CITY OF
GRESHAM

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

December 28, 2018

Derek Sandoz
UIC Program Coordinator
Oregon Department of Environmental Quality
Headquarters, Operations Division
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

RE: WPCF Stormwater Permit #WPCF-DOM-UIC-103043 Permit Year 6 Annual Report

Dear Mr. Sandoz:

I am pleased to submit an electronic copy of the Water Pollution Control Facility Annual Report for the City of Gresham Permit No. WPCF-DOM-UIC-103043, File No. 112110, expiration date November 30, 2022. (pdf format) A hard copy of this report is being sent as first class mail.

The report contains a summary of stormwater monitoring findings from the past year, a section that describes the City's implementation of its stormwater management plan, and a summary of UIC system updates for the past and coming year. 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 final report will be available on the City of Gresham's website after the first of the year.

If you have any questions regarding this report, please contact me (503) 618-2657 or Keri.Handaly@GreshamOregon.gov.

Sincerely,

Keri Morin Handaly, WPCF/NPDES Permit Coordinator
Department of Environmental Services

cc: Torrey Lindbo, Water Sciences Manager
Steve Fancher, Department of Environmental Services Director

WPCF Permit Annual Compliance Report

Permit Year 6

WPCF-DOM-UIC-103043

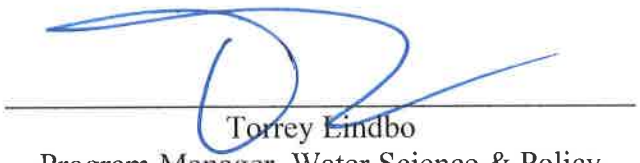
File No. 112110

CITY OF
GRESHAM

December 2018

Water Pollution Control Facility
Permit #: WPCF-DOM-UICV-103043
File Number: 112110
Permit Year 6 Annual Report
City of Gresham

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Torrey Lindbo
Program Manager, Water Science & Policy
Water Resources Division
City of Gresham

For additional information regarding this report, please contact:

Keri Morin Handaly
UIC/NPDES MS4 Permit Coordinator, Water Resources Division
Department of Environment Services
City of Gresham
1333 NW Eastman Parkway
Gresham, OR 97030
(503) 618-2657
www.greshamoregon.gov

Introduction

The City of Gresham is submitting this report in accordance with the requirements of Water Pollution Control Facility permit # WPCF-DOM-UIC-103043. This report is intended to provide a brief summary of the activities conducted by the City to manage stormwater using Underground Injection Control (UIC) devices in a manner that is protective of groundwater.

Reporting Requirements

Schedule B.4 of the WPCF permit required the first annual report to be submitted in December 2013 and subsequent reports to be submitted to DEQ by December 31 of each year, to address report requirements a through g. The following table lists those requirements along with the section where the information is contained in this Annual Report.

Table 1. Permit required report components and location within Annual Report

Permit Reporting Requirement	Report Section
a. Include the results of your stormwater monitoring conducted in accordance with your stormwater monitoring plan. This must include a spreadsheet of all data from sampled UICs provided in the analytical laboratory reports;	Section A
b. Discuss any Table 1 action level exceedances and actions taken to address the exceedances;	Section A
c. Describe any actions taken to implement the underground injection control system management plan required in Schedule D, condition 5, any proposed modifications to the management plan, and any additional actions taken to manage your injection systems to ensure groundwater protection;	Section B
d. Describe any actions described in your plan that you were not able to complete and why;	Section B
e. Identify any injection systems that you closed, retrofitted, or installed during the year;	Section C
f. Describe your future (in the next year) plans to install, modify, convert, or close any underground injection system; and	Section C
g. *Provide one hard copy and one electronic copy of the annual report. The report will include a tabular summary of results and description of any significant findings. You must retain copies of analytical laboratory reports as described in Schedule F condition 3.*	Entire report

Adaptive Management

As described in the WPCF permit in Schedule D. 6. Adaptive Management, the City follows an annual adaptive management process to assess and modify, as necessary, program elements to achieve reductions in stormwater pollutants. This includes consideration of available technologies and practices; review of monitoring data generated by the implementation of the monitoring plan and corresponding analysis of the data; review of goals and tracking measures; and evaluation of City resources available to implement the technologies and practices. Any proposed changes, adaptive management or additions of Best Management Practices (BMPs) are described in the respective report sections.

UIC Management Plan

To comply with Schedule D.5. of the WPCF permit, the City of Gresham submitted a UIC Management Plan (UICMP) on October 2, 2012, which was approved by DEQ. The management plan describes how the City implements a program to address the following elements in order to protect groundwater quality:

a. *Stormwater monitoring, including how you will use stormwater monitoring results to ensure compliance with the action levels in Schedule A, Table 1;*
b. *Injection system decommissioning;*
c. *Employee education and public outreach;*
d. *Injection system operation and maintenance;*
e. *Protecting injection systems from accidental spills or illicit disposal of wastes or contaminants; Preventing injection of stormwater from loading docks, refueling areas, areas of hazardous and toxic material storage or handling, materials storage or handling areas, or other discharges that may contain pollutants above levels of concern;*
f. *Housekeeping practices to protect groundwater quality;*
g. *Facility designs or practices that allow you to block discharge into any underground injection systems in the event of an accident, spill, or emergency fire-fighting activity.*

The implementation status and measurable goals for all stormwater BMPs conducted throughout the City is provided in Section B.

Report Organization

Section A – WPCF (UIC) Stormwater Monitoring Data
1. Background and Permit Requirements
2. Summary of Monitoring Findings
3. Table 1 Pollutant Data and Action Levels
4. Stormwater Monitoring Data Table

Section B – WPCF (UIC) System Management Plan
1. UIC-Specific BMP Implementation Status
2. NPDES MS4 Stormwater Management Plan Implementation Status

Section C – WPCF (UIC) System Inventory Summary and Updates (FY 17-18)
1. System inventory summary and updates
2. Future Plans
3. Table C1: UIC System Updates

Section A – WPCF Permit -UIC Monitoring Data

1. Background and Permit Requirements

In order to comply with Schedule B.2. of the WPCF permit, the City submitted a Stormwater Monitoring Plan to DEQ on October 2, 2012. The City drafted the original plan on November 21, 2011 and began implementing it in 2011-12, which is referred to as Permit Year Zero (PY 0). The plan was modified and submitted to DEQ in December 2016. The data from PY 5 and PY 6 reflect the modified plan. The rotating sites that are sampled are controlled such that sampling locations will not repeat.

Each year the City of Gresham monitors random and spatially balanced locations that are stratified by traffic levels – half of the sites are from streets with <1000 vehicle trips per day (TPD), while the other half are from streets with >1000 TPD. In PY 0-PY 4, 30 locations were monitored each year; starting with PY 5, 10 locations are monitored each year. Five of the locations monitored each year are "fixed" sites that are sampled annually and five of the locations are "rotating" sites that do not repeat. (**Figure A1** shows the locations for sampled during PY 6.

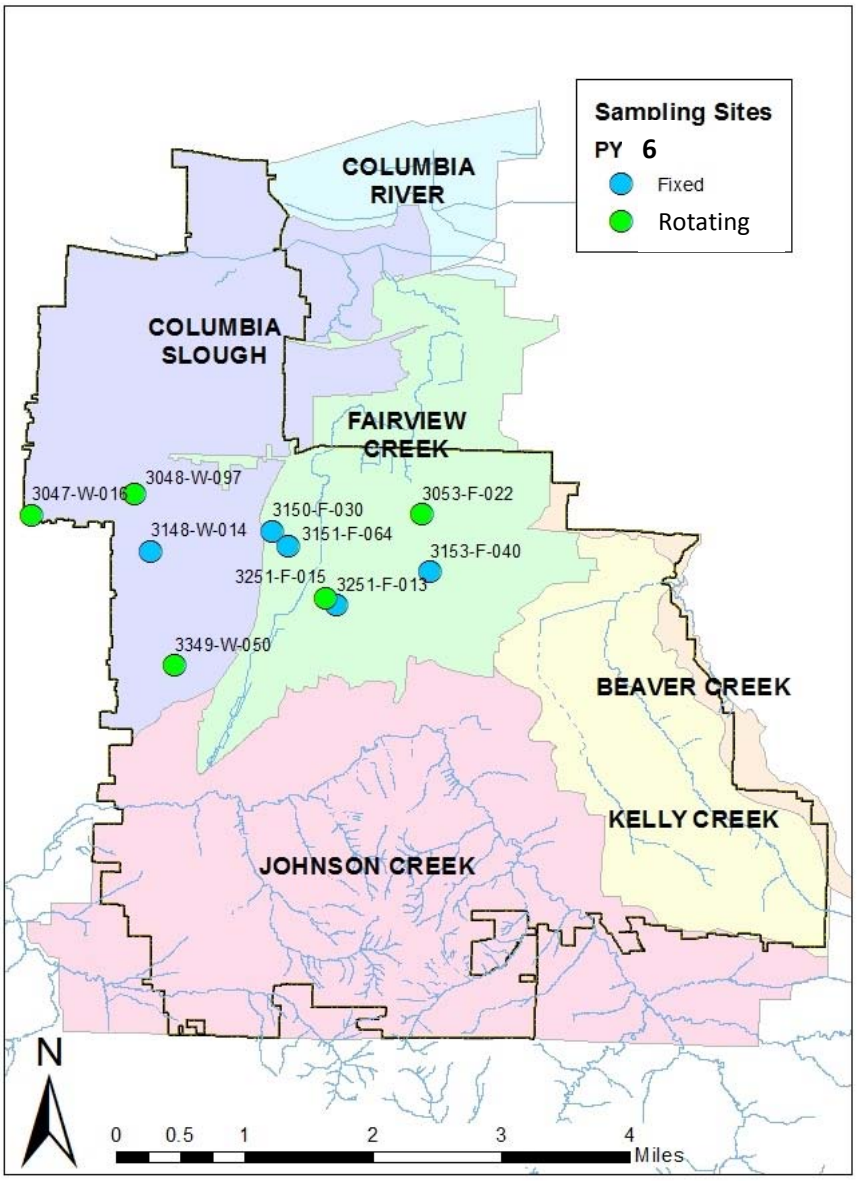
The constituents monitored at each UIC sampling location fall into four categories, based upon the requirement or rationale the City used when including it in the Stormwater Monitoring Plan. **Table A1** summarizes the rationale and constituents monitored in PY6.

Table A1. Constituents Monitored at UIC Locations and Included in Annual Report

1. Those required by the WPCF permit (Schedule A.2 Table 1);	Benzo(a)pyrene, Di(2-ethylhexyl)phthalate (DEHP), Pentachlorophenol, Total Metals (Antimony, Lead, Zinc, Copper), 2,4-D
2. Those required by the NPDES MS4 permit (the City monitors these constituents at the same UIC monitoring locations);	BOD, TSS, Hardness, *E. coli*, Nitrate, TKN, Ammonia, Total Phosphorus, Ortho-phosphorus, Total Mercury, Dissolved metals (Copper, Lead, Zinc)
3. Those the City screens for periodically in order to evaluate status;	Trifluralin in PY6 (glyphosate conducted in PY5)
4. Those constituents included as part of the analyses with required pollutants.	Numerous PAHs, phthalates, and pesticides

Part 2 of Section A summarizes significant findings, while **Part 3** focuses specifically on the 8 pollutants listed in WPCF Permit Schedule A, Table 1 and how the data relates to the action levels listed in that table.

Figure A1. Locations of Fixed and Rotating Sampling Sites



The panel of 5 "fixed" monitoring locations consists of 3 low traffic (<1000 TPD) and 2 locations on high traffic (>1000 TPD) streets. The rationale for selecting a lower number of high traffic sites in the fixed panel is that this means that one additional sites in the "rotating" panel are from high traffic streets, resulting in a higher proportion of high traffic sites being sampled over the permit term.

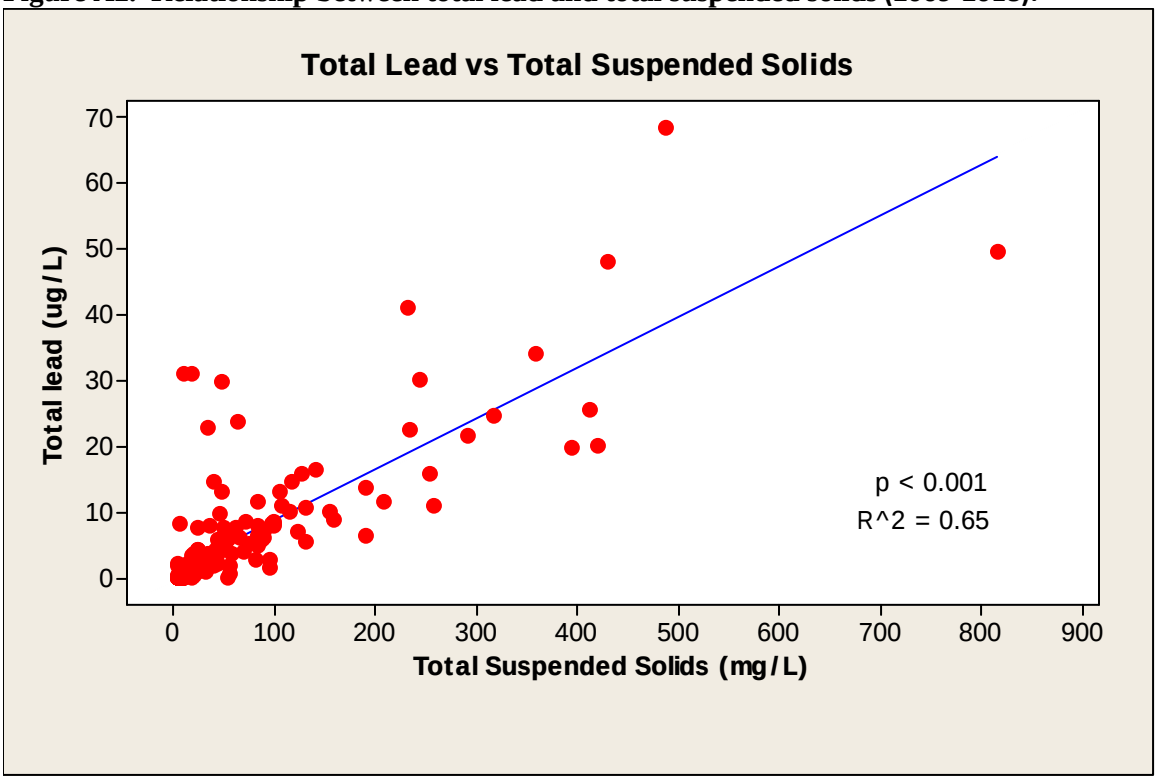
2. Summary of Monitoring Findings

For this PY6 report, staff analyzed all the UIC sampling data collected to date. This includes 230 total samples (PY 0-PY 6 plus a special study of 60 UICs in 2009-2010).

Stormwater monitoring data revealed higher traffic sites (>1000 vehicle trips per day (TPD)) generally had higher pollutant concentrations in comparison to residential streets (<1000 TPD). The City continues to focus pre-treatment capital improvement projects on high traffic streets.

There was a strong positive correlation between total suspended solids (TSS) and pollutants that are typically associated with sediment, including total phase metals (antimony, copper, lead, mercury, and zinc), as well as total nutrients (P and N). **Figure A2** shows an example of this relationship using detections of lead.

Figure A2. Relationship between total lead and total suspended solids (2009-2018).



The strong correlation between sediment (TSS) and pollutants means that the City will continue current efforts to remove sediment from streets and catch basins. As the groundwater protectiveness demonstrations provided to DEQ by the City demonstrate, pollutants can be effectively prevented from entering groundwater by leaving them bound to sediment and organic matter. City staff remove sediment from UICs, as needed, to prevent clogging and failure.

3. Table 1A: Pollutant Data and Action Levels Analysis

No samples in PY 6 were above action levels. Most samples were at least an order of magnitude below action levels. Raw data for PY 6 is included in **Table A2**. **Figures A3-A10** show comparisons of **Table A1** pollutants across traffic levels, along with their respective method reporting limits (MRL). The only **Table A1** pollutant that had any detections above the action levels for any of the 220 samples over the past eight years was 2,4-D. The results were discussed in the PY 4 Annual Report and are still protective of groundwater.

Levels of seven of the eight **Table A1** pollutants were significantly higher (alpha=0.01 evaluated using nonparametric Kruskal-Wallis test) on high traffic streets versus lower traffic streets (> and < 1000 trips per day). The one pollutant which did not follow this trend is 2,4-D, which is an herbicide not expected to be concentrated on higher traffic streets because it does not come from vehicles, but rather lawns/landscaping that occur in greater density on lower traffic roads.

Table A2: Stormwater Monitoring Raw Data—NPDES MS4 and WPCF Permit Required Collection Parameters

System_ID Method Reporting Limit	Trips per Day	Land Use	Functional Class	Date	Time	Rainfall Previous inches/24 hrs	DO mg/l	pH	Temp °C	Conduc-tivity µS/cm
Analytical Method										
3148-W-014	>1000	Residential	Community	10/19/2017	9:57	0.49	10.84	7.39	12.1	9.6
3151-F-064	>1000	Commercial	Collector	10/19/2017	6:53	0.19	10.32	8.35	13.3	93.9
3047-W-016	>1000	Commercial	Minor arterial	10/19/2017	10:30	0.49	8.72	7.55	12.5	21.3
3048-W-097	>1000	Residential	Community	10/19/2017	10:55	0.61	11.27	7.42	12.6	9
3053-F-022	>1000	Commercial	Minor Arterial	10/19/2017	8:05	0.27	9.83	7.95	12.4	39.7
3251-F-013	<1000	Residential	Residential	10/19/2017	8:36	0.27	11.73	7.71	12.1	15
3251-F-015	<1000	Residential	Residential	10/19/2017	9:04	0.39	9.98	7.7	12.4	12.5
3150-F-030	<1000	Residential	Residential	10/19/2017	7:22	0.19	10.03	8.1	12.5	20.1
3153-F-040	<1000	Residential	Residential	10/19/2017	8:10	0.27	10.64	7.67	12	12.4
3349-W-050	<1000	Residential	Residential	10/19/2017	9:30	0.39	11.1	7.48	12.3	9.6
FD										

Analysis Coding for the Reported Data

Bold = < than detection value or an Estimated value for bacteria

NA = constituents not sampled due to equipment failure or other extenuating circumstance

NM= not measured **ND**= not detected

Dup = Duplicate Sample

MRL = method reporting limits are included at the top of each data set where they are constant. For parameters were no MRL is included, this means they vary by sample due to properties of the sample, such as conductivity. Results below the MRL are estimates of detections as reported by the laboratory.

FD = Field Duplicate Sample

System_ID Method Reporting Limit	Trips per Day	Land Use	Functional Class	Date	Time	Rainfall Previous inches/24 hrs	Turbi-dity NTU	E. coli MPN /100 mL	BOD 2 mg/L	DOC 1 mg/L	TSS 2 mg/L	Ammonia 10 ug/L	Nitrate 100 ug/L
Analytical Method								**SM 9223 B**	**SM 5210B**	**SM 5310B**	**SM 2540D**	**EPA 300.0**	**EPA 300.0**
3148-W-014	>1000	Residential	Community	10/19/2017	9:57	0.49	40.2	640	15	9.51	6	167	120
3151-F-064	>1000	Commercial	Collector	10/19/2017	6:53	0.19	65.4	1500	6	5.49	31	490	130
3047-W-016	>1000	Commercial	Minor arterial	10/19/2017	10:30	0.49	70.6	>24000	9	7.54	51	871	140
3048-W-097	>1000	Residential	Community	10/19/2017	10:55	0.61	21.6	320	2	2.38	10	113	**100**
3053-F-022	>1000	Commercial	Minor Arterial	10/19/2017	8:05	0.27	59.2	440	5	3.66	30	181	120
3251-F-013	<1000	Residential	Residential	10/19/2017	8:36	0.27	5.96	400	10	7.66	3	42	**100**
3251-F-015	<1000	Residential	Residential	10/19/2017	9:04	0.39	6.53	130	5	6.05	9	30	**100**
3150-F-030	<1000	Residential	Residential	10/19/2017	7:22	0.19	10.8	430	>22	38.4	30	474	**100**
3153-F-040	<1000	Residential	Residential	10/19/2017	8:10	0.27	8.27	20	2	2.82	5	100	**100**
3349-W-050	<1000	Residential	Residential	10/19/2017	9:30	0.39	10.6	3800	3	2.49	7	102	**100**
FD								360	>22	37.8	23	447	**100**

Analysis Coding for the Reported Data

Bold = < than detection value or an Estimated value for bacteria

NA = constituents not sampled due to equipment failure or other extenuating circumstance

NM= not measured **ND**= not detected

Dup = Duplicate Sample

MRL = method reporting limits are included at the top of each data set where they are constant. For

FD = Field Duplicate Sample

System_ID Method Reporting Limit	Trips per Day	Land Use	Date	Time	Rainfall Previous inches/24 hrs	ortho-P 20 ug/L	Total Kjeldahl Nitrogen 200 ug/L	T-Phos 30 ug/L	Hardness mg/L CaCO3	Total Antimony 0.100 ug/L	Total Cadmium 0.100 ug/L	Total Copper 0.200 ug/L
Analytical Method						**EPA 365.1**	**EPA 351.2**	**EPA 365.4**	**SM 2340B CAL**	**EPA 200.8**	**EPA 200.8**	**EPA 200.8**
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	92	670	81	5.01	0.862	**0.1**	8.25
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	31	900	108	13.2	1.780	**0.1**	14.3
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	56	1750	171	11.7	2.160	**0.1**	20.1
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	**20**	370	43	5.07	0.500	**0.1**	3.86
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	26	530	76	31.9	0.874	**0.1**	9.12
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	120	510	136	8.91	0.137	**0.1**	10.8
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	74	410	82	6.4	0.184	**0.1**	6.5
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	66	2080	106	7.02	0.664	0.141	15.2
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	29	270	43	7.8	0.252	**0.1**	5.31
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	53	280	62	5.51	0.266	**0.1**	3.03
FD						72	1730	109	6.73	0.453	**0.1**	10.2

Analysis Coding for the Reported Data

Bold = < than detection value or an Estimated value for bacteria

NA = constituents not sampled due to equipment failure or other extenuating circumstance

NM= not measured **ND**= not detected

Dup = Duplicate Sample

MRL = method reporting limits are included at the top of each data set where they are

FD = Field Duplicate Sample

System_ID Method Reporting Limit	Trips per Day	Land Use	Date	Time	Rainfall Previous inches/24 hrs	Total Lead 0.100 ug/L	Total Mercury 0.00200 ug/L	Total Zinc 0.500 ug/L	Dissolved Copper 0.200 ug/L	Dissolved Lead 0.100 ug/L	Diss Zinc 0.500 ug/L
Analytical Method						**EPA 200.8**	**EPA 200.8**	**EPA 200.8**	**EPA 200.8**	**EPA 200.8**	**EPA 200.8**
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	2.01	0.00789	48.4	3.700	0.126	24
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	2.94	0.0113	68.5	5.190	0.158	26
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	5.65	0.0084	130	7.110	0.394	51.6
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	0.584	0.00255	20.2	1.770	**0.102**	10.1
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	1.22	0.00595	32.3	3.750	**0.102**	8.85
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	0.147	0.00626	74.2	7.250	**0.102**	62
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	0.288	0.00588	61.5	5.210	**0.102**	55.1
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	3.68	0.0177	109	7.910	0.14	60.8
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	0.322	0.00908	8.52	3.730	**0.102**	4.81
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	0.748	0.00333	14.2	1.390	**0.102**	5.85
FD						1.03	0.00954	73.5	8.030	0.154	61.3

Analysis Coding for the Reported Data

Bold = < than detection value or an Estimated value for bacteria

NA = constituents not sampled due to equipment failure or other extenuating circumstance

NM= not measured **ND=** not detected

Dup = Duplicate Sample

MRL = method reporting limits are included at the top of each data set where they are

FD = Field Duplicate Sample

System_ID Method Reporting Limit	Trips per Day	Land Use	Date	Time	Rainfall Previous inches/24 hrs	Acenaph-thene 0.02 ug/L	Acenaph-thylene MPN/100 0.02 ml	Anthra-cene 0.02 ug/L	Benzo-(a)-anthrac ene 0.01 ug/L	Benzo-(a)-pyrene 0.01 ug/L	Benzo(b)-fluoran-thene 0.01 ug/L	Benzo(ghi)-perylene 0.01 ug/L
Analytical Method						**EPA 8270-SIM**	**EPA 8270-SIM**	**EPA 8270-SIM**	**EPA 8270-SIM**	**EPA 8270-SIM**	**EPA 8270-SIM**	**EPA 8270-SIM**
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	0.028
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	**0.020**	**0.020**	**0.020**	0.013	0.017	0.034	0.073
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	**0.020**	0.023	**0.020**	0.030	0.033	0.058	0.140
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	0.017
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	**0.020**	**0.020**	**0.020**	0.014	0.013	0.021	0.050
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	**0.010**
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	**0.010**
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	**0.010**
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	**0.020**	**0.020**	**0.020**	**0.010**	**0.010**	**0.010**	**0.010**
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	**0.020**	**0.020**	**0.020**	0.068	0.030	0.063	0.089
FD						**0.020**	**0.020**	**0.020**	0.100	0.100	0.100	0.100

System_ID	Trips per Day	Land Use	Date	Time	Rainfall Previous	Benzo(k)fluoranthene	Chrysene	Dibenzo-(a,h)-anthracene	Fluoranthene	Fluorene	Indeno-(1,2,3-cd)-pyrene	Naphthalene
Method Reporting Limit					inches/24 hrs	0.01 ug/L	0.01 ug/L	0.01 ug/L	0.01 ug/L	0.02 ug/L	0.01 ug/L	0.04 ug/L
Analytical Method						EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	**0.01**	**0.01**	**0.010**	0.021	**0.020**	**0.010**	**0.04**
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	**0.010**	0.027	**0.010**	0.073	**0.020**	0.019	**0.04**
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	0.019	0.053	**0.010**	0.140	**0.020**	0.031	0.13
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	**0.010**	**0.010**	**0.010**	0.018	**0.020**	**0.010**	**0.04**
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	**0.010**	0.017	**0.010**	0.040	**0.020**	0.014	**0.04**
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	**0.010**	**0.010**	**0.010**	**0.010**	**0.020**	**0.010**	**0.04**
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	**0.010**	**0.010**	**0.010**	**0.010**	**0.020**	**0.010**	**0.04**
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	**0.010**	**0.010**	**0.010**	**0.010**	**0.020**	**0.010**	**0.04**
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	**0.010**	**0.010**	**0.010**	**0.010**	**0.020**	**0.010**	**0.04**
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	0.021	0.069	**0.010**	0.069	**0.020**	0.028	**0.04**
FD						0.100	0.100	0.100	0.100	**0.020**	**0.010**	**0.04**

System_ID	Trips per Day	Land Use	Date	Time	Rainfall Previous	Phenanthrene	Pyrene	Butyl benzyl phthalate	Di-n-butyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate
Method Reporting Limit					inches/24 hrs	0.02 ug/L	0.01 ug/L	1 ug/L	1 ug/L	1 ug/L	1 ug/L	1 ug/L
Analytical Method						EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM	EPA 8270-SIM
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	**0.020**	0.057	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	0.059	0.150	**1.0**	**1.0**	**1.0**	**1.0**	0.6
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	0.130	0.270	**1.0**	**1.0**	**1.0**	**1.0**	1.1
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	**0.020**	0.031	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	0.048	0.072	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	**0.020**	**0.010**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	**0.020**	**0.010**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	**0.020**	0.014	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	**0.020**	0.014	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	0.082	0.120	**1.0**	**1.0**	**1.0**	**1.0**	1.1
FD						**0.020**	0.014	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**

System_ID	Trips per Day	Land Use	Date	Time	Rainfall Previous	Bis(2-ethylhexyl) phthalate	Acifluorfen	Bentazon	2,4-D	2,4-DB	Dicamba	3,5-Dichloro-benzoic acid	Dichlorprop
Method Reporting Limit					inches/24 hrs	1 ug/L	0.2 ug/L	0.4 ug/L	0.02 ug/L	0.4 ug/L	0.2 ug/L	0.2 ug/L	0.4 ug/L
Analytical Method						EPA 8270-SIM	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	1.0	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	1.7	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	10.0	**0.2**	**0.4**	1.1	**0.4**	0.125	**0.2**	**0.4**
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	9.4	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	1.5	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	3.9	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	**1.0**	**0.2**	**0.4**	1.4	**0.4**	0.22	**0.2**	**0.4**
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	1.0	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	**1.1**	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	1.0	**0.2**	**0.4**	1.04	**0.4**	0.12	**0.2**	**0.4**
FD						2.8	**0.2**	**0.4**	**0.02**	**0.4**	**0.2**	**0.2**	**0.4**

System_ID	Trips per Day	Land Use	Date	Time	Rainfall Previous	Dinoseb	Penta-chloro-phenol	Picloram	2,4,5-T	2,4,5-TP (Silvex)	Trifluralin
Method Reporting Limit					inches/24 hrs	0.4 ug/L	0.02 ug/L	0.2 ug/L	0.1 ug/L	0.011 ug/L	0.060 ug/L
Analytical Method						EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 515.4 mod	EPA 8081B mod
3148-W-014	>1000	Residential	10/19/2017	9:57	0.49	0.4	0.070	0.2	0.1	0.011	0.06
3151-F-064	>1000	Commercial	10/19/2017	6:53	0.19	0.4	0.368	0.2	0.1	0.011	0.06
3047-W-016	>1000	Commercial	10/19/2017	10:30	0.49	0.4	7.76	0.2	0.1	0.011	0.06
3048-W-097	>1000	Residential	10/19/2017	10:55	0.61	0.4	0.104	0.2	0.1	0.011	0.06
3053-F-022	>1000	Commercial	10/19/2017	8:05	0.27	0.4	1.140	0.2	0.1	0.011	0.06
3251-F-013	<1000	Residential	10/19/2017	8:36	0.27	0.4	0.027	0.2	0.1	0.011	0.06
3251-F-015	<1000	Residential	10/19/2017	9:04	0.39	0.4	0.028	0.2	0.1	0.011	0.06
3150-F-030	<1000	Residential	10/19/2017	7:22	0.19	0.4	0.195	0.2	0.1	0.011	0.06
3153-F-040	<1000	Residential	10/19/2017	8:10	0.27	0.4	0.038	0.2	0.1	0.011	0.06
3349-W-050	<1000	Residential	10/19/2017	9:30	0.39	0.4	0.054	0.2	0.1	0.011	0.06
FD						0.4	0.182	0.2	0.1	0.011	0.06

Figure A3. 2,4-D results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

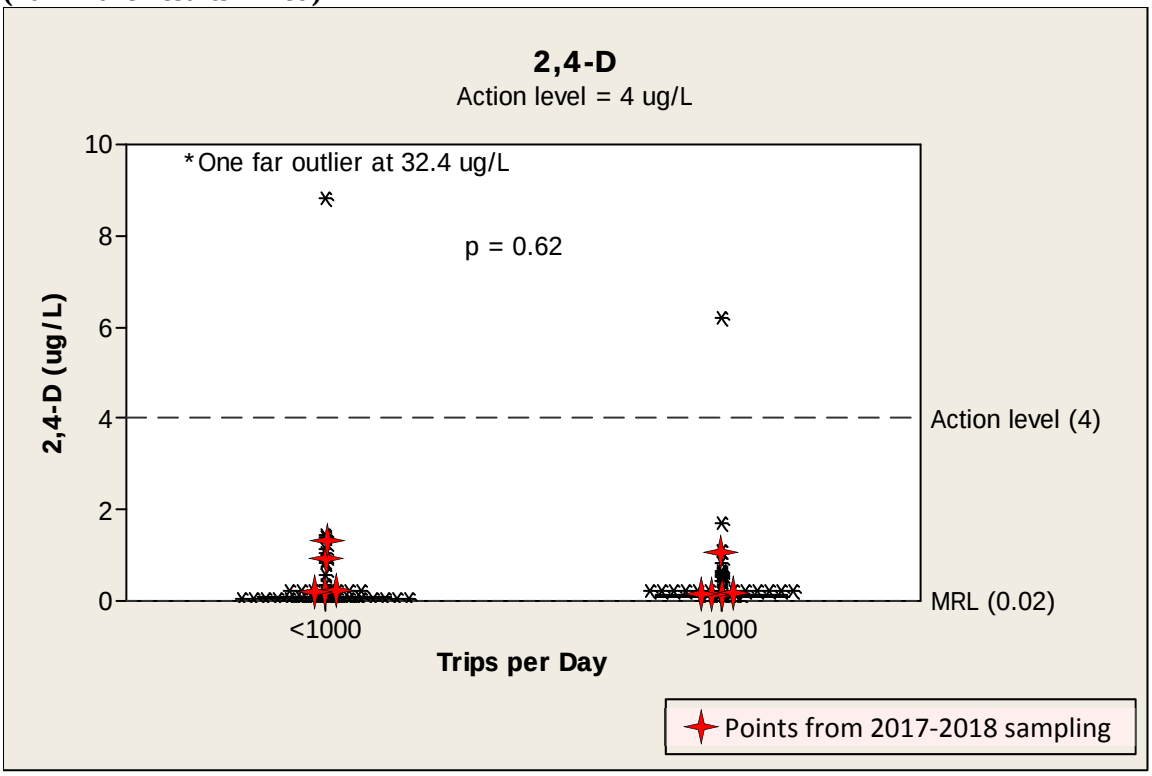


Figure A4. Benzo(a) results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

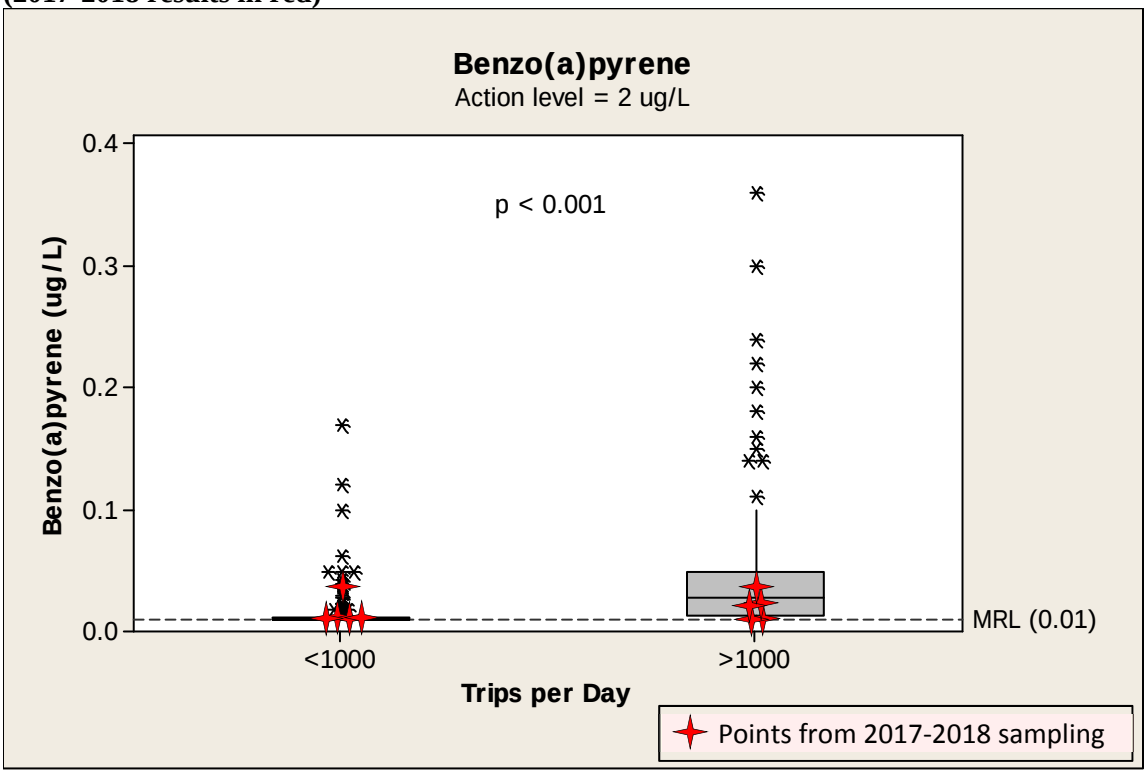


Figure A5. Di (2-ethylhexyl) phthalate results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

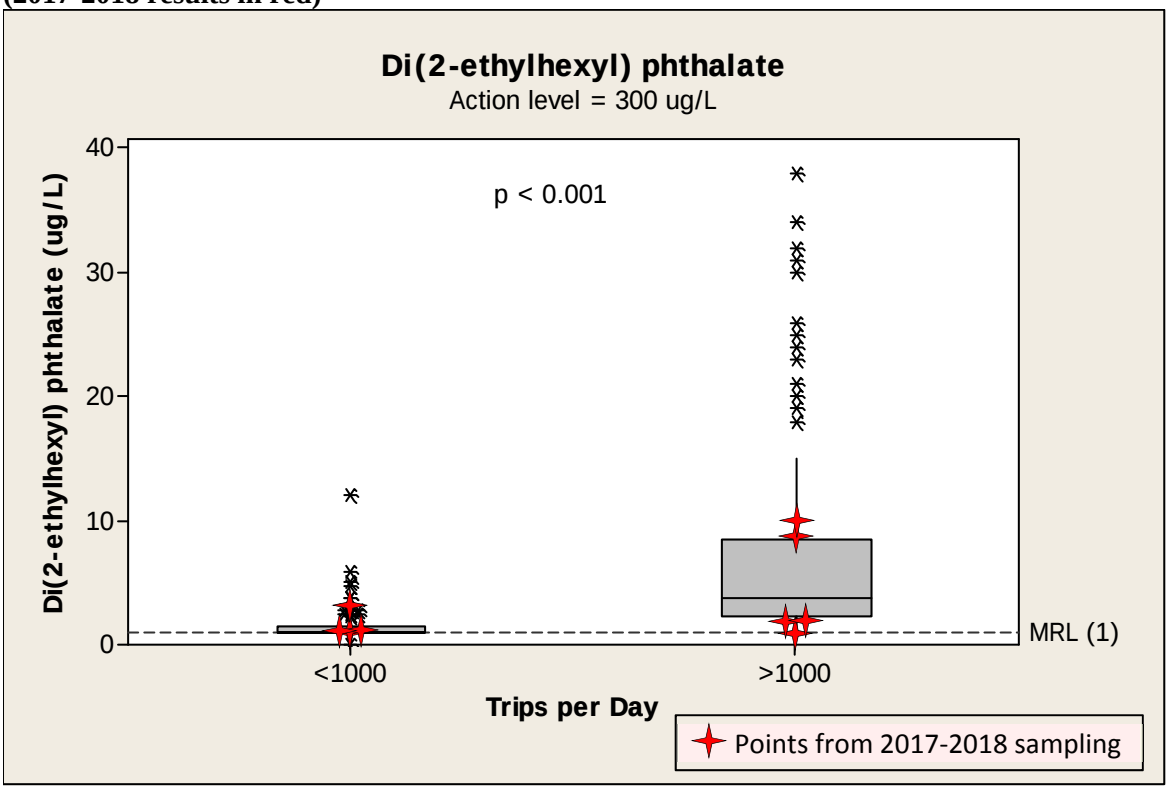


Figure A6. Pentachlorophenol results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

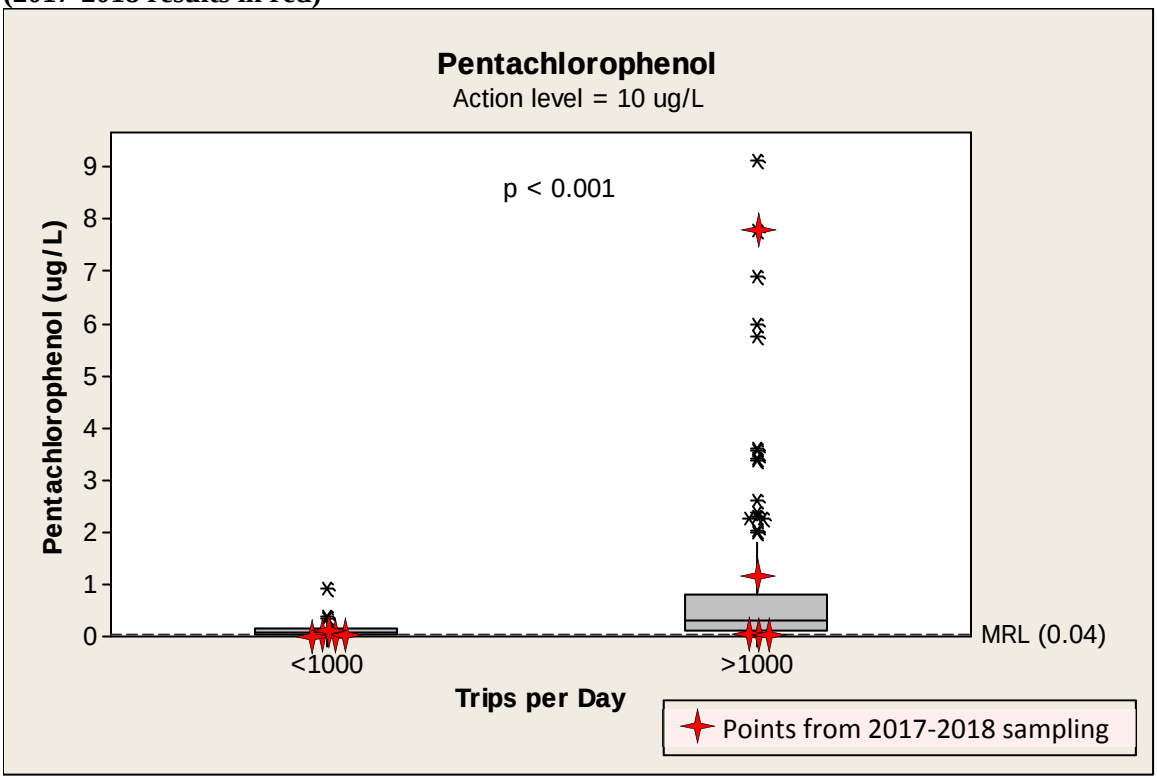


Figure A7. Total antimony results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

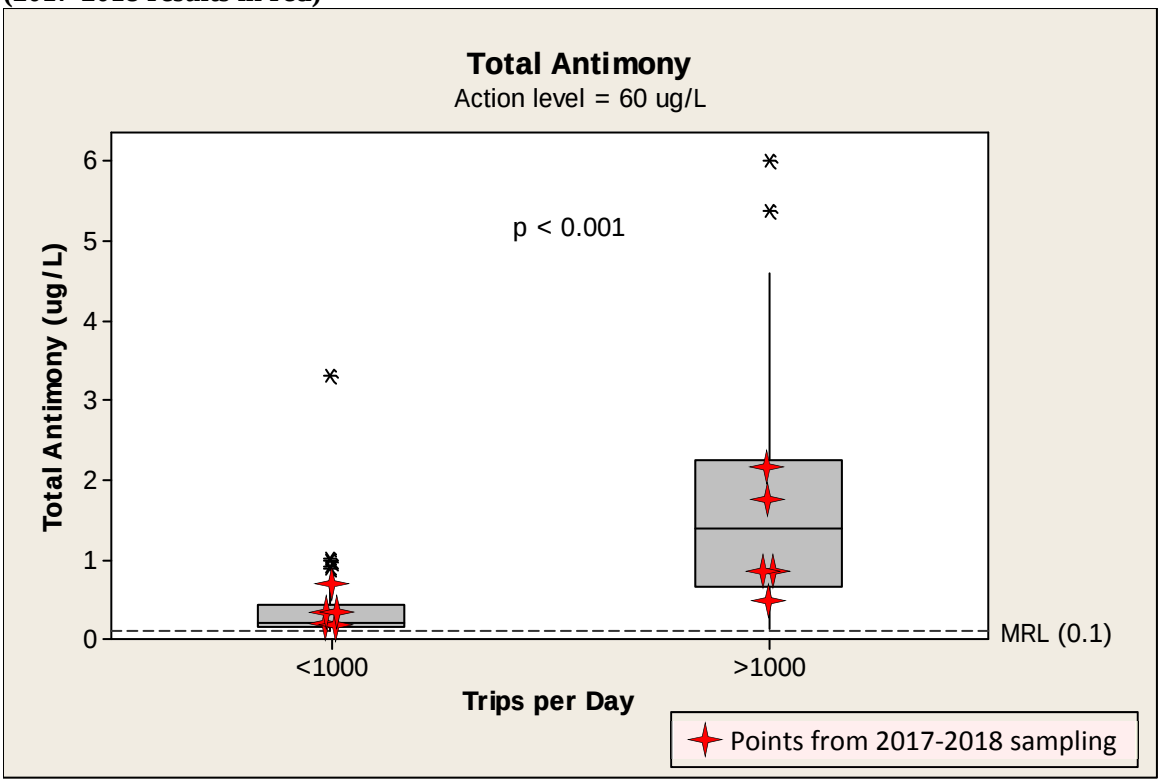


Figure A8. Total lead results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

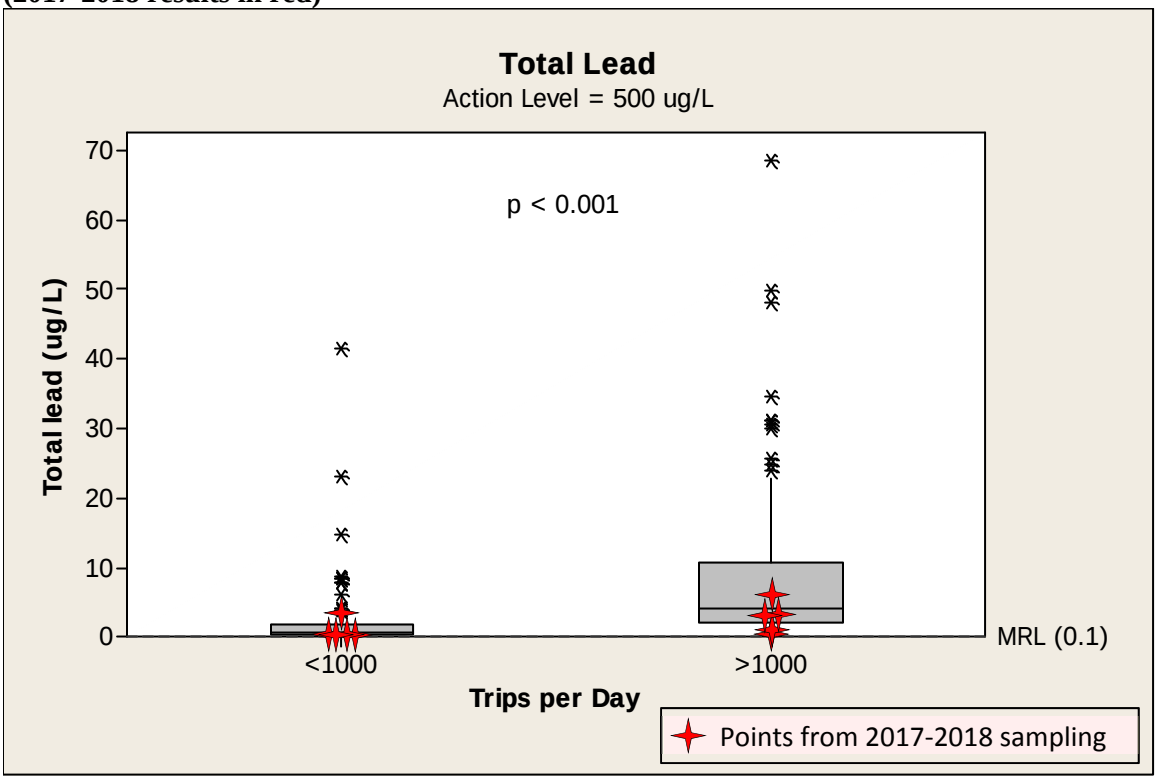


Figure A9. Total Zinc results for 2009-2018 by vehicle trips per day (2017-2018 results in red)

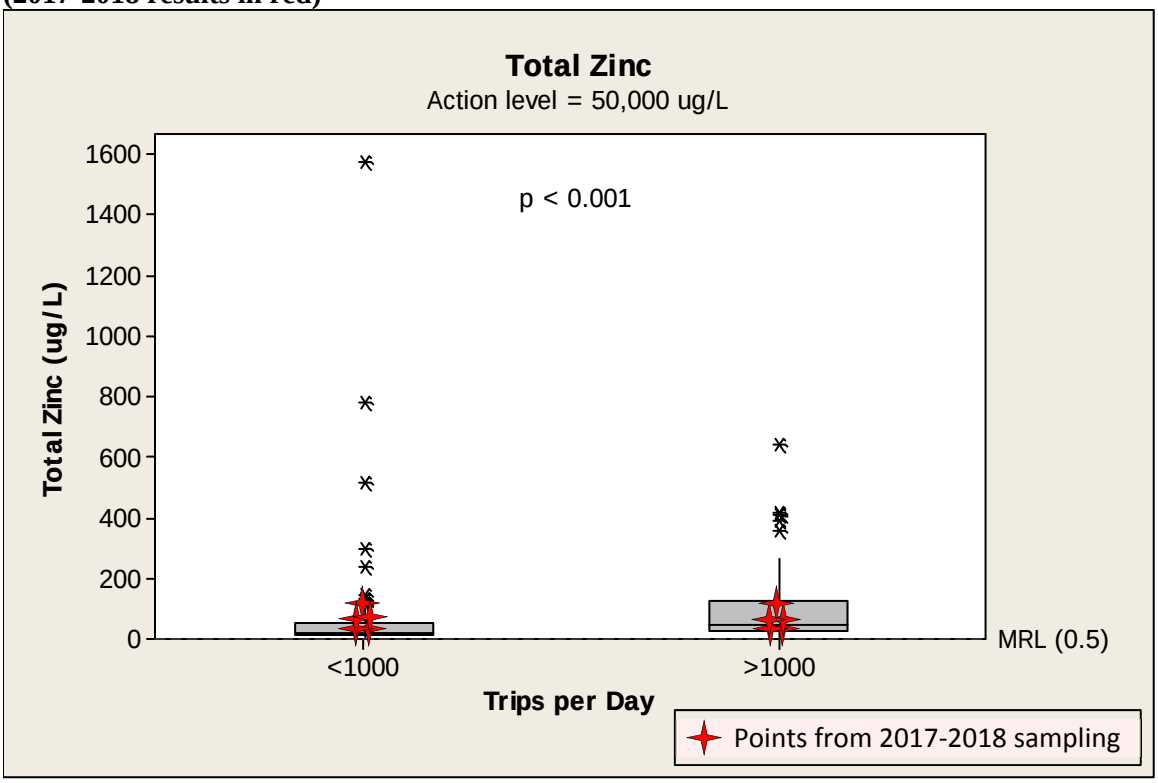
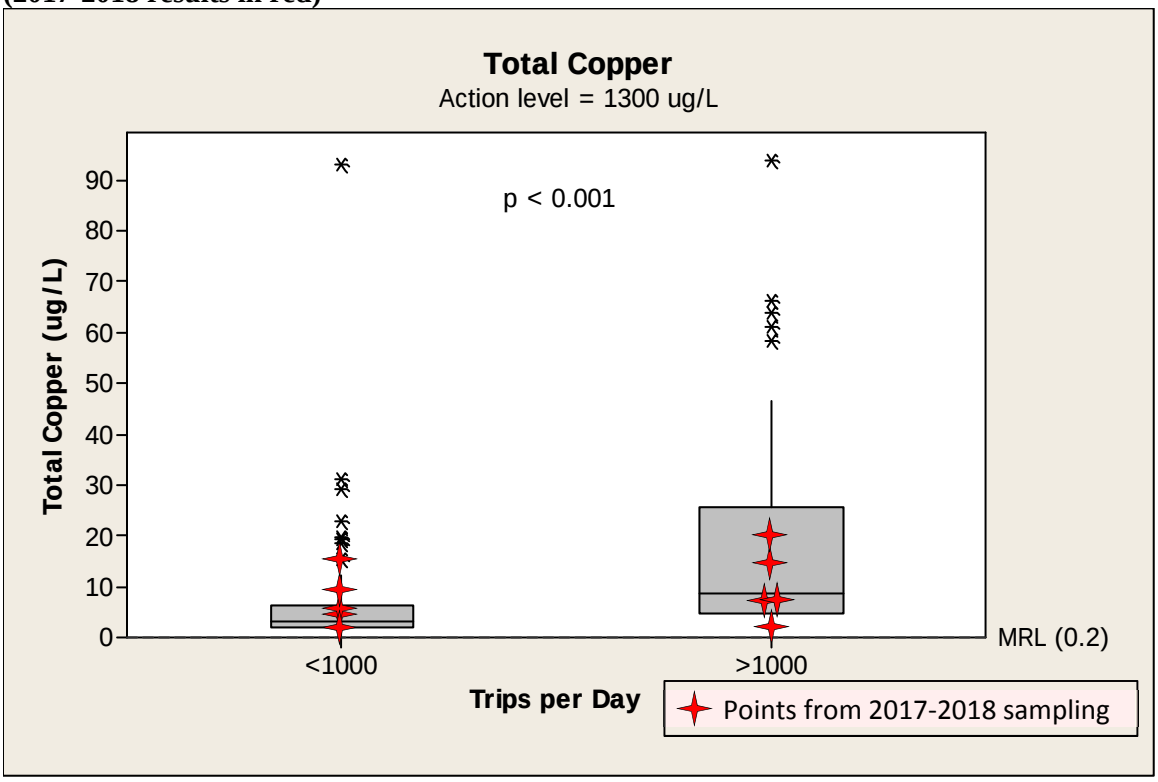


Figure A10. Total copper results for 2009-2018 by vehicle trips per day (2017-2018 results in red)



Section B
City of Gresham WPCF (UIC)
System Management Plan Implementation Summary

Section B – UIC System Management

The City of Gresham implements a City-wide Stormwater Management Plan (SWMP), which addresses areas that drain to both MS4 and UICs. The UIC System Management Plan submitted to DEQ contains two BMPs that were modified slightly from the BMP descriptions found in the SWMP, therefore this section contains the SWMP Implementation Status Report submitted to DEQ with our NPDES MS4 Annual Report (**Table B3**), as well as UIC-specific implementation status for the two BMPs that are UIC specific (**Table B1**). **Note that the Business Inspection program activities occurred in both the MS4 and the UIC areas of the city.**

1. UIC-Specific BMP Implementation Status

The implementation status for the two UIC-specific BMPs which were modified slightly from those contained in the City's SWMP are reported in **Table B1**.

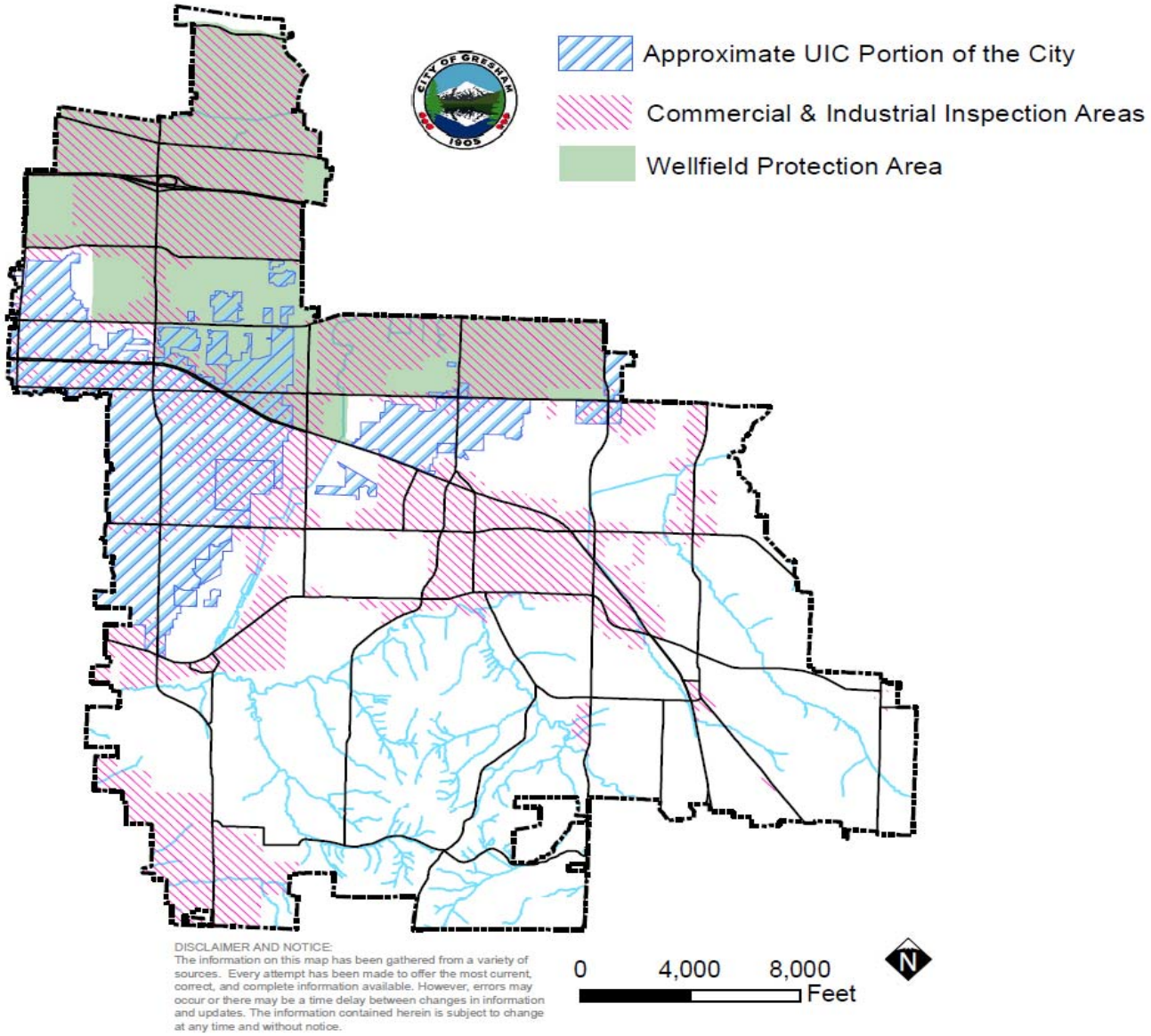
Table B1: Implementation Status for UIC-specific BMPs

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status (2017-2018)	Summary and Date of Any Proposed Adaptive Management Modifications
RC 1 (Stormwater System Maintenance Plan)						
G. Underground Injection Control (UIC's) Maint. & Cleaning	Ongoing	Maintain and clean UICs as needed to maintain functionality	Report all maintenance and cleaning activities	Keep records of annual maintenance locations and cleaning activities.	Staff cleaned 13 UICs and removed 19.5 cy of material. Eventually, as UIC's fail, they are converted into sedimentation manholes (SMH) and a new UIC is added. The SMH acts as beneficial pre-treatment.	None
	If needed	Conduct study to determine optimal cleaning frequency for UICs	Evaluate data and develop guidance for proactive maintenance of UICs	Report findings of study and adaptively manage cleaning frequency	UICs are cleaned when the city has a construction project or a high-water issue. This approach is working, so undertaking a resource intensive study is not deemed necessary at this time.	None

Table B1: cont.

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status (2017-201)	Summary and Date of Any Proposed Adaptive Management Modifications
IND 1&2 (Industrial Inspection & Monitoring)						
A. Business Inspection Program	Ongoing	Develop and conduct an inspection program for businesses that own/operate private UICs and/or have potential to affect City-owned UICs	Evaluate existing databases to determine inspection priorities and begin inspections	Report status of ongoing program development	The City developed a business inspection program that covers businesses within the wellfield protection area (portions of which drain to groundwater) and also focuses on the automotive sector which has a high potential to pollute stormwater. These businesses are located within the commercial districts and drain to both the MS4 and UIC areas. **See Figure B1.** The city also tracks the compliance status of businesses with DEQ 1200Z or COLS permits (all of which drain to the MS4) and oversees significant industrial users for the wastewater pretreatment program (all of which drain to the MS4). **See Table B2: Stormwater Management Plan Summary.**	None

Figure B1: City of Gresham UIC Area Crossover with Business Inspection Program Areas



2. NPDES MS4 Stormwater Management Plan Implementation Status

While the City has UIC specific BMPs, many of the BMPs established in NPDES permit SWMP are implemented City-wide and serve to protect City UICs. **Table B1** summarizes the BMPs detailed in the NPDES report that also serve areas of the City where stormwater is managed using UICs. An excerpted copy of Section 3 of the NPDES report is included for the complete program overview.

Table B2. SWMP BMPs that address WPCF Permit-Required Management Plan Elements

Permit-Required Element	UICMP/SWMP BMP Number
Employee education and public outreach;	EDU 1 (Stormwater Education Program) See B2: Table 3.8 A. Ensure Staff/Stakeholder Training B. Educate Residents C. Educate Businesses
Injection system operation and maintenance;	**RC 1 (Stormwater System Maintenance Plan) * (UIC BMP included above)** RC 2 (Planning Procedures) RC 3 (Maintain Public Streets) RC 4A (Water Quality Retrofits) RC 5 (Monitor Pollutant Sources from Closed or Operating Municipal Waste Facilities) RC 6 (Reduce Pollutants from Pesticides, Herbicides and Fertilizers)
Protecting injection systems from accidental spills or illicit disposal of wastes or contaminants;	ILL 1A&B (Non-Stormwater Discharge Controls) ILL 4A (Spill Response) See B2: Table 3.6 ILL 5 (Facilitate Public Reporting) See B2: Table 3.7 ILL 6 (Facilitate Proper Management Disposal of Used Oil & Tires) ILL 7 (Limit Sanitary Sewer Discharges) CON 1&2 (Construction Site Planning & Controls) CON 3 (Construction Site Inspection & Enforcement)
Preventing injection of stormwater from loading docks, refueling areas, areas of hazardous and toxic material storage or handling, materials storage or handling areas, or other discharges that may contain pollutants above levels of concern;	IND 1&2 (Industrial Inspection & Monitoring) See B2 Table 3.9 **A. Business Inspection Program** (included above)**
Housekeeping practices to protect groundwater quality;	ILL 4 (Spill Response Program) B. Spill Prevention (Hazardous Waste Mgmt. – City) C. Maintain Public Vehicles
Facility designs or practices that allow you to block discharge into any underground injection systems in the event of an accident, spill, or emergency fire-fighting activity.	ILL 4A (Spill Response)

*BMP RC1(G) is related specifically to Underground Injection Control (UIC's) Maintenance & Cleaning

**BMP IND1&2(A) is related to the City's Business Inspection Program, which inspects businesses in the City's wellfield protection area, in the City's pretreatment program for wastewater, and is also currently focusing on the automotive sector in both the MS4 and UIC areas of the City.

City of Gresham NPDES Annual Stormwater Compliance Report

Section Three: Stormwater Management Plan Summary

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
RC 1 Stormwater System Maintenance Plan						
A. Pipe Cleaning	Ongoing	Maintain stormwater system pipes to ensure proper function and limit impacts to water resources.	Clean and inspect 15-20 miles of pipe per year.	Number of pipe miles cleaned. Volume of debris collected.	6.1 miles cleaned and 1.75 yds of debris removed and 11.5 miles were inspected. CCTV inspection of pipes includes the total miles from both routine and new development inspections. If the CCTV footage reveals roots or other concerns, the staff will be given a work order to go and repair and/or clean the area of concern. By inspecting more pipe each year, the city is more efficient with its resources and the purchase of new equipment has enabled work to be conducted in a more efficient manner.	A request was submitted to DEQ in fall 2012 to reduce the miles of pipe cleaned to 5, in favor of conducting other higher priority maintenance activities. Staff met with former DEQ staff to discuss the proposal. DEQ requested additional data from the City. In 2014, DEQ hired a new permit coordinator. DEQ was unable to put the request out for public comment prior to the permit's expiration. Oregon Administrative Statute prohibits altering a permit that has been administratively extended, therefore, the City's request is on hold until the permit is reissued. There is no current projected timeline for permit reissuance.
B. Catch Basin Cleaning	Ongoing	Maintain stormwater system catch basins to ensure proper function and limit impacts to water resources.	Clean or inspect 100% of publicly-owned catch basins that drain to surface water annually.	Number of catch basins cleaned. Volume of debris collected.	6,296 residential cbs cleaned. 148 cy of debris removed. 1390 arterial cbs cleaned. 79 cy of debris removed. 3600 hours of grey infrastructure cleaning (includes cbs, pipes, sedimentation manholes and detention pipes).	None
C. Maintain Public Water Quality Facilities	Ongoing	Maintain publicly-owned water quality facilities to ensure proper function and limit impacts to water resources.	Maintain an average 20-25 facilities per year over the permit term. (Annual totals may vary).	Number and type of facilities inspected. Number and type cleaned. Type of maintenance conducted. Volume of debris removed.	Inspected 304 ROW rain gardens and 41 publicly maintained detention ponds and swales. Routine maintenance was conducted all ROW rain gardens and publicly maintained detention ponds and swales. Staff removed 265 cy of debris from ponds, 20.75 cy from raingardens and swales and 83 cy from ditches. ~3500 of staff hours utilized for green infrastructure maintenance. Inspected 128/128 stormwater proprietary systems (vaults), replaced 378 cartridges removing 12.5 cy of debris from 107 structures.	None
D. System Repair and Maintenance	Ongoing	Maintain and repair pipes, ditches, culverts, inlets, off-road systems, etc. in order to ensure proper function and limit impacts to water resources.	Maintain and repair the stormwater infrastructure as needed.	Number of hours dedicated to R&M activities.	~17,700 hours were allocated to he repair and maintenance of pipes, catch basins, manholes, laterals, outfalls, conducting utility locates, significant rain event infrastructure inspections and emergency response, shop and equipment maintenance, gis mapping corrections of infrastructure, program administration, and public facility inspections including the use of the CCTV camera.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
E. Manhole/Detention Line Cleaning	Ongoing	Maintain manhole and detention line structures to ensure proper function and limit impacts to water resources.	Inspect 75% of manhole structures annually, as appropriate; clean detention lines only as needed based on inspections.	Track number of structures cleaned/repaired. Report volume of debris removed.	Inspected 388/388 sedimentation manholes removing 33 cy of debris from 34 structures. Inspected 204/204 flow control manholes removing 15 cy from 16 structures. Inspected 231/231 detention lines removing 3.8 cy of debris from 11 lines.	None
F. Ensure Proper Debris Disposal	On going	City staff decant water to the wastewater system, dry debris & test debris to ensure that it meets disposal requirements.	Ensure that the city utilizes environmentally sound disposal practices and services.	Keep records of annual disposal services utilized. Keep annual debris testing data.	The City contracts with Water Truck Services (purchased by NRC Environmental Services in 2015), a DEQ permitted entity, to recycle the city's leaves and other debris from the maintenance of streets and structures.	None
G. Underground Injection Controls (UIC's) Maint. & Cleaning	As required by UIC Permit	Ensure that the city complies with the required elements of the WPCF permit in order to limit stormwater impacts to groundwater.	Under the City's UIC WPFC permit, report all maintenance and cleaning activities as required.	Keep records of annual maintenance locations and cleaning activities. Reporting not part of the MS4 Annual Report requirements.	Keep records of annual maintenance locations and cleaning activities. Reporting not part of the MS4 Annual Report requirements. Staff cleaned 13 UICs and removed 19.5 cy of material.	None
RC 2 Planning Procedures						
A. Water Quality Manual for New and Re-Development	Ongoing	Ensure that the water quality best management practices as described in the city's *Water Quality Manual/Green Development Practices Manual* are implemented by the development community to reduce impacts to local streams from stormwater pollutants.	Implement the *Manual* and bi-annually determine whether updates to the document are necessary. Conduct training to users of the *Manual* if it is updated significantly.	Track #, location, acreage & land use of new and redevelopment projects. Track # and type of private water quality facilities installed to comply with new development stds. Delineate and GIS map the drainage areas of the private facilities installed to comply w/new dev. standards. Track training activities.	See **Table 3.1**. Staff work with GIS staff to continually ensure a robust and high quality data set of stormwater system assets. As facilities are built, their type and area treated are recorded to aid the City in CIP and retrofit planning and design decisions as needed. This mapping also aids the City's pollutant reduction modeling that is required during the permit renewal submittal. Staff continued to take the updated draft Stormwater Manual out to various internal and external stakeholders for public input. The manual is expected to be presented and approved by City Council during PY 24. Staff also are supporting the Planning Departments update of the Habitat Conservation Area code to make it easier for the public to understand and comply.	None
B. Promote Low Impact Development (LID) Practices	Ongoing	Utilize city *Water Quality/Green Development Practices Manuals* to incorporate low impact development practices into new and redevelopment projects where applicable.	Implement practices or programs that promote the use of low impact development techniques.	Track location, drainage area & type of LID practices that are implemented.	See **Tables 3.1 and 3.2**.	None.

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
C. Private Water Quality Facility Maint. Program	PY 16 and Ongoing	Continue implementing tracking procedures for the installation of privately-owned water quality facilities and policies that ensure that private owners understand their maintenance responsibilities.	Collect and record maintenance agreements for privately-owned facilities that legal code allows. Develop a program to ensure facilities are being adequately maintained.	Track #, type, year installed, & watershed location for all private water quality facilities. Report progress on program dev. related to private facility maintenance annually in PY 16 and ongoing.	There are approximately 207 private stormwater facility locations, some with multiple owners and some with multiple facility types (About 260 vegetated and 65 proprietary underground devices). City's code is utilized to ensure that private owners have legal responsibility for maintaining their facilities and are educated and assisted with regard to facility maintenance. Staff inspects 20-30 facilities per year and works with owners to ensure they are properly maintained. Additionally, there are newly constructed lot-level stormwater management facilities located on private lots in new developments in Pleasant Valley. Stormwater management facilities installed include filtration rain gardens, drywells or soakage trenches with overflows. These facilities were inspected when constructed and staff also conducts ongoing outreach to the homes to ensure they understand proper care, maintenance and function of the facilities. During PY23, staff completed 31 inspections of 31 private multi-owner underground vaults and determined that no proprietary filters needed to be replaced. During PY23, documentation from approximately 46 private single-owner commercial vault owners was collected to verify that proprietary filter maintenance had been completed.	None.
D. Master Plan Update	Ongoing	Develop and update, as appropriate, Stormwater Master Plans for the city.	Include water quality goals in the city's master plans. Complete the Natural Resource Master Plan by PY 11-12.	Report on updates to Master Plans. Master plan project implementation w/water quality benefits are reported in BMP RC4: Water Quality Retrofits.	The Burlingame Creek master plan was completed. The city is now working on a city-wide stormwater master plan. During the next permit year, staff will work with a consultant to obtain and QA/QC stormwater system data to begin a modeling process.	None.

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
E. Urban Canopy Initiatives	Ongoing	Protect and enhance the urban canopy as part of the city's overall stormwater management strategy.	Create and implement an Urban Forestry Management Plan. Utilize Code Enforcement to ensure that urban canopy objectives are supported. Collect fines from tree removal violations that may be used for tree replacement efforts.	1) Report on progress of creating Urban Forestry Mgmt. Plan (UFMP) & annually report on status of Plan's implementation; 2) Report number of code compliance investigations & outcomes related to tree protection objectives; 3) Report outcomes that result from the collection of tree removal fines; 4) Report code changes, as applicable. See MON 2: Legal Authority and Code Review; 5) Report type/number of outreach activities conducted & estimated persons reached. See EDU 1: Stormwater Education Program.	The elements implemented under the UFMP included: *Gresham is a partner on a Multnomah County three year grant funded project (2017-2019). The project is titled Green Gresham-Healthy Gresham and is focused in the Rockwood, Wilkes East, and N. Gresham neighborhoods. The project is surveying private and street trees, planting trees, pruning trees and culminating in a Trees and Healthy Symposium in fall of 2019. *Hosted four Arbor Day events with Friends of Trees planting 124 trees in various parks, and residential yards and street trees. The city's code allows a resident to cut three trees per year on their property with a permit. Fines are typically not issued, rather permits are retroactively issued. There were ~19 violations in 17-18.	None
RC 3 Maintain Public Streets						
A. Street Sweeping	Ongoing	Continue street sweeping activities to prevent litter and debris from entering the public stormwater system.	Provide 8-10 sweeps of the city per year.	Track & report the number of sweeps per year, total miles swept and total debris collected.	Transportation's contractor conducted 11 residential and 12 arterial sweeps resulting in 6,276 miles and 1,363 cy of materials disposed. 952 hours of additional sweeps were conducted with the COG sweeper removing 360 cy of debris (including sanding rock during winter ice/snow events). ~300 hours were conducted for fall leaf removal resulting in 460 cy of debris.	None
B. Deicing	Ongoing	Continue to implement standard operating procedures to limit impacts to the environment from sand, gravel, and deicing product application.	Implement deicing practices in a manner that limits impacts to water quality.	Track & report an estimate of sand/gravel & deicing product applied to Gresham roads. Track miles of road to which sand/gravel or deicing products are applied.	3,500 gallons of Magnesium Chloride were applied to 233 miles of anti/deiced roads, plus 15 fifty lb. bags of Freeze Gard pellets. 134 cy of sanding rock applied. 126 hours were used to remove sanding debris.	None
C. Standard Operating Procedures for Road Maint. Activities	PY 16 and Ongoing	Continue utilizing ODOT's maintenance standard operating procedures, as well as the City's manual titled Standard Operating Procedures for Wetland, Waterway and Habitat Protection in order to guide city staff and contractors in resource protection efforts when working near jurisdictional resources.	Implement a road maintenance program that will limit impacts to water quality. Biennially train appropriate staff. Monitor program implementation and adaptively manage based on feedback and results.	Track & report implementation of training activities. Report changes to SOP's annually, if updated.	Continue to implement road maintenance SOPs for the protection of waterways.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
RC 4 Retrofit & Restore System for Water Quality						
A. Water Quality Retrofits	Ongoing	The Watershed Engineering group will continue to implement the Stormwater Capital Improvement Projects that include water quality enhancement and pollution reduction elements.	Implement a CIP program that will help mimic the natural hydrologic cycle, treat stormwater, and promote stream protection and enhancement.	Track number, type, watershed location & total drainage area of CIPs constructed for water quality.	**Table 3.1** includes CIPs implemented by departments other than the Watershed Division that include water quality treatment. **Table 3.2** includes projects undertaken as a result of the Watershed and Natural Resource CIP list.	None
B. Enhance Riparian Areas	Ongoing	Continue conducting riparian restoration activities to remove invasive species, restore and enhance buffers and encourage multi-story native plant communities, channel stabilization and support of critical habitat.	Continue to seek partnerships/grants to implement riparian enhancement projects that will limit the introduction of stormwater pollutants into streams.	Track and describe riparian enhancement activities by location. Estimate number of volunteers/partners involved, where applicable. Estimate of acreage enhanced and total plans installed or invasives removed.	See **Table 3.3**.	None
RC 5 Monitor Pollutant Sources from Closed or Operating Municipal Waste Facilities						
Pollutant Source Evaluation	Ongoing	The City has reviewed historic records and current operating businesses to determine that, as of the 2010 permit application approval, no pollutant source exists from an operating or closed treatment, storage, or disposal facility for municipal waste. The City conducted an assessment of a closed facility during PY 12 and determined that no threat to stormwater existed from the facility. This report is available upon request.	Ensure that new municipal waste facilities within the City's permitted area are appropriately permitted and designed to limit the potential for pollutants to enter stormwater.	Review business permits annually. (Conducted under the IND 1 & 2 BMP A. Business Inspection Program). Report any new facilities and assessment results.	There are currently no operating treatment, storage or disposal facilities for municipal waste within the city. However, Gresham Sanitary Services who is a solid waste hauler, holds a UIC permit #13410 and is not connected to the City's stormwater system. They also have a DEQ Transfer Permit #1392 for reloading waste. The reloading area is entirely sealed and wastewater is discharged to the sanitary sewer via a licensed contractor. The EcoBiz program visited Gresham Sanitary in December 2017 and found some storage and spill hazards related to onsite storage of oil totes, fueling area, secondary containment and batteries. These issues have been corrected and improved via technical assistance.	None
RC 6 Reduce Pollutants from Pesticides, Herbicides and Fertilizers						
Integrated Pest Mgmt. Program	Ongoing	Limit the introduction of pesticides and fertilizers from city operations by implementing an integrated pest management plan.	Review and implement the IPM Plan biennially and, at a minimum, update at least once per permit cycle. Conduct training. Annually review the list of city approved pesticides.	Track frequency of staff trainings & number of staff trained. Report updates of the plan. Track quantities and types of pesticide, herbicides and fertilizer applications.	See **Table 3-4** of Pesticide/Fertilizer Application Records. Staff applicators follow Oregon education certification requirements to retain their licensure, as applicable. See also EDU 1--Staff/Stakeholder Trainings	None
ILL. 1 Non-Stormwater Discharge Controls						
A. Control Releases from Fire Training Activities	Ongoing	Limit pollutants to stormwater from fire training activities by implementing standard operating procedures.	Ensure Fire Training is overseen by staff familiar with the SOP for stormwater protection.	Document fire training protocols for stormwater protection and train staff.	SOP is on file and Fire Training staff are familiar with protocol.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
B. Water Line Flushing	Ongoing	Minimize impacts to the stormwater system from water line flushing activities by implementing standard operating procedures.	Ensure Water Line Flushing is overseen by staff familiar with the SOP for stormwater protection.	Train employees on standard operating procedure to minimize impacts to local streams. Annually report gallons flushed.	4.2M gallons flushed using SOP. Flushing SOP is reviewed at staff meetings prior to work and for the benefit of new staff.	None
ILL. 2 & 3 Illicit Discharges Elimination Program						
A. Field Screening and Investigation	Ongoing	Conduct dry weather screening at high priority outfalls, at a minimum of once per calendar year. When appropriate conduct follow up investigation to identify the source (responsible party). If a responsible party is identified work to eliminate the illicit discharge.	Conduct annual dry weather screening at high priority outfalls. Document the procedures the city will follow when an illicit discharge investigation identifies a responsible party.	Track number & location of outfalls inspected. Track number & location of illicit discharges and/or connections identified. Include documentation in 2011 Annual Report. Describe follow-up actions for identified illicit discharges and/or connections in Monitoring Plan.	Staff inspected 30 sites. This was the second year of switching from a fixed thirty sites (at large outfalls), to screening 8 fixed sites every year, and 22 new rotating sites. See map of locations in Section 2. 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 are selected based on size of outfall, starting with the largest. Three of the fixed sites had turbidity and ammonia levels slightly above our IDDE action levels requiring additional investigation (15 NTU and 0.5 mg/L, respectively). One of the three sites also had conductivity levels above the action level of 300 uS/cm. All three of these sites have shown similar levels in past years and follow-up investigations did not identify any new sources in the homes and businesses which drain to the sites. Past investigations indicated that upstream areas contain low-priority abandoned landfills which are likely contributing to these levels. One new rotating site had very high turbidity well above our action level, as well as ammonia levels at our action level. This site drains the City of Gresham's Operations & Maintenance yard. An investigation revealed that the discharge was originating from a trench drain near a wash bay which was designed to prevent run-on rainwater from entering the wash bay but was capturing some runoff from the wash bay, if washing occurred near the edge of the wash bay.	None
					During FY 17-18, staff evaluated options for preventing turbid water from entering the ribbon drain but determined the best pollution reduction solution is to construct a stormwater vegetated facility retrofit for the entire Operations yard impervious area, including rooftops. This will address not only this discharge but will also improve water quality for all of the runoff from the heavy equipment in our Operations Yard. The design for this retrofit is complete and construction is expected to be completed by the end of 2018 and is project is included in **Table 3-2**.	

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
B. CCTV New Development Stormwater Pipes	Ongoing	Conduct closed-circuit television (CCTV) inspections of new stormwater pipe installations during development projects to eliminate cross-connections.	CCTV at least 80% of all new pipes installed in the city.	Track number of stormwater pipe miles inspected as a percentage of the total stormwater pipes installed.	100% of new development inspected. All CCTV activity is tracked as one number, i.e., in total miles. The amount, in miles, of new development pipe is not specifically known, but is a fraction (~1-2 miles) of the total 11.5 miles, as reported in the pipe cleaning BMP.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
ILL. 4 Spill Response Program						
A. Spill Response	Ongoing	Respond to reports of spills or illegal dumping using the city's spill response protocol for hazardous and non-hazardous substances.	Implement the city's spill response protocol and conduct periodic review of the document to ensure efficacy.	Track number, type & location of spills that occur & the approx. quantity of material spilled. Track the response activities. Does not include traffic accidents, unless additional assistance is requested from the Watershed Operations staff.	See **Table 3-7**.	None
B. Spill Prevention (Hazardous Waste Mgmt. - City)	Ongoing	Continue to carefully manage hazardous materials to prevent spills on City-owned property from city practices.	1) Ensure safe handling, storage and disposal of hazardous fluids in order to prevent spills and limit pollutant sources to stormwater by training staff appropriately. 2) Provide periodic review of City contractor's safety and environmental violations and disposal permits, where applicable, to help ensure environmental compliance of contractors handling the City's waste products.	Report quantities of hazardous materials disposed annually. Report number of spill incidents and outcomes annually. Request & review contractor's permits, where applicable, at least annually and biennially review appropriate regulatory agency databases for safety and environmental violations.	Quantities of hazardous materials disposed: Used oil filters: (1) 55 gal drum Used oil: 976 gal and (2) 55 gal drums of diesel Used Antifreeze: 35 gal Used Tires: 250 (Tire disposal & Recycling) and 145 (Goodyear) Used batteries are returned to the vendor for recycling. (Battery Systems, Advance Auto Parts, and Auto Plus. All other recyclable commodities are recycled. Vendors utilized: Thermo Fluids.	None
C. Maintain Public Vehicles	Ongoing	Continue to maintain city vehicles and equipment to limit the contribution of stormwater pollutants from leaks and runoff, etc.	1) Maintain City-owned vehicles & equipment and ensure proper handling & disposal of fluids to reduce the likelihood of leaks or spills being released into the MS4 system or the environment. Meet DEQ Permit 1700 A deminimis discharge or seek a permit and/or waiver.	Report annual disposal quantities of all fluids and vendors utilized. Report status of deminimis discharges or Vehicle Wash Water permit implementation and/or waiver.	Quantities included in the BMP: Spill Prevention (Hazardous Waste Mgmt. - City) above. DEQ is currently not issuing Vehicle Wash Water permits. The Fire Department washes less than 8 vehicles per week per fire station and does not use heated water, does not wash the engine, transmission or undercarriages, but does use a phosphate-free soap on the vehicle exterior.	None
ILL. 5 Facilitate Public Reporting						
Facilitate Public Reporting & Respond to Citizen Concerns	Ongoing	Continue to provide an outlet for public concerns regarding stormwater pollutant issues such as illegal dumping, erosion, plugged drains, invasive plants, etc.	Include information about how to report concerns of illegal discharges in various city publications.	Track number of calls/letter received, the issue of the call, and the response to the call.	See **Table 3-8**.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
ILL. 6 Facilitate Proper Management Disposal of Used Oil & Toxics						
Facilitate the Proper Mgmt. & Disposal of Used Oil & Toxics	Ongoing	The City uses a variety of approaches to encourage proper solid waste, recycling, and hazardous waste management practices including: GREAT Business Education Program, Special Collection Events for the Public, and Curbside Recycling of Oil.	Continue to offer disposal, recycling, and/or collection programs that facilitate the proper management of solid and hazardous waste in the business and residential sectors.	Track quantities of used oil and toxics collected. Estimate the number of persons and/or households reached.	City contracted haulers estimated 40 tons of curbside oil collected and ~6,700 tons of yard debris. At this year's Earth Day event 37,620 lbs. of material including electronics, computers, appliances, fluorescent lights, and other accepted items by Green Century (the contractor). 40 cy of mixed rigid plastics, cardboard, and plastic film were collected. 120 cy of Styrofoam was collected. Over 1300 cars/households attended.	None
ILL. 7 Limit Sanitary Sewer Discharges						
Limit Sanitary Sewer Discharges	Ongoing	The City's Wastewater Treatment Plant operates under its own NPDES discharge permit. Its programs include a pretreatment inspection program and implementation of Capital Improvement Projects that overall assist the City in meeting the NPDES MS4 Stormwater Discharge Permit objectives.	Continue to implement operations and maintenance programs for the wastewater pipe system that limits the introduction of sanitary sewer waste into the stormwater system.	Track sanitary discharge to the stormwater system, including estimated volume and location. Track follow-up responses to the identification of any sanitary discharges to the stormwater system. Track implementation of the CIP to connect currently unsewered properties to the sanitary sewer system.	City records in the utility billing system shows 24,803 active accounts. 24,131 accounts are billed for wastewater and 24,245 have stormwater rates. The county sanitarian records show that 9 private septic tanks were decommissioned and connected to the wastewater treatment plant. One additional property was decommissioned just outside the city boundary in unicorporated multnomah county. No public sanitary system upsets occurred during the PY. ~75 miles of pipe were cleaned and ~37 miles were inspected for damage or leaks. 50 miles of main pipe was patched and 4 miles were open trench repaired and 5 miles of lateral pipe patch repair and 16 miles of lateral open trench repair. 4 manhole repairs. 36 blockage investigations.City Attorney's office continues to work on the civil penalty legal issues related to two properties refusing to hook up to the city sewer.	None
IND. 1 & 2 Industrial Inspection & Monitoring						
A. Business Inspection Program	Ongoing	The City's Stormwater Business Inspection Program consists of a variety of approaches including: business license review and technical assistance; prioritized business inspections; review of business classification codes to determine those that may need 1200Z or 1200-COLS permits to submit to DEQ and collaboration with DEQ to ensure 1200Z permit data is adequately reviewed; cross training with the Wastewater Pretreatment and Fats Oils and Grease Inspectors to look for potential stormwater concerns, and a business education program that is implemented by the Solid Waste & Recycling Division staff.	Continue to implement business license review, business inspections and business education efforts to help prevent and reduce the introduction of pollutants into stormwater from business practices.	1) Track number & location of stormwater related issues identified during the business license review and follow-up. 2a) Report status of ongoing program development.	(1) 314 new business licenses came into the city. New licenses are monitored by the business inspection staff and placed on a list for follow up if they are auto or restaurant related or located within the city wellhead protection area.	None
A. Business Inspection Program				2a) Report status of ongoing program development.	2a) Stormwater business inspections are conducted in partnership with the Water and Wastewater Division inspections. The program will continue to look for stormwater concerns by conducting 1200Z/COLS/Wellfield/Pretreatment inspections and a portion of new and highest risk automotive businesses every other year (ones known for poor housekeeping). In PY 24, staff will focus some time on working with businesses with broken oil water separator elbows to require repairs and focus on food services with grease containers in poor condition to reduce pollution sources from these structures.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
A. Business Inspection Program				2b) Notify DEQ of businesses that may need a 1200-Z or 1200-COLS permit and report actions promised by businesses with which the City is working.	(2b) Staff reviewed the business license applications and did not identify any businesses needing a DEQ 1200-Z or COLS permit. Staff inquiry to DEQ revealed a new 1200COLS permit issued to Portland Specialty Baking and Arnprior Aerospace. See **Table 3-10** for a list of 1200Z permits within the city.	None
A. Business Inspection Program				2c) Track business inspections, including businesses location, outcome and follow-up. Estimate the number and type of businesses to be inspected for the next year. 2d) Report stormwater concerns identified by the wastewater pretreatment program and resolution. 3) Track GREAT business program environmental audits and certification annually. (Reported in Public Education--Table 3-8).	(2c) 62 auto related businesses inspected finding that 17 were out of business and 15 were office only work. Eleven had stormwater violations which were corrected. Staff completed 54 inspections, including follow ups for compliance within the wellfield protection area. , four of which required corrections and voluntarily complied. 15 Pretreatment Inspections were conducted. One stormwater violation for outdoor housekeeping was corrected. Projections for PY 24, include 35-40 Wellfield/1200Z/Pretreatment Inspections and 20-30 automotive businesses. (2d) Staff inspected 6 permitted industrial 1200Z/COLSsites, minor corrections were requested and made. Staff and DEQ plan to coordinate on at least one 1200Z inspection during 18-19.	None
B. Industrial Monitoring Program	Ongoing	Coordinate with DEQ to ensure adequate notification of potential 1200Z and 1200-COLS permits and review of data submitted by permit holders.	Continue annual inventory of 1200-Z and 1200 COLS businesses within the city's boundaries and review monitoring results submitted to DEQ on an annual basis, if DEQ has not already done so. Report exceedances to DEQ, if applicable.	Track NPDES 1200Z/1200COLS permits issues in Gresham. Track number of violations reported.	Based upon a review of city records and correspondence with DEQ, there are currently 14 permitted facilities within Gresham's jurisdiction. Gresham staff inspected 6/14 industries to ensure wellfield protection area code implementation. Some corrective measures were requested. These are listed in **Table 3-10**.	None
CON. 1 & 2 Construction Site Planning & Controls						
Erosion Prevention & Sediment Control Manual	Ongoing	Continue to update the City's *EPSC Manual* when necessary to reflect current available and accepted technologies and City code and implement the Manual in order to limit impacts to local streams from stormwater.	Implement the EPSC Manual in order to limit stormwater pollutants from construction and development. Review and evaluate the manual biennially to assess changes needed, if any. At a minimum, at least once	Track updates to the Manual.	The EPSC Standard Operating Details and Manual are being issued and implemented. The EPSC manual was reviewed and updated related to best practices. The updated manual is being moved into the City's Stormwater Manual for new and redevelopment (was formerly housed within the Public Works standards). The updated manual is slated for city council approval during PY 24.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
CON. 3 Construction Site Inspection & Enforcement						
Construction Site Inspection & Enforcement	Ongoing	Continue to implement an EPSC inspection program to ensure adherence to EPSC Manual requirements and 1200-C permit requirements, where applicable.	1) Implement the EPSC inspection program to enforce the EPSC Manual. 2)Ensure proper staff training. 3) Examine tracking parameters such as types of violations, number of active sites and total associated acreage.	Track the number of sites inspected annually. Track training sessions conducted for staff. Report parameters assessed and program adaptive management that result, if applicable.	A total of 231 sites were inspected: 219 with residential or commercial building permits and 12 sites with grading permits. There were 14 disapproved inspections affecting 12 sites. Correction notices were related to installing/maintaining perimeter control, providing adequate cover for denuded soil, protecting stockpiles, improving construction entrances, and sweeping streets. During PY23, Stormwater staff attended the Mid-Willamette Erosion Control and Stormwater Management Summit (1/30/18) and the Managing Stormwater in Oregon conference (6/21/18).	None
Stormwater Education Program	Ongoing	Provide notice to construction site operators concerning where education and training to meet EPSC requirements can be obtained.	Ensure developers and construction permit holders are adequately informed of the city's EPSC Manual BMPs and requirements to limit impacts to streams from stormwater.	Report training and communication efforts to the construction community.	See **Appendix D**: Wet Weather Notification Letter Notice to Contractors.	None
EDU. 1 Stormwater Education Program						
A. Ensure Staff/Stakeholder Training	Ongoing	Continue to train new or existing employees as appropriate on all documents that regulate stormwater pollutant control activities such as: IPM Plan, Water Quality Manual, EPSC Manual, and Spill Response Protocol, etc.	Continue to train new personnel and existing personnel, as appropriate on stormwater regulatory documents and conduct trainings for stakeholders, when applicable.	Track the number of personnel & contractors who receive training by topic.	A variety of staff across operations & maintenance, inspections, and policy positions attended trainings in the following areas: ODOT Training Pesticide applicators licensing updates APWA Short School NASSCO-National Association for Sewer Service Companies Standard Operating Procedures for new employees Annual review of Spill Response Procedures EPSC Training HazMat First Responder Awareness Confined space entry	None
B. Educate Residents	Ongoing	Continue to create and deliver programs and/or messages to educate the public regarding non-point sources of pollutants of concern.	Continue to educate the public regarding their personal contributions to stormwater pollutant sources and impacts to water bodies, as well as the steps or actions they can take to reduce pollutants.	Track programs/messages delivered, type of communication piece and, where appropriate/known, the number of people affected and measured behavior changes. Annually report the Public Education program priorities and plans for the following year.	See **Table 3-9**. For PY 23, staff will continue to support the implementation of the Backyard Habitat Conservation Program, an ACWA/Regional Coalition coordinated effort for media advertising and promotion of local water education events hosted by various partners, collaboration with watershed councils and SWCDs, business outreach, individualized customer response, and neighborhood illegal discharge notifications and education.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
C. Educate Businesses	Ongoing	Continue to create and deliver programs and/or messages to educate businesses regarding non-point sources of pollutants of concern.	Continue to educate the public regarding their personal contributions to stormwater pollutant sources and impacts to water bodies, as well as the steps or actions they can take to reduce pollutants.	Track programs/messages delivered, type of communication piece and, where appropriate/known, the number of people affected and measured behavior changes. Annually report the Public Education program priorities and plans for the following year.	See **Table 3-9**. For PY 24, staff will continue to support the implementation of the GREAT Business Program, the EcoBiz Program, the SCAP program, the EPSC contractor outreach and will continue technical assistance to restaurants and automotive sectors. During PY 23, interns documented restaurant garbage, recycling and grease containment for future pollution reduction work.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
Program Management & Monitoring						
MON 1 Annual Report Writing	Ongoing	Coordinate across the city to review program commitments, gather data, and where appropriate, assist with program evaluation and additional goal setting or BMP enhancements.	Submit the Annual Report to DEQ on behalf of Gresham and Co-Permittee, as required by the permit.	Each year provide a report that includes the following components: * a description of the public comment notice method; *status of the SWMP implementation and SWMP program elements, progress in meeting the measurable goals; *status and/or results of any public education program effectiveness evaluation conducted during the reporting year and a summary of how the results were or will be used for adaptive management.; *a summary of the adaptive management. process during the report year, including any proposed changes to the SWMP identified through implementation of the adaptive mgmt. process; *proposed changes to SWMP elements designed to reduce TMDL pollutants to the MEP; *a summary of total stormwater program expenditures and funding sources over the reporting fiscal year and those anticipated in the next fiscal	This year's Annual Report included a public comment period from October 15-28, 2018. Notices ran in the Oregonian and on Oregonlive.com. The City placed a notice on its website and also issued a press release to all media. A notice was also published in the City's e-newsletter which is emailed to ~900 households. A notice was emailed to the local active Watershed Councils and East Multnomah Soil and Water Conservation District. The status of the SWMP implementation and progress meeting measurable goals is described throughout this report. The Adaptive Management Process is described in Section 1 and a summary of the adaptive management process and resulting proposed changes may be found in the Summary and Date of Proposed Adaptive Management Column for the respective BMPs effected. A summary of total expenditures is included as **Table 3-11**.	None
				*a summary of monitoring program results, including monitoring data that are accumulated throughout the reporting year and/or assessments or evaluations; *any proposed modifications to the monitoring plan that are necessary to ensure that adequate data and information are collected to conduct stormwater program assessments;	A summary of the Environmental Monitoring Plan implementation for Gresham and Fairview is included as Section 2 of this report with a separate Appendix A, B & C of supporting raw data collected during PY 23.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
				*a summary describing the number & nature of enforcement actions; inspections & public education programs, including the results of ongoing field screening and follow-up activities related to illicit discharges; *an overview, as related to MS4 discharges, of concept planning, land use changes and new development activities that occurred within the UGB expansion areas during the previous year, and those forecast for the following year, including the number of new post-construction permits issued, and the estimate of total new or replaced impervious surface area related to new development and redevelopment projects commenced during the report year; *Annual Report 2014 must also include: TMDL Pollutant Load Reduction Evaluation; Wasteload Allocation Attainment Assessment; 303 (d) Evaluation; Hydromodification Assessment; Retrofit Plan.	A summary of the Illicit Discharge Detection & Elimination Program (Dry Weather Screening and Spill Response) may be found in **Tables 3-5 and Figure 3-6**. A summary of concept planning, land use changes and new development activities for UGB expansion areas may be found in **Appendix B**. A summary of development permits issued within the City of Gresham is included in **Table 3-1**.	None
MON 2 Legal Authority and Code Review	Ongoing	Review existing code to ensure that the city maintains adequate legal authority and other requirements as stated in the NPDES MS4 permit.	Maintain adequate legal authority, as required by the permit.	Maintain adequate legal authority through ordinance(s), interagency agreements or other means to implement and enforce the provisions of the NPDES MS4 Permit #101315. Track enhancements or improvements to existing City code.	See **Appendix A.**	None
MON 3 Program Evaluation/Monitoring	PY 17 or as otherwise dated in the permit.	Review the 303(d) list to determine whether there is a reasonable likelihood of stormwater from the MS4 to cause or contribute to water quality degradation of receiving waters. Utilize the city's GIS mapping staff to enhance program evaluation efforts.	Conduct a 303 (d) pollutant evaluation, as required by the permit.	Submit a report summarizing the results of the 303(d) list review and evaluation and any proposed SWMP modification or updates necessary to reduce applicable 303(d) pollutants to the MEP: Submit a Waste Load Attainment Assessment; Submit a TMDL Pollutant Load Reduction Evaluation; Track significant mapping efforts that help evaluate, enhance or support the SWMP BMPs.	Significant mapping projects included: * GIS layers reviewed and updated to support Stormwater Master Plan project * Dry weather screening site location map * Operations and Maintenance system inspection and cleaning route maps * Public Education maps of participants by zip code for watershed councils and Big Float collaboration, as well as Backyard Habitat Participants * Business Inspection Maps of wellfield, 1200Z, pretreatment, and automotive locations. * UIC maps for WPCF permit reporting * Stormwater infrastructure maps for Mult Co. Vector Control	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	2017-2018	Summary and Date of Any Proposed Adaptive Management Modifications
MON 4 Public Involvement	Ongoing	Conduct public involvement activities as required by the permit, such as annual reports, retrofit strategy, and Permit Renewal Submittal elements.	Conduct public involvement activities and report outcomes.	Report the number of people reached during public involvement activities.	The Annual Report is also released for public comment which is described in MON 1: Annual Report Writing. Below is a summary of potential reach utilizing the typical methods for making public announcements. Gresham's population is about 105,000 (2010 U.S. Census). The Oregonian daily readership in the Portland-Metro area is about 200,000, and Oregonlive.com receives 9M unique visitors annually. The City's Website Home Page receives ~13,000 visits per month. The City's Watershed Division web page, where public comment documents are housed electronically, receives ~1,300 views annually. City Newsletter mailed quarterly to 48,000 households.	None
MON 5 Permit Renewal Submittal	PY 17-18 or as appropriate to meet permit deadlines.	At least 180 days prior to permit expiration, prepare and submit the Permit Renewal Submittal package to DEQ.	Submit the Permit Renewal Package to DEQ.	Submittal includes as required by permit but is not limited to: Proposed modifications, including additions and removals of MBPs and measurable goals; Information allowing the Dept. to make an independent assessment that the SWMP proposed meets the requirements of the permit to the MEP; Updated pollutant loads for TMDL pollutants and BOD5, COD, nitrate, total phosphorus, dissolved phosphorus, cadmium, copper, lead & zinc; Establishment of TMDL Pollutant Reduction Benchmarks, if not achieving the WLA; A proposed monitoring program; A description of service area expansions; A fiscal evaluation summarizing expenditures for the current and next permit cycle; Updated MS4 maps.	The City of Gresham submitted its permit renewal package to DEQ on December 15, 2015. This included an updated Stormwater Management Plan and Monitoring Plan that went out for public comment on Nov 30 thru Dec 13, 2015. No comments were received. The City's permit expired on December 29, 2015 and was administratively extended by DEQ in a letter dated February 25, 2016. The City, therefore, is following the SWMP dated April 2011 and adaptively managed in April 2013. The City's permit allows for the Monitoring Plan to be adaptively managed by reporting changes in the annual report to DEQ. As such, the City's current Monitoring Plan was last updated in November 2015**.** All documents are located at GreshamOregon.gov Watershed Documents.	None

Table 3-1: Total New and Redevelopment Acreage

Project Name	Land Use Type	Development Type	Location	WQ Treatment	Ownership*	System	Project Size/Area Treated (acres)	Construction Disturbance (acres)	Percent Impervious
Big Eddy Industrial Development	GI	Industrial	1905 NE Riverside Pkwy	StormTech Chambers and Contech StormFilters	Private	Columbia Slough	7.7	6.6	86%
Yamhill Firs Apartments	RTC	Multi-Family Housing	19025 SE Yamhill Ave	Pervious asphalt and pervious concrete	Private	Fairview Creek	1.4	1.4	100%
Atiyeh Commercial Center	NC	Commercial	1404 SE 182nd Ave	ROW Rain Gardens	Public	Kelly Creek	1.1	0.8	72%
Homestead Subdivision	LDR-5	Residential	2462 SW 41st Street	ROW Rain Gardens	Public	Johnson Creek	8.6	2.4	28%
Gresham Business Park - Lot 9	GI	Industrial	198 SE 223rd Ave	Vegetated Bio-swale, Contech StormFilters,	Private	Columbia Slough	37.4	31.6	85%
Glisan Corporate Park	GI	Industrial	NE Glisan Ave	Vegetated Bioswales and ROW Rain Gardens	Private/Public	Columbia Slough	26.0	23.8	91%
Admiralty Pointe Senior Living Center	DTM	Commercial	1241 NE 6th Street	Stormwater Planter	Private	Fairview Creek	0.6	0.5	79%
Boys and Girls Club	MC	Commercial	16519 SE Stark Street	Stormwater Planter, Vegetated	Private	Columbia Slough	1.3	1.1	87%
Farmington Square Senior Living Center	LDR-5	Commercial	1655 NE 18th Street	Stormwater Planter, Vegetated	Private	Kelly Creek	2.8	0.9	31%
Welch Woods Subdivision	LDR-5	Residential	SE Orient Drive	Detention Pond, Contech Stormwater	Public	Kelly Creek	5.5	4.0	72%
Rodgers Subdivision	LDR-5	Residential	1750 NE Cleveland Ave	ROW Rain Gardens	Public	Fairview Creek	1.3	0.8	63%
Total Disturbed Acreage								**73.8**	

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

Table 3-2 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
Private/Public Partnership Projects				
City of Gresham Operations & Maintenance Yard Swale Retrofit	Johnson Creek	Designed and bid. Construction to be completed during the next reporting year.	The retrofit will capture 2.5 additional untreated impervious surface from the operations yard.	Watershed CIP retrofit fund
Kane Road Culvert Repair	Kelly Creek	Designed and bid. Construction to be completed during the next reporting year.	This is the permanent replacement of road and the 12' wide non-fish passable culvert from the 2015 flood that caused the road to wash out with a 34' wide fish passable culvert and natural stream bed.	Watershed CIP fund
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 city partnered with EMSWCD, Sandy River Watershed Council, and Metro to 'green' the college campus by improving water quality and improving habitat by the reduction of impervious surfaces and the installation of rain gardens and native plants.	Watershed Operating Fund
Riparian and Upland planting	Fairview Creek, Johnson Creek, Kelly Creek, Butler Creek, and Chastain Creek.	Restoration is occurring along Johnson Creek main stem (6 sites), Jenne Creek (1 site), Kelly Creek (1 site), Butler Creek (1 site), Chastain Creek (1 site) and Fairview Creek (3 sites). Each of these sites are under active management for invasive species control. A subset of these sites will be selected for additional native plantings including Johnson Creek (4 sites), Jenne Creek (1 site), and Kelly Creek (1 site). The Natural Resource program also started its Upper Butler Creek CIP project and will be implementing the baseline report and restoration plan in Fall 2019 and continue through Fall 2022.	Water quality, stream shade, invasive control, forest health, stream function, wetland function, and habitat improvements.	Natural Resources Operating Funds
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 3.3. 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
Fairview Creek Wetland Mitigation Bank	Fairview Creek/Columbia Slough	Latest cost estimate by Port puts project projection at $9M, so we sought an additional funding partner, and are currently in negotiations with the Cowlitz Tribe. As the project site is within their traditional tribal lands area, they are investigating the project lead with the proposal to use Port funding to complete the project. City remains site owner and project sponsor.	Water quality, stream function, wetland function, and habitat improvements.	Stormwater CIP and external partner funding (Port of Portland and Cowlitz Tribe)
Environmental Overlay Project (ongoing)	All	In partnership with Planning and Development Engineering, embarked on buffer code update to simplify and clarify code requirements, mitigation standards, and floodplain rules to enhance compliance and improve performance over existing code which has been found to be extremely complex in interpreting and applying. City will ensure changes still meet intent of state Goal 5 & 7 and Metro Title 3 and 13. The project also provides more accurate resource mapping	Water quality, tree preservation, stream shade, erosion control	Natural Resources CIP funding

Project Name/Watershed	Watershed	Project Status	Stormwater Mitigation Measures/Area Treated	Funding Mechanism
Slope stabilization projects	1st and 2nd order streams on east buttes	Working with environmental engineers, geomorphologists and modelers to identify and rank at-risk drainages where we have most significant signs of likely bank instability. This will result in new CIP project where we will address proactively (ideally, prior to failure) the prioritized list of bank stabilization needs.	Water quality, riparian function erosion control	Stormwater CIP funding

Table 3-3: Restoration Activities

Project Site	Project Partners	Volunteer Hours	Invasive Removal Acreage	Planting Acreage	Plants Installed	Notes
Gresham Woods at 14th Street Bridge (Johnson Creek and Chastain Creek)	JCWC, FOT, NYC	425	14.0	4.0	2,500	Planted area includes 4 acres along Johnson Creek at two separate locations. Intensive invasive weed removal and spraying this past year was completed by the City and FOTs for Yellow-flag iris, lesser celandine, Himalayan blackberry, and Japanese knotweed throughout the 14 acre area of Gresham woods and Chastain Creek.
SW 14th Street (Johnson Creek)	JCWC	0	1.7	1.7	4,058	Johnson Creek watershed Council in partnership with City of Gresham continued the work of FOTs on this site. They used a grant from EMSWCD and a City match to complete the work on the site. It included invasive species control and planting of trees/shrubs.
Butler Creek Corridor	AC, NYC	145	21.0	0.0	0	Two sites are currently active restoration. The area includes the first mile of the creek. These two areas have been under active restoration since 2015. Restoration work includes invasive removal. Weed control used amix of hand pulling and spraying. Sites are located starting at 14th street, up to Marpol Pond.
Ochioto (Johnson Creek)	AC, NYC, STHS, JCWC, volunteers	545	9.0	3.4	3,800	Multiple sites within the area are under active restoration. A total of 3 sites were planted with a mix of shrubs and trees and live stakes. An area cleared of blackberry was seeded with a native mix as well. Intensive weed removal via hand pulling and spraying occurred throughout the project site with a focus on jewel weed, Himalayan blackberry, and other weedy species. Site is located at end of Liberty Avenue and is on the south bank of Johnson Creek. Area included in JCWC Watershed Wide event. Springwater Trail High used the site for Volunteer Day.

Project Site	Project Partners	Volunteer Hours	Invasive Removal Acreage	Planting Acreage	Plants Installed	Notes
Wisteria Way at Dowsett (Johnson Creek)	AC, NYC, STHS, JCWC, Citizen volunteers	415	1.2	1.2	1,400	First year restoration site along Johnson Creek. Site was previously a wisteria and blackberry monoculture. First 1600 months used to control invasives. Planted winter 2018. Site was planted with a mixture of bare root trees/shrubs and live stakings along the bank. Site was used for Watershed Wide and other citizen events.
Fairview Creek Headwater Wetlands	AC, RLA, NYC	158	3.0	3.0	1,000	Ongoing test site for reed canary grass control methods and restoration of headwater wetlands. Turtle habitat restoration adjacent to Wolf Property included weed control and seeding of the area. Live staking and invasive species control occurred at RLA work area off Sandlewood Loop that included 1000 live stakes this year.
Fujitsu Wetland Mitigation on Birdsdale	AC, NYC	88	4.0	0.0	0	Site is currently under maintenance activities which include weed control using hand pulling and spraying activities.

Project Site	Project Partners	Volunteer Hours	Invasive Removal Acreage	Planting Acreage	Plants Installed	Notes
7th Street Bridge (Johnson Creek)	AC, NWYC	267	1.5	1.5	1,400	First year restoration site along Johnson Creek. Site was previously a blackberry monoculture. First 1600 months used to control invasives. Planted winter 2018. Site was planted with a mixture of bare root trees/shrubs and live stakings along the bank. Site was used for Watershed Wide and other citizen events.
Border Way (Jenne Creek)	AC, NYC, JCWC, Citizen volunteers	177	5.0	0.0	0	Site had limited spraying this year. Site will undergo infrastructure development in 2018 with a wastewater pipeline going in. Used citizens to salvage plants along the alignment. A total of 100 plants were salvaged from pipeline corridor. To be planted in 2019. Included in JCWC Watershed Wide event.
Brookside (Kelley Creek)	AC, NYC	212	4.0	4.0	3,400	Restoration work includes invasive removal a through hand pulling and spraying and native plantings. Site is inundated with weedy species including Canada thistle, scotch broom, Himalayan blackberry, and other weedy species. Native plantings included a mix of shrubs and trees. After a couple years of spraying and testing species a big planting occurred 2017-18 winter.
Jenne Butte	AC, NYC, Metro	286	20.0	0.0	0	Included extensive work on removal of garlic mustard through a series of hand pulling events and spraying. Impacted area was not planted this year. Site will continue to receive garlic mustard treatment until it is under control.
Gabbert Butte	AC, NYC	60	1.5	1.5	0	Oak savannah restoration in the lower meadow. Included extensive invasive weed removal effort.
Total		**2,778**	**86**	**20**	**17,558**	

CSWC =	Columbia Slough Watershed Council		
FOT =	Friends of Trees	STHS =	Springwater Trail High
GHS =	Gresham High School	NYC =	Northwest Youth Corp
JCWC =	Johnson Creek Watershed Council	RLA =	Reynolds Learning Academy
AC =	AmeriCorps		

**All spraying was completed by a hired (licensed) City contractor and not included in volunteer hours.

Table 3-4 City of Gresham Pesticide/Fertilizer Applications

Department	Product Utilized	Quantity
Facilities Maintenance		
	Ranger Pro (isopropylamine salt of glyphosate)	275 oz.
	Speedzone (2-Methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester, 3,6-Dichloro-o-anisic acid (Dicamba), Carfentrazone-ethyl, R(+)2(2-Methl-4-chlorophenoxy propionic acid (MCPP)	20.5 oz.
	Surflan (oryzalin)	9 oz.
	Garlon 3A (triclopyr)	60 oz.
	Trimec (amine salt of MCPA, 2,4-D, and Dicamba)	38 oz.
	SureGuard (flumioxazin)	10 grams
	Sedgehammer (halosulfuron)	6 grams
	Ornamec (fluazifop-P-butyl)	10 oz.
	Tzone (Triclopyr, Sulfentrazone, 2,4-D, and Dicamba	12 oz.
	Aquamaster (glyphosate)	18 oz.
	Horsepower (amine salts of MCPA, Triclopyr, and Dicam	45 oz.
	Scythe (pelargonic acid)	48 oz.
	Weed and Feed (2,4-D and glyphosate)	570 lbs
	Specticle G (indaziflam)	165 lbs.
	Snapshot (isoxaben and trifluralin)	30 lbs.
Transportation	Crossbow (2,4-D/Triclopyr, Kerosene)	128 oz.
	Roundup (glyphosate)	8 oz.
	SureGuard (flumioxazin)	52 oz.
	Esplanade EZ (indaziflam, diquat dibromide, glyphosate isopropylamine salt)	14 oz.
Wastewater	none	NA
Watershed	Rodeo (isopropylamine salt of glyphosate)	338 oz.
	Milestone VM Plus (Triclopyr)	4 oz.
	Garlon 3A (triclopyr)	47 oz.
Natural Resource Program	Agridex (surfactant)	122 oz.
	Rodeo (isopropylamine salt of glyphosate)	687 oz.
	Milestone VM Plus (Triclopyr)	51 oz.
	Element 3A (triclopyr)	1586 oz.
	Habitat (isopropylene salt of imazapyr)	41 oz.
Water	Roundup (glyphosate)	444 oz.
	Crossbow (2,4-D/Triclopyr, Kerosene)	128 oz.
	SureGuard (flumioxazin)	6.5 oz.
Parks	Roundup (glyphosate)	1,154 oz.
	Crossbow (2,4-D/Triclopyr, Kerosene)	327 oz.
	Casoron (dichlobenil)	293 lbs.
	Weed and Feed (glyphosate and 2,4-D)	1,800 lbs.
	Element 3A (triclopyr)	48 oz.
	Milestone VM Plus (triclopyr)	41 oz.
	Glystar (isopropylamine salt of glyphosate)	305 oz.
	liquid totals	**6067 oz.**
	dry totals	**2858 lbs. and 16 g.**

Table 3-5: Illicit Discharge Detection & Elimination--Dry Weather Screening Results and Follow-up

Basin	Site Code	Flow	Odor	Color	Clarity	Float-ables	Deposits/ Stains	Veg Cond	Structural Cond	Biolo-gical	Last Rain	DO (mg/L)	pH	Temp (*C)	Conduc-tivity (µS/cm)	Turbidity (NTU)	Total Chlorine (mg/L)	Ammonia Nitrogen (mg/L)	Observations and Outcome
Pollutant Parameter Action Levels (Table 15 of the Gresham/Fairview Monitoring Plan)												**NA**	**<6.5, >8.5**	**NA**	**>300 µS/cm**	**>15 NTU**	**>0.5 mg/L**	**>0.5 mg/L**	
Kelly Creek	3156-K-64	No									3-6 Days								
Kelly Creek	3557-K-61	No									3-6 Days								
Kelly Creek	3558-K-60	No									3-6 Days								
Kelly Creek	3568-K-63	No									3-6 Days								
Kelly Creek	3656-K-60	No									3-6 Days								
Johnson Creek	3452-J-640	No									3-6 Days								
Johnson Creek	3550-J-610	No									3-6 Days								
Johnson Creek	3654-J-721	No									3-6 Days								
Johnson Creek	3452-J-699	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days								Flow too low to collect sample.
Kelly Creek	3457-K-84	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	8.02	7.72	17.9	159.4	0.45	0	0	Flow sampled from Elementary school coolant system discharge at Kelly Creek outfall.
Kelly Creek	3558-K-60	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.76	7.85	18.5	167.3	3.3	0	0	
Kelly Creek	3156-K-67	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	6.58	7.70	20.8	181.2	3.23	0	0	
Kelly Creek	3356-K-65	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	6.35	7.68	22.3	194.2	10.9	0.2	0	Due to the slight amount of chlorine, pipeshed was investigated upstream to determine if there was any active watering contributing to the flow. Found indication of lawn watering in the neighborhood that may be contributing residential water to the system.
Kelly Creek	3457-K-61	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	5.69	7.22	24.8	191.8	1.77	0	0.1	
Johnson Creek	3853-J-606	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	10.73	7.68	14.3	94.9	3.94	0	0	
Johnson Creek	3451-J-685	Yes	None	Yellow	Clear	None	Iron Bacte	NA	Normal	NA	3-6 Days	8.34	7.56	17.2	200.9	39.8	0	1.0	Turbidity and ammonia are high here every year, past investigations have shown that this is from leachate from an abandoned landfill.
Johnson Creek	3353-J-601	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.47	7.44	16.9	194.3	11.5	0	0	
Johnson Creek	3549-J-605	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.44	7.85	20.1	128.2	3.05	0	0	
Johnson Creek	3850-J-620	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.22	7.22	21.0	212.6	3.49	0	0	
Johnson Creek	3550-J-611	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.14	7.82	20.8	163.5	3.08	0	0	
Johnson Creek	3453-J-698	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	6.78	6.73	17.9	319.0	19.4	0	1.0	Turbidity and ammonia are high here every year, past investigations have shown that this is from leachate from an abandoned landfill.
Johnson Creek	3453-J-621	Yes	None	Yellow	Cloudy	Other	None	NA	Normal	NA	3-6 Days	6.66	6.83	17.6	259.0	20.8	0	0.5	Turbidity and ammonia are high here every year, past investigations have shown that this is from leachate from an abandoned landfill.
Johnson Creek	3549-J-606	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	6.38	7.94	21.7	145.3	2.86	0	0	
Johnson Creek	3654-J-718	Yes	None	Brown	Cloudy	None	None	NA	Normal	NA	3-6 Days	6.35	7.74	24.0	269.1	267	0.2	0.5	Very high turbidity and high ammonia were found running off of the City of Gresham's maintenance yard. A retrofit has been initiated to address this issue.
Fairview Creek	3250-F-004	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	8.30	8.15	17.9	182.2	1.33	0	0	Took sample at outlet to water quality finger.
Columbia Slough	2749-W-64	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	10.41	8.01	17.6	169.2	2.03	0	0	
Columbia Slough	2750-W-06	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	9.22	8.10	17.5	196.5	1.94	0	0	CSWQF in bypass mode, heavy flow in pipe due to flow control.
Columbia Slough	2850-W-66	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.77	7.75	19.2	176.2	0.72	0	0	
Columbia Slough	2748-W-00	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	7.66	7.68	19.3	191.0	9.3	0	0	
Columbia Slough	2850-W-66	Yes	None	Clear	Clear	None	None	NA	Normal	NA	3-6 Days	6.37	7.35	18.7	189.7	1.93	0	0	

Key: Shaded cells are above the action level and staff conducts additional upstream investigation.

NTU=Nephelometric Turbidity Units Clean drinking water is 1NTU or less. 50 NTU would be slightly cloudy.
DO=Dissolved Oxygen Stormwater is typically >5 mg/L which rarely poses a direct threat to instream conditions. This measurement is taken in order to collect pH and conductivity.

Temperature is not associated with stormwater as a pollutant, because typically rain fall does not occur in summer months. However, temperature is measured because release of heated water is a violation of City Code. In general, summer flow in pipes is either associated with high groundwater, incidental releases of potable water such as irrigation runoff which is allowed by DEQ, or is indicative of illegal discharges.

Fig. 3-6

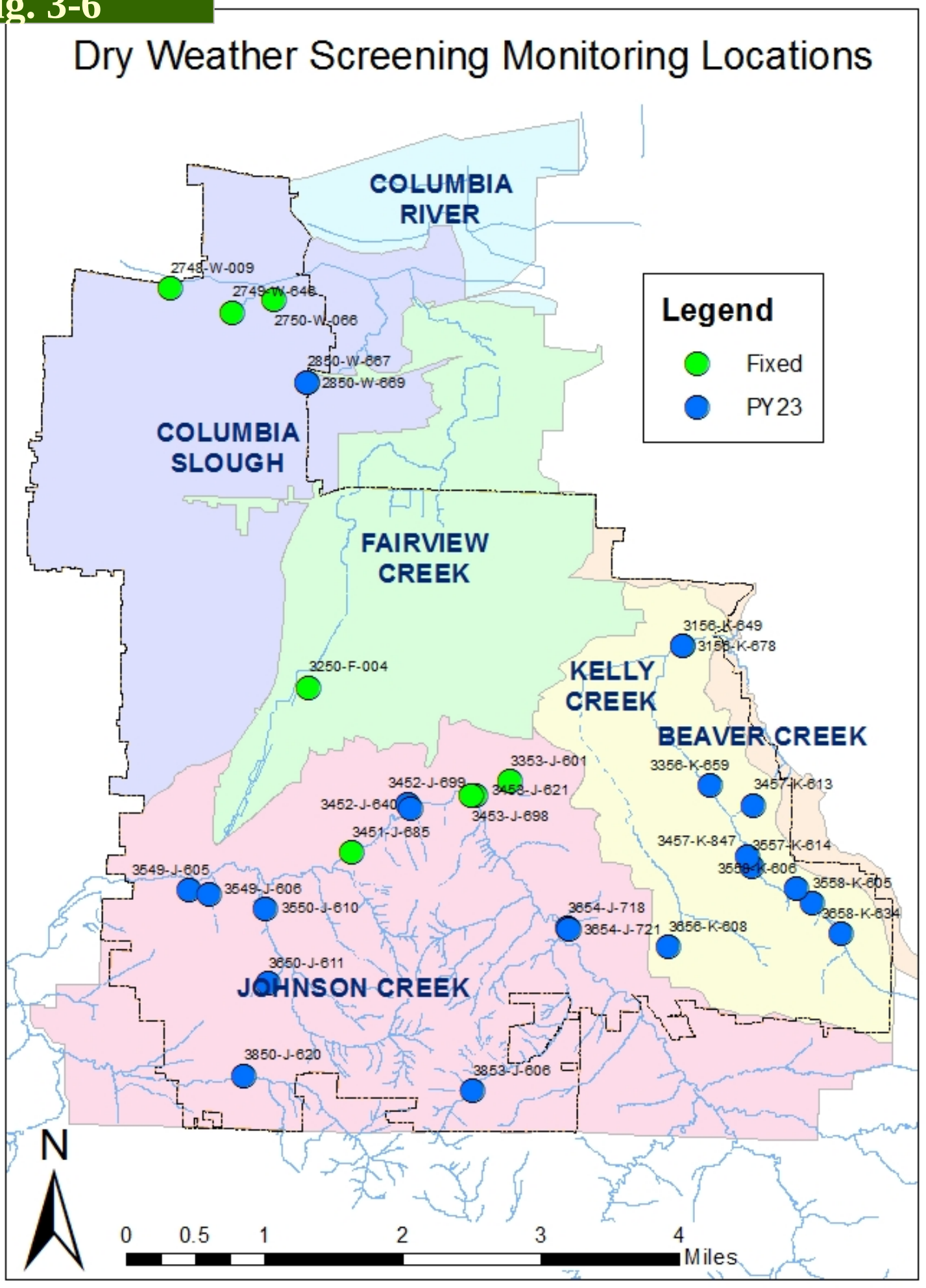

Dry Weather Screening Monitoring Locations
COLUMBIA RIVER
COLUMBIA SLOUGH
FAIRVIEW CREEK
KELLY CREEK
BEAVER CREEK
JOHNSON CREEK
2748-W-009
2749-W-648
2750-W-066
2850-W-667
2850-W-669
3250-F-004
3156-K-649
3156-K-678
3353-J-601
3452-J-699
3453-J-621
3452-J-640
3453-J-698
3451-J-685
3356-K-659
3457-K-613
3457-K-847
3557-K-614
3558-K-606
3558-K-605
3558-K-634
3654-J-718
3654-J-721
3656-K-608
3549-J-605
3549-J-606
3550-J-610
3650-J-611
3850-J-620
3853-J-606
Legend
Fixed
PY23
N
0
0.5
1
2
3
4
Miles

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Sanitary discharge	Business	Johnson Creek	Possible sewage overflow to street	Wastewater staff cleared a blocked line at the point of service from the City's main line and the concrete was cleaned. No fluids entered the storm system.
Soap/detergents	Business	Johnson Creek	Ponded water in private business lot suspected to be from outdoor washing.	Staff denied washing outside. Said drain was clogged. City assisted with pipe and drain information and asked the owner to get the private side drain and pipe cleaned.
Restaurant greases	Business	Johnson Creek	Recycling collection container causing stormwater pollution.	City recycling staff contacted Gresham Sanitary to have the food waste dumpster replaced. Provided spill pads and instructions for clean up. Business signed up for SCAP to have the drains cleaned.
Restaurant greases	Business	Johnson Creek	Large grease stain/contamination in private garbage area/parking lot.	Staff required pavement to be cleaned by a professional company with storm drain protection in place to remove residual grease.
Paint	Residential	Kelly Creek	Neighbor reported paint being poured into storm drain.	CCTV found <1/8 gallon of paint in CB and residue in storm pipe. Did not continue to outfall.
Auto fluids	Transporting vehicle	Johnson Creek	Caller to City Hall reported Waste Management truck leaking hydraulic fluid.	Waste Management hired contracted vac truck to clean up.
Sediment	Residential	Columbia Slough	Excessive amounts of dirt coming from private lot onto public sidewalk and street from landscaping.	Staff sent a letter requesting resident to sweep the sidewalk and street. Staff cleared drains of debris. Compliance obtained.

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Oil spill	Transporting vehicle	Columbia Slough	Employee of Knife River saw a dumped drum with some leaking on the street on the way to work and contacted the city.	Transportation and Stormwater crew worked to clean the street and the catch basin with absorbent and vac truck. No Responsible party found.
Sediment	Residential	Columbia Slough	Neighbor reported that fencing post bases were installed at this address and the concrete refuse was washed into the street possibly entering the storm drain.	Educational letter was mailed to the residents. City staff cleaned the street.
Auto fluids	Residential	Kelly Creek	Reported that the owner of this property operates an auto repair business nights and weekends from his garage and runs auto fluids down the driveway to the street.	Staff did not find evidence of illegal work or stormwater pollution during inspection.

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Restaurant greases	Business	Kelly Creek	Stormwater pollution source from grease container.	Staff delivered grease absorbent pads and directed site to clean up the recycling enclosure and dispose of a decommissioned fryer laying outside. Compliance obtained.
Sanitary discharge	Residential	Kelly Creek	Neighbor reported discharge in the yard from apparent broken water pipe may be blackwater	City building inspector verified leak. Code staff contacted the owner, sent permit info and did the follow up inspection to ensure pipe was repaired.
Auto fluids	Residential	Johnson Creek	Neighbor reported a chronically leaking vehicle.	Staff photographed extensive staining on the street and placed absorbent pads. Homeowner states it's his daughter's car and he's not responsible. Notice of violation sent. Staff reinspected a couple of times to ensure no active leaking vehicles on the street.
Oil spill	Transporting vehicle	Columbia Slough	multiple drums dumped, oil from 185th and Sandy to 223rd. Fairview and County rd.	City staff assisted with investigation of street and drain contamination. Clean up primarily overseen by Mult Co using NRC. City staff also cleaned catch basins on Sandy Blvd. No evidence of oil reaching the Columbia Slough Water Quality Facility. No responsible party found.
Auto fluids	Transporting vehicle	Johnson Creek	Truck with expired tags parks overnight in front of my home. Maroon truck with lawn mowers on it.	Staff investigated in the late evening around 8pm and did not find a matching vehicle. Transportation placed absorbent pads on the stained area, but it was deminimus because of evaporation and/or into asphalt.
Restaurant greases	Business	Fairview Creek	Staff observation of leaking fluids from grease and garbage containers.	Safeway worked with haulers for container replacement and also cleaned the drain and pavement.

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Restaurant greases	Business	Columbia Slough	Staff observed the garbage enclosure at the restaurant was in poor condition and the grease container was contaminated with drips and grease on the pavement.	Staff ordered the owner to clean the pavement and drains and the enclosure. Compliance obtained.
Unknown discharge	Unknown	Fairview Creek	Evidence of some kind of washwater dumping into drain. Debris dried onto pavement.	Letter requesting drain to be cleaned was sent to Condo Association. Compliance obtained.
Paint	Residential	Johnson Creek	Neighbor reported paint in a drain and provided security camera images of someone from 2919 SE Liberty walking to the drain and apparently dumping into it. Civil Penalty Waring notice sent to responsible party. City cleaned the drain.	COG staff found paint in the drain and conducted cleanup.
Hydraulic Fluid	Business	Fairview Creek	Leak from transporting vehicle, possible hydraulic fluid.	City used absorbent and sweeper to clean the street.
Unknown discharge	Business	Columbia Slough	City staff noticed foul smell near an outfall and contacted the monitoring staff for field investigation.	A sampling and CCTV investigation revealed an underground fuel tank on an old farm. DEQ's fuel tank program is following up to complete clean up.
Oil spill	Residential	Johnson Creek	City staff discovered about 5 quarts of what appears to be used motor oil in the swale.	Staff placed absorbent booms. Because of the amount of oil and uncertainty about the exact nature of the contaminant, city contracted NRC to complete the cleanup. Staff plugged the inlet to keep the swale empty during cleanup.

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Oil spill	Residential	Fairview Creek	Apartments parking lot has oil sheen from dripping cars.	Staff inspected and did not find sheens present. Spoke to the owner who had not seen any issues at the site. Staff asked him to require residents with leaking vehicles to use drip pans, as needed. He noted that he had no problem doing so if future issues arise.
Soap/detergents	Residential	Kelly Creek	Contractor working and allowing discolored water to flow down curb line in front of their house.	OPS crews responded to call and installed bio-bags and CB insert bag to protect public system. Contractor was told to stop work and clean up liquids along the curb. Code enforcement followed up with Home owner & contractor.
Auto fluids	Business	Fairview Creek	Customer reported oil sheen in parking lot of a business.	Staff inspected and found sheen on pavement. The business had placed kitty litter onto sheen. Staff instructed them to sweep and place in trash. Sheen was entering a well-maintained oil and water separator.
Misc.	Residential	Johnson Creek	Contractor plugged a water pipe to repair a manhole (routine), but caused a large flow chlorinated water to surcharge and enter a drain which led to a stormwater facility.	Staff oversaw water dechlorination and sampled the stormwater facility to verify that chlorination was at very low (no impact) levels.
Auto fluids	Transporting vehicle	Fairview Creek	Car accident caused fluids to enter the city's drain.	Stormwater assisted the fire dept responding to an accident where coolant entered the stormdrain. Ops staff cleaned the coolant.
Unknown discharge	Unknown	Fairview Creek	Staff observation of unknown fluid in the street. HazMat responded--identified as a solvent.	Transportation crew cleaned the road with absorbent and Vac Truck.
Auto fluids	Residential	Fairview Creek	COG staff photographed staining on the street in front of the house, apparently from a leaking vehicle.	Courtesy notice letter with recommendations for cleanup and use of drip pans and appropriate repairs. Staff reinspected and did not find any active leaks.

Table 3-7: Spill and Illicit Discharge Response

Category	Type	Watershed	Action	Resolution
Auto fluids	Residential	Kelly Creek	Hydraulic fluid leaked from a delivery truck onto a residential driveway. It entered the residential ribbon drain, but not the public system.	RP hired NRC to clean it up. Staff inspected.
Auto fluids	Residential	Columbia Slough	Staff observation of leaking vehicle.	Staff contacted Rockwood Plaza Management Co about a leaking vehicle. Provided absorbent pads to absorb fluids. Vehicle is no longer there.
Sanitary discharge	Residential	Columbia Slough	Neighbor complained about potential illegal dumping into drain on the street from RV	City staff cleaned the catch basin and an educational letter was send to surrounding homes.

Table 3-8: Citizen Complaints*	
Issue and Resolution	
MyGresham App	An application that allows for phone, computer, or voice recorded complaints or concerns to come into the city and be tracked by topic. During 17-18 over 7,000 inquiries and follow ups were in the system. 24 were assigned as water, stormwater, sewer and drainage problems. These issues range from potential illegal dumping or spills, to minor home flooding, neighbor to neighbor drainage, street manhole lids ajar, etc. Other complaints addressed that protect stormwater include piling debris in the right of way, and various improper outdoor storage or garbage/refuse stockpiling.
Fee Reduction	Staff inspect properties and process requests for stormwater fee reductions based upon on-site stormwater management, typically from a resident having a private drywell or disconnected downspout from the city's infrastructure. 16 applications were processed in PY 23.
Pesticide application/water quality/stormwater management concerns	Typical issues that staff assist with include questions about invasive plant control, onsite stormwater management techniques, pesticide safety questions, etc.
Private Facility Maintenance	Staff spend time providing research documents to residents about who owns a particular facility and providing guidance for facility maintenance. When residents have a concern about the condition of a public facility, staff are sent to inspect and respond accordingly.
Minor Drainage	13 reports of concerns over drainage investigated by staff. 2 were private property issues. 5 were placed on the CIP priority list for remedy. 1 was repaired by Operations and 1 was repaired by Engineering. 3 were referred to Code Compliance and 1 did not have an identifiable issue.
*Many citizen calls are also reported in the illicit discharge categories. These combined tables provide a representation of the nature of issues addressed by the stormwater program staff.	

Table 3-9 Examples of Water Quality Education Efforts*

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
For Residents			
Backyard Wildlife Habitat home visits	All	30 homes	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. This represents about 9 acres of habitat enhancement.
Public Workshops	All	Typical attendance 15-40	City staff partner with Audubon, EMSWCD, JCWC, CSWC, Outgrowing Hunger to offer workshops on wildlife, weeds, rain gardens, native plants, natural gardening, Backyard Habitat program, native pollinators, and mason bee homes. The city collaborated on publicity for 7 spring workshops that reached over 200 people.
JCWC E-bulletin, monthly	Johnson	JCWC e-list to over 700 Gresham contacts, list goes to over 3,000	General watershed education, city public comment meetings/open houses, city natural resource workshops/events.
WMD Fish-Friendly Car Wash program	All	Kits continue to be used at various Gresham certified sites. Total number of contacts unknown.	Soap, grease and heavy metal pollution prevention. Education on use of professional car washes as an environmentally friendly alternative.
JCWC Restoration events in Gresham: Butler Creek, Springwater Woods, Watershed Wide Event, Jenne Creek, and Chastain Creek supported by City of Gresham staff and Gresham's AmeriCorps volunteers and EMSWCD grant funds to restore private parcels.	Johnson	15 properties total. 14 were private. 12 acres, 1.2 miles of stream front.	Riparian buffer function for stream protection. More than ~13,400 trees and shrubs planted using support from grant funds. Additionally, events helped plant 2,700 plants, mulch 800 trees, 125 live stakes with over 260 volunteers or students.

Table 3-9 Examples of Water Quality Education Efforts*

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
JCWC Beaver, Salmon, and Lamprey surveys across Gresham reaches	Johnson	56 volunteers	Stream and stormwater heath education. 37 dams recorded in Gresham and 1 salmon (prob Coho) spotted. 1 Brook lamprey and 6 Brook lamprey redds.
Gresham Arbor Day Tree Planting Events (four locations)	All	Stakeholders and ~10 community members per event	Education on the value of trees ~125 trees planted.
Columbia Slough Watershed Council--Gresham and Fairview support of Slough School program	Fairview/Columbia Slough	90 programs were delivered to ~2300 students in the Gresham Barlow and Reynolds School Districts serving Gresham and Fairview students.	General education of watershed protection, native plants, ecosystems, wildlife and pollutant prevention measures.
Columbia Slough Watershed Council--*Explorando de Slough* event for Latinos	Fairview/Columbia Slough	Over 500 attendees.	General education of watershed protection and pollutant prevention measures.
City of Gresham and Regional partners with KOIN TV--"Do the Right Thing" ad campaign and website	All	Aired 11 stormwater pollution reduction PSAs 385 times. 7.8M adult impressions from TV/Web/Facebook ads. ~ 4,000 web page visits.	Topics: plant natives, lawn care, safe snow/ice removal, fall lawn care, wildlife friendly yards, avoid pesticides, remove invasives, RV and Spa/Pool disposal, car washing

Table 3-9 Examples of Water Quality Education Efforts*

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
City of Gresham e-newsletter, City newsletter, DES News to Reuse, social media, and website: greshamoregon.gov/watershed This represents the variety of approaches that Gresham uses for environmental education messaging to the public	All	e-newsletter: ~900 monthly City news (print): 52,000 biennially Facebook: ~9,400 fans Instagram: ~ Twitter: ~2,300 MyGresham: ~1,700 GoCart:~ 950 Entire city website: ~420,000 annually Web Watershed page: ~ 1,000 annually Utility bill stuffer 22,000 print Y.O.U. digital utility bill ~4,493 Next Door: ~12,250	Pesticide and fertilizer reduction, naturescaping, recycling, sustainability, and private on lot stormwater management education information.
Interpretive panels and public rain gardens, COG Watershed Division	Johnson/Fairview/ Columbia Slough	Total contacts unknown	All residents: City oversees volunteer stewardship of public demonstration gardens at Vance Garden, Main City Park, Nadaka Park, Hollydale Elementary, St. Henry's Church, Covenant Baptist Church, West Gresham Elementary, Snowcap Charities and Gresham High School.
Rain garden education and outreach to Pleasant Valley on-lot rain garden owners	Johnson	Mailed to ~165 residents	Lot-level rain garden education
Gresham Green and Clean Summer Event	Johnson	~200 volunteers	Removal of litter and invasive species from Main City Park and Johnson Creek banks, planting and mulching.

Table 3-9 Examples of Water Quality Education Efforts*

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
For Businesses			
City of Gresham GREAT Business E-Newsletter	All	22 issues/yr. (1260 subscribers and 160 newly opened businesses)	Stormdrain Cleaning Assistance Program, General Best Practices, Sustainability
City of Gresham Stormdrain Cleaning Assistance Program (SCAP)--offered to City of Fairview businesses as well (spring and fall)	All	343 Businesses, ~1340 drains cleaned	Pollution prevention via removal of sediment and debris.
Gresham Automotive shops--Certified EcoBiz Ad in *Outlook (print and web)*	All	35,000 impressions	Ad explained to the public the benefits of using a local certified automotive shop
EcoBiz program partnership	All	24 Businesses	Technical assistance in the areas of recycling, energy, waste reduction, and stormwater management for landscaping, automotive, and manufacturing businesses. Training and coordination for Gresham staff. One new business with two locations (Washman Carwash) became certified.
City of Gresham GREAT Business technical assistance visits	All	~223 Outreach assistance related to stormwater/water concern	7 new certifications and 5 recertifications -80 total GREAT businesses. Supported 38 other businesses with the recertification process. Marked 18 stormdrains. Visits include: education on good housekeeping to limit stormwater pollutants; SCAP drain cleaning referrals; recommendations to fix broken elbows on oil/water separators; maintenance of stormwater facilities; follow spill response procedures; label storm drains; use native plants in landscaping, and reduce pollution from dumpsters.

Table 3-9 Examples of Water Quality Education Efforts*

Program/Event and Partners	Watershed of Focus	Number of Contacts	Educational Focus
Summerworks intern restaurant garbage & recycling area best practice inventory	All	200 properties	Inventory revealed 90 with housekeeping issues for follow up outreach

Table 3-10 (1200-COLS & 1200-Z) in Gresham's Jurisdiction							
Facility Legal Name	**Street Address**	**City**	**Zip**	**DEQ WQ File Number**	**Permit Type**	**DEQ Permit Expiration Date**	**Gresham/DEQ Inspections**
Arnprior Aerospace Portland	17383 NE Sacramento	Portland	97230	125726	Gen. 1200-COLS	Issued July 2018	WFPP: Inspect in 2018/2019
Portland Specialty Baking	3423 NE 172nd Place	Portland	97230	125551	Gen. 1200-COLS	Issued Jan 2018	WFPP: Inspected on 5/18/18, in compliance.
Albertsons (ABS OR-O DC LLC)	17505 NE San Rafael St	Portland	97230	104374	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspected in 2018, in compliance.
Denton Plastics Inc.	18811 NE San Rafael	Portland	97230	113915	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspect in 2018/2019
Pella Vinyl Northwest Inc.	18600 NE Wilkes Rd	Portland	97230	120478	Gen. 1200-COLS	Issued Aug 2017	WFPP: in compliance, now in monitored status. Inspect in 18/19
McDonald & Wetle Inc.	2020 NE 194th Ave	Portland	97230	119535	Gen. 1200-COLS	Issued Aug 2017	WFPP: DEQ required an updated SWCP Plan in Jan 2018. Inspect in 2018/2019
Owens Corning Foam Insulation, LLC	18456 NE Wilkes Rd	Portland	97230	113153	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspect in 2018/2019
Cascade Corporation	2201 NE 201st Ave	Fairview	97024	100491	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspected in fall 2017. In compliance. Inspect in 2018/2019
The Boeing Company	19000 NE Sandy Blvd.	Portland	97230	9269	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspected in fall 2017; minor corrections, in compliance.

Facility Legal Name	Street Address	City	Zip	DEQ WQ File Number	Permit Type	DEQ Permit Expiration Date	Gresham/DEQ Inspections
Rolling Frito Lay Sales LP	4300 NE 189th Ave	Portland	97230	113285	Gen. 1200-COLS	Issued Aug 2017	WFPP: Inspected in 2018, floor coatings completed, in compliance.
International Paper Company	1601 NE 192nd Ave	Portland	97230	107744	Gen. 1200-COLS	Issued Aug 2017	WFPP: Business working to complete paving of on-site transit route. Transit route work was completed and they are working to pave the entire site.
Northwest Retreaders	19004 NE San Rafael	Portland	97230	111262	Gen. 1200-COLS	Issued Aug 2017	WFPP: Conducted site visit in fall 2017 resulting in four storm drains being cleaned and one of the drains being repaired for a broken elbow. DEQ inspected in winter 2018 and required corrections of covering outdoor stored materials, better control of tire shreds, staff training and update of SWPC Plan. WFPP to inspect in 2018/2019
First Student, Inc.	1625 SE Hogan Rd	Gresham	97080	112646	Gen. 1200Z	Issued Aug 2017	DEQ & Gresham inspected in fall 2017. Correction letter issued related to berming fuel area or covering it, maintaining catch basins. Required to begin monitoring.
Mutual Materials Company	2300 SE Hogan Rd	Gresham	97080	108092	Gen.1200Z	Issued Aug 2017	Gresham staff required cleaning of catch basins in fall 2017.
Scenic Fruit Company	7510 SE Altman Rd.	Unincorporated Multnomah County	97080	78990	Gen. 1200Z	Issued Aug 2017	Outside of Gresham permit boundary. DEQ inspected in 2018.

Facility Legal Name	Street Address	City	Zip	DEQ WQ File Number	Permit Type	DEQ Permit Expiration Date	Gresham/DEQ Inspections
Pioneer Sheet Metal	19591 NE San Rafael St.	Portland	97230	120503	Gen. 1200-COLS	Issued Aug 2017	DEQ required an updated SWCP Plan in Jan 2018. Inspection planned for 18/19
Wellfield Protection Program (WFPP)	Where noted, these businesses lie within the City's designated wellfield areas and have additional required pollution protection controls to protect future drinking water sources.						

Table 3-11: City of Gresham Water Resource Division--Stormwater Budget Allocation (including staff and operating)		
Program Area	**PY 23***	**PY 24 Budget**
	FY 17-18 (actual)	**FY 18-19 (projected)**
Water Quality: Policy Development Stormwater/Erosion Manual Oversight Permit Compliance Monitoring and Analysis Spill Response Public Education & Outreach Private Water Quality Facility Program Inspection & Enforcement Erosion Control Inspection & Enforcement TMDL Compliance Stormwater Assets Management Training	$ 868,715	$ 1,245,922
Natural Resources: Restoration Capital Improvements Master Plan Updates Invasive Species Control TMDL Compliance Green Space Acquisition	$ 370,396	$ 452,525
Engineering: Capital Improvements Minor Drainage/Flood Control Public Works Standards Stormwater Manual Oversight Master Plan updates Mapping Stormwater Assets Management Training	$420,576 $1.8M CIP	$504,132 $13M CIP
Operations & Maintenance: Systems Maintenance & Repair Equipment Repair & Replacement Spill Response Inspection IMP implementation Mapping Training	$ 2,199,715	$ 2,786,365
Infrastructure Development (Development Engineering, Surveying, Public Works Inspections, Commercial Erosion Control Inspections)	$ 375,900	$ 423,500
City Admin Support, GIS Support, Management, Overhead	$ 2,432,932	$ 2,750,469
Total	**$6.3M Operating/Salary $1.8M CIP**	**$7.5M Operating/Salary $13M CIP**

*The following header labeling errors occurred in past reports: FY 16-17 was incorrectly reported as PY 20 rather than PY 22. FY 17-18 was incorrectly reported as PY 21 rather than PY 23.

Section C
City of Gresham WPCF (UIC)
System Inventory Summary and Updates

1. System Changes for FY 2017-2018:

- Last year's report contained a new UIC that assigned an incorrect quarter section mapping coordinate. This UIC's Gresham ID# has changed from U3256-J-9088 to U33449-J-9088.
- Two UICs were discovered during system inspections.
- One manhole was converted into a UIC.
- Two new UICs were installed and two were converted to sedimentation manholes and should be removed from DEQ's inventory. DEQ ID#10019-194 and 10019-434.
- Fifteen new horizonal UICs were installed.

This brings the City's total inventory to 1099 vertical UICs and 23 horizontal UICs.
See **Table C1.**

2. Plans for UIC System Updates in Coming Year

Per the UIC Management Plan, all work identified to comply with the permit has been completed. No future UIC work is planned specific to meeting groundwater protection requirements. Future work may occur as part of the city's ongoing development and will be reported with system inventory.

Table C1: UIC System Updates FY 17-18														
	IEOut	RIM	MainID	Width	Township	Section	QuartSec	Range	Latitude	Longitude	Landuse	Change	DEQ_ID	Trips/DAY
VERTICAL	0	0	U2947-W-9064	48	1n	31	NE	3e	45.531191	-122.49157	RESIDENTIAL	NEW (converted from manhole)		<1000
VERTICAL	281.55	285.22	U3449-J-9086	48	1s	08	SW	3e	45.493876	-122.475553	RESIDENTIAL	ID # corrected (formerly U33256 in PY5)		>1000
VERTICAL	0	0	U3049-W-9095	48	1n	32	SW	3e	45.519299	-122.47072	VACANT	DISCOV		<1000
VERTICAL	0	0	U2950-W-9082	0	1n	32	NE	3e	45.532386	-122.461111	RESIDENTIAL	DISCOV		<1000
VERTICAL	0	0	U3048-W-9108	48	1n	31	SE	3e	45.525043	-122.480179	RESIDENTIAL	NEW		<1000
VERTICAL	283.44	288.39	U2947-W-9020	48	1n	31	NW	3e	0	0	RESIDENTIAL	NEW		
SED MH (now)	283.75	287.98	U2947-W-9009	48				3e	45.53033368	-122.4932947	RESIDENTIAL	Remove from UIC inventory	10019-194	<1000
SED MH (now)	0	253.58	U3048-W-9020	48				3e	45.52508462	-122.4802655	RESIDENTIAL	Remove from UIC inventory	10019-434	<1000
HORIZONTAL			H 40301	15								NEW		>1000
HORIZONTAL			H 40298	15								NEW		>1000
HORIZONTAL			H 40384	8								NEW		<1000
HORIZONTAL			H 4704	15								NEW		<1000
HORIZONTAL			H 3405	18								NEW		<1000
HORIZONTAL			H 4705	18								NEW		<1000
HORIZONTAL			H 3406	18								NEW		<1000
HORIZONTAL			H 2285	24								NEW		<1000
HORIZONTAL			H 2286	24								NEW		<1000
HORIZONTAL			H 8179	30								NEW		<1000
HORIZONTAL			H 7636	30								NEW		<1000
HORIZONTAL			H 292	30								NEW		<1000
HORIZONTAL			H 40385	10								NEW		>1000
HORIZONTAL			H 40386	10								NEW		>1000
HORIZONTAL			H 40387	12								NEW		<1000