	Pipe replaced 10,825 lineal feet Laterals replaced 1,083 lineal feet Manhole grouting 249 units
Adjustment: Deleted BMP Maintain City Vehicles and City Hazardous Waste Management	These reporting elements were deleted because the City's programs related to maintaining the City's Fleet with qualified staffing mechanics and related disposal of hazardous waste (automotive oil, antifreeze, tires, oil filters) are handled by licensed haulers and contracted. Vehicles and fluids are worked on and stored indoors and have spill containment and spill kits for drips. These BMPs did not represent significant threats to stormwater and these records are available upon request.		This is the final year of reporting these metrics.	Quantities of hazardous materials disposed: Used oil filters: (2) 55 gallon drum of crushed filters (Thermo Fluids) Used oil: 954 gallons (Thermo Fluids) Used Antifreeze: 110 gallons (Thermo Fluids) Used Tires: 954 collected by Superior Tire Used batteries are returned to the vendor for recycling through the one for one core exchange system, to Battery Systems, Advance Auto Parts, and Auto Value, O'Reilly and Napa.

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Activity Name	Description	Measurable Goal	Timeframe	Reporting Metrics FY 21-22
Pollution Prevention from City Activities (PPCA A-F) **BMP Owner: Multiple Departments (O&M Yard Housekeeping overseen by Operations & Maintenance Department Managers)**				
F. Staff Training	DEQ requests to understand how staff are trained or continue ongoing training as needed to oversee and/or conduct the work of their program areas. The City of Gresham provides a variety of professional development and industry specific training opportunities for staff to ensure safe and effective delivery of programs and services for the public's benefit. This includes internal and external trainings, as well as new staff orientation of programs, policies, and procedures. In many cases, staff are trained on equipment and procedures by senior staff where specific professional trainings are not readily available, such as business inspections.	Document staff trainings in required program areas for permit compliance. Train new staff on all good housekeeping procedures, chemical storage, stormdrain protection procedures for outdoor work and management of the Operations yard within six months of hire.	annually/ongoing	Transportation: 22 staff trained on winter road maintenance materials and handling safety procedures Training of New staff on Housekeeping by Dept: Parks: 5 Transportation: 4 Stormwater: 4 Water: 2 Wastewater: 1 Pesticide Applicators maintain the CEUs to retain their licensure.
Public Reporting, Engagement, Outreach & Behavior Change (PREOB A-F) **BMP Owner: Multiple (As listed in each Activity Description)**				
A. Spills & Illicit Discharges & Public Reporting	Coordination and oversight for this BMP is conducted by the Stormwater Science & Policy group. The City typically receives information about spills or unusual discharges in the following ways: phone calls to City Hall or Operations Dept, Code Enforcement voicemail hotline, email, or the My Gresham App (~7,000 concerns per year reported across all departments). Staff on or off duty may also report observations. Calls to Police Non-Emergency line are connected to the On-call after hours O&M staff, as applicable. For concerns that constitute threats to human health, welfare, or the environment, staff must respond within 24 hours or as soon as possible upon becoming aware (if delayed because of voicemail, weekend report, etc.) For all other types or concerns, respond within 1-4 days (average 2).	Document spill and illicit discharge reports and investigations and outcomes in City's database.	annually/ongoing	24 Incidences reported, 12 were residential or traffic related incidents. 5 incidences resulted in no threat/nothing to resolve 5 incidences included educational instructions to the RP regarding future expectations 8 incidences were cleaned up by the City with no RP 9 incidents were taken care of by the RP or billed to the Responsible Party by the City for its cleanup work One incident was a wastewater upset due to root clogging that led to an overflow into Fairview Creek (reported to DEQ under the WWTP's NPDES permit). When watershed staff were notified, the creek was tested for ammonia and chlorine, but nothing was detected. Wastewater was reminded to notify the Spill Response email.

				Three incidences resulted in releases to the stream. The Operations staff uses booms to absorb pollutants from streams or stormwater facilities to the maximum extent practicable. 32 other concerns were reported thru MyGresham that were primarily concerns about street drainage or blockage of inlets addressed by Operations staff or concerns related to development that were taking care of by EPSC staff.
B. Litter/Hazardous Waste Control (Residents)	The City's Solid Waste & Sustainability Division offers special collections events that vary by type and quantity over the permit cycle. The Division also oversees residential garbage, recycling, and yard debris hauling and used oil is collected at curbside and reported to the City. Examples include bulky waste, Styrofoam, or hazardous materials. The program also support permitted events occurring related to recycling collection such as the Farmer's Market and City Festivals.	Document events offered and supported. Track residential used oil collected by haulers	annually/ongoing	The City held 4 bulky waste collections events at multifamily properties serving 13 properties, representing ~750 units. Two tons of recycling (metals and mattresses) were collected. City of Gresham's hosted Styrofoam and Shred event: 6.21 tons of papers shredded 80 yards of Styrofoam 49.5 tons of used oil was collected in the City's recycling program.
C. Business Outreach	The Solid Waste & Sustainability Division offers outreach to businesses and apartments with services that help reduce litter and illegal dumping (includes stormdrain marking) and increase the recycling of materials and composting of food waste. The City also collaborates with EcoBiz to offer technical assistance to the Automotive sector to implement more sustainable and environmentally protective actions. Staff also conduct direct outreach via fact sheets, posters, and direct mail to specific key sectors periodically.	Document businesses and apartments served.	annually/ongoing	See also Table 3.1 for outreach examples as follow up.

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

D. Schools and youth outreach	The Stormwater & Natural Resource programs do not have enough staff to offer formal (planned/ongoing) curriculum to classrooms. However, staff occasionally teach classrooms or lead field trips, support camps or events, etc. and also partner with local watershed councils to deliver some services to Gresham youth. Staff believe that exposing youth to natural systems, science, local water resources and wildlife has the potential to have a lasting impact on their perception of the importance of pollution reduction actions they can take within their lives.	Document staff and partner activities to deliver water protection, nature & wildlife education & experiences to youth.	annually/ongoing	See Table 3.1

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

Public Reporting, Engagement, Outreach & Behavior Change (PREOB A-F) **BMP Owner: Stormwater Science & Policy Group & City Communications Department**				
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
E. Regional adult outreach	Because outreach is very labor intensive and advertising is so financially expensive, the Stormwater Program's approach is to invest a large portion of the budget and effort to leverage dollars and staffing using collaborative approaches to deliver stormwater pollutant reduction and water protection messaging to adults. Examples include a $60K-$70Kannual Public Service Announcement campaign on television cost shared by 15+ agencies. Other campaign work includes the Metro area Regional Coalition for Clean Rivers and Streams, the Statewide Clean Rivers Coalition's "Follow the Water" and directed support of watershed council work to engage the public.	Educate key adult audiences as described in the E&O strategy with key pollutant reduction messages and positive actions they can take within their lives. Prioritize behavior change methods. Measure and evaluation, when possible.	annually/ongoing	See Table 3.1.
F. Public Involvement & Participation: City outreach	The City uses a variety of communication channels to reach its residents which includes notification of public comment opportunities for City Plans, Budgets, Rates, Capital Projects, Events, etc. Examples include its website, print and electronic newsletter, social media, earned media etc. Staff also conduct outreach via direct mail to specific key audiences periodically (e.g., dog waste, RV dumping letters).	Utilize City channels to deliver 3-5 messages to residents	annually/ongoing	Facebook: 13,000 followers Instagram 4,500 followers Twitter: 3,100 followers YouTube: 1,300 followers E-news (digital): 1,300 subscribers Gresham News (print): 51,000 homes and businesses quarterly Next Door: 26,566 See also Table 3.1
Control Impacts from Development and Business Activities (CIDBA A-F) **BMP Owner: Stormwater Science & Policy Group**				
A. Stormwater Management Manual (SWMM)	This manual contains the regulatory development thresholds that necessitate stormwater controls, the prioritization of green infrastructure, the design standards, plan review process, and long term maintenance requirements.	Review SWMM at least once within the permit cycle. Update, if necessary	Goal for review FY23-24	Minor updates made that became effective January 1, 2022. Staff plan to begin the process of major review and update to the SWMM in FY 22-23 which will coordinate with Public Works Standards review/update.
Adjustment to Stormwater Management Manual (SWMM)	In the previous SWMP, the City's manual was called the "Water Quality Manual" but it was updated to be comprehensive and thus, the name was changed. The previous SWMP also contained a BMP "Promote Low Impact Development" because the City's efforts to require low impact development (green infrastructure) was still new and developing. This BMP was removed from the updated SWMP because the SWMM has long since required green infrastructure and the City tracks and reports this as part of its program.			

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

B. Private Stormwater Facilities Tracking & Inspection	The Stormwater group ensures proper installation, planting, and GIS mapping of private stormwater facilities required by the SWMM. The types of facilities installed and the catchment areas that drain to them are recorded for future pollutant reduction modeling and also to ensure the long-term maintenance and function as required by Gresham Code. Private facility owners are recorded in the City's database and property owners are made aware of their ownership and maintenance requirements. The City has a Private Stormwater Facility Handbook which is available on its website and is utilized to support private maintenance technical assistance. Staff have inspected all private facilities and required maintenance, as needed, historically. In the past few years, staff have categorized and prioritized the private inspection program based on available staffing time and overall potential impact to the public stormwater system from the facility based on adaptive management feedback loops on how long a facility's lifecycle has been observed over time. Facilities that treat stormwater prior to draining to groundwater or that infiltrate and don't flow the to the City's public system are not part of the inspection program. Additionally, one Gresham neighborhood was built with on lot rain gardens with single family homes. These rain gardens are not inspected, but residents are given direct mail outreach on rain garden maintenance, at least once per permit cycle. Therefore, after the facility determination the criteria for inclusion is as follows: larger detention ponds are a higher priority (annual inspection) and other smaller facilities that have moderate potential for negative impacts will be inspected at least once every five years. _The current inventory is one larger private facility inspected annually (not including the 30 multiowner facilities already included in the City's public maintenance annual program) and 33 smaller ponds & smaller vegetated facilities and 60 proprietary device locations. Proprietary device owners must submit documentation that their devices are maintained or still clean every two years on a 50% inventory rotating basis.	Document and inspect new private stormwater facilities and associated treatment areas. Conduct QA/QC of GIS recording of these facilities at least once per year Inspect major structural controls Oversee proprietary device maintenance	annually/ongoing	Staff completed verification that 11 proprietary device locations were maintained in FY 20-21 and 28 locations were maintained during FY 21-22. During the next two fiscal years, staff will ensure the remaining 21 locations complete maintenance, if needed. 11 vegetated facilities were inspected and required no corrections. The City plans to conduct the remaining inspections during 2022-2026 and will summarize accordingly.
C. Erosion Prevention & Sediment Control (EPSC) Plan	The City's EPSC Manual was reviewed as part of the process for the updated SWMP. The Manual functions well for the EPSC Plan Review and Inspection Program needs. Staff attend industry specific trainings and stay attune to new technology developments that may provide additional program requirement updates or further the pollution reduction efficacy.	Review EPSC Manual at least once within the permit cycle. Update, if necessary	Goal for review FY 25-26	No updates to the EPSC manual.

D. EPSC Inspection Program & New (Post Construction) Stormwater Facility Inspections	Stormwater Science & Policy staff coordinate with the City's Permit & Business Licensing Department staff for this BMP. Ensure development permitted within the City obtains a DEQ's 1200-C permit, when applicable and apply the City's EPSC Manual requirements to sites to ensure sediment laden runoff is not entering the City's stormwater system or waterways. The EPSC manual is provided to contractors during the permitting process. Contractors provide information to the City about which EPSC bmps will be utilized and the specific site locations for BMPs, as required. This information is available at all times to Public Works Inspectors and the Stormwater Science & Policy oversight group via a digital software permit system. At construction project final, staff inspect the site to ensure that all vegetated facilities are properly planted or hydroseeded, per SWMM requirements. Sites are checked to ensure underground facilities do not contain construction sediment and that bare soil is covered before protective storm drain filters can be removed.	Conduct active site inspections and QA/QC oversight as described in the SOP. Ensure large sites obtain a DEQ 1200-C permit Assist DEQ with inspections if requested	annually/ongoing	9 active commercial construction projects 368 single family active sites 7 grading sites 2 multifamily sites Each site received 3 inspections per city protocol 15% were out of compliance (57) sites needed corrections for perimeter control, covering exposed soil, covering stockpiles, improving construction entrances and sweeping streets 77 acres of disturbed land 43 acres of impervious are treated by stormwater facilities See Table 3.6 for facilities installed and inspected. A wet weather notice is provided at active fall construction sites as a reminder to prepare their site for fall rains. See Appendix A.
Control Impacts from Development and Business Activities (CIDBA A-F) BMP Owner: Stormwater Science & Policy Group				
Activity Name	**Description**	**Measurable Goal**	**Timeframe**	**Reporting Metrics FY 21-22**
E. Business Screening & Inspection Program	Implement the Business Inspection Program to address sectors that have high potential to contribute to stormwater pollution in runoff from their site. This program also includes the implementation of the Wellfield Protection Program and the Wastewater Fats, Oils, Grease (FOG) program. The City's Business Inspection program focuses on businesses with hazardous waste, manufacturing, outdoor storage that can cause stormwater pollution. Issue Notice of Violation if time frames for corrections are not met and enforce as needed to gain compliance.	Conduct routine and follow up inspections as described in the SOP, typically projected to be 100-200/year Conduct screen of City's businesses for DEQ 1200Z permit evaluation, based upon industry types included by that permit Review the City's new business list to determine additions to the program	Screen all businesses for potential 1200-Z permit referral at least annually Screen new businesses at least quarterly	210 businesses were inspected based on the Wellfield (Indus/Manuf), Automotive and Food Service criteria. See Table 3.7. (includes a list of Gresham's 1200Z permitted businesses). 9 were inspections of new businesses that were determined to not need future inspections 65% of businesses were in compliance 116 additional inspections were conducted to ensure requirements were met. 6 Businesses received Notices of Violations. 4 came into compliance. Two enforcements were started and crossed the fiscal year end and will be reported next year. List of potential 1200Z permits was sent to DEQ. See Table 3.8. 34 new or discovered businesses were added to the Inspection database

Table 3.2 City of Gresham Stormwater Management Program Summary (2022-2026)

F. Private Storm Drain Maintenance Program	The City created and has managed and reported efforts related to this program since 2004. Drain cleaning is an effective way to control stormwater pollution. Originally, it was strictly a voluntary outreach program called the Stormdrain Cleaning Assistance Program (SCAP), which resulted in cleaning 200-400 drains per year. During the last permit cycle, the Water Science staff began a focused effort with summer interns to update the City's private storm drain inventory in the GIS system. Drain conditions and levels of sediment were also recorded. This effort led to staff launching a mandatory drain cleaning notice for the drains full of debris as noted by the interns. This effort will continue during this permit cycle. Due to limited staffing levels related to this effort, staff will methodically select small portions of the city each year to request drain cleaning compliance documentation, in addition to continuing the SCAP program, which functions to lower the cost for cleaning to affordable rates for small businesses to participate.	Implement the SCAP program Select additive portions of the City's business areas to request drain cleaning documentation.	Offer SCAP annually Document drain cleaning for 10-20 non-SCAP participating businesses annually	393 businesses participated in SCAP 2131 drains cleaned Vendor disposed of 136,000 lbs of debris See Appendix A for Outreach example. Beginning FY 22-23, staff will begin non-SCAP participant business drain cleaning documentation for 10 to 20 sites.
Added BMP Private Storm Drain Maintenance Program	The City Stormwater staff created and implemented this program in about 2004. It is a voluntary participation program that has been highly successful and has been adopted by many other Oregon and WA municipalities. In addition to private drains being added to GIS, 80-90% were marked with "Dump No Waste" stickers to increase the chances of janitorial and business cleaning staff from dumping liquids "out the back door." This BMP was added to make this effort to reach and require businesses to clean their drains once per year or produce evidence that the drain(s) do not require cleaning, regardless of whether they participate in the SCAP program. We wanted to formalize and document this program.			
G. Retrofit/Hydromodification Assessment Update	City will provide an assessment of how the reports previously provided have been considered, updated, or implemented, remaining gaps of knowledge, if applicable, new goals, tools, priorities for future improvement.	Provide DEQ an assessment with outcomes related to the creation of the original reports.	Third year of the permit term (FY 22-23)	Submit report as future Appendix to Annual Report.

Table 3-3 Examples of City of Gresham Watershed/Natural Resource Program Projects with Water Quality Benefits

Project Name/Watershed	Watershed	Project Status	Stormwater Mitigation Measures/Area Treated	Funding Mechanism
The City's Capital Projects Plan is located at: https://greshamoregon.gov/Capital-Improvement-Program/				
McKinley Trunk Line Project	Kelley Creek	Construction was completed in Fall 2019. Site is in year 3 of 5 for vegetation management that includes wetland restoration, streamside riparian buffer shade enhancement, and forest revegetation.	Reduces possibility of overflow discharge of sewage to Jenne Creek headwater wetland and associated stream.	Wastewater CIP
Kane Road Culvert Repair	Kelly Creek	Construction was completed in Fall 2018. Site is in year 4 of 5 for vegetation management targeting stream side shading of the riparian buffer.	Replaced road and 12' wide non-fish passable culvert with a 34' wide fish passable culvert and natural stream bed. Introduced treatment to .86 acres of previously untreated arterial roadway surface.	Watershed CIP fund and FHWA emergency grant
Palmquist Road Culvert Repair	Burlingame Creek	Construction was completed in Fall 2020. Site is in year 2 of 5 for vegetation management targeting stream side shading of the riparian buffer.	Replaced road and 4' wide non-fish passable culvert with a 12' wide fish passable culvert and natural stream bed and stormwater facility. Introduced treatment to .35 acres of previously untreated arterial roadway surface.	Watershed CIP fund and FHWA emergency grant

Mt. Hood Community College Salmon Safe Campus	Kelly Creek	Designed and bid. Construction of rain gardens to be completed during the next reporting year. Additional projects have been identified to pursue over a five-year period.	The MHCC "Salmon Safe Campus" project began in 2017. A significant partner includes East Multnomah Soil & Water Conservation District who provides $150K in funding annually. Designs were developed and bid documents were prepared for structural soil & tree trench retrofits to be placed in 4 parking lots. A contractor was selected but unable to get the work conducted prior to the start of the school year, so this project is slated to be constructed next year. There are still numerous opportunities on site and this effort is planned to continue in the future as long as partners are able to support the effort.	Watershed Operating Fund
Wetland Restoration	Burlingame Creek	Restoration of a 2 acre wetland/stormwater detention facility. Work includes the removal of invasives and replanting of native plants to enhance the wetland and amphibian population.	The City partnered with Wetland Conservancy who received a EMSWCD grant and matching funds from the City to improve water quality and habitat function by the reduction of invasive plants and installation of native plants.	Natural Resource matching funds to the Wetland Conservancy EMSWCD grant
Riparian and Upland planting	Fairview Creek, Johnson Creek, Kelly Creek, Butler Creek.	Restoration is occurring along Johnson Creek main stem (5 sites), Jenne Creek (1 site), Kelly Creek (1 site), Butler Creek (1 site), and Fairview Creek (2 sites). Each of these sites are under active management for invasive species control and vegetation enhancement. A subset of these sites will be selected for additional native plantings including Johnson Creek (5 sites), Jenne Creek (1 site), and Kelly Creek (2 sites).	Water quality, stream shade, invasive control, forest health, stream function, wetland function, and habitat improvements.	Natural Resources Operating Funds
Forest Restoration	Johnson Creek Basin	Restoration using the City Tree Fund. To facilitate forest stand succession, the City planted 4 sites on Gresham Butte - over 80 acres with a total of 12,000 trees.	Help out headwater stream conditions and butte slope stability.	Tree Fund generated by City approved Development.

Invasive Weed Survey & Control	All	Active, ongoing invasive control. EDRR weeds are addressed as they are reported, anywhere in the city. Routine riparian weed treatment areas are detailed in Table 3.4. Where manual methods aren't used, only licensed herbicide applicators are used for chemical treatment.	Spot treatment for controlling aggressive invasives that lead to bank failures, including Japanese knotweed, Himalayan blackberry, purple loosestrife, and yellow flag iris.	Natural Resources Operating Funds
In-stream and near-stream slope stabilization projects	Johnson and Kelly Watersheds	Within the Johnson Creek Watershed, staff efforts were focused on (1) Investigations and Legal Response to 400 cubic yards of illegal filled placed in proximity to Chastain Creek (a 1st order tributary to Johnson Creek). (2) Emergency stabilization at Club Paesano on Johnson Creek. A large cedar tree fell during December high water event and caused bank failure to within 2' of a major wastewater main, necessitating extensive negotiations with the private landowner and Wastewater Engineering. Planning and negotiation started in this permit year will continue with Phase I construction in Fall 2023 to deactivate the live wastewater line along 1340' of Johnson Creek mainstem, with Phase II removal of the old infrastructure and major bank recontouring and floodplain enhancement in Summer 2024. This project removes over 1/2 mile of hard infrastructure near Johnson Creek and improves bank stability and stream function. (3) Emergency repair on West Fork Hogan Creek (trib to Johnson Creek) with 80' culvert collapse and replacement within steep canyon area. Kelly Watershed. (1) Initial investigation/response to significant landslide at Kelly Creek in June 2022. Implementation of emergency stabilization along stream meander on public and private properties will be reported in 2023 Annual Report	Water quality, riparian function, erosion control/preventing hydromodification	Watershed CIP funding for Chastain Creek investigations, SE 23rd culvert replacement, and Kelly Creek landslide response. Wastewater CIP funding for Emergency stabilization at Club Paesano
Local Roads Repair	All	The Transportation Division has embarked upon a deferred street maintenance repair project that will last several years. In response planning, utilities are collaborating to ensure pipes are inspected and repaired, if needed, prior to repaving work. 291 lineal feet of pipe replaced 4,572 lineal feet of pipe cured in place 10 stormdrains replaced	Priority is given to repairs having the highest likelihood of failure on a ten year projection based on NASSCO PACP standards. No illicit connections were found.	Stormwater CIP funding
Land Acquisition	Fairview Creek	3.5 acres of wetland and 4 acres of mature forest resources purchased to prevent proposed subdivision development within the Fairview Creek Headwaters complex	Water quality, wetland function	Gresham local share allocation from Metro 2019 natural areas bond

Table 3-4: Restoration Activities & Stewardship Opportunities

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Willamette River Basin									
SW 14th/Gresham Woods Site	Johnson Creek	NRMP - JC04	Professional crew	0	41	0.5	5,728	600	SW 14th Unit 1 (3 acres on south bank of Johnson Creek) - Site is in 2nd year of restoration. 3 acres treated for invasives and 1 acre next to Johnson Creek planted. Gresham Woods (38 acres on north bank over 3 parcels) - In its 1st year of restoration. 6 acre stand enhancement of previously planted forested areas to improve plant spacing and growth. Treated all 38 acres of stand enhancement for invasive weeds, including holly, English hawthorn, non-native cherry, reed canarygrass, and Himalayan blackberry. All work completed by contractors.
SW 14th Street SE (Johnson Creek)	Johnson Creek	NRMP - JC04	JCWC	0	2	2.0	415	200	JCWC in partnership with City of Gresham continued the previous work of FOTs on this site. They used a grant from EMSWCD and a City match to complete the work on the site (Year 3 of 3). Planting of the site was completed on 2.0 acres. Intensive weed management focused on reed canary grass, Himalayan blackberry, and yellow-flag iris. Last year of work on this site.
Ochioto Site	Johnson Creek	CIP 913900; NRMP - JC14/15	Professional crew	0	12	5.5	1,720	4,500	8th year on site. Multiple units within the area are under active restoration over different periods of time (1-10 years of restoration activities). Large red alder die off resulted in loss of 4 acres in forest canopy between 2015-2019. Ochioto Unit 1 - This unit is on south bank of Johnson Creek. It is in year 6 of restoration. Site was planted this last fall with 2500 shrubs and trees. Spot spraying of invasives occurs throughout the unit. All work completed by contractors. Ochioto Unit 2 - This unit is on south bank of Johnson Creek. It is in year 4 of restoration. Site was planted this past winter with 1000 shrubs and trees and live stakes. Spot spraying of invasives occurs throughout the unit. All work completed by contractors. Ochioto Unit 3 - This unit is on north bank of Johnson Creek. It is in year 2 of restoration. Site was planted this past winter with 1000 shrubs, trees, and live stakes. Spot spraying of invasives occurs throughout the unit. All work completed by contractors.

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Wisteria Site at Dowsett Lane	Johnson Creek	CIP 913400; NRMP JC12/13	Professional crew	0	1	0.0	370	0	5th year restoration site along Johnson Creek. Site was previously a wisteria and Himalayan blackberry monoculture. Maintenance spraying of invasives is ongoing.
7th Street Bridge Site	Johnson Creek	CIP 913200; NRMP JC08/JC09	JCWC, other community volunteers	48	13	9.4	2,095	4,000	7th Street Unit 1 (4 acres) - 4th year restoration site east of 7th Street bridge on south side of Johnson Creek. Site work included maintenance spraying and planting. Site was also planted with volunteers as part of WW with JCWC. 7th Street Unit 2 (3 acres) - 3rd year restoration site west of 7th Street bridge on south side of Johnson Creek. Work on site included Maintenace spraying and planting of bare root and live stake trees and shrubs. 7th Street Unit 3 (3 acres) - 2nd year restoration site west of 7th Street bridge on north side of Johnson Creek. Work on site included Maintenace spraying and planting of bare root and live stake trees and shrubs. 7th Street Unit 4 (3 acres) -1st year restoration site west of 7th Street bridge in north side of Johnson Creek. Work on site included Maintenace spraying and Himalayan blackberry cutting. No planting.
7th Street Bridge SW (Johnson Creek)	Johnson Creek	CIP 913200; NRMP JC08/JC09	JCWC	0	3	0.0	1,152	0	JCWC in partnership with City of Gresham started work on this site. They used a grant from EPA and a City match (10K) to complete the work on the site (year 1).Work consisted of Himalayan blackberry and holly removal and maintenance spraying of those species.

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Main City Park Site	Johnson Creek	CIP 9JC009; NRMP JC09	JCWC, Other community volunteers, and Play, Grow, Learn	115	3	3.0	1,155	1,500	Work at Main City Park has been completed with a combination of volunteer support and contractor led work. Site is divided into 3 units. Main City Unit 1 - In 3rd year of restoration. This unit is on the south side of Johnson Creek. Work this past year consisted of bare root planting and live staking by volunteers during Watershed Wide (JCWC event). Mulching completed of all plants by volunteers from JCWC. Spot spraying for invasives being completed by contractor. Main City Unit 2 - Located on the north bank of Johnson creek in the area of Tsuru Island. Work this past year consisted of volunteer led planting of live stakes of willow, and wetland herbaceous plants. Site was used for Watershed Wide with JCWC. Main City Unit 3 - 1st year of restoration,. Site was cleared of blackberry and herbicide treatment were performed over the past year. All work completed by a contractor.
Miller Creek Site	Miller Creek (Tributary to Johnson Creek)	NRMP - MIL01	Private Contractor	0	5	5.0	1,005	0	Miller Creek restorationism in final year of restoration. Work completed this year consisted of maintenance spraying. No plantings were completed.
McKinley Trunk Project Site; Jenne Creek headwaters	Jenne Creek (Tributary to Kelley Creek)	CIP PVJE01; NRMP - JE01	Professional crew	0	12	4.0	1,170	1,850	Two different units of restoration. Greater Jenne Creek headwater under active weed management after 5 years of planting activities. Site underwent infrastructure development in 2019-2020 with a wastewater pipeline being installed within the area. In 4 year of 5 year restoration plan. Planted in Winter 2021 with replacement plants. Site planting and herbicide treatments done by a contractor.

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Brookside Development Site	Kelley Creek (Tributary of Johnson Creek)	CIP KCHKE07; NRMP - KE07	Professional crew	0	8	8.0	1,150	5,675	Site contains 2 units of active restoration. Brookside Unit 1 (3.5 acres) - This is the 5th (and final) year of work at this location, which includes invasive species control and native plantings. Weed treatment focuses on Canada thistle, scotch broom, Himalayan blackberry, and other weedy species. Native plantings included a mix of shrubs and trees. Site herbicide treatments and plantings completed by a contractor. Brookside Unit 2 (4.5 acres) - 1st year restoration included removal of blackberry and follow up treatments and native plantings of shrubs and trees and live stakes. All work done by a contractor.
Jenne Butte (Johnson Creek)	Johnson Creek	NRMP - JC01	Professional crew	0	31	0.0	0	0	Control of garlic mustard on Jenne Butte. Year 1 of intensive hand pulling in infested areas occurred in 2021-2022.
Gresham/Gabbert Butte	Non-named ephemeral drainages/ unnamed creeks (Tributaries to Johnson Creek)	NRMP - CH05, CH03, GB-01	Professional crew	0	8	7.5	1,436	2,500	Using funds provided by the City tree fund a large scale understory planting and invasive species control on Saddle Trail that lies between Gresham and Gabbert Butte. This is year 1 of restoration. Area was infested with blackberry. This blackberry was cut and treated with herbicide. Site was planted with 2500 trees.
Hogan Butte Nature Park	Johnson Creek	NRMP - HO05, WFHO02	Professional crew	0	8	0.0	0	0	Ongoing restoration consist of local spot spraying of invasives.
Columbia Slough Basin									

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Columbia Slough Water Quality Facility	Columbia Slough	NRMP - CS08	Professional crew	0	15	0.0	155	0	Site maintenance is ongoing on invasive weeds. Invasive weed control in facility will help water quality treatment and overall site conditions.
Columbia Slough Wastewater Parcel	Columbia Slough	NRMP - CS06	Professional crew, CSWC, PGE Project Zero Interns	20	19	0.5	1,090	100	Site maintenance is ongoing on invasive weeds to reduce mowing requirements and increase habitat complexity next to the slough. The area is divided into 2 units. Columbia Slough Unit 1 - Site is in 2nd year of restoration. Site is on south bank of Columbia Slough. Area was treated with herbicide and planted with 100 live stakes within 25 feet of Columbia Slough channel by PGE interns/volunteers. Area is being prepared for extensive planting in winter 2022. Columbia Slough unit 2 - 1st year restoration. Work consisted of cutting a monoculture of blackberry and treating it. Ongoing site spot spraying occurred this past year for multiple species.
Fairview Creek Water quality Facility	Fairview Creek	NRMP - FC05	Professional crew	0	9	0.0	0	0	Site maintenance is ongoing on invasive weeds. Invasive weed control in facility will help water quality treatment and overall site conditions.
Fairview Creek Wetland Mitigation on Birdsdale/202nd	Fairview Creek	NRMP - FC05	Professional crew	0	9	0.0	1,470	0	Site maintenance of invasive weeds on a compensatory wetland mitigation site. Species sprayed for include reed canarygrass, Himalayan blackberry, Japanese knotweed, ivy, thistle species, teasel, and poison hemlock.

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Fairview Creek Headwater Wetlands	Fairview Creek	CIP 9FC006; NRMP FC06	Professional crew	450	8	1.0	735	750	Ongoing restoration site for reed canary grass and blackberry control and restoration of headwater wetlands. Restoration maintenance following a $750K floodplain wetland improvement project has been going since 2006. Site work consists of spreading mulch and live staking (1500 willow/dogwood/black cottonwood) through it to reduce reed canary grass growth. Herbicide applied in small areas to control reed canarygrass and Himalayan blackberry. Spot spraying of an area called the turtle moat to promote nesting of Western painted turtle. Large portion of work is done with partnership with Reynold's Learning Academy which provides a work program for high school students. Work they did included mulching, planting of live stakes, cutting blackberry and reed canarygrass, and placement of tree protection.
Sandy River Basin									
Ironwood/Salquist Site	Kelly Creek	NRMP - KC15	Professional crew	0	8	2	1,825	900	Ongoing restoration site that has expanded into 2 units. Salquist/Ironwood Unit 1 - 2nd year of restoration. It is south of Ironwood Road. Work this past year consisted of spot spraying of invasive weeds and planting of bare root plant stock. Salquist/Ironwood Unit 2 - 1st year of restoration consisted of blackberry removal and spot spraying of these huge clearings.
Kane Road Site	Kelly Creek	NRMP - KC01	Professional crew	0	2	2	640	650	Restoration activity at this location resulted from a CIP transportation/stormwater project to completed the repair & restoration from an emergency road washout in 2015. Site is in its 5th and final year of restoration. Site was planted with shrubs and trees and live stakes. Invasive weeds included reed canary grass, Himalayan blackberry, English ivy, and Scotch broom. Site planting and herbicide treatment completed by contractor.

Project Site	Creek Name	NRMP Reach	Project Partners	Volun-teer Hours	Invasive Removal Acreage	Planting Acreage	Linear Stream (feet)	Plants Installed	Notes
Palmquist Culvert Site	Burlingame Creek	NRMP-BUR04	Professional crew	0	1	1	685	975	Restoration activity at this location resulted from a CIP transportation/stormwater project to replace existing culvert in 2020. Site is in its 2nd year of restoration. Site was planted with shrubs and trees and live stakes. Invasive weeds included reed canary grass, Himalayan blackberry, English ivy, and Scotch broom. Site planting and herbicide treatment completed by contractor.
Kelly Creek Water Quality Facility	Kelly Creek	NRMP - KC12	Professional crew	0	9	0	750	0	Site maintenance is ongoing on invasive weeds. Invasive weed control in facility will help water quality treatment and overall site conditions.
Gresham Meadowlands Wetland Preserve	Burlingame Creek	adjacent to NRMP-BUR04	The Wetland Conservancy Wisdom of the Elders, Professional crew	0	2	2	0	1,625	Site done in partnership with The Wetland Conservancy to restore wetland area. 3rd year of restoration at this location. Site planted winter 2021 with a mixture of upland and wetland plants. Intensive invasive weed removal and spraying this past year was completed by the City for reed canarygrass and Himalayan blackberry.
Total				**633**	**225**	**52.4**	**24,746**	**25,825**	

CIP =	Capital Improvement Program	**FOT=**	**Friends of Trees**
CSWC =	Columbia Slough Watershed Council	JCWC=	Johnson Creek Watershed Council
EMSWCD =	East Multnomah Soil & Water Conservation District	**All spraying was completed by a hired (licensed) City contractor and not included in volunteer hours.	

Table 3-5 City of Gresham Integrated Pest Management Program Pesticide/Fertilizer Applications

Department	Product Utilized	Quantity
Facilities Maintenance		
	Ranger Pro (isopropylamine salt of glyphosate)	137 oz.
	Spray-Rite (water safe adjuvant)	9 oz.
	Spray-Wet	55 oz.
	Weed Zap	286 oz.
	Scythe	40 oz.
	Crew	170 lbs.
	Tzone	5 oz.
Transportation	Gallery (isoxaben)	67 oz.*
	Dimension	42.5 oz*
Wastewater	none	NA
Watershed	Rodeo	257 oz.
	Bronc Max -adjuvant (ammonium sulfate, citric acid)	10 oz.
	Agridex -surfactant (petroleum distillates/hydrotreated light paraffinic	40 oz.
	Element 3A (triclopyr)	32 oz.
Natural Resource Program	Polaris (Imazapyr)	160 oz.
	Copperhead Herbicide Shells (injection, Impazapyr (83%))	492 shells (3.7 oz)
	Capstone (Aminopyralid and Triclopyr [Triethylamine salt])	360 oz.
	Aquaneat (Glyphosate [isopropylamine salt] [aquatic])	116 oz.
	Transline (Clopyralid [monoethanolamine salt])	1 oz.
	Rodeo (Glyphosate [isopropylamine salt])	689.3 oz.
	RoundUp (Glyphosate [isopropylamine salt])	299 oz.
	Imitator Aqautic (Glyphosate [isopropylamine salt])	139.2 oz.
	Milestone (Aminopyralid)	16.5 oz.
	Element 3A (Triclopyr [triethylamine salt])	336 oz.
	Garlin 3A (Triclopyr [triethylamine salt])	134.1 oz.
	Vastlan (Triclopyr [choline salt])	2629.6 oz.
Water	Roundup pro (isopropylamine salt of glyphosate and ethoxylated tallowamine)	324 oz.
	Crossbow (2,4-D/Triclopyr, Kerosene)	76 oz.
	SureGuard (flumioxazin)	39 oz.
Parks	Roundup (glyphosate)	154 oz.
	Crossbow (2,4-D/Triclopyr, Kerosene)	110 oz.
	Casoron (dichlobenil)	76 lbs.
	Weed and Feed (glyphosate and 2,4-D)	850 lbs.
	St. Paul Fertilizer (23-0-6) w. Surge Herbicide (sulfentrazone, 2,4-D, MCPP, Dicamba)	700 lbs.
	*applied in FY 20-21 and not previously reported	
	liquid totals	**6,568 oz (51 gallons)**
		(wo adjuvants or dye)
	dry totals	**1020 lbs**

Table 3-6: Total New and Redevelopment Acreage

Project Name	Land Use Type	Development Type	Location	WQ Treatment	Owner-ship*	System	Project Size/Area Treated (acres)	Construc-tion Distur-bance (acres)	Percent Impervious
Albertina Kerr Workforce Housing	Corridor Multi-Family	Multi-family residential	930 NE 162nd Ave	Infiltration Swale, Rain Garden	Public and Private	Columbia Slough	3.37	3.97	85%
Bella Vista Housing	Corridor Mixed Use	Multi-family residential	2027 W Powell Blvd	Stormwater Planters	Public and Private	Fairview Creek	2.7	4.64	58%
Burnside Boardwalk Apt	Station Centers	Multi-family residential	16111 E Burnside St	Infiltration Swale	Private	Columbia Slough	0.29	0.5	58%
Charlotte Point Subdivision	Low Density Residential	Single Family Residential	3838 SW Rodlun Road	Stormwater Planters, Bioswale	Public	Johnson Creek	0.95	3.6	26%
Dept of Health & Human Services	Corridor Mixed Use	Commercial	635 SE 223rd Ave	Infiltration Swales, Pervious asphalt	Private	Fairview Creek	3.67	4.9	75%
Rockwood 10 Buildings	Rockwood Town Center	Multi-family residential	783 SE 185th Ave	Stormwater Planters, Pervious Pavers, and Drywells	Public and Private	Columbia Slough	4.98	6.7	74%
Rockwood Rising	Rockwood Town Center	High density residential & commercial uses	18613 SE Stark St	Water quality manholes, StormFilter cartridges, Drywells	Private	Columbia Slough	4.43	5.15	86%
Skyliner Subdivision Phase 1&2	Low Density Residential	Single Family Residential	SE 282nd Ave & SE Chase Road	Extended Wet Stormwater Pond	Public	Kelly Creek	11.18	18.78	60%
Stark Street Industrial Complex	General Industrial	Commercial	21558 SE Stark St	Infiltration Basins	Private	Fairview Creek	1.88	2.5	75%
Sunset Village Subdivision Phase 1	Low Density Residential	Single Family Residential	SE 190th Drive & SE Richey Road	Stormwater Planters, Stormwater Wet Pond	Public	Johnson Creek	13.75	26	53%
Twelve Mile Crossing Apartments	Corridor Mixed Use	Multi-family residential	SE Stark St & SE 217th Ave	Rain gardens, grassy swale, stormwater tree wells	Public and Private	Fairview Creek	1.98	3.33	59%
Total Disturbed Acreage								**76.74**	

*Public ownership is City of Gresham only. Private refers to all projects owned by entities other than City of Gresham.

Table 3.7 List of Businesses Inspected by Type		
Automotive Businesses	**Industrial/Manufacturing**	**Food Service Businesses**
181st Convenience Inc.	Albertsons Distribution Center #8252	7 Eleven Store #2352-23007E
181ST SHELL GAS CORPORATION	Blue Lake Park	7 Eleven Store #2353-16619D
76 of Gresham	Boeing of Portland	7 Eleven Store #2353-17033C
76 Station	CAG LOG - Colorcentric Corp - FUJI Film	7 Eleven Store #2353-21907D
A & B Auto Company	Cal Portland	7 Eleven Store #2353-25364C
A & G Auto Sales	Cameo Cleaners	7 Eleven Store #35340A
A & M Auto Care	Capsa Healthcare	7 Market
A to Z Auto Wrecking	Cascade Corporation	Baja Fresh Mexican Grill
Abra Auto Body Repair of America	Denton Plastics Inc	Black Rock Coffee
ACT GAS, LLC	Distribution International	Black Rock Coffee Bar
Alignment 50	EQUIPMENTSHARE	Cafe Delirium
American Honda Motor Co Inc.	EXEL, INC DHL SUPPLY CHAIN	Caffeinated Culture
AMERICA'S TIRE CO	Formation Inc	Caffeinated Culture Coffee Co
AQ Specialty Automotive	Frito Lay Sales LP	Cash & Carry Smart Food Srvc
Auto Bliss Detail	Graphic Packaging Int'l Inc	Cold Stone Creamery #313
Auto FX	HAWTHORN HYDROPONICS, LLC	Dairy Queen
Auto Plus Auto Parts	Heritage Crystal Clean	Deli Barn
Auto Resource	Ideal Steel Inc	Dill's Coffee Shop
AUTOMANIACS	Image Graphics Pressworks	Dotty's #013
BETSILL HOLDINGS, CO	Imperial Brown Manufacturing	Dotty's #18
BRAKE & MUFFLER CUSTOM LLC	International Paper Company	Dotty's #23
BRENT'S SMALL ENGINE REPAIR	Jacksons Food Stores #509	Dotty's #32
Bridgestone Firestone	Key Mechanical Co	Dotty's #38
Calidad Auto Repair	Lineage Logistics	Dotty's Deli #002
Catra Auto Repair	Lineage Logistics 2	Dutch Bros #DB141
Chevron Food Mart	McDonald and Wetle Inc	Everyday Deals Wholesale
Chevron Service Station	Microchip Technology Inc	Gresham Grocery Outlet
COMMERCIAL TIRES & WHEELS,LLC	Gresham Wastewater Treatment Plant	Halsey Market
Competition Paint, LLC.	Organically Grown Company	Hilton's Haven
COST LESS AUTO SALES, LLC	PACKAGING CORPORATION OF AMERI	Hogan Market
Craig Diehm	PacWest Machinery	Holiday Moka
Dayspring Auto & Trailers	PAK WEST PAPER & PACKAGING	In & Out Market
Don's Machine Shop	Peloton Interactive, Inc	Irish Bros Coffee
Eastco Automotive Machine	Performance Food Group Inc	Jazzy Bagel
ELITE COLLISION LLC	Portland Specialty Baking	Joy Poke Bar
Enterprise Rent A Car	Prink Technologies	Kc's Smoke And Vape
Enterprise Rent A Car 2	Raymond Handling Concepts Corp	Lighthouse Deli
Epic Auto Detailing	Spicers Paper Inc	Maddys
Fairview Chevron	Staples Contract & Commercial	Mr. J's Deli Mart
Fast and Speedy Towing	Stark Street Market	Panda Express
First Student	Teeny Foods	Panera Bread #2158
Fix 4 Less Auto Repair	Valin Corporation	Plaid Pantry #132
Fix Auto Express Gresham		Plaid Pantry #145
Full Send Motors		Plaid Pantry #163
Gilbert's Tire Pros		Plaid Pantry #231

Automotive Businesses	Industrial/Manufacturing	Food Service Businesses
Gresham Auto Wrecking		Plaid Pantry #80
Gresham Automotive Services LLC		Red Robin Restaurant
Gresham B & P Auto		Serrano's Market
Gresham City Motors LLC		Sidekicks
Gresham Meineke Car Care Center		Sidekicks Deli
Gresham Powersports LLC		Starbucks Coffee #10291
Hertz Auto Sales		Starbucks Coffee #3405
HK Motorsports		Starbucks Coffee #483
HOMEWOOD COIN LAUNDRY		
Honest 1 Auto Care		
Jerry's Custom Paint		
John Deere Parts Distribution		
JORDAN DAY		
Jubitz Corporation		
Kadel's Auto Body II LLC		
Leathers Oil Maintenance Facility		
LED Performance		
Lewis Automotive Inc	List of 1200Z Permitted Businesses within Gresham Bolded if Inspected by DEQ or Gresham	
Lomeli Auto Repair Inc	**Arnprior Aerospace**	Enforcement started by DEQ
LowStyleAutoLLC	**Portland Specialty Baking**	
Mackin's Gresham	**Albertsons Distribution Center #8252**	
Mago's Auto Sales LLC	**Denton Plastics Inc**	
Marc Nelson Oil Products	Pella Vinyl Northwest Inc.	
Midas Muffler Shop	**McDonald and Wetle Inc**	
Milton Guerrero Diaz	Owens Corning Foam Insulation LLC	
Moen Machinery Co	**Cascade Corporation**	
Moe's Automotive LLC	**The Boeing Company**	
Mountain View Auto Body	**Rolling Frito Lay**	
NAPA Auto Parts	International Paper Company	
Network Autobody	Northwest Retreaders	
Nissan of Salem	**First Student Inc.**	
Nolan's Tire Service	Mutual Materials Co.	
Nova Auto Care	**Teeny Foods**	
OMG Motorsports	Pioneer Sheet Metal	
One Fine Mechanic	Trimet Maintenance Facility	
One of a Kind LLC	**Gresham Wastewater Treatment Plant**	
Oregon Auto Imports		
O'Reilly Auto Parts #2514	*Shamrock Foods	Determined to have UICs/No 1200Z required
O'Reilly Auto Parts #3542	*On Semiconductor	Issued a No Exposure Certification
Pacific Japanese Engine		
Pape Machinery Inc		
Portland Food Mart LLC.		

Table 3.8 List of Potential 1200Z Permit Businesses Referred to DEQ

Business Name	
NEW SCHRYVER, LLC	EQUIPMENTSHARE
MOBILEXUSA	WRIGHT BUSINESS FORMS
BACKFLOW MANAGEMENT INC	PENSKE TRUCK LEASING CO LP
MOONSTRUCK CHOCOLATE CO	LINEAGE LOGISTICS HCS, LLC
MEDCURE INC	PERFORMANCE FOOD GROUP INC
AMERICAN DIRECT PROCUREMENT INC	GROCERY OUTLET INC
AK LTD	JOHN DEERE PARTS DISTRIBUTION
BROWNSTONE INTERNATIONAL INC	INTERNATIONAL PAPER COMPANY
CELESTICA	CENTIMARK CORPORATION
CANDY BASKET, INC	Organically Grown Company
ICON FOODS, INC	LOGISTICS INSIGHT INC
PACWEST MACHINERY LLC	CORVETTE IMAGE INC
OXARC INC	ARCH FITTERS
OUTSIDE VAN, LLC	EASTSIDE PAVING INC
JENSEN MANUFACTURING CO INC	ELEMETAL DIRECT USA, LLC
IMPERIAL BROWN, INC	
OPERATIONS MGMT INT'L INC	
BRIDGETOWN BREW SYSTEMS LLC	
MICROCHIP TECHNOLOGY INC	
GRESHAM SANITARY SERVICE	
INDEPAK INC	
TOP NOTCH MACHINE SHOP	
HAUS OF GLOI	
GVA NORTHWEST LLC	
ONE ALIGNMENT	
ELEMENT SIX TECHNOLOGIES CORP	
ON SEMICONDUCTOR	
XPO LOGISTICS SUPPLY CHAIN, INC	
ECLAIRE HEALTH, LLC	
CARDINAL HEALTH AT HOME	
PACIFIC AIR COMPRESSORS	
WAYNE'S MOBILE RV REPAIR	
SUMMIT CONTRACTING LLC	
MULTI-TEK INC	
CAPSA SOLUTIONS LLC	
D6 INC	
DOMINION EQUIPMENT PARTS LLC	
FORMATION INC	
EVERYDAY DEALS WHOLESALE	
MEDLINE INDUSTRIES INC	
GRESHAM ROOFING & CONSTRUCTION	
PRECISE GRESHAM INC	
CEDARSOURCE MANUFACTURING INC	

Table 3-9: City of Gresham Water Resource Division--Stormwater Budget Allocation (including staff and operating)		
Program Area	**PY 27**	**PY 27 Budget**
	FY 21-22 (actual)	**FY 22-23 (projected) year four of a five year rate package**
Water Quality: **Policy Development** **Stormwater/Erosion Manual Oversight** **Permit Compliance** **Monitoring and Analysis** **Spill Response** **Public Education & Outreach** **Private Water Quality Facility Program** **Business Inspection & Enforcement** **Erosion Control Inspection & Enforcement** **TMDL Compliance** **Data QA/QC** **Training**	$ 1,068,384	$ 1,128,559
Natural Resources: **Restoration** **Encroachment Response** **Streambank Failure Response** **Capital Improvements** **Master Plan Updates** **Invasive Species Control** **TMDL Compliance** **Green Space Acquisition**	$ 573,738	$ 696,606
Engineering: **Capital Improvements** **Minor Drainage/Flood Control** **Public Works Standards** **Stormwater Manual Oversight** **Master Plan updates** **Mapping** **Stormwater Assets Management** **Training**	$450,091 $1.38M CIP	$693,600 $9.47M CIP*
Operations & Maintenance: **Systems Maintenance & Repair** **Equipment Repair & Replacement** **Spill Response** **Inspection** **IMP implementation** **Mapping** **Training**	$ 3,028,429	$ 4,191,543
Infrastructure Development (Development Engineering, Surveying, Public Works Inspections, Commercial Erosion Control Inspections)	$ 518,700	$ 399,800
City Admin Support, GIS Support, Management, Overhead	$ 2,307,823	$ 2,572,887
Total	**$7.95M Operating/Salary** **$1.38M CIP**	**$9.68M Operating/Salary** ***$9.47M CIP (includes $5M in unspent carryover and does not reflect actual planned annual expenditures**

Table 3.10 TMDL Implementation Plan BACTERIA

NONPOINT SOURCE TMDL																										
An "X" in the pollutant, watershed, or regulatory program box indicates what pollutant is targeted by this activity, in which watershed, and by which regulartory driver(s).																										
Best Management Practice or Activity	**Commitment**	**Perfor-mance Measure**	**Status and Additional Goals, TMDL Year July 2020 through June 2021**	**Proposed Adaptive Managem ent**	*Nutrient Related**	*Bacteria*	*Temperature*	*DDT/DDE*	*Dieldrin*	*Dioxin*	*PAHs*	*Mercury*	*Lead*	*PCBs*	*Johnson Creek*	*Fairview Creek*	*Columbia Slough*	*Sandy River*	*Columbia River*	*NPDES--MS4*	*Nonpoint Source*	*UIC (drywells)*	*NPDES--WWTP*	*Limit 10*	*Goal 5/Title 13*		
Private Sanitary Waste Systems																										
NPB-1 New and Redevelopment Requirement	**Program Commitment:** Ensure that new and redevelopment connect to the public sanitary system.	Number of new connection s to the City system	City billing records show 25,550 total active location accounts. 24,821 are wastewater accounts. An addition of 729 wastewater accounts. City code requires hookup to the city system when septic systems fail (for historically operating septic tanks) if a city wastewater pipe is located within 300 feet.	None proposed.	X	X									X	X	X	X	X		X						
NPB-2 Require Failed Systems to Connect to Public System	**Program Commitment:** Ensure that failing onsite systems are replaced by connection to City system, where City system is available.	Number of onsite properties that connect to public system	County sanitarian data shows that 9 septic tanks were decommissioned in Gresham.	None proposed.	X	X									X	X	X	X	X		X						
NPB-3 Ensure Spills from Private Piped Systems are Resolved	**Program Commitment:** Respond to reports of private system spills to ensure prompt cleanup and repair	Number of failures reported, and outcome	No private upsets occurred that the City became aware of happening. One City wastewater system upset occurred that was reported to DEQ under the WWTP NPDES permit and is summarized under the Spills BMP in Table 3.2	None proposed.	X	X									X	X	X	X	X		X						

Table 3.11 TMDL Implementation Plan TEMPERATURE

NONPOINT SOURCE TMDL IMPLEMENTATION PLAN						Nutrient Related*	Bacteria	Temperature	DDT/DDE	Dieldrin	Dioxin	PAHs	Mercury	Lead	PCBs	Johnson Creek	Fairview Creek	Columbia Slough	Sandy River	Columbia River	NPDES--MS4	Nonpoint Source	UIC (drywells)	NPDES--WWTP	Goal 5/Title 13
						Watershed																Regulatory Program			
Best Management Practice or Activity	**Strategy Commitments**	**Proposed Actions**	**2018-2023 Milestones**	**2022 Status**	**Proposed Adaptive Management**																				
Temperature Management																									
NPT-1 Natural Resource CIP Implementation	**Program Commitment:** Implement Capital Improvement Projects within prioritized critical areas to protect or improve water quality, bank storage and aquifer recharge, and salmonid habitat	**Environmental Overlay Project (EOP):** Update City critical area overlays to integrate best available data for resource locations and implement more understandable buffer strategy for streams and wetlands in order to increase administration, implementation, and enforcement of floodplain, riparian, and slope protections	2019: • Floodplain Overlay Update adopted • Develop new hillside/slope model to better convey and mitigate landslide risk 2020: • Final drafts of Hillside and Riparian Buffer codes presented for public outreach • Draft Technical Guidance Companion Document • Programmatic Permit Option developed for large land managers to improve buffer compliance (PGE, Metro, Parks, Natural Resources) • Final versions of Code, Tech Guidance, Cash-in-Lieu mitigation option approved by DLCD, Metro, Gresham City Council 2021 • Outreach and Training • Post adoption clean up of code; refinements to Guidance Manual 2022: • Outreach, Training, Guidance Refinement • Update Floodplain Overlay with refined ESA provisions (additional protections for salmon habitat)	Code implementation over the last year has informed plans for "EOP 2" updates to increase clarification (no alteration in protection levels are proposed). A draft riparian outreach marketing strategy was developed by on-call consultants at MIG-APG in the 2022 reporting year.	In 2023, riparian outrach materials developed the prior year will be augmented with additional outreach to reduce wildfire, landslides, and hydromodification risks related to private actions. Distribution to all private properties within the protected buffer areas will be conducted in 2023. Additional code updates for the environmental overlays will be initiated in Spring 2023.			X								X	X	X	X	X		X			X
		Update of 2010 Natural Resources Master Plan to reflect best available data, the new regulatory buffers developed through the EOP, new community area project opportunities and acquisition/easement targets	2018: • Initiate Forest Health Study 2019: • Continue Forest Health Study • Continue Headcut Risk Assessment on East Buttes • Shade Classification Update 2020: • Finish Forest Health Study 2021: • Update all project descriptions and add new projects developed since 2010	Finalization of SDCs and adoption of Natural Resources Master Plan and Stormwater Master Plan were stalled with the loss of the City's only Stormwater Engineer. Recruitment efforts through the end of the reporting year were unsuccessful.	City recruitment for a stormwater engineer and Watershed Division Manager (a position vacant since 2014) expected in 2023. Adoption by City Council of Natural Resources Master Plan, Stormwater Master Plan, and SDC methodology anticipated in 2023 following review by new engineering staff.			X																	
		Develop local wetland mitigation bank opportunities within 5th/6th field HUCs in order to maintain existing hydrologic function within DEQ-regulated basins. The only wetland mitigation bank approved in the region is in a different 4th field HUC and is hydrologically disconnected from all of Gresham's regulated waterways, thus use of this existing bank would allow export of high value wetland functions out of the Johnson Creek watershed.	2019: • Initiate discussions with DES work groups on need for co-funded wetland mitigation bank(s) to serve local watersheds at same scale as our DEQ regulations • Start scoping smaller scale options for Fujitsu Ponds to address heat loading in advance of the needed larger scale work 2020: • Funding in DES CIPs Aerial assessment of properties. Start negotiations for acquisition 2021: • Acquisition and permitting in either Pleasant Valley or Springwater new comm. area. for umbrella mitigation bank to keep mitigation within affected watershed.	Staff initiated contact with staff at Department of State Lands related to anticipated wetland impacts in new community areas of Pleasant Valley and Springwater, and associated needs for mitigation. City staff developed a new approach to siting local wetland and stream mitigation that will provide for local mitigation of impacts.	In the 2023 reporting year, staff will vet new land acquisition approach with new Watershed Engineering staff and agency staff at Oregon Department of State Lands. With agency support, the concept will be presented to City Council.			X																

Section Four – City of Fairview Summary of Program Monitoring

Municipal National Pollutant Discharge Elimination System Annual Report for Permit Year 27, Permit #101315, November 1, 2022

Executive Summary

The City of Fairview (City) manages the stormwater system with the goal of reducing pollutants to the maximum extent practicable, preventing flooding and enhancing natural resources. The City is a co-permittee with the City of Gresham on the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit (#101315).

DEQ reissued the Permit on December 30, 2010 requiring the City to modify the SWMP to reflect the new permit conditions. The City's 2011 SWMP incorporates the new Permit conditions and includes best management practices (BMPs) and other elements intended to reduce the introduction of pollutants to the maximum extent practicable (MEP). The Stormwater Management Plan (SWMP) was modified on December 29, 2015 in accordance with Schedule B.6.a of the City's NPDES MS4 permit requirement for updates.

This Permit Year (PY) 27 Annual Report documents implementation activities from July 1, 2021 through June 30, 2022 within the city limits of Fairview. Activities include, but are not limited to, the Best Management Practices (BMP) contained within the Stormwater Management Plan (SWMP). The status of the BMPs and adaptive management are summarized in the table that follows. Table 4-2 (Prioritization Criteria) summarizes the time period July 1, 2021 to June 30, 2022 implementing the 2011 SWMP. Section 2 of this report summarizes the Environmental Monitoring Program that is conducted by the City of Gresham on behalf of the City of Fairview.

As part of the annual adaptive management process, data and feedback were collected from staff responsible for implementing/reporting on each BMP. Factors considered include but are not limited to: Was the BMP measurable goal attained? If not, describe circumstances why, and how progress will be made toward future attainment. For multi-year BMPs, were milestones or timelines met? Can we feasibly refine or improve the BMP to gain efficiency or effectiveness in removing stormwater pollutants? In addition to assessing the implementation of each BMP, staff weighed resource availability and needs related to the overall stormwater program, including consideration of budget/funding, training needs, new technology and available equipment. The annual adaptive management process will inform any alterations to the stormwater program or future modifications to the SWMP.

There are no Urban Growth Boundary expansion areas contiguous to the City of Fairview. Consequently there are no associated concept planning, significant land use changes or significant development activities to report for PY 27.

Stormwater Management Program Budget

City of Fairview Stormwater Management program costs for Permit Year 27 are primarily associated with the Department of Public Works.

Stormwater fund expenditures and anticipated budget allocations incorporate wages and benefits, operating materials, equipment repair/maintenance, water testing (NPDES compliance), storm water disposal (NPDES permitting), improvements, and general administration.

Street fund expenditures and anticipated budget allocations incorporate wages and benefits, operating materials, maintenance services (including IGA with Multnomah County), equipment repair/maintenance, improvements, traffic calming, footpaths and bike trails, and general administration.

The table below outlines fund expenditures for PY 27 and provides the anticipated budget for Permit Year 27. The expenditures amounts were estimated for PY 27. The actual amount will be submitted next year.

Table 4-1	**2021-2022**	**2022-2023**
Program Area	PY 27 Expenditures	PY 27 Anticipated Budget
Stormwater Fund	$658,961	$898,522
Street Fund	$497,195	$901,165

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #1- Illicit Discharge Detection and Elimination							
Illicit Discharge Enforcement	Ongoing	Implement City code sections 13.40.050 and 13.40.110: • City code section 13.40.050 prohibits constructing, using, maintaining, or continuing an illicit connection to the storm drain system. • City code section 13.40.110 discusses enforcement actions for failing to comply with control of non-stormwater discharge. The penalty for a first violation is $250. A penalty of $1,000 may be imposed for each subsequent failure to comply and each day of a continuing violation shall constitute a separate offense. The City may order compliance by written notice that includes performance of monitoring, analysis, and reporting; elimination of illicit connections or discharges; abatement or remediation; payment of fines; and implementation of source control or treatment BMPs. The public works director may also exercise authority to enforce a construction permit or NPDES permit through a stop work order if necessary.	For identified illicit discharges conduct appropriate enforcement actions.	Track number, location and resolution of enforcement actions.	There was (1) reported illicit discharge in PY 27. There was (1) illicit discharge investigation and enforcement. 1. 21414 NE Sandy Blvd. Oil sheen from a truck parking company. It was cleaned up by business owner.	No modification	Civil Engineer Engineering Technician
Illicit Discharge Field Screening Procedures	Ongoing	Conduct dry weather inspections of accessible outfalls following the procedure in the Stormwater Operation and Maintenance (O&M) Manual to search for, detect, and prevent illegal dumping of pollutants and illicit connections (including connections from sanitary sewers and commercial and/or industrial wastewater sewers) to the storm sewer system. Any dry weather flows identified will be reported to the public works department. Annually update maps as necessary to indicate field screening locations.	Inspect accessible outfalls annually. Maintain maps of outfall inspection locations.	Track number and percent of outfalls inspected.	The City of Fairview has reviewed its outfall inventory and identified a total of 38 outfalls; 8 of which are categorized as high priority outfalls. Inspected 30 out of 38 outfalls (79%) this PY 27. The 8 outfalls not inspected were inaccessible at the time of inspection. Records are maintained in paper and electronic form. The City will continue to update its GIS map as needed.	No modification	Storm Lead Worker Engineering Technician
Illicit Discharge Investigation Procedures	Ongoing	Implement follow-up actions on a prioritized basis when problems are reported to the public works department. Follow up actions may include sampling for pH, dissolved oxygen, temperature, conductivity, ammonia, and total chlorine. If elevated results or poor water quality are detected, additional samples could be collected for lab analysis. If screening results indicate a potential problem, staff will conduct upstream investigations. The City will revise and document standard operating procedures to address new permit requirements and to document and update the details of the illicit discharge field screening and investigation procedures by June 30, 2012.	Annually review and update Illicit Discharge and Investigation Procedures related to mapping, enforcement response and pollutant parameter action levels. Respond to illicit discharges within 5 days of source identification..	Track number and type of problems reported, and track problem resolutions. Track status of revisions to procedures.	There were one (1) IDDE investigation conducted this PY 27, which resulted to no enforcement actions. There were no samples taken. 1. 21414 NE Sandy Blvd. The source of the oil sheen was traced back to an empty truck parking spot. The company was contacted and it was cleaned up by business owner. No updates to the procedure were made this reporting year.	No modification	Civil Engineer

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Spill Prevention	Ongoing	**Wellhead Protection Program.** The wellhead protection program serves to prevent spills and illegal dumping. The City will work to maintain its existing agreement with the City of Gresham for wellhead inspection in the Columbia South Shore Well Field Wellhead Protection Area and continue to implement wellhead protection throughout Fairview for the protection of groundwater. This program is included here because of its residual benefits to stormwater. **Wellhead Protection - Intergovernmental Agreement.** The City of Gresham and the City of Portland entered into an intergovernmental agreement for the Implementation of the Columbia South Shore Well Field Wellhead Protection Program in 2003 (City of Gresham contract number 1609). This agreement provides protection of the Columbia South Shore Well Field Wellhead Protection Area lying within Gresham and Fairview from contamination by hazardous substances generated at industrial and commercial facilities.	Coordinate with the City of Gresham to conduct inspections once during the permit term of all businesses with regulated quantities of hazardous materials in the well field.	Track the number of inspections conducted.	City of Fairview encompasses an area of 3.5 square miles and is located in the Columbia South Shore Wellfield Protection Area. City of Fairview maintains the existing Intergovernmental Agreement with the City of Gresham established in 2003 for inspection of the regulated and monitored industrial/commercial facilities in the Columbia South Shore Wellfield Protection Program, (Zone 1). The City of Gresham conducts inspections in Gresham and Fairview in alternate years on the behalf of the City of Fairview. No commercial and industrial inspections were conducted in Fairview within the Columbia South Shore Well Field Wellhead Protection Area in PY 27. They will be conducted in PY28.	No modification	Civil Engineer Engineering Technician City of Gresham (IGA)
		Fairview has adopted Ordinance #12-2002 to protect the Columbia South Shore Well Field Wellhead Protection Area from contamination by hazardous substances by establishing an inspection and enforcement program governing the utilization, storage and transportation of hazardous materials in Fairview's portion of the Columbia South Shore Well Field Wellhead Protection Area. A wellhead inspection is performed at commercial and industrial facilities by the City of Gresham. The entire city, except for a residential area, high school and park, is included in the wellhead protection program. Fairview, Gresham and Portland Staff meet at least annually to discuss any changes to code provisions and any rules promulgated thereunder by either party. Wellhead Protection - City Code and Reference Manual.			The Columbia South Shore Well Field Protection Program Committee meets quarterly to discuss any changes to code provisions and updates of the Wellhead Protection Program Reference Manual.		
		Wellhead protection is discussed in City code chapter 16.10. A wellhead protection program reference manual has been developed that establishes the wellhead protection boundaries. The code also includes requirements for reporting, standards, and inspections related to the storage, handling, use and transportation of hazardous materials; penalties for violations and enforcement actions; compliance requirements; building and site permit review and approval requirements; and inspection fees.					

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Spill Clean-up	Ongoing	Maintain agreement with the City of Gresham Fire Department for clean-up after structural fires and vehicular accidents to prevent pollutants and debris from being washed into the storm drain system. When there is a hazardous spill or a spill of any other substance that: • Is hazardous in any quantity • Is non-hazardous and greater than 42 gallons on the ground • Or is any quantity that has entered a waterway or a dry well. The City of Gresham Fire Department staff notifies the Oregon Emergency Response System (OERS). OERS then notifies the Oregon Department of Environmental Quality (DEQ) and other state and local agencies that may be affected. The responsible party, if identified, is required to contact an environmental clean-up company and pay for clean-up costs. Examples could include spillage of a 55-gallon-drum of restaurant grease or sanitary sewer overflows on private property, resulting in or having the risk of resulting in, discharges to the public stormwater system. DEQ remains the enforcement authority in these cases. DEQ may choose to enforce against the responsible party under the following conditions: 1) the party has acted maliciously; 2) the party is a repeat offender; or 3) the party has failed to report the incident to DEQ.	Maintain agreement with City of Gresham Fire Department. Investigate spills and provide emergency containment and clean-up as necessary.	Track spill locations, type of materials and response activities.	There are a total of (1) reported spills with in the City of Fairview reported during this PY 27. They are: 1. On 205th Street next to Cedar Grove Apartments Miguel went on site to inspect and take photos. The RV had caught fire and was located on top of a stormdrain which was not accessible. There were Xfinity crew repairing burned overhead cable. RiverCity was not able to clean the storm drain area until the RV was removed. 2. 21414 NE Sandy Blvd: On March 1st, 2022 oils sheen was observed flowing out of Iron Eagle Trailer and washing into storm ditch. The source was from a parked semi that was parked inside the fenced property but was recently removed, the oil spot was left on the empty parking space. The business owner was contacted to clean up the oil. On March 9th, the business owner contacted Miguel to inform him that the oil was cleaned up on March 7th.	No modification	Gresham Fire Civil Engineer PW Superintendent

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
		Non-Hazardous Substances Public Works staff will investigate and provide emergency containment and clean-up as necessary. If the responsible party can be identified, he or she is directed to provide containment and site clean-up. If the spill is an imminent threat to waters of the state, the City reserves the right to provide clean-up and bill the responsible party for the work. The responsible party will be invoiced for any response and clean-up provided by the City. Examples include spills or dumping of paint, auto fluids, carpet cleaning wastes or concrete, etc. into catch basins or onto the street. In non-emergency situations, such as dumping of debris on private property near a stream bank, Public Works staff will notify the responsible party, verbally and in writing, and specify a timeframe for clean-up. Staff will refer the incident to Code Enforcement if the responsible party does not respond within the specified time frame. Code enforcement has the authority to issue Abatement Procedures, Violations or Civil Actions.			See above report.		
		Releases from Traffic Accidents If there is a spill of automotive fluids resulting from a traffic accident, the Gresham Fire Department will spread an absorbent compound (usually clay) and specialized absorbent pads on automotive fluids. Buckets are placed underneath dripping fluids. The road is swept and cleaned and, when necessary, additional protection is placed around the catch basins. Large leaking spills from commercial vehicles or semi-trucks are captured using a children's plastic pool. From a legal standpoint, the generator of the spill is responsible; therefore the waste materials are bagged and placed inside the wrecked vehicle or given to the tow truck driver for disposal. The City will perform the clean-up or utilize private clean-up contractors in order to continue the spill response program, when no responsible party can be identified.					
Municipal vehicle monitoring and maintenance	Ongoing	Ensure that materials from municipal vehicles do not leak, spill, or otherwise release contaminants onto roadways or open spaces where they may be washed into storm drains or waterways. Municipal vehicles are inspected by the driver during loading and unloading. If any leaks are observed between the regular maintenance the vehicles are repaired immediately.	Maintain vehicles on a 6-month schedule.	Track status of municipal vehicle maintenance.	All City fleet vehicles (Public Works and Administration) were regularly maintained and serviced as scheduled (every 6 months) with auto service providers. No vehicular leaks were detected.	No modification	PW Superintendent
Water Line Flushing	Ongoing	The City periodically flushes all public water lines to ensure the reliability and quality of the domestic water system. To minimize impacts to the storm system, discharges are dechlorinated with the use of ascorbic acid (vitamin C). The flushing crew periodically tests the chlorine levels of the discharge prior to entering the storm system.	Dechlorinate waterline flushing with vitamin C.	NA	All lines flushed according to procedures. No chlorine detected.	No modification	Water Lead Worker

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #2- Industrial and Commercial Facilities				1200Z			
Industrial and Commercial Facility Inspections	Ongoing	Implement the City's Industrial and Commercial Facility Inspection procedure that is included in the Stormwater Operation and Maintenance Manual to control the discharge of pollutants in stormwater from industrial and commercial facilities to the municipal separate storm sewer system.	Spend 40 hours implementing commercial and industrial inspection procedures. Review and/or inspect all applicable facilities once during the permit term.	Track number of facility inspections and follow-up.	The City inspected four (4) regulated industrial/commercial facilities during this PY 27. Inspection procedures were in conformance and compliance with the City of Fairview's Stormwater Operation and Maintenance Manual and the Columbia South Shore Wellfield Protection Program Reference Manual. A total of 11.5 inspection hours (pre-documentation, inspection / photos, final documentation and follow up) were spent this PY 27. The year the City was low in staff in Public Works Shop and Public Works. This year the City got 4 new hires to fill in the 4 roles in Public Works Shop but still have the Engineer Manger position open.	No modification	Civil Engineer Engineering Technician
Screen Industries/Businesses and Track NPDES Stormwater Permits	Annually	Annually, the City will review their business license inventory to determine whether any new facilities would be subject to an industrial stormwater NPDES permit. This determination will occur based on a review of the applicable SIC codes related to the 1200-series NPDES permit. If a facility is identified that would be subject to an industrial stormwater NPDES permit, the facility and DEQ will be notified within 30 days. During industrial and commercial inspections staff will obtain a copy of the facility's permit or work with the facility to either obtain a permit, or eliminate the potential for contact of pollutants with stormwater, thereby eliminating the need for a permit. In cases where discharges appear contaminated, the City will send a copy of the inspection report to DEQ.	Annually notify DEQ of any existing or new industrial facilities within the City's jurisdiction that may potentially be subject to an industrial stormwater NPDES permit.	Track number and type of new facilities identified as needing permits.	Screening process of applicable Industrial/Commercial SIC codes reflecting the 1200-series NPDES permit is being conducted during pre-application review process of land use permit. There was only one business that was issued the 1200-Z permit. 1. Amazon Warehouse-3108 NE 230th Ave	No modification	Civil Engineer Engineering Technician

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #3 - Construction Site Runoff Control				1200C			
Erosion Control Activities	Ongoing	Ordinance 3-1993 adopts an erosion control plan. The ordinance includes an Erosion Control Technical Guidance Handbook (Technical Guidance) that describes regulations, standards and provisions for erosion control as well as fees and penalties for violation. The City enforces the erosion control requirements through a permitting process required for sites disturbing 500 ft^2 or more as discussed under the BMP, Development Review. The Technical Guidance prescribes the following four steps to consider in planning for erosion control: Step 1: Identify Site Characteristics Step 2: Lay Out Preconstruction Plan and Proposed Base Measure Step 3: Measures During Construction Step 4: Post Construction Measures The Technical Guidance also has requirements for single-family homes and duplexes on existing lots of record, private developments construction, private construction in public rights-of-way, public works construction, erosion control measures, inspections and enforcements, and penalties. Non-stormwater wastes on construction sites are also addressed through the City's nuisance ordinance in Chapter 8 of the municipal code.	Inform all construction site owners that have 1 acre or more of disturbed land that they are required to obtain a 1200-C permit from DEQ. Projects that disturb more than 500 ft^2 are required to obtain a City erosion control permit. Review development sites required to meet City erosion control requirements.	Track the number of erosion control permits issued annually.	Resolution 49-2013 approved compliance order agreement with Environmental Protection Agency to implement reporting requirements and standards associated with the NPDES stormwater permit which includes adoption of the Erosion Prevention and Sediment Control (EPSC) Manual from the City of Gresham (Ordinance 2-2014). The City developed a standard operating procedure for implementation of Erosion and Sediment Control Standards. A total of 2 1200-C Construction General NPDES Stormwater permits were issued by DEQ during PY 27 for sites disturbing more than 1 acre. No erosion and sediment control permits were issued for sites disturbing less than 1 acre.	No modification	Permit Tech Civil Engineer
Erosion Control Program Training	Ongoing	The Erosion Prevention & Sediment Control Technical Guidance describes regulations, standards and provisions for erosion control as well as fees and penalties for violation.	Provide a copy of the Technical Guidance to all developers and contractors.	N/A	Erosion Prevention and Sediment Control (EPSC) manuals are made available with the erosion control permit applications during the planning development review process.	No modification	Permit Tech Civil Engineer Engineering Technician
Construction Site Inspections	Ongoing	The City currently reviews plans and inspects construction sites required to meet the City's erosion control standards using the following procedures: 1. Visit every site over 1 acre after the first significant rainfall event and periodically thereafter. If time is limited, the City prioritizes inspections by visiting problem sites first, then visiting facilities that would have the highest environmental effect if the erosion control failed.	Inspect all construction sites required to meet City erosion control standards. Make the Erosion Prevention & Sediment Control (EPSC) manual available online. Annually review code provisons.	Track the number of sites that were permitted and inspected. Report the number and type of enforcement actions.	Four new Erosion Prevention & Sediment Control permits were issued and inspected during PY 27. All were in compliance with the City's Erosion Prevention & Sediment Control (EPSC) standards. No violations were noted this PY27. A total of +60 EPSC inspections were performed on +12 sites with 1200-C permits in PY 27. Sites with active 1200-C Permits were inspected following 1/2" of precipitation. The municipal code is reviewed for compliance with stormwater requirements on an annual/ongoing basis.	No modification	Permit Tech Civil Engineer Engineering Technician

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #4 - Education and Outreach							
Educational Activities	Ongoing	The City supports community programs, publishes articles in the City newsletter and coordinates with the City of Gresham where appropriate. Current City public education programs that are related to stormwater include educational programs on stormwater quality and the use of nonpolluting alternative garden products, including low-volume uses of pesticides, herbicides, and fertilizers (e.g., household uses). The City also supports the following programs: • Programs with local area schools • Programs with volunteer groups • Columbia Slough Watershed Council activities • Business Assistance Program – Private Catch Basin Cleaning • Spring Clean-up • Metro Hazardous Waste Clean-up • Informational kiosks at City events and City Hall • Doggy Don't waste bag	Publish stormwater related articles in the City newsletter. Support local education programs.	Track newsletter articles produced annually. Track activities conducted to support local education programs.	Large scale public education campaigns: • City of Fairview participated in Public Service Announcement (Do the right thing campaign through an IGA with the City of Gresham) with KOIN 6 TV for broadcast to provide public education services on stormwater quality program. Campaign messages addressed best practices for: • Car Washing • Lawn Products • Be Rain Ready • Water Conservation • Sweep, Don't Wash Local Outreach Effort: City of Fairview Public Works staff maintained a booth at the "Fairview On The Green" event during the month of September. The booth displayed Groundwater/Aquifers, Rainfall/Water Cycle and Surface Water Models and distributed brochures on stormwater education, healthy streams, low impact development programs, use of pesticides, natural lawn care/gardening techniques, erosion control best management practices, water conservation kits and other stormwater related educational subjects. City of Fairview is currently participating in the Storm drain Cleaning Assistance Program (SCAP) (schools, apartments, industrial/commercial facilities) and the Backyard Habitat Program hosted by the Audubon Society through the City of Gresham. Other agencies that are affiliated with this program are: City of Wood Village and City of Troutdale.	No modification	Civil Engineer Engineering Technician Development Analyst
					Educational Outreach Articles: The City of Fairview utilizes the local monthly newsletter "Fairview Point" to provide educational materials related to stormwater. Applicable articles are as follows: 1. Fairview on the Green 2. Prevent Catch Basin from Clogging via Clean Up of Fall Leaves 3. Prevent Flooding of Fairview Streets Spring Clean Up		

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Report Illegal Dumping and Illegal Connections	Ongoing	Continue to facilitate efforts by the public to report illegal dumping, illicit connections, and other incidents. Implement public reporting program as described in the Stormwater Operation and Maintenance (O&M) Manual.	Respond to reports and/or complaints from citizens regarding observed water quality problems.	Track the number of reports/complaints received, and the follow-up actions conducted (including the timing of the follow-up action).	There were (1) reported events and/or complaints from citizens reflecting illegal dumping or illegal connections during this PY 27. 1. Fairview Terrace- A resident of Fairview Terrace submitted a complaint to DEQ and Fairview regarding trash making its way into swale and accumulating within. The swale and NE Sandy Blvd was investigated. It was suspected that trash debris came from cars parking on the ramp in front of Iron Eagles lot. HOA president of Fairview Terrace called Fairview and informed the City that they believe they found the person responsible for trash debris in Swale. The swale will be monitored by HOA to see if this is the case.	No modification	Civil Engineer PW Superintendent Code Compliance

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Illegal Dumping and Illegal Connections, Public Education	Ongoing	Educate the public about the harmful effects of dumping oil, antifreeze, pesticides, paints, solvents, and other potentially harmful chemicals into storm sewers or drainage channels.	Support recycling and disposal programs; programs that provide convenient means to dispose of materials, existing solid waste management programs. Educate the public regarding the stormwater pollution that results from dumping and illegal connections.	Track the number of public recycling and disposal programs conducted annually.	The Fairview Point contains outreach articles educating the public about harmful effects of dumping hazardous materials and waste into storm sewers or drainage channels as well as public recycling and disposal information. The City's website posted contact information as well about reporting illegal dumping and illegal connections (BMP 4.3). Staff also track public complaints, reports, and inquiries regarding illegal dumping, connections. There were 4 news letter articles published during PY 27 about educational outreach on healthy environment.	No modification	PW Assistant Metro Recycling
Participate in a Public Education Effectiveness Evaluation	Ongoing	By November 1, 2014, the City of Fairview will coordinate with other local, Phase I jurisdictions to provide information related to an effectiveness evaluation. The effectiveness evaluation information will focus on assessing changes in targeted behaviors and will allow for additional information that can be used in adaptive management of the City's education and outreach strategy.	Coordinate with other local jurisdictions in providing/compiling information regarding a public education effectiveness evaluation by November 1, 2014.		City of Fairview submitted "Public Education Effectiveness Evaluation" report (Schedule A.4, NPDES Permit Term 2010-2015) to DEQ on November 1, 2015.	No modification	Civil Engineer
Staff Education and Training	Ongoing	Conduct training for new employees and contract employees on stormwater requirements and train existing employees when there is a significant update to the documents used by the City that regulates stormwater pollution control activities.	Provide annual training to personnel involved in stormwater management.	Track personnel receiving training annually and document the trainings received.	City of Fairview's engineering staff conducted (1) in-house training with seven (3) Public Works Operation & Maintenance staff during PY 27. Topics discussed included instruction on how to install a Catch Basin insert and what maintenance issues to look out for.	No modification	Civil Engineer Civil Engineering Technician PW Superintendent Development Analyst

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #5 - Public Involvement and Participation							
Provide for Public Participation with the annual report, SWMP and Benchmark Submittals	Annually by November 1	Co-permittees must submit an annual report for the portion applicable to its jurisdiction by November 1 of each year. SWMP revisions and pollutant load reduction benchmarks are required for submittal to DEQ at the permit renewal submittal (180 days prior to permit expiration). Prior to submittal of these items, the City will provide the public with an opportunity to comment on the annual report, revisions to the SWMP and proposed pollutant load reduction benchmarks. The documents will be made available on the City's website or through web links. Comments on the documents will be collected and considered and a response to comments will be provided.	Provide for public participation with the annual report, SWMP and pollutant load reduction benchmarks prior to the permit renewal application deadline.	N/A	Public review and comments were solicited for public participation through publication on the City's website during PY 27.	No modification	Civil Engineer
SWMP Element #6 - Post-Construction Site Runoff							
Development Review for Private Projects	Ongoing	Implement and enforce regulations which give legal authority to: 1) require site-drainage designs and systems which address water quality; and/or 2) minimize the total volume of runoff and the peak rate of runoff, where local conditions permit. The City implements these regulations through its Community Development Department and Public Works Department. New development and redevelopment projects are reviewed for conformance to the following existing City regulations: • Fairview Comprehensive Plan, June 2004 – provides the guiding direction to protect the natural environment and ensure that long-term growth does not adversely affect the natural resources. • Community Development Department–Land Use and Building Permits; Land Use Code Enforcement. • Title 19, Development Code–requires accommodation and treatment of stormwater runoff and system installation conforming to standards and specifications adopted by the City. • City of Fairview Standard Specifications for Public Works Construction	Review development plans for conformance with standards. Maintain map of private water quality facilities	Track acreage of new and re-development activities requiring stormwater treatment annually. Track the number and type of private water quality BMPs built.	There were 5 development reviews for private stormwater management facilities and no development reviews for public stormwater management facilities in PY 27. Private Stormwater Management Facilities: • Townsend Farms Cold Storage Site-6 Swales (0.10 Acres) • SFR 4058 NE Fairview Lake Wway-1 Soakage Trench (0.098 Acres) • 4 New SFR Silverwood's Lots-4 Drywells (.62 Acres per) • New SFR Walters 20732 NE Wistful Vista Dr (.25 Acres) • New SFR Walters 20736 NE Wistful Vista Dr (.055 Acres) The City will continue to update its GIS mapping	No modification	Permit Tech Civil Engineer

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Review Applicable Code and Development Standards related to Stormwater Management	1-Jan-14	Review and the City's current stormwater treatment standards for compliance with new MS4 NPDES permit language by January 1, 2014. Update the City's post-construction stormwater design standards and code language. Document the City's post-construction inspection and enforcement response procedures by January 1, 2014	Update the municipal code, design standards and enforcement procedures to eliminate barriers to LID and to implement stormwater management requirements.	Track progress related to the review of the City's code and development standards per provisions in the MS4 NPDES permit.	This requirement has been completed. The City continues to review and update its code and development standards as needed to meet the requirements of the permit.	No modification	Civil Engineer Senior Planner PW Director
Design Standards for Public Projects	Ongoing	Follow the Standard Specifications for Public Works Construction which requires treatment of stormwater runoff through the use of BMPs. Maintain database of BMPs that are implemented.	Ensure that public works stormwater related projects address treatment of runoff as appropriate.	Number and type of public stormwater quality BMPs built.	The following CIP stormwater related projects are identified in the project list of the Consolidated SW Master Plan (CSMP) and were designed/constructed this PY 27: No new CIP projects were designed/constructed this PY 27.	No modification	Civil Engineer Engineering Technician

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #7 - Pollution Prevention for Municipal Operations							
O&M Plan	Ongoing	Use the O&M Plan as a guide for designing and maintaining public storm facilities in order to maximize water quality benefits while maintaining flood capacity. The O&M Plan is intended to help locate and eliminate pollutants and provides a framework for maintaining field inspections records.	Implement the procedures in the O&M Plan. Review the O&M Plan by November 1, 2013, and update as necessary to maximize water quality benefits while maintaining flood capacity.	Track annual changes made to the O&M Plan	O&M Plan updated. Permit requirement met. No updates were made to the procedures in the O&M Plan in PY27.	No modification	Civil Engineer PW Superintendent Storm Lead Worker
Right of way – O&M	Ongoing	The City contracts with Multnomah County for road maintenance that includes street sweeping, roadside mowing, brushing and pavement maintenance. The maintenance program is substantially similar to, and at least as protective as, the ODOT Routine Road Maintenance program approved under the current 4(d) limit.	Maintain contract with Multnomah County for road maintenance.	N/A	City of Fairview maintains an IGA with Multnomah County for road maintenance activities. Road maintenance activities performed at county roads this PY 27, are as follows: • Catch basins cleaning - Three Times September 13, 14, 15 • Roadside mowing - As needed • Route sweeping - 3 times: August 9, 10, 11 October 4,5,6,12 April 25. • Misc. sweeping (snow gravel pick up) • Crack Sealing Pavement Preventive Maintenance - None this PY 27. • Pavement Marking Restoration - None this PY 27	No modification	PW Superintendent
Street Sweeping	Ongoing	The City contracts with Multnomah County for street sweeping (approximately 6 times per year). The frequency is based on weather conditions, road conditions and funding.	Maintain contract with Multnomah County.	Track frequency of sweepings.	Multnomah County conducted a total of 3 street sweepings this PY 27. Please see details above, Right of Way operation and maintenance.	No modification	PW Superintendent
De-icing and Yard Debris Activities	Ongoing	Sand and gravel are applied to roadway surfaces to assist with traction during inclement weather. The sand is removed and recycled as soon as possible after the snow or ice event. Yard debris is picked up from residents weekly by the City's solid waste provider.	As weather permits, remove gravel when it is no longer needed.	Track processes conducted for sand and gravel removal.	There was 2 de-icing events this PY 27 • Once in December, 2022 • Once in January, 2022	No modification	PW Superintendent

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Native Vegetation	Ongoing	Encourage the use of native vegetation in riparian areas on private and public property to reduce the need for fertilizers, pesticides, and herbicides. Planting and landscape policies for riparian buffer areas encourage use of vegetation (indigenous or imported) that is self-sustainable without the need for pesticides or herbicides. Riparian buffer permits are issued for alterations to the landscape within 50 feet of Fairview Creek, Fairview Lake, the Columbia Slough and their tributaries (City code chapter 19.106).	Review planting plans associated with riparian buffer permits.	Track number of riparian buffer permits.	Applicants for riparian buffer permits were encouraged to use native vegetation that is self sustainable without the need for pesticides or herbicides and to be in compliance with FMC chapter 19.106. This is implemented during the Natural Resources Land Use permitting process. There were no dock and (1) riparian buffer permits issued this PY 27.	No modification	Associate Planner

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Integrated Pest Management	Ongoing	The City encourages use of the Portland Parks and Recreation Pest Management Guide. This guide emphasizes controlling pests that are harmful to the health or aesthetic value of park plantings in a manner that is cost-effective, safe, and environmentally responsible. It is an approach that uses multi-faceted strategies that minimize negative impacts on the environment and on human health. The controls used in this program include manual, mechanical, cultural, biological and chemical methods. Often a combination of methods is used. Examples of Integrated Pest Management include: • Timing of chemical applications to avoid runoff. • Mowing high grass and brush to reduce weed seed crops in rough areas. • Pruning of trees and shrubs to increase air circulation to reduce susceptibility to disease and insect problems. • Appropriate fertilizing to encourage plant health and resistance to pests (i.e., weeds, insects and disease). • Using plants with natural resistance to pests. • Combining turf aeration and over-seeding along with any application of broadleaf weed control to eliminate the cause of the problem, and therefore the need for repeated applications.		Track City planting projects that incorporate native plants.	There are 27 City of Fairview neighborhood parks and recreation areas encompassing 443.56 acres that were treated with approved Portland Parks and Recreation pesticides, this PY 25. There are 4 Metro parks and 3 Reynolds School District parks in the City of Fairview. Most of these parks were only treated with a mixture of herbicides as needed for invasive or unwanted native vegetation and target spray practices were utilized. Native vegetation was also incorporated in the City planting projects and during maintenance activities. The City's Parks & Recreation Lead worker is a licensed applicator and. attends seminars and trainings related to Parks and Recreation Pest Management. Private stormwater facilities incorporated native plants this PY 27	No modification	Parks Lead Worker
Chemical Applicator Licensing	Ongoing	Maintain staff certification in public pesticide application and follow Oregon Department of Agriculture (ODA) requirements related to herbicide application.	All chemical applications will be supervised by an ODA Certified Applicator.	N/A	The City of Fairview's Parks Lead Worker is a certified Oregon Department of Agriculture (ODA) chemical applicator who updates his certification on biennial renewal period. All events involving chemical applications are supervised by the Park Lead Worker.	No modification	Parks Lead Worker
Track Municipal Facilities	Ongoing	The City has one facility that includes the treatment, storage or transport of municipal waste. This facility is the Corporation Yard Dumpster. Collection of waste from municipal litter receptacles is collected and stored in a dumpster at this site until the City's garbage hauler collects the waste on a weekly basis. The dumpster has a cover on it and runoff from the site is treated by a structural stormwater filter. No additional stormwater management practices are deemed necessary for this site. Update SWPPPs for two municipal facilities and conduct annual inspections.	Annually inspect two municipal facilities (Crestwood and Public Works Shop)	N/A	Public Works crew regularly monitored our Corporation Yard Dumpster facility known as the Crestwood Shop. Waste from municipal litter receptacles is collected and stored in this covered dumpster and collected by City's garbage hauler on a weekly basis. Storm run-off from the site is treated by an Oil-Water separator / Concrete Structural Containment Vault (filter cartridges by Contech). Stockpiles of construction materials needed for maintenance activities are covered and bermed to protect against migration run-off and wind erosion. The City completed a new Public Works Shop this permit year, however, it is primarily used for vehicle parking and offices. Thr Engineering technician will be taking on the role as the inspector for the Public Works Shop and Crestwood Shop as of PY 27	No modification	Civil Engineer Engineering Technician

Section Four: City of Fairview Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
Litter Receptacles	Ongoing	Provide, collect, and maintain litter receptacles in strategic public areas and during major public events to provide disposal of pet waste bags and prevent trash from entering the stormwater system.	Maintain at least one litter receptacle at all public parks greater than 1 acre. Provide collection a minimum of once per week.	Track number of litter receptacles.	There are 43 litter receptacles that are maintained and collected once a week and after significant events. The City of Fairview conducts public outreach through Fairview Outlook monthly magazine on healthy watershed campaign. One of the topics is about "Dog Waste Scooping" and dog waste bag receptacles are provided in every City Park.	No modification	Parks Lead Worker
Sanitary Sewer System Program	Ongoing	Limit wastewater infiltration through the operation, maintenance and construction of the sanitary sewer infrastructure based on existing conditions and projected sanitary flows.	Respond to pump station failures. Perform cleaning of the problem areas of the City's sanitary sewer system. Construct pipe restoration projects to replace defective pipe and reduce inflow and infiltration.	Track identified sanitary problems and resolutions related to the storm system each year.	The City had no pump station failures or sanitary sewer system problems this PY 27.	No modification	Civil Engineer Engineering Technician
Consolidated Stormwater Master Plan (CSMP)	Ongoing	The Consolidated Stormwater Master Plan (CSMP) adopted in 2007 combines infrastructure improvements including retrofit opportunities with federal and state water quality requirements. Projects were developed to address water quantity and quality issues, utilizing hydrologic and hydraulic modeling as well as information from the TMDL regulatory program and the NPDES stormwater discharge permit.	Continue to make progress in the implementation of the CSMP. Update CSMP within one year of permit issuance.	Track the number, type and watershed location of projects that are completed.	The Consolidated Stormwater Master Plan (CSMP), CIP project list was updated by the City of Fairview and Brown and Caldwell in 2016. There were no projects related Consolidated SW Master Plan (CSMP) that were designed/constructed this PY 27.	No modification	Civil Engineer PW Superintendent

Section Four: City of Fairview Stormwater Management Plan Summary

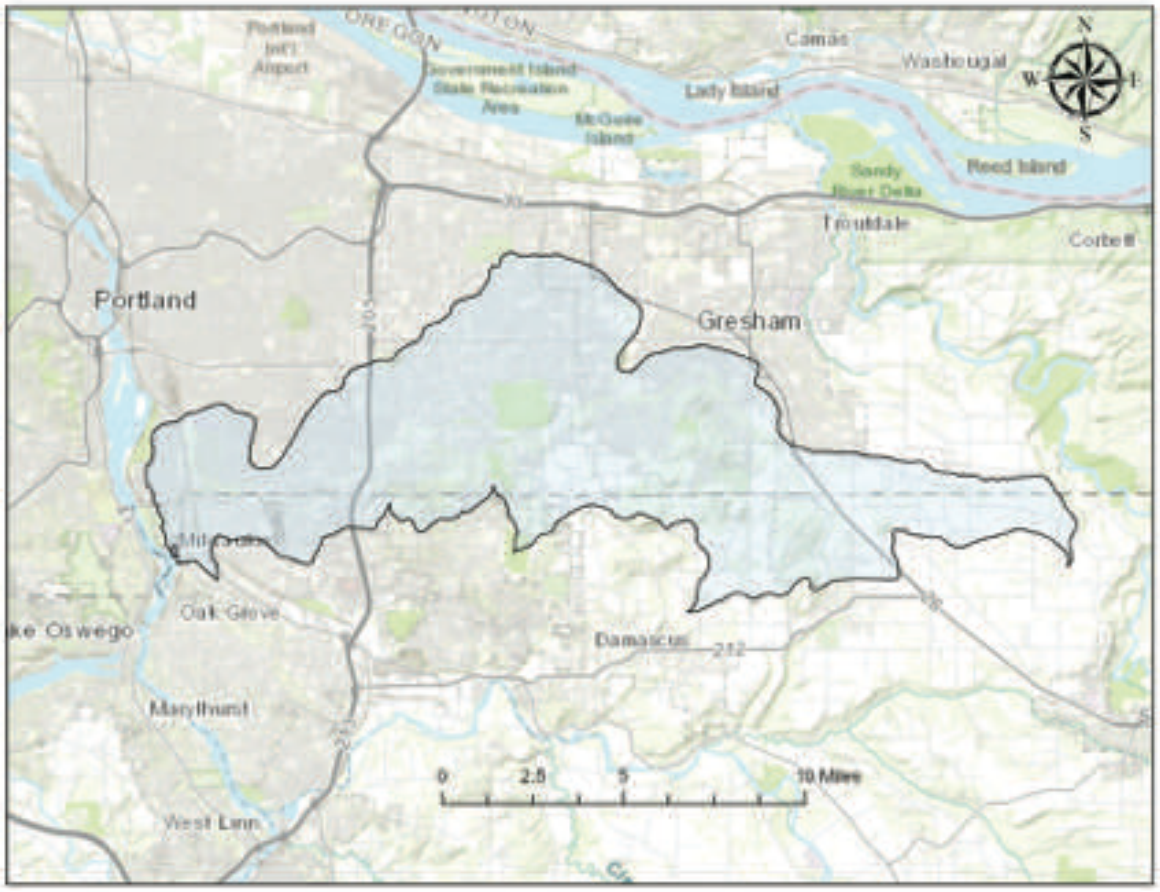
BMP Name	Compliance Date	BMP Description	Measurable Goals	Tracking Measures	Status 2021-2022 (PY 27)	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
SWMP Element #8 -Structural Stormwater Facility Operations and Maintenance							
Inspect and Maintain Public Storm Facilities	Ongoing	Perform inspection and required maintenance as stated in the O&M Plan–clean catch basins and storm pipe, sedimentation manholes, channels and stormwater detention basins in areas where sediment and/or debris tend to accumulate.	Inspect 50 percent of detention lines, ponds, swales and outfalls. Inspect natural stream channels from bridge and road crossing. Clean catch basins and inspect adjacent pipes in one third of the City annually. Clean all water quality manholes (5). Update maps of City Structural Stormwater Facilities.	Track facilities inspected and maintained. Track number of catch basins cleaned. Estimate quantity of sediment removed from catch basins and water quality manholes.	The following are City of Fairview's stormwater quality facilities that are structurally inspected and operationally maintained annually: • Catch Basins: A total of 490 catch basins are divided into 3 zones for maintenance purposes. Zone 1 (189 CBs), Zone 2 (176 CBs) and Zone 3 (125 CBs). One zone is inspected and maintained annually. Zone 2 was inspected by city staff and cleaned by Multnomah County crew, this PY 27. The City of Fairview has an Inter-Governmental Agency (IGA) with Multnomah County with respect to catch basin cleaning; however, inspection and monitoring is done by Fairview O & M staff. • Outfalls: 30 out of 38 total outfalls were inspected (8 High Priority Outfalls) in PY27. • Detention Ponds: 4 out of 4 detention ponds were inspected in PY25. • No Detention Lines were inspected this years. • Oil Water inspected and planned for cleaning • Weir inspected, no maintenance required. • One Rain Garded inspected and maintained for rehab (Main and 5th Street intersection) •. Natural streams inspected	No modification	Civil Engineer Storm Lead Worker PW Superintendent Engineering Technician
Private Water Quality Facilities Inspection and Maintenance	Ongoing	Require plans conforming to the requirements of City of Fairview Standard Specifications for Public Works Construction and City of Portland Stormwater Management Manual at the time of permitting for stormwater facilities related to new private development and redevelopment/retrofitting. Include recording of operations and maintenance plans for stormwater quality facilities.	Ensure new private stormwater facility plans conform to City requirements. Inspect new facilities for conformance to approved O&M plans. Develop a private facility maintenance Standard Operating Procedure within one year of permit issuance.	Track number of inspections conducted and inspection results.	City of Fairview engineering staff participates during pre-application and engineering review routing process for permit acquisition on new private and public agency development and re-development. The reporting staff manages review, comments and feedback on plans, specifications, stormwater reports and calculations during the review process. It is one of the requirements from the consultants and project owners to include submittal of an Operations and Maintenance Agreement, recorded with Multnomah County, for stormwater facility maintenance activities post-construction. A total of 2 private developments inspected this PY 27. All 2 were not conforming to maintenance of their facilities. All two have addressed their stormwater facilities.	No modification	Civil Engineer Engineering Technician

Appendix – Education and Outreach Examples

Outreach to Residents

Johnson Creek
Watershed Council

Johnson Creek Watershed



Our mission is to promote restoration and stewardship of a healthy Johnson Creek Watershed through sound science and community engagement.

Johnson Creek Watershed Council

Watershed Wide Event

Johnson Creek
Watershed Council

Riparian planting – City taxlot(s)

Johnson Creek
Watershed Council

Johnson Creek (trash) cleanup
Gresham Woods

NextDoor post

July 8, 2021

Dawncrest Wayside Habitat Certification.

Five years ago the Gresham Butte Neighborhood Association sponsored the restoration of the Dawncrest Wayside after the Eagle Scout initial landscaping project in the 90s had been overgrown with blackberry, thistle and other weeds. With the help of many volunteers, donated material and three small grants, the area was transformed and today was officially certified at the gold level as a backyard habitat. This city owned parcel has been maintained by Dawncrest residents and more native plants have been added in the last four years. We will continue to plant more native ground covers and flowers in open areas to help sustain native pollinators. My sincere thanks to all the residents who have helped restore and continue to maintain this area that now is an aesthetically pleasing entrance to the Dawncrest neighborhood as well as a habitat for wild creatures.

Living on the wild side in East County

Christopher Keizur July 14 2021

Local residents transform yards, create natural paradise with help from Backyard Habitat program

PMG PHOTO: CHRISTOPHER KEIZUR - Anyone who gets certified receives a sign for their yard.

(https://pamplinmedia.com/images/artimg/00003709039732-0837.jpg)The best part of Bill Hunt's day is stepping out into his backyard each morning, coffee in hand.

The Troutdale resident gets to watch bees and butterflies flutter around natural flowers, listen as birds sing up in the tree canopy, and witness the occasional appearance of deer or coyotes.

"This is my office working from home," he said with a smile. "It's so wild out here even though we are only a few feet from the house."

Hunt's own personal oasis was created through his hard work and support from a regional program dedicated to bringing nature back into communities across Multnomah County.

Backyard Habitat is co-run through a partnership between the Audubon Society of Portland and the Columbia Land Trust. The goal is to support urban gardeners in their efforts to transform their yards of less than one acre through advice and support.

There are five pillars participants learn to establish within their own yards. The program teaches gardeners about native plants, noxious weeds, how to reduce pesticides, stormwater management, and wildlife stewardship.

PMG PHOTO: CHRISTOPHER KEIZUR - Troutdales Bill Hunt used the Backyard Habitat Certification Program to transform his yard into a wild oasis.

(https://pamplinmedia.com/images/artimg/00003709039705-0837.jpg)When someone enrolls in Backyard Habitat, a technician visits for a walkthrough of their property. They will identify harmful weeds to remove, listen to any goals for the yard and make recommendations based on those conversations. Participants get a Site Report document with all the steps needed to reach certification.

There are three levels of certification — silver, gold and platinum. All three require removal of invasive species, growing native plants, reducing pesticide use, wildlife stewardship and stormwater management. Platinum certification also requires volunteer hours.

"With Backyard Habitats you begin to understand what is invasive and the negative impact certain practices can have on birds and other critters," said Ladine Marquardt, who participants in the program with her husband Scott.

Participating in the program and working through the certification levels leads to awards and benefits, including discounts or garden supplies. There are currently more than 6,000 people certified through the program.

"With Backyard Habitats you begin to understand what is invasive and the negative impact certain practices can have on birds and other critters," Ladine said.

Natural planting

PMG PHOTO: CHRISTOPHER KEIZUR - Bill Hunt used natural plants to transform his backyard.

(https://pamplinmedia.com/images/artimg/00003709039774-0837.jpg)Hunt first got interested in doing more with his yard about 11 years ago when he enrolled in a rain garden class through East Multnomah Soil and Water Conservation District.

Before, his yard felt disjointed and he disliked having to waste so much water on keeping the grass green and utilizing chemicals and sprays to keep non-native plants alive.

"I was into this idea of reducing my carbon footprint," Hunt said. "I love backpacking and being in nature — I wanted to bring it closer to home."

So he dug out his front lawn by hand, creating a 10-by-12 foot tapered rain garden surrounded by sedge grass and native plants that also served as a pollinator garden.

He then turned his attention to the rest of his property, and a Backyard Habitat technician helped come up with ideas. They highlighted the invasive plants to remove, and gave Hunt a roadmap to move forward.

Now, his backyard feels like stepping into a hidden green gem in the Oregon wilds. He has a tiered yard with a creek running through the middle. In the back are a stand of trees that opens into a city-owned natural area.

"There is harmony here now," Hunt said. "I hands down recommend this program. They are knowledgeable and really know their plants."

This is the third home the Marquardts are transforming into a backyard habitat. They got hooked into the program a decade ago when they lived in the Hollybrook neighborhood in Gresham, kept with it after moving to Happy Valley, and are currently being certified for a house they moved into three years ago in East Gresham.

(https://pamplinmedia.com/images/artimg/00003709039825-0837.jpg)"It is about building a system of plants that work together," Ladine said. "Having a backyard habitat has significantly increased the numbers of birds, bees and butterflies in my yard. It is so exciting to see these creatures come without having to feed them with feeders."

Some of the local plant combos the Marquardts have been drawn to are sword ferns, bleeding heart and Oregon oxalis. They also love planting maidenhair fern and deer fern together in the shade.

PMG PHOTO: CHRISTOPHER KEIZUR - Ladine and Scott Marquardt are in the process of certifying their third home with Backyard Habitat.

With the current home they are in the process of removing the non-native plants that were planted before they moved in. And it doesn't take much for the fast-growing natives to find a foothold. Even though they haven't put in any natives, the plants in the nearby riparian corridor are already starting to pop up.

(https://pamplinmedia.com/images/artimg/00003709039865-0837.jpg)One project is moving a log left from a tree they had to remove into the backyard. It will become a "nurse log" which starts to decay and attracts bugs, which in turn draws birds and other

animals.

"The best thing about native plants is it is all low maintenance," Ladine said. "Once you get them in, you don't have to water or fertilize."

She loves planning how things will look, and enjoys taking her time working in the yard and planting new natives.

"It's a pleasure to watch things grow," Ladine said.

Scott jokes he does the hard labor.

PMG PHOTO: CHRISTOPHER KEIZUR - Backyard Habitat helps create a space to draw all sorts of critters.

"Move this, cut that," he said with a chuckle. "I tease her I am only going to move that shrub one last time."

Ladine added the program works great for anyone wanting to do something with their yard, or who is, perhaps, tired of constantly caring for their grass.

"I recommend starting small — work on a corner of your yard," she said. "It's a process, but once you get into it you find so much enjoyment."

Create a Backyard Habitat

Learn more about the program and apply online at backyardhabitats.org/apply/ (http://backyardhabitats.org/apply/)

From:	Keri Handaly
To:	lisabatey@msn.com; watershed@swni.org; Annie.Bronez@tualatinswcd.org; sara@sandyriver.org; tiffany@jcwc.org; katherine@jcwc.org; rachel.walsh@columbiaslough.org; ryan.banning@columbiaslough.org; jennifer.starkey@columbiaslough.org; monica@emswcd.org; katie@emswcd.org; monica@solveoregon.org; larissa@solveoregon.org; allie@oswegowatershed.org; jack@oswegowatershed.org; renee@wmswcd.org; alexis@tryoncreek.org; kylie@columbiasprings.org; amy@tryonfriends.org; samantha@trwc.org; volunteer@wetlandsconservancy.org; patkaczmarek@wetlandsconservancy.org; asmithers@clarkcd.org; americorps@clarkcd.org; speterson@columbialandtrust.org; mvandemark@audubonportland.org; jglee3288@yahoo.com; cmcqueeney@conservationdistrict.org; Keri Handaly; katya@depave.org; alison.heimowitz@gocwc.org; saanmi78@hotmail.com; adam@clackamasriver.org; celina@thewatershedalliance.org; sunrise@thewatershedalliance.org; ashley.conley@cityofvancouver.us; brooke.porter@cityofvancouver.us
Cc:	Cushman, Bonny; Carina Garcia
Subject:	Together for Watersheds Sept 28th --Protect Water at It"s Source Post
Date:	Monday, September 27, 2021 2:43:23 PM

Hello Everyone,

The Regional Water Providers Consortium is promoting Water Source Protection during Sept until Oct 2nd.

I posted their social media post for Sept 29 on TfW page if you'd like to reshare, please help amplify. It will also be posted on the River Starts Here page.

Keri Morin Handaly

Gresham volunteers survey amphibian egg masses

Christopher Keizur February 07 2022

Teams wade into ponds, stormwater ditches, to track frog and salamander populations

COURTESY PHOTO: CAROL ZYVATKAUSKAS - Marissa Eckman picks up an egg mass in the Dowsett Ditch, a body of water along the Springwater Corridor Trail.

(https://pamplinmedia.com/images/artimg/00003727087604-0837.jpg)Volunteers are wading chest-deep into ponds, ditches, and wetlands across Gresham to count egg masses left by the amphibians that call East Multnomah County home.

Donning waders and using bamboo poles to navigate the sometimes treacherous terrain, 60 local volunteers will venture out three times between February and March to record the eggs. That data is shared with the city of Gresham, which uses the information to make better decisions when it comes to stormwater management.

"It's important for folks to be aware of the natural habitats and what we can do to help amphibians in this community," said Marissa Eckman, Gresham department of environmental services.

The volunteer survey program began three years ago, spearheaded in Gresham by Eckman. Locally they track eggs at 14 different sites. This year's group just completed training Saturday, Jan. 29.

COURTESY PHOTO: CAROL ZYVATKAUSKAS - Tracking the number of amphibian egg masses in local bodies of water helps the city make conservation decisions.

(https://pamplinmedia.com/images/artimg/00003727087648-0837.jpg)"The initial thinking when constructing stormwater ditches was we didn't want amphibians there, so people would try to dissuade them with concrete and little foliage," Eckman said. "But we have learned those stormwater systems have replaced the natural habitats, and can help the amphibian populations thrive."

The survey guides what plants are beloved by salamanders and frogs, how deep the water needs to be, and what temperatures are best for spawning. One survey showed a local pond kept losing egg masses because it was being dredged every 6 years. So the practice changed — with only half the pond being dredged every 3 years so there would still be a place for the amphibians.

COURTESY PHOTO: CAROL ZYVATKAUSKAS - The northwestern salamander is one of the most common types of amphibians found in Gresham.

(https://pamplinmedia.com/images/artimg/00003727087662-0837.jpg)The amphibian egg masses sit near the surface of the water, attached to submerged vegetation or sticks, with a firm jelly layer surrounding the individual eggs. At first the eggs have a black dot in the middle, which eventually develop into tadpoles.

The two most common egg masses surveyed in Gresham are left by the northern red-legged frog and the northwestern salamander.

The northern red-legged frog grow to about 3 inches, and are recognizable by their dark facial masks and light stripes along the jaw. They have powerful jumping legs, and the species love to live in the thick vegetation along the shore of a still body of water. When sensing danger, they will dive down beneath the surface of the water.

City of Gresham - Government

June 15 ·

Recently, students from Rockwood Prep Academy, Powell Butte, & North Gresham Elementary took to downtown Gresham & painted storm drains to raise awareness around the importance of keeping stormwater free of pollutants. We think they did an outstanding job! #TheRiverStartsHere

124 5 Comments 13 Shares

Like Comment Share

Instructor: Susan Spencer
RSVP/Questions:
Keri.Handaly@GreshamOregon.gov
or 503-618-2657

Native Pollinator Workshop (free)
Creating habitat for gentle mason bees

- Who: This event is focused on serving the Outgrowing Hunger Community Gardeners/Farmers and the BIPOC community
- What: Mason bees are important native pollinators—learn how to raise them so they will return each year to your garden
- When: Saturday April 9, 2022 10 am to Noon
- Where: Nadaka Nature Park 17615 NE Glisan St. 97230
- Participants will receive mason bee housing

Did you know? Dragonflies:

- ◊ Existed long before dinosaurs
- ◊ Don't sting or bite
- ◊ Can fly backwards
- ◊ Can fly 30mph

Come learn from local naturalists how to catch and identify the dragonflies that live in your neighborhood!

Wear sturdy shoes and bring your water bottle. Snacks provided.

Register or get more information: jcwc.org/events/dragonfly-days

These free events are sponsored by the City of Gresham in partnership with the Johnson Creek Watershed Council. Art activities by creationsforcures.org.

CITY OF GRESHAM
1333 NW Eastman Pkwy
Gresham OR 97030

Dragonfly Days

When:
June 23, 5pm-7pm &
July 23, 1pm-3pm

Where:
SW Brixton & 43rd
(in your neighborhood!)

Drinking water system expansion awarded $65 million financing

Reservoir construction at the Rockwood Water People's Utility District for the City's joint Cascade Groundwater Alliance project.

"I'm glad to see the City of Gresham and the Rockwood community taking advantage of this opportunity and making sure people have clean and safe water before, during, and after extreme weather events." – Senator Jeff Merkley, Oregon

Big news! The U.S. Environmental Protection Agency awarded the City and Rockwood Water People's Utility District $65 million in loans to develop our joint groundwater system.

"This is a tremendous step forward in providing our community safe and reliable water," said Mayor Travis Stovall.

It's a decision with deep value: Residents will benefit from lower rates over time. Plus, this water source is clean, consistent, and provides resiliency to the effects of climate change and national disasters.

Gresham will receive $34 million of the $65 million in Water Infrastructure Finance and Innovation Act (WIFIA) loans.

Nationally, Gresham is one of 55 cities to receive a loan this year. This financing helps us give more certainty about future costs to our residents and businesses.

Senator Jeff Merkley created the WIFIA law after hearing from Oregon community leaders about the need for affordable water infrastructure financing.

CASCADE GROUNDWATER ALLIANCE
GRESHAM • ROCKWOOD

We're building an independent, safe and reliable water system for our community by 2026.

To do this in the most affordable way, the City and RWPUD formed the Cascade Groundwater Alliance to expand Gresham's and Rockwood's groundwater systems together.

Learn more at **GreshamOregon.gov/Cascade-Groundwater-Alliance**. For more information, email WaterResources@GreshamOregon.gov or call Environmental Services, 503-618-2525.

Greener lawn care tips

Did you know? Lawn chemicals can linger on your lawn for days or months, endangering people, pets, and wildlife.

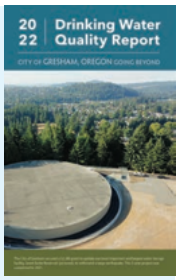
"Safer lawn care is as simple as choosing different approaches or safer products that can also save you money," said Keri Handaly, Environmental Services.

Tips for a "greener" lawn

- **Mow on the highest setting.** Leave grass taller to encourage a stronger root system. Mow often to keep weeds from going to seed and spreading.
- **Wait until fall to fertilize.** This helps prevent harmful algae blooms in our waterways.
- **Lawns only need about 1 inch of water per week.** Find your weekly watering number at regionalh2o.org.
- **Save water by letting your lawn go brown in summer.** It will bounce back in the fall. Apply grass seed all over to help your lawn outcompete weeds.
- **For lawn or garden products,** visit growsmartgrowsafe.org.
- **Replace grass with drought-tolerant ground cover** and naturescaping. Visit backyardhabitats.org.

Learn more at **GreshamOregon.gov/Watershed-Residential-Programs** or call 503-618-2525.

Annual Water Quality Report available



The City's annual Water Quality Report is available and a great way to learn about the water flowing from your tap. It gives details about the source and quality of the drinking water delivered to our community in 2021.

Each year, the City provides its customers with a report to let you know how our water quality stacks up against established federal and state drinking water standards.

Read the report online at **GreshamOregon.gov/2022WQR**. Request a paper copy or translation by calling Environmental Services, 503-618-2525.

GRESHAM YOUTH SERVICES

Changing the game continued from Page 1

The City Council approved $1 million in 2021 to create a Youth Violence Prevention Program using American Rescue Plan Act (ARPA) funding. Another $2 million in state grants covers youth programming until June 2023.

Youth Services' partners offer gang outreach, counseling for youth and families, addiction and mental health services, homelessness and housing instability support, and more.

Youth Services is part of the City's Safe Gresham community violence effort between staff, Gresham Police and community.

Learn more at **GreshamOregon.gov/Youth-Services** or call 503-618-2642.

Emon Ghassemi, Youth Services Manager

"I was very fortunate to have great youth services when I was in grade school. Youth in Gresham deserve to have those great services too," he says.

Ghassemi's work with youth includes teaching English and reading to high school students in Istanbul, Turkey.

Previously, he worked for IRCO, or Immigrant Refugee Community Organization. The program coordinator of the Racial Equity Social Justice Middle School Mentoring and Positive Cultural Identity program, he managed mentoring activities to immigrant and refugee middle students.

Contact Ghassemi at 503-618-2642 or Emon.Ghassemi@GreshamOregon.gov

Marcell Frazier, Youth Violence Prevention Coordinator

"Giving back to East County, the place I grew up, drives me in this new position. I love being able to pay it back to my community and pay it forward to the next generation," he says.

Frazier's work with youth includes Youth Development Associate with the Boys and Girls Club; Sun Program Associate with IRCO; Summer Events in the Park Associate, City of Portland; and high school/college coaching and recruiting coordination.

Previously, he worked at Missouri Valley College as the recruiting coordinator and linebacker's coach.

Contact Frazier at 503-509-7364 or Marcell.Frazier@GreshamOregon.gov

Restoration / Outreach / Education in Gresham for FY2122
by Johnson Creek Watershed Council
August 19, 2022

From July 1, 2021 through June 30, 2022, the Johnson Creek Watershed Council (JCWC) installed native plants and removed invasives, conducted outreach and volunteer events, directed service learning with youth groups, all in the City of Gresham. Statewide closures due to COVID-19 were less of an issue this year than in the previous year. Public schools still were not allowing field trips or teachers were too overworked to partner on trips, so we were not able to hold as many school events as planned. Working with City Of Gresham staff, however, we were able to hold a few alternative events, including the first of two scheduled family-friendly "Dragonfly Days" events.

A total of 112 volunteers participated in 6 events, one of which was bilingual Spanish/English. In six events, 107 youth were engaged. In total, 252 unique individuals were engaged.

Though the 6/17/21 event was at the end of the previous fiscal year, it is included here, as it was left off of last year's report.

1. **Outreach and Volunteer events**

Date	Event Name	# of Volunteers	Total engagement	# Youth engaged
20210617	Play Grow Learn Mulching day		15	15
20210821	Johnson Creek Clean-Up - Springwater Woods	19	19	
20220305	Watershed Wide Event planting Gresham 7th Ave Bridge	42	42	
20220305	Watershed Wide Event planting Gresham Main City Park	14	14	
20220422	Earth Day mulching at Main City Park	18	18	

20220517	Owl pellet lesson at Hollydale SUN school		10	10
20220517	Owl pellet lesson at Hollydale SUN school		15	15
20220608	Amphibian surveys as Pleasant Valley Elementary		55	55
20220611	Dragonfly Survey Orientation		24	12
20220611	Japanese Garden	17	17	
20220623	Dragonfly Days		20	
20220623	Nature Walk		9	
20220629	1st Community Science dragonfly surveys in Gresham	2	2	
	Total in FY2122	112	252	107

Watershed Wide Event at Main City Park (photo by Carol Zyvatkauskas)

2. Social media

JCWC is active on several platforms: Facebook, Twitter, Instagram and Youtube. We also send monthly eBulletins featuring stories on our work, calendar updates and a community calendar. We post daily on the main platforms (with the exception of Youtube). We use these platforms as outreach to attract volunteers to events and to post news from our Council and our partner organizations, including City Of Gresham. Currently we have:

(7.7% increase in Facebook, 14% increase in Instagram followers in one year). We have 469 Followers on Twitter (18% increase) and our monthly eBulletin goes out to 6,245 email addresses (no change). Our average open rate on eBulletins was 29% with a range of 20-39%.

Watershed Wide Event at 7th St, Gresham (photo by Carol Zyvatkauskas)

3. **Riparian.**

JCWC planted and continued riparian plant establishment in Gresham on City property in the Gresham Butte neighborhood on the North side of Johnson Creek and on two private lots on the South side of the Creek (620 & 625 SE 14th Ct). Native plants installed here during FY2122 consisted of 1,200 trees, 1,913 shrubs, and 500 forbs. Invasive species were removed from approximately 2.8 acres. In total, 2,224 linear feet of Johnson Creek were managed.

We were awarded a 319 grant from Oregon Dept. of Environmental Quality to extend our work on Gresham City property. Unfortunately, this expanded work has been postponed, as ORDEQ has not yet prepared the grant contract.

Family-friendly “Dragonfly Days” event

Please see the accompanying spreadsheet for more extensive metrics.

KPTV 2021 Campaign	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	TOTAL
TOTAL TV MESSAGES	49	79	85	47	65	106	94	73	57	52	50	58	815
TELEVISION IMPRESSIONS	1,203,000	1,331,000	1,719,200	845,000	946,500	1,095,000	2,561,000	1,925,000	1,058,000	1,463,000	1,254,000	1,298,000	16,698,700
KPTV.COM BANNER AD IMPRESSIONS	200,024	200,071	200,056	200,023	200,014	200,019	200,023	200,005	200,045	200,116	200,021	200,065	2,400,482
KPTV.COM BANNER AD CLICKS	256	212	235	388	253	269	305	320	285	285	184	173	3,165
KPTV.COM/WATER - PAGEVIEWS	291	257	290	344	337	297	294	363	482	369	244	277	3,845
FACEBOOK IMPRESSIONS	8,456	17,860	11,750	9,222	11,005	23,387	9,523	18,493	32,881	-	16,567		159,144
FACEBOOK CLICKS	93	597	378	197	43	90	231	332	961	-	62	-	2,984
FACEBOOK VIDEO VIEWS	N/A	N/A	2,285	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5,967	N/A	8,252
TOTAL IMPRESSIONS	1,411,480	1,548,931	1,931,006	1,054,245	1,157,519	1,318,406	2,770,546	2,143,498	1,290,926	1,663,116	1,470,588	1,498,065	19,258,326
TOPICS COVERED	Car Wash	Car Wash	Fall Lawn	Fall Lawn	Fall Lawn	Plant a Tree	Snow & Ice	Sweep, Don't Wash	Sweep, Don't Wash	Car Wash	Car Wash	Car Wash	
	Conservation	Conservation	Rain Ready	Rain Ready	Rain Ready	Snow & Ice	Rain ready	Rain Ready	Rain Ready	Lawn Tips	Lawn Tips	Lawn Tips	

Outreach to Businesses

POST THIS NOTICE: REGIONAL STORMWATER REGULATIONS FOR MOBILE CARPET CLEANERS

ALL EMPLOYEES MUST FOLLOW PROPER DISPOSAL PROCEDURES

This is a notice regarding regional regulations for disposal of carpet cleaning fluids from your business. **It is against the law to allow anything other than rain water to enter the public storm system.** Violations that allow cleaning water to enter the stormwater system, like draining wash water to the street or an outdoor drain, are subject to enforcement action including **fines of up to $5,000**.

PROPER DISPOSAL OPTIONS:

1. Use **bathtubs or utility sinks** and a filter over the drain inside the homes that you are cleaning.
2. Use the **wastewater cleanout** at the home which you are cleaning. These are commonly located near the home's foundation.
3. Collect the wash water in a **tank on your vehicle** and pump it into a utility sink or wastewater cleanout at your home or place of business.
4. Check **sanidump.com** for disposal locations.
5. Contact the City or County to **request permission** to use a sanitary system manhole. The sanitary system is a closed system that must be accessed by removal of a manhole lid.


Wastewater cleanout

DO NOT:

1. Pour chemical-laden water onto the ground or into an outdoor drain.
2. Discharge wash water with chemicals in a home with a septic system.

For questions or assistance, call 503-618-2525 or email WaterResources@GreshamOregon.gov.

These agencies enforce stormwater pollution laws:

Clackamas County
Clark County
City of Fairview
City of Gresham
Oak Lodge Water Services
City of Milwaukie
Multnomah County
City of Oregon City
City of Portland
City of Troutdale
City of Vancouver
City of Wilsonville
City of Wood Village

PUBLICAR ESTE AVISO:
REGULACIÓN REGIONAL DE AGUAS PLUVIALES PARA LIMPIADORES MÓVILES DE TAPETES
TODOS LOS EMPLEADOS DEBEN SEGUIR LOS PROCEDIMIENTOS DE DESECHO ADECUADOS

Este es un aviso sobre las regulaciones regionales para la eliminación de fluidos usados en su negocio para la limpieza de alfombras. **Es contra la ley permitir que cualquier otro tipo de líquidos que no sea agua de lluvia ingrese al sistema público de tormentas.** Las violaciones que permiten que lo ingrese al sistema de aguas pluviales, como drenar el agua de lavado a la calle o un desagüe al aire libre, están sujetas a medidas de cumplimiento que incluyen **multas de hasta $ 5,000.**

OPCIONES DE ELIMINACIÓN ADECUADA:


limpieza de agua residual

1. Utilice **bañeras o lavaderos y un filtro** sobre el drenaje dentro de los hogares que usted esté limpiando.
2. Utilice **la limpieza de agua residual** en el hogar que usted esté limpiando. Por lo general, se encuentran al lado o en la parte trasera de los hogares.
3. También podrá recoger el agua de lavado, dentro de un **tanque de su vehículo** y bombearla hacia un lavadero o aguas residuales en su hogar o en su negocio.
4. Vea **sanidump.com** para encontrar las ubicaciones de eliminación.
5. Usted también puede comunicarse con la ciudad o el condado para **solicitar permiso** para utilizar una boca de drenaje del sistema sanitario que le quede cerca. El sistema sanitario es un sistema cerrado, al que se debe acceder removiendo la tapa del drenaje o alcantarilla.

NO:

1. Vierta agua con sustancias químicas en el suelo o en un drenaje o desagüe al aire libre.
2. Descargue agua de lavado con sustancias químicas en un hogar que tenga sistema séptico.

¿Tiene preguntas? WaterResources@GreshamOregon.gov o en el 503-618-2525

Estas agencias hacen cumplir las leyes de contaminación de aguas pluviales:

Clackamas County
Clark County
City of Fairview
City of Gresham
Oak Lodge Water Services
City of Milwaukie
Multnomah County
City of Oregon City
City of Portland
City of Troutdale
City of Vancouver
City of Wilsonville
City of Wood Village

CITY OF GRESHAM 1333 N.W. Eastman Parkway | Gresham, OR 97030 | 503-618-2525

September 22, 2021

Dear Columbia Slough Watershed Businesses,

As you may or may not know, your business is in the Columbia Slough Watershed. Storm drains in parking lots and streets near your business drain to the Slough, which supports fish and other local wildlife.

On several recent occasions, City of Gresham staff have observed a sudden flow of cloudy water from a stormwater pipe into a local water quality facility (photo below). This likely indicates that someone in the area dumped or spilled some kind of liquid waste into a storm drain.

The City of Gresham is reaching out to remind you that it is ILLEGAL to wash, rinse, or dump anything into a storm drain. Instead, please follow these practices:

- Dispose of nonhazardous waste (like mop or carpet cleaning water or water-based paint rinsate) in an indoor sink or wastewater pipe cleanout.
- Dispose of small amounts of latex paint by letting it dry out and placing in the garbage.
- To dispose of hazardous materials including larger amounts of paint, visit OregonMetro.gov or call 503-234-3000.
- Wash vehicles at a commercial car wash or use a mobile service that collects wash water for disposal.
- Protect storm drains during construction or maintenance: sweep hard surfaces and use berms or inserts to keep debris out.
- Use only clean, cold water for pressure washing—no cleaning products.

If you see someone dumping or washing into an outdoor drain, try to get a picture and contact us right away at 503-618-2525 or WaterResources@GreshamOregon.gov. If you witness dumping or a spill of a substance, like fuel, that could be immediately hazardous to people or wildlife, call 911 so that a HazMat response can be initiated.

Thank you for helping protect our rivers and streams! If you have questions about this letter, please contact us at 503-618-2525 or WaterResources@GreshamOregon.gov.

Уважаемые владельцы предприятий водосборного бассейна плавней Колумбия-Слау!

Как вы, возможно, знаете, ваше предприятие находится на территории водосборного бассейна плавней Колумбия-Слау. Стоки из коллекторов ливневой канализации на парковках и улицах рядом с вашим предприятием попадают в плавни, где обитают рыбы и другие представители местной фауны.

В последнее время сотрудники грешемской администрации неоднократно наблюдали мощные сбросы мутной воды из водосточной трубы в местное дренажное сооружение (фото ниже). Скорее всего, это означает, что какое-то из местных предприятий намеренно или случайно сливает в ливневую канализацию жидкие отходы.

Администрация города Грешем напоминает, что мыть или промывать что-либо, сливая отходы в ливневую канализацию, ПРОТИВОЗАКОННО. Вместо этого необходимо делать следующее:

- Сливайте неопасные отходы (грязную воду после мытья полов, чистки ковров или промывки оборудования для нанесения водоэмульсионных красок) в раковину или канализацию в помещении.
- Остатки латексных красок можно выбросить в мусор в засохшем виде.
- Указания по утилизации опасных материалов и большого количества краски можно получить на веб-сайте OregonMetro.gov или по телефону 503-234-3000.
- Мойте машины на автомойке или пользуйтесь услугами мобильной службы по сбору и утилизации промывочной воды.
- Не допускайте засорения коллекторов ливневой канализации при проведении строительных или ремонтных работ: подметайте твердые поверхности, закрывайте коллекторы крышками и устраивайте бермы.
- Для мойки под давлением используйте только чистую холодную воду без чистящих средств.

Если увидите, что кто-то сливает отходы в ливневую канализацию, постарайтесь это сфотографировать и сразу же свяжитесь с нами по телефону 503-618-2525 или адресу WaterResources@GreshamOregon.gov. Если вы заметите намеренный или случайный слив вещества, которое представляет непосредственную опасность для людей или животных (например, топлива), позвоните по телефону 911, чтобы были приняты меры по реагированию на опасные материалы.

Благодарим вас за то, что бережете наши реки и ручьи! Если у вас возникли вопросы по содержанию данного письма, свяжитесь с нами по телефону 503-618-2525 или адресу WaterResources@GreshamOregon.gov.

Estimados negocios de Columbia Slough Watershed:

Como ya es posible que lo sepa, su negocio se encuentra ubicado en el área de Columbia Slough Watershed. Los desagües pluviales en los estacionamientos y las calles cerca de su negocio desembocan en la Ciénega (Slough) que alberga peces y fauna local.

En varias ocasiones recientes, el personal de la Ciudad de Gresham ha observado un flujo repentino de agua turbia desde una tubería de aguas pluviales hacia una instalación local para el monitoreo de la calidad del agua (foto de abajo). Esto probablemente indica que alguien en el área arrojó o derramó algún tipo de desperdicio líquido en un desagüe pluvial.

La Ciudad de Gresham se está comunicando con usted para recordarle que es ILEGAL lavar, enjuagar o tirar cualquier cosa en un desagüe pluvial. En su lugar, siga las siguientes prácticas:

- Vacíe los desechos no peligrosos (como el agua del trapeador o la que utilizó para limpiar alfombras, o el agua residual de la pintura a base de agua) en un fregadero interior o en una tubería de desagüe.
- Elimine pequeñas cantidades de pintura látex dejándola secar y tirándola a la basura.
- Para deshacerse de materiales peligrosos, incluidas grandes cantidades de pintura, visite OregonMetro.gov o llame al 503-234-3000.
- Lave los vehículos en un lavado de autos comercial o use un servicio móvil que recolecte el agua de lavado para su eliminación.
- Proteja los desagües pluviales durante la construcción o el mantenimiento de sus instalaciones: barra las superficies duras y use terraplenes o protectores para que los escombros no ingresen por el desagüe.
- Utilice sólo agua limpia y fría para el lavado a presión, no haga uso de productos de limpieza.

Si ve a alguien vertiendo o lavando algo en un desagüe al aire libre, intente obtener una foto y contáctenos de inmediato llamando al 503-618-2525 o escribiendo a WaterResources@GreshamOregon.gov. Si es testigo de un vertido o el derrame de una sustancia, como combustible, que podría ser inmediatamente peligroso para las personas o la vida silvestre, llame al 911 para que se pueda iniciar una respuesta HazMat.

¡Gracias por ayudar a proteger nuestros ríos y arroyos! Si tiene preguntas sobre esta carta, comuníquese con nosotros llamando al 503-618-2525 o escribiendo a WaterResources@GreshamOregon.gov.

Attention Builders and Contractors

Wet Weather Construction Season is October 1st – May 31st

Thank You For Building Responsibly To Minimize Erosion

City of Gresham Erosion Prevention Requirements:

DO

- ✓ Maintain perimeter protection
- ✓ Maintain rocked construction entrance
- ✓ Protect catch basins
- ✓ Cover and protect bare soil
- ✓ Sweep the street

DON'T

- ☹ Allow muddy water to flow off construction site
- ☹ Leave disturbed soil unprotected
- ☹ Track dirt or mud onto street
- ☹ Get caught unprepared during wet weather

Perimeter protection (fiber roll/wattle, silt fence, or rocked subgrade) to keep soil on site

Tarped stockpiles and exposed soil protected with straw to prevent runoff

Catch basins inserts

Rocked construction entrance

Questions? Contact Karen Bromley, City of Gresham Environmental Specialist, at 503-618-2289

CITY OF GRESHAM 1333 N.W. Eastman Parkway | Gresham, OR 97030 | 503-618-2525

February 8, 2022

Andrea Lynn Place c/o Princeton Property
7831 SE Lake Rd Ste 200
PORTLAND, OR 97267

RE: Andrea Place Apartments - 461 SE 169th Ave., Portland

Dear Property Owner/Manager:

The property at the above-referenced location has a private stormwater filter vault. Stormwater filter vaults are passive, flow-through filtration systems that use rechargeable cartridges to remove pollutants from the rainwater that is discharged to Gresham's stormwater system and waterways (see enclosed photos).

Stormwater vaults and filters require regular maintenance by trained professionals using specialized equipment. This maintenance is the responsibility of the property owner. Your stormwater filter vaults should be inspected annually and serviced per the inspection results.

Please submit the following by March 15, 2022:

1. **Completed stormwater facility inspection report showing that the stormwater facility has been inspected.**
2. **Maintenance report showing completion of any maintenance work indicated by the inspection report.**

A list of companies certified to perform inspections and maintenance on Contech and Stormwater Management Inc. filter vaults is enclosed. These companies can also provide the City with the required inspection and maintenance documents.

Failure to respond to these requirements may result in enforcement actions and civil penalties ranging from $750 to $1,500.

Please contact me if you have any questions about this notice.

Christa Britton

Christa Britton
City of Gresham, Water Resources
Christa.Britton@GreshamOregon.gov
503-618-2522

Enclosures

Maintenance warning: Stormwater vaults are oxygen-limited environments. You should not enter or attempt to clean a stormwater vault unless you have proper training, as serious injury may result.

Example photo of a stormwater filter vault. The vaults on your property may be larger or smaller and may be located in a paved area. The metal plates are typically labeled “Contech” or “Stormwater Management, Inc”.

Stormwater filter vault with grate and two filter cartridges, open for cleaning.

CITY OF GRESHAM

1333 N.W. Eastman Parkway | Gresham, OR 97030

March 3, 2022

Dear Company

The City frequently receives reports of professional companies involved in unpermitted tree pruning and removal.

The City of Gresham is contacting all landscape, tree removal and arborist companies that have a City of Gresham business license to proactively share the following key aspects of the Gresham Tree Regulations (GCDC Section 9.1000).

1. Permits required for tree removal
    a. Obtain a copy of the City of Gresham tree removal permit from the property owner before cutting. A Miscellaneous (Type II) Permit may be required in-lieu-of a Tree Removal Permit if the activity is to occur within an environmental overlay district (Natural Resource Overlay (NRO) or Hillside and Geologic Risk Overlay (HGRO))
    b. Contact the Planner on Duty at POD@GreshamOregon.gov or 503-618-2780 (include property address) with any questions about tree pruning and removal. The Planner on Duty is available to provide guidance specific to each property.
2. Tree topping is a code violation
    a. Per City code, tree topping is defined as "the practice of cutting the dominant central stem or the most ascending branches leaving stubs or lateral branches that are too small to assume the role of a terminal leader. Generally, cutting back the dominant or most ascending stem to a diameter exceeding 15 percent of the tree's diameter at breast height (DBH), or as determined by a Certified Arborist, will be considered topping."
    b. Tree topping is considered tree removal (GCDC 3.0150) and results in an unnatural tree canopy in which the abnormal canopy must be maintained, or the resultant tree structure is weak and susceptible to disease and breakage (nuisance and hazards).
3. Environmental overlays
    a. Trees located in environmentally sensitive areas including the Natural Resource Overlay (NRO) and Hillside and Geologic Risk Overlay (HGRO) carry additional protections.

Actions to avoid

- Removing trees without a permit is a violation of the Gresham Community Development Code.
- Removing trees on City open space is a violation of the Gresham Revised Code.
- Removing trees from someone else's property without consent, including the unpermitted removal of City trees, may be considered a timber trespass (ORS 105.810).

Per GCDC section 9.160, the City of Gresham may hold responsible any property owner and/or company that violates the Gresham Tree Regulations.

Potential penalties

- Tree violation civil penalties are currently under review by the City and are subject to change.
- Removing trees without a permit can result in a civil penalty of up to $500 per day, per violation.
- Violations within environmentally sensitive areas can result in additional penalties of up to $500 per day, per violation.
- Penalties for timber trespass can be severe, including an award of triple damages, reimbursement of the costs of litigation (including attorney fees) and the reasonable costs of reforestation activities to repair any damage caused. Reforestation activities may include but are not limited to the cost necessary to clean up dead and damaged trees, performing geotechnical or other analysis to evaluate the potential risk of landslides and replanting trees.

Why does the City regulate trees?

Healthy trees provide slope stability, reduce flooding and runoff, filter air pollution and traffic noise, provide shade, and add to the overall livability of Gresham.

Trees in Gresham are regulated differently depending on their location, purpose, size and type. The City regulates tree cutting to make sure too many aren't cut down at once, trees are replaced to maintain or add to the City's tree canopy, and damaged or overgrown trees don't become a hazard to the community.

Please let me know if you have any questions.

Thank you,

Jessica Harper
Community Services Manager
(503) 618-2869
Jessica.Harper@greshamoregon.gov

A CLIMATE RESILIENT ROCKWOOD

URBAN HEAT ISLAND MITIGATION INTERVENTIONS

December 2021

ROCKWOOD

Effects of the Urban Heat Island impacts underserved communities the most. Robust interventions need to be implemented to safeguard the health of these community members.

HEALTH INDEX 62

TOTAL PROJECT AREA 50 ACRES

15% PUBLIC TAXLOTS

34% PRIVATE PROPERTY

51% PUBLIC R.O.W.

ISSUES

IMPERVIOUS SURFACE

87% STREETS

98% PARKING LOTS, BUILDINGS, COMMERCIAL BUILDINGS

8% EXISTING TREE CANOPY

32% IDEAL

HOT

HEAT DOME

104°F

High Temperatures
Impacts to Community Health
Increased Energy Consumption
Increased Stress on Trees
Elevated Air Pollution
Impaired Water Quality

SOLUTIONS

INCREASE TREE CANOPY

COOL / GREEN ROOFS AND PAVEMENT

EXPAND GREEN SPACES AND PAVEMENT REMOVAL

COOL

Lower Temperatures
Decreased Energy Consumption
Improved Community Health
Improved Outdoor Thermal Comfort
Reduction of Air Pollution
Improved Water Quality

CITY OF GRESHAM OREGON | Multnomah County Office of Sustainability | JUNCUS STUDIO

A CLIMATE RESILIENT ROCKWOOD

URBAN HEAT ISLAND MITIGATION INTERVENTIONS

December 2021

NEED 425 MORE TREES WITH 30' CANOPY DIA. = 32% TREE CANOPY

GOAL 32%

32%

8%

TREE CANOPY COVER

EXISTING TREES

PRIVATE PROPERTY

PUBLIC ROW

TIME

TREE CANOPY

EXISTING PROPOSED

EXPANDED GREEN SPACES AND PAVEMENT REMOVAL

EXISTING PROPOSED

COOL ROOFS AND PAVEMENT

EXISTING PROPOSED

181ST AVE

HEAT ISLAND EFFECT

EXISTING CONDITION

HEAT ISLAND EFFECT

PROPOSED CONDITION

CITY OF GRESHAM OREGON | Multnomah County Office of Sustainability | JUNCUS STUDIO

A CLIMATE RESILIENT ROCKWOOD

URBAN HEAT ISLAND MITIGATION INTERVENTIONS

December 2021

EVERGREEN TREES AT RESIDENTIAL BUILDINGS

STRUCTURAL SOILS

PAVEMENT REMOVAL

GREEN ROOFS

TREE PLANTING

SE 181ST AVE

CITY OF GRESHAM OREGON | Multnomah County Office of Sustainability | JUNCUS STUDIO

CITY OF GRESHAM

Storm Drain Cleaning Assistance Program is OPEN

The City of Gresham coordinates this program to offer a steep discount on cleaning of parking lot drains in Gresham, Troutdale, Fairview, and Wood Village.
This is a voluntary program to help area businesses prevent flooding and water pollution.
Please re-register each time you would like to participate.

Find more information or sign up at GreshamOregon.gov/SCAP

Register by October 31st for cleaning at $50 per drain.

SIGN UP HERE

Questions?
GreshamOregon.gov/SCAP **or 503-618-2522**

GreshamOregon.gov