WPCF Permit Annual Compliance Report
Permit Year 3
WPCF-DOM-UIC-103043
File No. 112110

CITY OF
GRESHAM

December 2015

CITY OF GRESHAM 1333 N.W. Eastman Parkway | Gresham, OR 97030

December 1, 2015

Matthew Kohlbecker, RG
UIC Senior Hydrogeologist
DEQ Northwest Region
700 NE Multnomah St., Suite 600
Portland OR 97232

RE: WPCF Stormwater Permit #WPCF-DOM-UIC-103043
Permit Year 3, 2015 Annual Report

Dear Mr. Kohlbecker:

I am pleased to submit a 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.

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 is available on the City of Gresham's website.

If you have any questions regarding this report or would like an additional copy, please contact Torrey Lindbo at (503) 618-2405.

Sincerely,

Brian R. Stahl
Deputy Director, Water Resources Division
Department of Environmental Services

cc: Torrey Lindbo, WPCF Permit Coordinator
Steve Fancher, Department of Environmental Services Director

Enclosures: (1) Hard copy
(1) CD Rom

Water Pollution Control Facility
Permit #: WPCF-DOM-UICV-103043
File Number: 112110
Permit Year 3 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."

Steve Fancher, P.E.
Director, Department of Environmental Services
City of Gresham

For additional information regarding this report, please contact:

Brian R. Stahl
Deputy Director, Water Resources Division
Department of Environment Services
City of Gresham
1333 NW Eastman Parkway
Gresham, OR 97030
(503) 618-2687
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 requires an annual report 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 – UIC 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 – UIC System Management
1. UIC-Specific BMP Implementation Status
2. NPDES MS4 Stormwater Management Plan Implementation Status

Section C – UIC Inventory Changes
1. List of UIC System Changes (closed, retrofitted, modified, discovered)
2. Plans for UIC System Updates in Coming Year

Section A – 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. The data collected in that initial year was consistent with the plan approved by DEQ, and for data tracking purposes is referred to as Permit Year Zero (PY0).

Each year the City of Gresham monitors 30 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. Five of the locations monitored each year are a "fixed panel" of sites that are sampled every year (Figure A1 shows the Panel 1 locations). The other 25 locations are a "rotating panel" that changes each year. In PY3 (2014-15), the City sampled the Panel 5 locations shown in Figure A2. Note that the Panel 2 locations were sampled in 2011-12 (PY0), Panel 3 locations were sampled in 2012-13 (PY1), and the Panel 4 locations were sampled in 2013-2014 (PY2).

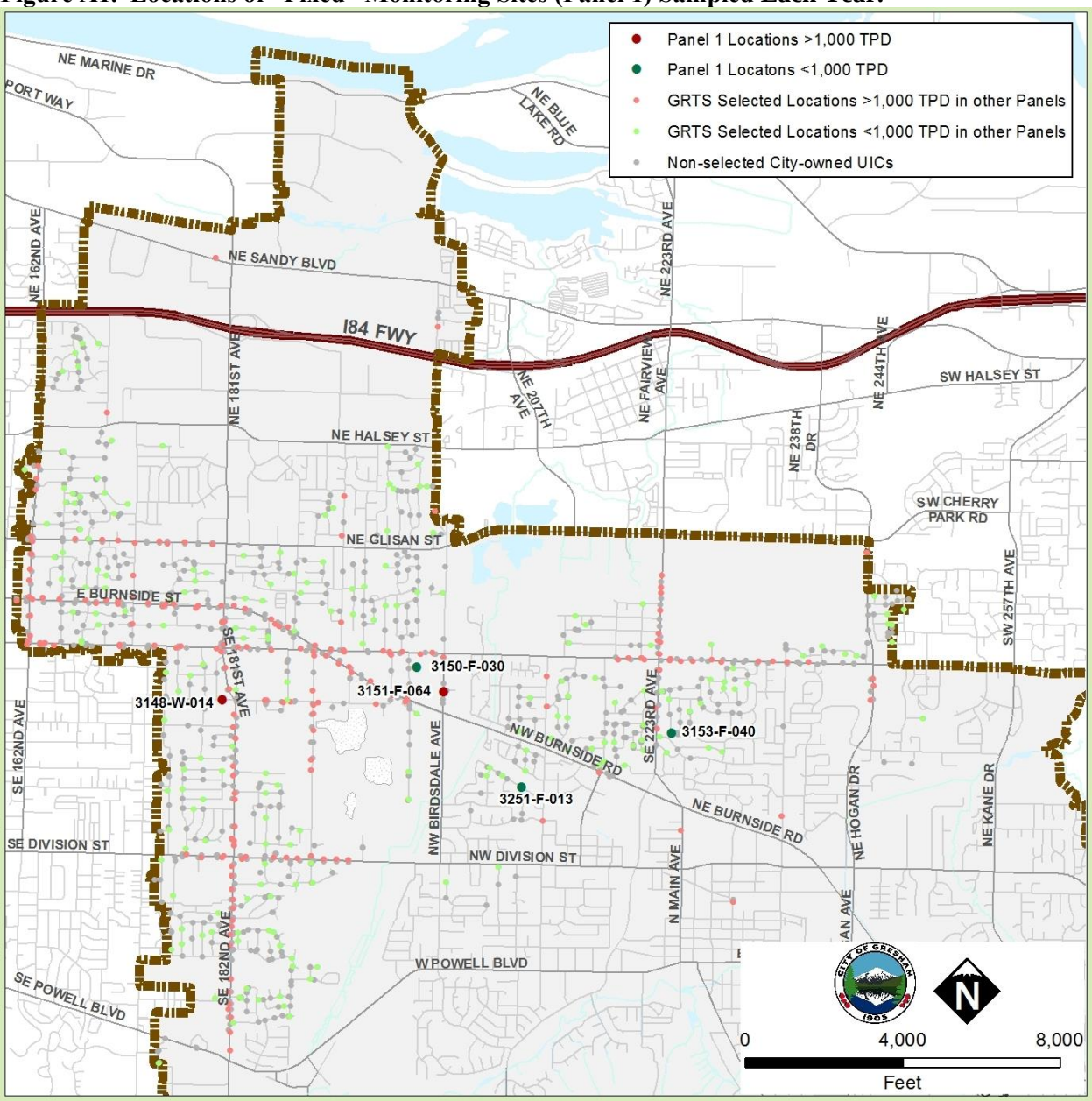
The constituents monitored at each UIC sampling location fall into four categories, based upon the requirement or rationale the City used when including it in the Stormwater Monitoring Plan. Table A1 summarizes the rationale and constituents monitored in Permit Year 2.

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, 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;	None this year
4. Those constituents included as part of the analyses with required pollutants.	Numerous PAHs, phthalates, and pesticides

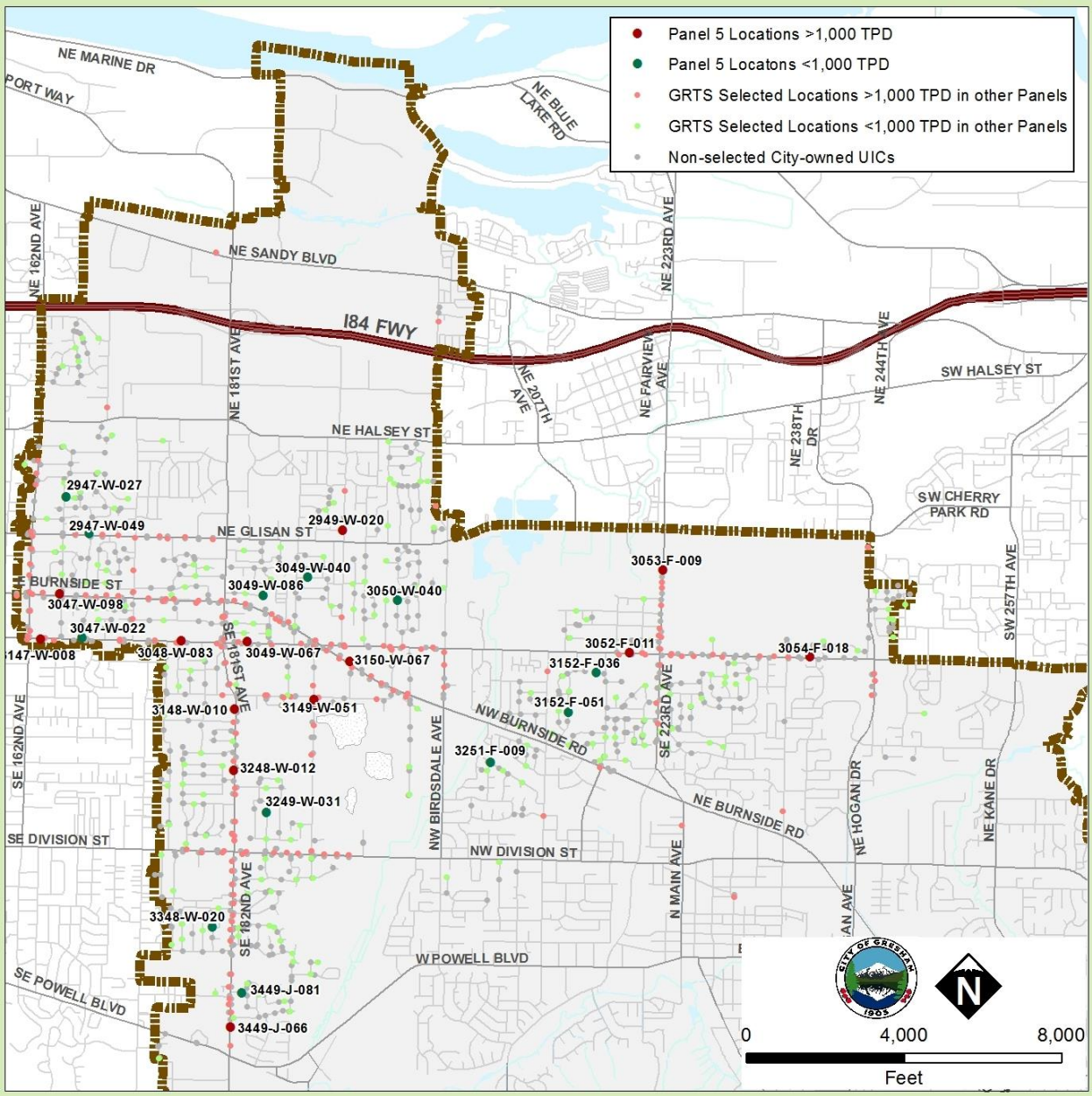
Part 2 of Section A summarizes significant findings, while Part 3 focuses specifically on the 8 pollutants listed in WPCF Permit Schedule A, Table 1 and how the data relates to the action levels listed in that table.

Figure A1. Locations of "Fixed" Monitoring Sites (Panel 1) Sampled Each Year.



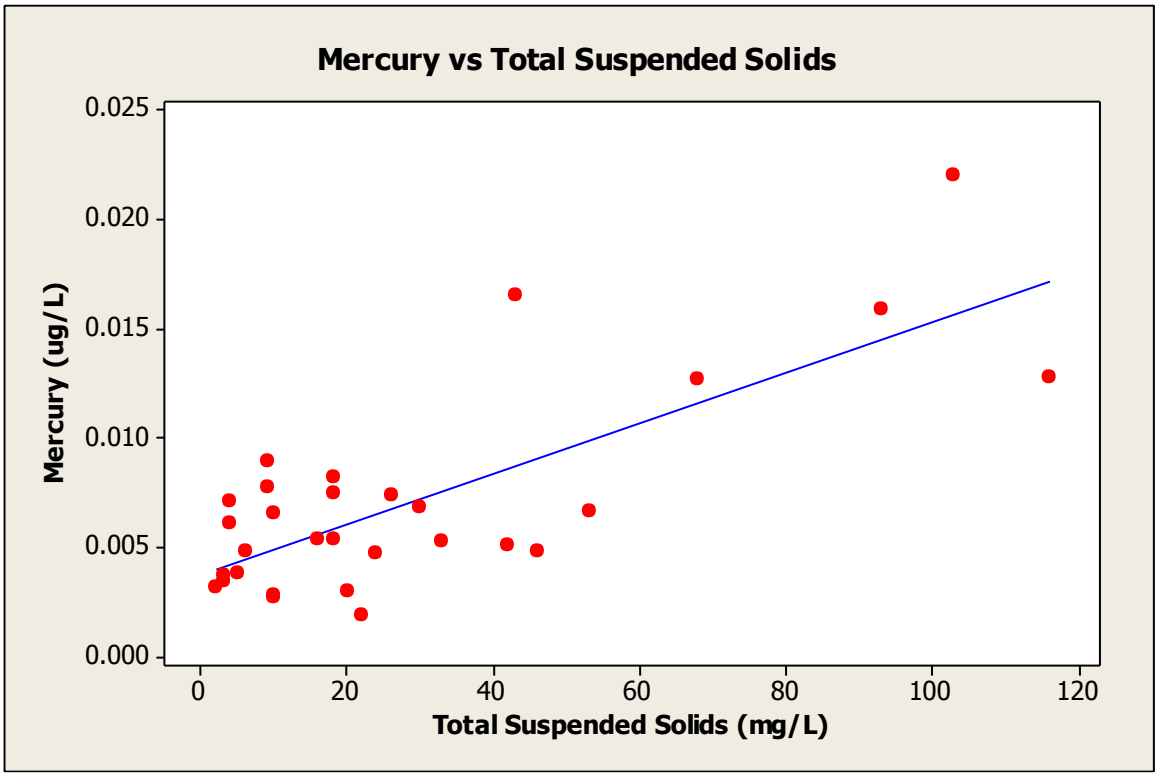
The panel of 5 "fixed" monitoring locations consists of 3 low traffic (<1000 TPD) and 2 locations on high traffic (>1000 TPD) streets. The rationale for selecting a lower number of high traffic sites in the fixed panel is that this means 13 of the 25 sites in the "rotating" panel are from high traffic streets, resulting in a higher proportion of high traffic sites being sampled over the permit term.

Figure A2. Location of "Rotating" Monitoring Locations (Panel 5) Sampled in PY3



2. Summary of Monitoring Findings

Stormwater monitoring data revealed higher traffic sites (>1000 vehicle trips per day (TPD)) have higher pollutant concentrations in comparison to residential streets (<1000 TPD) for most pollutants (e.g. TSS, total and dissolved metals, bacteria, and most nutrients, phthalates, and pesticides that were present at detectable levels). In addition to high traffic streets having higher levels of pollutants, there was also a very strong positive correlation between total suspended solids (TSS) and pollutants that are typically associated with sediment, including all total phase metals (antimony, copper, lead, mercury, and zinc), as well as total phosphorus and TKN. **Figure A3** shows total mercury versus TSS as an example of what many of these relationships look like.



The strong correlation between sediment (TSS) and pollutants means that the City will continue current efforts to remove sediment from streets and catch basins, and then remove sediments that accumulate within UICs. 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.

3. Table 1 Pollutant Data and Action Levels

Levels of six of the eight Table 1 pollutants were significantly higher (alpha=0.05 evaluated using nonparametric Kruskal-Wallis test) on high traffic streets versus lower traffic streets (> and < 1000 trips per day). The exceptions were 2,4-D and Benzo(a)pyrene where values were not significantly different between low and high traffic streets. No samples of these pollutants were at or above action levels, and most samples were at least an order of magnitude below action levels.

Figure A4. Benzo(a)pyrene results for 2014-15 by vehicle trips per day.

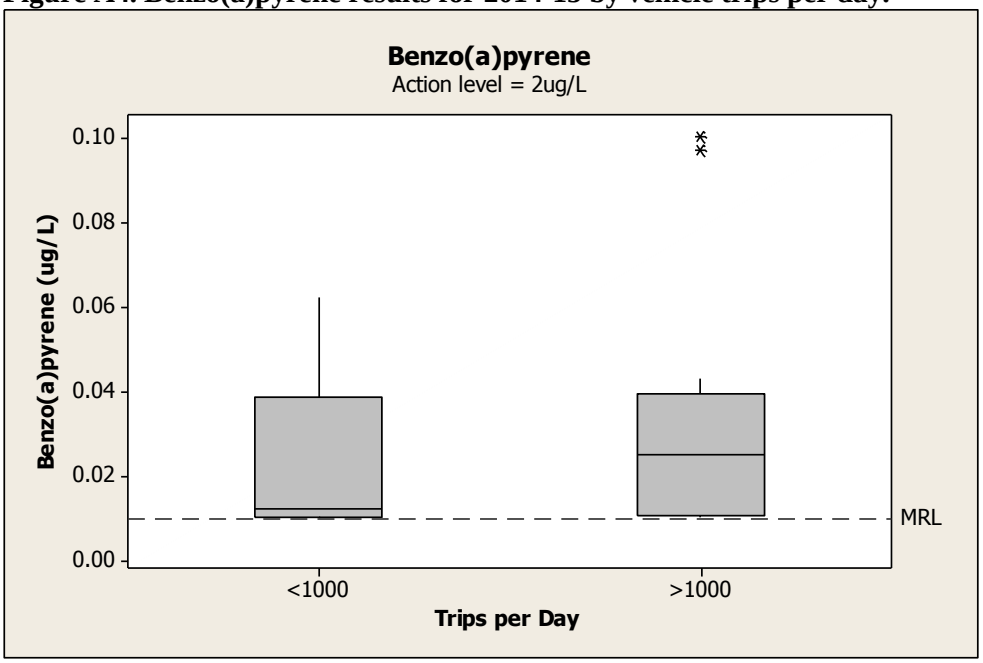


Figure A5. Di(2-ethylhexyl)phthalate results for 2014-15 by vehicle trips per day.

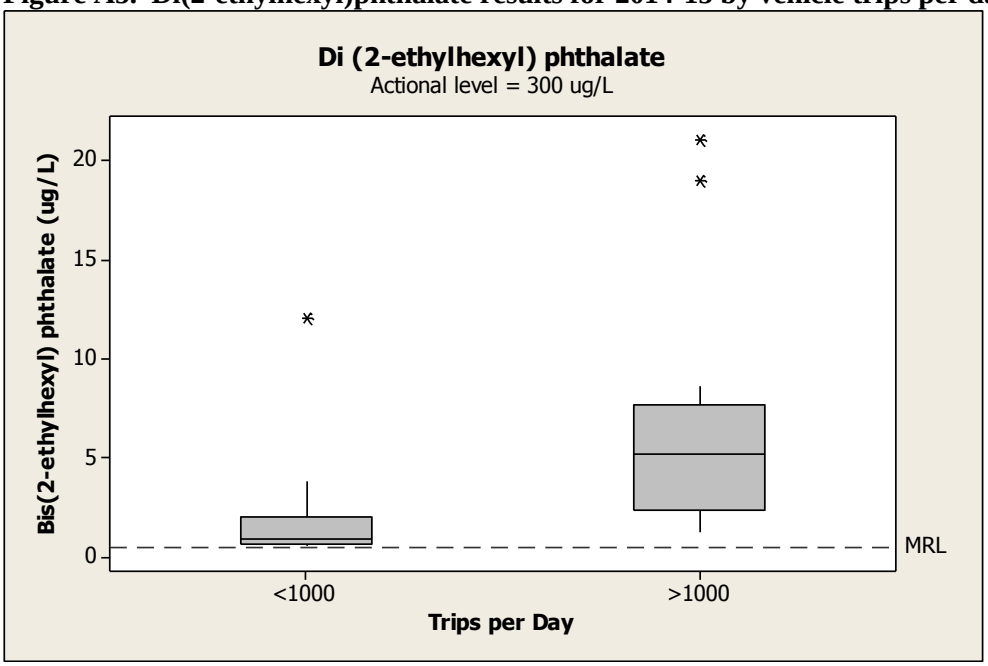


Figure A6. Pentachlorophenol results for 2014-15 by vehicle trips per day.

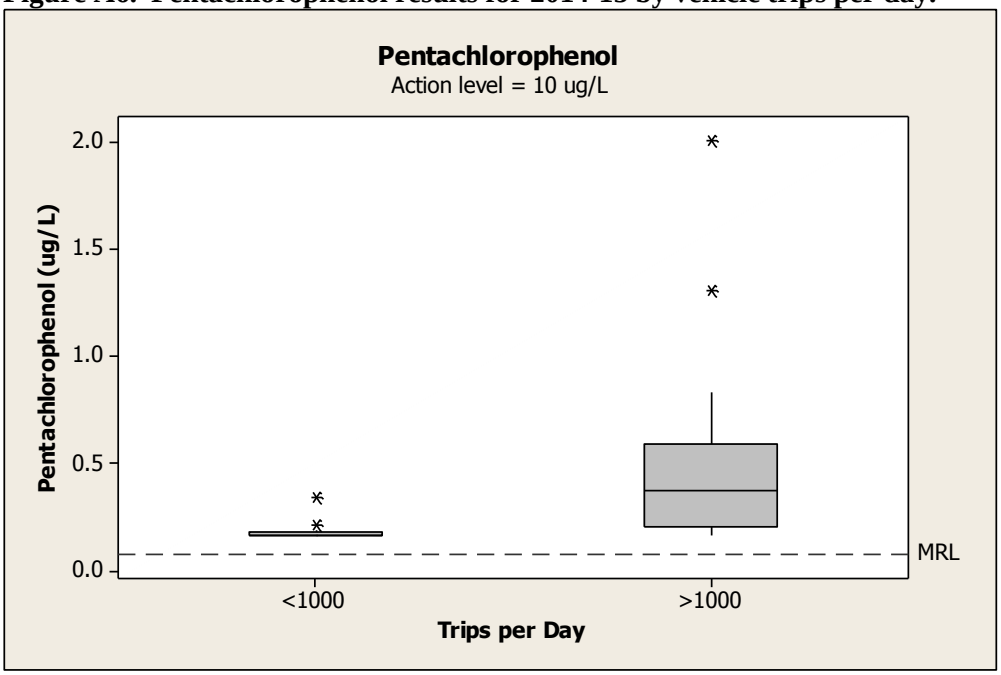


Figure A7. Antimony (Total) results for 2014-15 by vehicle trips per day.

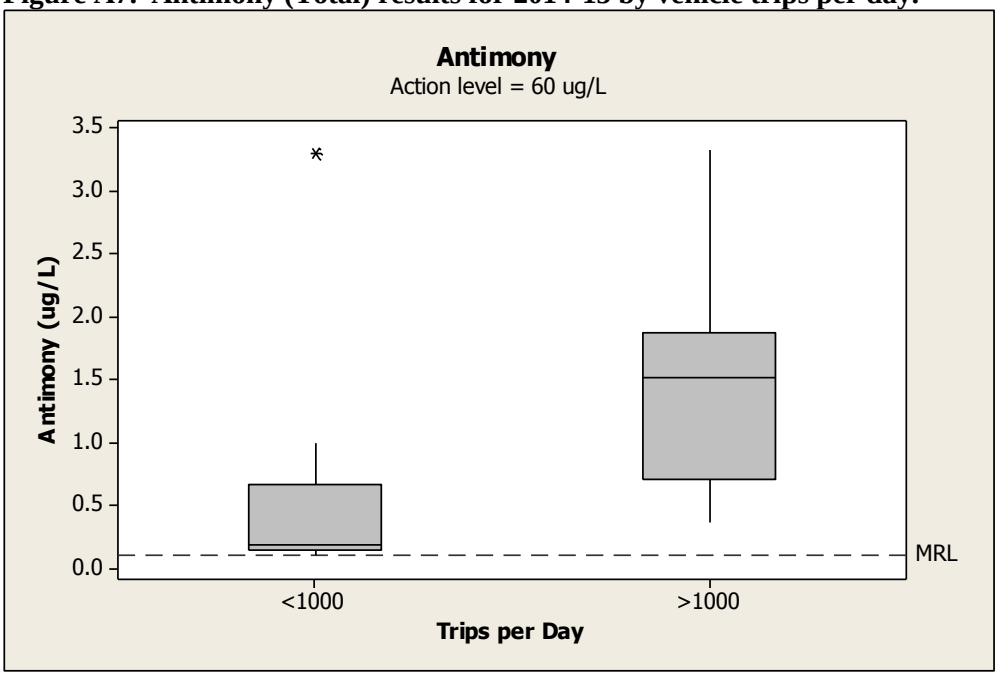


Figure A8. Lead (Total) results for 2014-15 by vehicle trips per day.

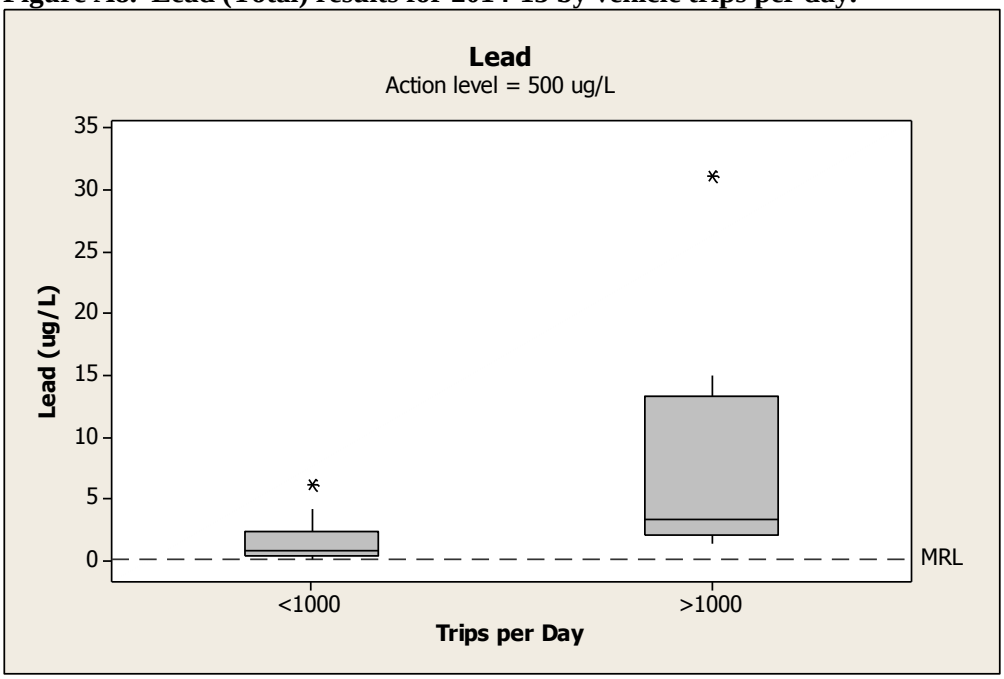


Figure A9. Zinc (Total) results for 2014-15 by vehicle trips per day.

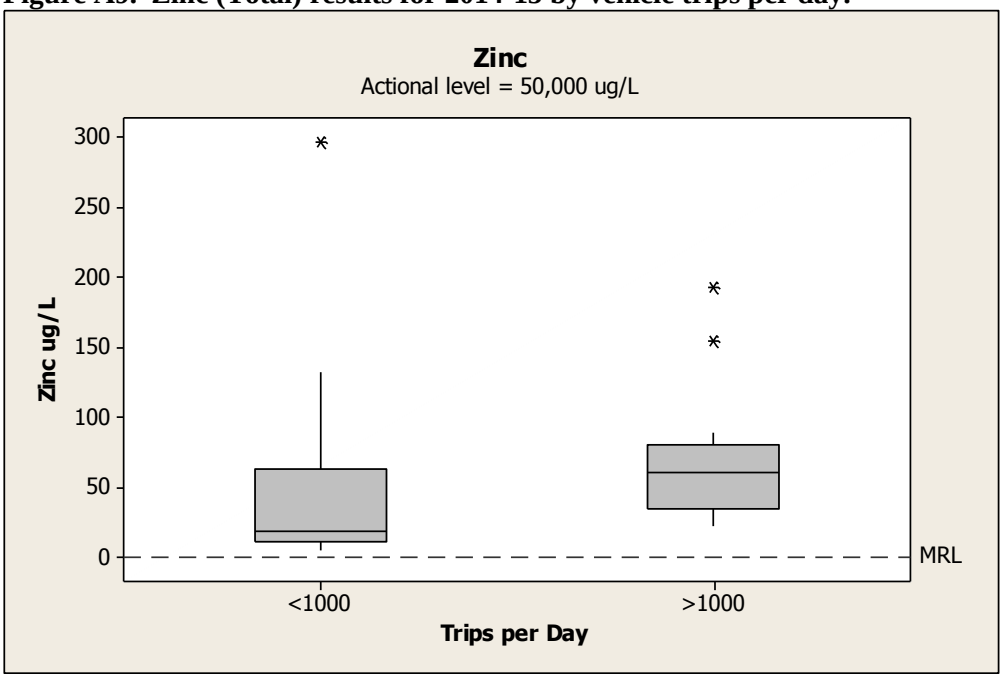


Figure A10. Copper (Total) results for 2014-15 by vehicle trips per day.

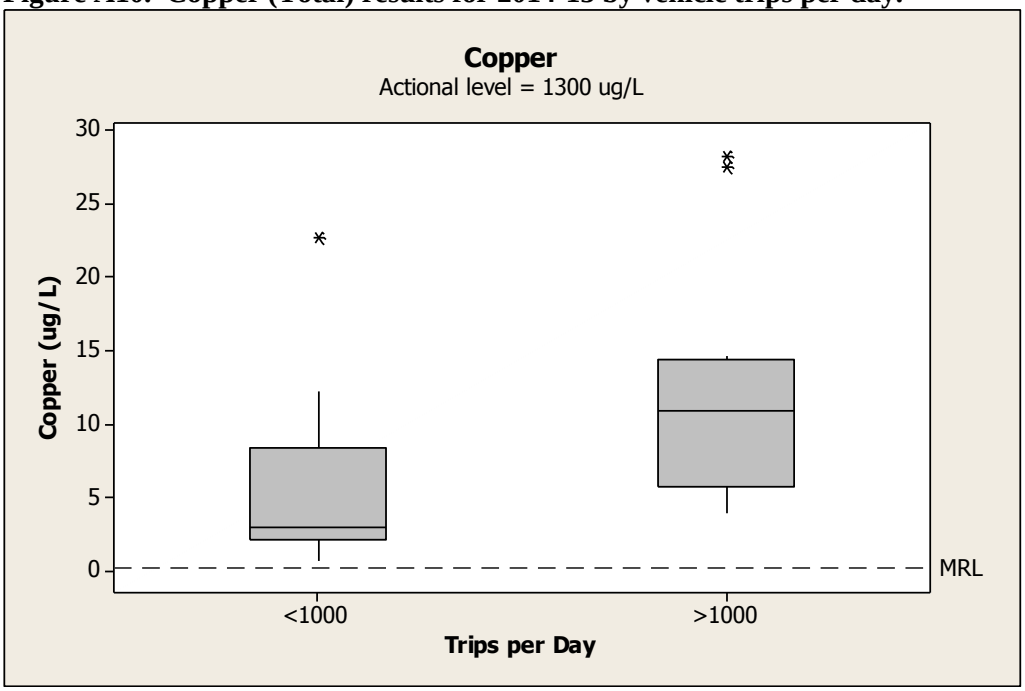
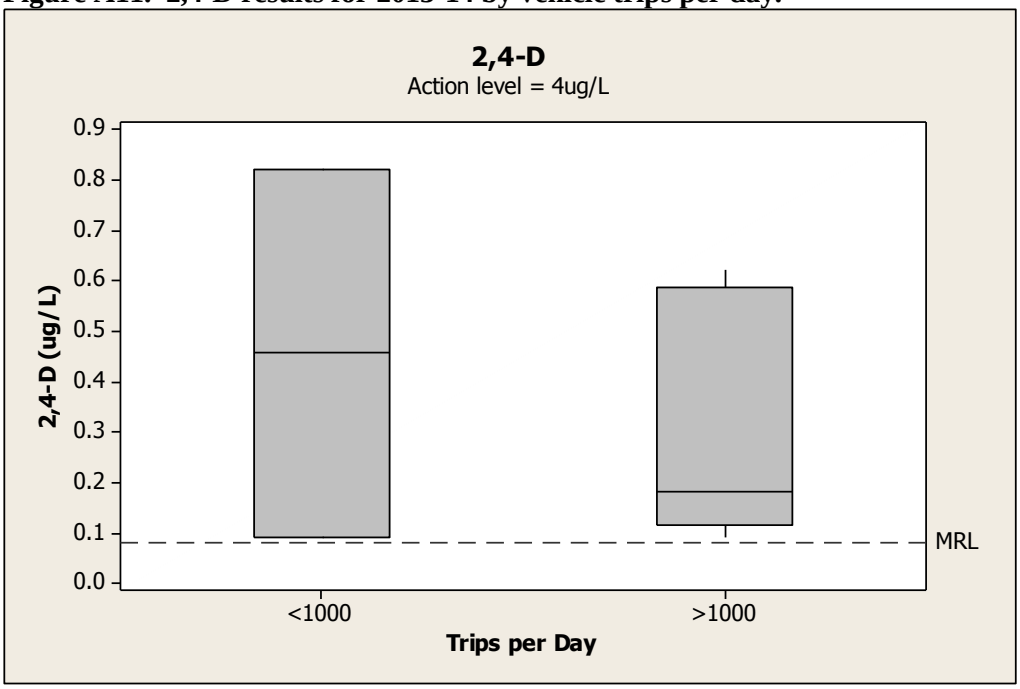


Figure A11. 2,4-D results for 2013-14 by vehicle trips per day.



Lab ID	System_ID	Trips per Day	Date	Time	Rainfall Within Hour	Rainfall Previous 3 hrs	Rainfall Previous 24 hrs	DO	pH	Temp	Cond	Turbid	E. coli MPN/100 mL	BOD 2 mg/L	TSS 2 mg/L	Ammonia 20 ug/L	Nitrate 100 ug/L	o-Phos 20 ug/L
WJ229-01	3151-F-064	>1000	10/22/2014	10:45	0.03	0.07	0.70	7.95	7.19	15.1	44.4	59.5	6900	6	30	453	160	<20
WJ229-02	3251-F-013	<1000	10/22/2014	10:05	0.03	0.07	0.70	10.20	7.34	15.1	16.8	4.11	2100	4	<2	<20	<100	<20
WJ229-03	3148-W-014	>1000	10/22/2014	12:50	0.13	0.07	0.74	9.80	6.37	14.9	6.7	50.5	1000	8	33	95	<100	<20
WJ229-04	3150-F-030	<1000	10/22/2014	11:15	0.13	0.07	0.74	10.42	5.84	14.4	8.7	12.5	1500	4	5	18	<100	<20
WJ229-05	3153-F-040	<1000	10/22/2014	13:56	0.17	0.42	0.75	10.37	6.26	15	7.3	8.41	630	<2	6	32	<100	<20
WJ229-06	2947-W-049	<1000	10/22/2014	12:35	0.13	0.07	0.70	9.85	6.53	15.2	13.21	30.1	120	9	18	25	<100	70
WJ229-07	3249-W-031	<1000	10/22/2014	13:35	0.17	0.42	0.75	10.26	6.31	15.1	8.4	8.22	220	3	3	34	<100	26
WJ229-08	3449-J-081	<1000	10/22/2014	14:46	0.28	0.46	1.03	9.40	6.18	14.7	23.6	9.75	31	3	16	70	140	22
WJ229-11	3251-F-009	<1000	10/22/2014	10:20	0.03	0.07	0.70	9.87	7.04	15.2	28.5	7.53	470	3	3	12	200	54
WJ229-12	3050-W-040	<1000	10/22/2014	11:30	0.13	0.07	0.74	9.31	6.68	15.3	11.6	27.8	>24000	8	18	23	<100	<20
WJ229-09	FB		10/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	<2	<2	20	<100	<20
WJ229-010	FD		10/22/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	3900	6	28	432	160	<20
W14LD97-01	3152-F-051	<1000	12/10/2014	13:20	0.12	0.12	0.25	11.43	6.19	10.8	6.6	6.78	10	<2	4	<20	<100	<20
W14LD97-02	3047-W-022	<1000	12/10/2014	12:00	0.07	0.06	0.13	11.05	7.32	11.8	30.1	136	1100	7	43	378	170	<20
W14LD97-03	3147-W-008	>1000	12/10/2014	12:16	0.07	0.06	0.13	10.30	6.97	11.7	26.6	183	600	7	103	774	<100	<20
W14LD97-04	3152-F-036	<1000	12/10/2014	13:05	0.12	0.12	0.25	11.23	6.34	10.9	8.7	68.8	180	10	93	10	<100	<20
W14LD97-05	3049-W-040	<1000	12/10/2014	12:45	0.07	0.06	0.13	11.10	6.66	11.1	8.6	15.3	180	<2	4	11	<100	<20
W14LD97-06	3148-W-010	>1000	12/10/2014	14:00	0.08	0.2	0.28	11.15	6.38	10.6	12	163	360	4	116	217	<100	<20
W14LD97-07	2947-W-027	<1000	12/10/2014	11:40	0.01	0.05	0.05	10.91	7.26	10.7	43.4	25.1	180	7	9	10	<100	33
W14LD97-08	3054-F-018	>1000	12/10/2014	15:45	0.14	0.27	0.34	11.45	6.3	10.5	13.2	77.2	280	3	42	242	<100	<20
W14LD97-10	3049-W-086	<1000	12/10/2014	13:45	0.12	0.12	0.25	11.35	6.23	10.6	7.9	117	270	3	68	12	<100	<20
W14LD97-11	3348-W-020	<1000	12/10/2014	14:26	0.08	0.2	0.28	12.10	6.32	10.5	3.1	14.1	150	<2	10	<20	<100	<20
W14LD97-09	FD		12/10/2014										10	<2	3	<20	<100	<20
W15B067-01	3351-F-047	<1000	2/6/2015	12:00	0.05	0.08	0.76	6.28	NM	12.1	7.9	9.06	4100	<2	20	<20	<100	<20
W15B067-02	2949-W-020	>1000	2/6/2015	10:05	0.03	0.03	0.88	8.92	NM	9.9	5	16.5	>24000	4	9	<20	<100	<20
W15B067-03	3048-W-083	>1000	2/6/2015	9:35	0.01	0.03	0.81	9.50	NM	10.2	20.9	69	820	5	18	485	130	<20
W15B067-04	3150-W-067	>1000	2/6/2015	8:57	0.02	0.04	0.80	9.30	NM	9.7	21.9	59.9	350	5	26	119	<100	<20
W15B067-05	3047-W-098	>1000	2/6/2015	12:45	0.05	0.08	0.76	5.77	NM	11.8	7	50.2	2200	4	10	66	<100	<20
W15B067-06	3052-F-011	>1000	2/6/2015	8:37	0.02	0.04	0.80	8.70	NM	10.4	17.1	25.1	NM	<2	22	166	<100	<20
W15B067-07	3149-W-051	>1000	2/6/2015	10:38	0.03	0.03	0.88	9.20	NM	10	11.9	37.1	2300	3	10	44	<100	<20
W15B067-08	3248-W-012	>1000	2/6/2015	11:02	0.04	0.06	0.77	9.62	NM	11.5	17.3	94	1700	5	46	186	110	<20
W15B067-09	3449-J-066	>1000	2/6/2015	11:18	0.04	0.06	0.77	8.83	NM	10.8	17.4	77.3	290	5	24	523	140	<20
W15B067-10	FD		2/6/2015										4100	<2	17	17	<100	<20
W15B067-11	3049-W-067	>1000	2/6/2015	9:15	0.01	0.03	0.81	10.30	NM	9.9	31.5	96.2	96	5	53	270	<100	<20

Lab ID	System_ID	TKN 200 ug/L	T-Phos 30 ug/L	Hardness mg/L CaCO3	Total Antimony 0.100 ug/L	Total Copper 0.200 ug/L	Total Lead 0.100 ug/L	Total Mercury 0.00100 ug/L	Total Zinc 0.500 ug/L	Diss Copper 0.200 ug/L	Diss Lead 0.100 ug/L	Diss Zinc 0.500 ug/L	Acenaphthene 0.02 ug/L	Acenaphthylene 0.02 ug/L	Anthracene 0.02 ug/L	Benzo(a)anthracene 0.01 ug/L	Benzo(a)pyrene 0.01 ug/L	Benzo(b)fluoranthene 0.01 ug/L
WJ229-01	3151-F-064	1410	145	25.2	1.530	12.6	2.91	0.0068	57.2	6.120	0.153	26.5	<0.02	<0.02	<0.02	0.014	0.018	0.029
WJ229-02	3251-F-013	300	77	23.2	0.132	7.46	<0.1	0.00317	296	5.690	<0.01	282	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
WJ229-03	3148-W-014	480	108	4.48	0.651	6.25	3.87	0.00528	38.6	1.730	<0.01	14.8	<0.02	<0.02	<0.02	0.014	0.025	0.041
WJ229-04	3150-F-030	280	51	3.87	0.190	2.66	0.658	0.00379	28.4	1.490	<0.01	26.2	<0.02	<0.02	<0.02	0.015	0.039	0.086
WJ229-05	3153-F-040	240	35	3.53	0.185	2.19	0.431	0.00477	11.5	1.310	<0.01	7.93	<0.02	<0.02	<0.02	0.017	0.049	0.100
WJ229-06	2947-W-049	940	246	3.48	0.679	11.5	1.9	0.00744	17.1	6.600	<0.01	8.65	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
WJ229-07	3249-W-031	240	57	3.59	0.170	1.44	0.385	0.00368	9.13	0.846	<0.01	5.77	<0.02	<0.02	<0.02	0.018	0.049	0.093
WJ229-08	3449-J-081	410	93	12.6	0.222	2.34	0.244	0.00538	13.7	1.530	<0.01	6.92	<0.02	<0.02	<0.02	0.012	0.014	0.025
WJ229-11	3251-F-009	400	141	10.8	0.176	5.34	0.133	0.00342	67.2	4.240	<0.01	60.1	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
WJ229-12	3050-W-040	750	186	5.16	0.606	5.33	2.52	0.00533	18.1	2.500	<0.01	7.36	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
WJ229-09	FB	<200	<30	0.705	<0.1	<0.2	<0.1	<0.001	<0.5	<0.2	<0.01	0.5	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
WJ229-010	FD	410	152	24.3	1.620	12.9	3.06	0.00763	59.5	6.190	0.147	27.4	<0.02	<0.02	<0.02	0.014	0.019	0.031
W14LD97-01	3152-F-051	230	40	3.14	<0.1	0.706	0.235	0.00614	5.22	0.349	<0.01	2.64	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
W14LD97-02	3047-W-022	1160	222	17	3.300	22.7	6.11	0.0165	132	5.330	0.178	33.9	<0.02	<0.02	<0.02	0.052	0.062	0.098
W14LD97-03	3147-W-008	2130	332	18.4	3.330	28.3	13.3	0.022	193	4.910	0.417	45.7	<0.02	<0.02	0.033	0.080	0.100	0.140
W14LD97-04	3152-F-036	1610	343	7.34	0.754	12.3	3.01	0.0159	69.8	1.140	<0.01	9.57	<0.02	<0.02	<0.02	0.022	0.027	0.037
W14LD97-05	3049-W-040	280	42	3.65	0.254	2.17	0.938	0.00712	11.3	1.060	<0.01	6.12	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
W14LD97-06	3148-W-010	1120	283	17	2.680	27.5	14.9	0.0128	154	1.970	0.243	16	<0.02	<0.02	0.032	0.071	0.097	0.130
W14LD97-07	2947-W-027	520	166	10.5	0.996	3.3	0.588	0.00897	18.1	1.830	<0.01	9.08	<0.02	<0.02	<0.02	0.011	0.014	0.031
W14LD97-08	3054-F-018	620	153	10.7	1.740	11.4	2.28	0.00511	57.8	2.600	<0.01	20.4	<0.02	<0.02	<0.02	0.019	0.025	0.034
W14LD97-10	3049-W-086	920	320	8.85	0.134	8.67	4.17	0.0127	50.6	0.684	<0.01	3.32	<0.02	<0.02	<0.02	<0.01	<0.01	0.011
W14LD97-11	3348-W-020	220	35	1.68	0.134	1.55	0.744	0.0027	9.15	0.353	<0.01	3.15	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
W14LD97-09	FD	<200	45	3.44	<0.1	0.771	0.233	0.0062	5.72	0.366	<0.01	2.71	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
W15B067-01	3351-F-047	580	103	5.03	0.133	2.5	1.57	0.00299	22.6	1.230	<0.01	13.6	<0.02	<0.02	<0.02	0.038	0.038	0.061
W15B067-02	2949-W-020	680	127	3.36	0.537	4.22	31.1	0.00778	35.8	1.610	<0.01	8.5	<0.02	<0.02	<0.02	<0.01	0.010	<0.01
W15B067-03	3048-W-083	1200	139	12.4	1.840	11.7	3.8	0.0082	76.9	4.180	0.164	30.6	<0.02	<0.02	<0.02	0.025	0.030	0.050
W15B067-04	3150-W-067	810	128	14.6	1.490	10.5	2.07	0.00738	63	3.140	<0.01	31.1	<0.02	<0.02	<0.02	0.014	0.019	0.030
W15B067-05	3047-W-098	720	92	4.25	0.948	7.39	1.78	0.00659	29.2	3.290	<0.01	11	<0.02	<0.02	<0.02	<0.01	<0.01	0.016
W15B067-06	3052-F-011	340	59	10.2	0.717	4.44	1.31	0.00187	29.4	1.320	<0.01	11.2	<0.02	<0.02	<0.02	<0.01	0.011	0.020
W15B067-07	3149-W-051	350	69	7.3	0.365	3.95	1.44	0.00284	22.5	1.890	0.133	14.5	<0.02	<0.02	<0.02	<0.01	<0.01	0.013
W15B067-08	3248-W-012	1010	183	12.7	1.970	14.3	13.3	0.00478	65.3	3.830	0.121	16	<0.02	<0.02	<0.02	0.033	0.037	0.072
W15B067-09	3449-J-066	1280	133	10.1	1.370	10.3	2.34	0.00475	76.6	3.200	0.11	37.5	<0.02	<0.02	<0.02	0.031	0.043	0.063
W15B067-10	FD	1230	292	8.0	0.134	2.62	1.84	0.00228	25.2	1.320	<0.01	13.8	<0.02	<0.02	<0.02	0.017	0.018	0.029
W15B067-11	3049-W-067	1050	194	25.0	1.770	14.6	5.91	0.00666	88.4	2.910	0.146	11.1	<0.02	<0.02	<0.02	0.029	0.038	0.059

Lab ID	System_ID	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenan-threne	Pyrene	Butyl benzyl phthalate	Di-n-butyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate	Bis(2-ethylhexyl) phthalate	2,4,5-T
		0.01 ug/L	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	0.02 ug/L	0.01 ug/L	1.0 ug/L	1.0 ug/L	1.0 ug/L	1.0 ug/L	1.0 ug/L	1.0 ug/L	0.040 ug/L
WJ229-01	3151-F-064	0.074	<0.01	0.035	<0.01	0.063	<0.02	0.018	<0.04	0.047	0.120	<1.0	<1.0	<1.0	<1.0	0.54	4.8	<0.080
WJ229-02	3251-F-013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.04	<0.02	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<0.080
WJ229-03	3148-W-014	0.054	0.012	0.023	<0.01	0.035	<0.02	0.025	<0.04	0.029	0.069	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<0.080
WJ229-04	3150-F-030	0.069	0.023	0.025	0.011	0.015	<0.02	0.058	<0.04	<0.02	0.027	<1.0	<1.0	<1.0	<1.0	<1.0	0.9	<0.080
WJ229-05	3153-F-040	0.081	0.028	0.030	0.013	0.015	<0.02	0.070	<0.04	0.020	0.029	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	<0.080
WJ229-06	2947-W-049	0.011	<0.01	<0.01	<0.01	0.011	<0.02	<0.01	<0.04	<0.02	0.019	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	<0.080
WJ229-07	3249-W-031	0.073	0.029	0.025	0.011	0.013	<0.02	0.062	<0.04	<0.02	0.021	<1.0	<1.0	<1.0	<1.0	<1.0	0.9	<0.080
WJ229-08	3449-J-081	0.015	<0.01	0.014	<0.01	0.015	<0.02	0.013	<0.04	<0.02	0.018	<1.0	<1.0	<1.0	<1.0	<1.0	0.9	<0.080
WJ229-11	3251-F-009	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.070	<0.02	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	<0.080
WJ229-12	3050-W-040	0.140	<0.01	<0.01	<0.01	0.013	<0.02	<0.01	0.014	<0.02	0.021	<1.0	<1.0	<1.0	<1.0	0.7	3.8	<0.080
WJ229-09	FB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.04	<0.02	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.080
WJ229-010	FD	0.074	<0.01	0.032	<0.01	0.061	<0.02	0.018	<0.04	0.044	0.120	<1.0	<1.0	<1.0	<1.0	<1.0	4.9	<0.080
W14LD97-01	3152-F-051	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.04	<0.02	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0		<0.080
W14LD97-02	3047-W-022	0.190	0.024	0.110	0.018	0.210	0.033	0.053	0.080	0.130	0.370	<1.0	<1.0	<1.0	<1.0	1.2	12.0	<0.080
W14LD97-03	3147-W-008	0.350	0.038	0.150	0.031	0.350	0.058	0.082	0.180	0.250	0.710	0.7	<1.0	<1.0	<1.0	1.1	19.0	<0.080
W14LD97-04	3152-F-036	0.094	<0.01	0.035	<0.01	0.062	0.035	0.023	<0.04	0.055	0.120	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<0.080
W14LD97-05	3049-W-040	0.014	<0.01	<0.01	<0.01	0.018	<0.02	<0.01	<0.04	0.030	0.026	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.080
W14LD97-06	3148-W-010	0.290	0.035	0.140	0.026	0.300	0.041	0.810	0.160	0.220	0.570	<1.0	<1.0	<1.0	<1.0	1.2	21.0	<0.080
W14LD97-07	2947-W-027	0.033	<0.01	0.027	<0.01	0.038	<0.02	0.013	<0.04	0.031	0.058	<1.0	<1.0	<1.0	<1.0	<1.0	0.8	<0.080
W14LD97-08	3054-F-018	0.096	<0.01	0.035	<0.01	0.085	0.026	0.200	0.120	0.076	0.180	<1.0	<1.0	<1.0	<1.0	0.7	7.3	<0.080
W14LD97-10	3049-W-086	0.027	<0.01	0.011	<0.01	0.025	<0.02	<0.01	<0.04	0.033	0.046	<1.0	<1.0	<1.0	<1.0	<1.0	0.7	<0.080
W14LD97-11	3348-W-020	<0.01	<0.01	<0.01	<0.01	0.011	<0.02	<0.01	<0.04	0.028	0.017	<1.0	<1.0	<1.0	<1.0	<1.0	0.5	<0.080
W14LD97-09	FD	<0.01	<0.01	0.010	<0.01	0.010	<0.02	<0.01	<0.04	<0.02	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0		<0.080
W15B067-01	3351-F-047	0.034	0.022	0.046	<0.01	0.054	<0.02	0.022	<0.04	0.026	0.067	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<0.080
W15B067-02	2949-W-020	0.012	<0.01	0.010	<0.01	0.020	<0.02	0.010	<0.04	0.023	0.028	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<0.080
W15B067-03	3048-W-083	0.087	0.012	0.045	<0.01	0.110	<0.02	0.023	<0.04	0.054	0.200	<1.0	<1.0	<1.0	<1.0	0.8	7.0	<0.080
W15B067-04	3150-W-067	0.053	<0.01	0.029	<0.01	0.063	<0.02	0.014	<0.04	0.055	0.110	<1.0	<1.0	<1.0	<1.0	1.2	5.6	<0.080
W15B067-05	3047-W-098	0.036	<0.01	0.017	<0.01	0.045	<0.02	<0.01	<0.04	0.033	0.077	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<0.080
W15B067-06	3052-F-011	0.041	<0.01	0.019	<0.01	0.041	<0.02	0.010	<0.04	0.040	0.076	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<0.080
W15B067-07	3149-W-051	0.019	<0.01	0.011	<0.01	0.020	<0.02	<0.01	<0.04	<0.02	0.033	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<0.080
W15B067-08	3248-W-012	0.120	0.015	0.063	<0.01	0.150	<0.02	0.031	<0.04	0.066	0.250	<1.0	<1.0	<1.0	<1.0	1.0	1.2	<0.080
W15B067-09	3449-J-066	0.100	0.015	0.055	0.011	0.120	<0.02	0.030	<0.04	0.081	0.210	<1.0	<1.0	<1.0	<1.0	0.7	5.8	<0.080
W15B067-10	FD	0.022	<0.01	0.021	<0.01	0.029	<0.02	<0.01	<0.04	0.022	0.037	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<0.080
W15B067-11	3049-W-067	0.120	0.012	0.055	0.010	0.130	<0.02	0.027	<0.04	0.089	0.250	<1.0	<1.0	<1.0	<1.0	0.7	8.6	<0.080

Lab ID	System_ID	2,4,5-TP (Silvex) 0.040 ug/L	2,4-D 0.040 ug/L	2,4-DB 0.040 ug/L	Acifluorfen 0.040 ug/L	Bentazon 0.040 ug/L	Clopyralid	Dicamba 0.040 ug/L	Dichlorprop 0.040 ug/L	Dinoseb 0.040 ug/L	MCPA 0.040 ug/L	MCPP 0.040 ug/L	Pentachlorophenol 0.040 ug/L	Picloram 0.040 ug/L	Quinclorac 0.040 ug/L	Triclopyr 0.040 ug/L
WJ229-01	3151-F-064	<0.080	0.62	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.39	<0.080	<0.080	0.14
WJ229-02	3251-F-013	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.16	<0.080	<0.080	<0.080
WJ229-03	3148-W-014	<0.080	0.55	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.29	<0.080	<0.080	0.25
WJ229-04	3150-F-030	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.34	<0.080	<0.080	<0.080
WJ229-05	3153-F-040	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.17	<0.080	<0.080	<0.080
WJ229-06	2947-W-049	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.18	<0.080	<0.080	<0.080
WJ229-07	3249-W-031	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
WJ229-08	3449-J-081	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	0.092
WJ229-11	3251-F-009	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
WJ229-12	3050-W-040	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.16	<0.080	<0.080	<0.080
WJ229-09	FB	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
WJ229-010	FD	<0.080	0.65	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.08	0.37	<0.080	0.15	
W14LD97-01	3152-F-051	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W14LD97-02	3047-W-022	<0.080	0.82	<0.080	<0.080	<0.080	<0.080	0.14	<0.080	<0.080	<0.080	0.16	0.21	<0.080	<0.080	0.29
W14LD97-03	3147-W-008	<0.080	0.09	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	1.3	<0.080	<0.080	<0.080
W14LD97-04	3152-F-036	<0.080	0.091	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W14LD97-05	3049-W-040	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W14LD97-06	3148-W-010	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.43	<0.080	<0.080	<0.080
W14LD97-07	2947-W-027	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W14LD97-08	3054-F-018	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.51	<0.080	<0.080	<0.080
W14LD97-10	3049-W-086	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.19	<0.080	<0.080	<0.080
W14LD97-11	3348-W-020	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W14LD97-09	FD	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W15B067-01	3351-F-047	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W15B067-02	2949-W-020	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W15B067-03	3048-W-083	<0.080	0.14	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.36	<0.080	<0.080	0.11
W15B067-04	3150-W-067	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.29	<0.080	<0.080	0.2
W15B067-05	3047-W-098	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.22	<0.080	<0.080	<0.080
W15B067-06	3052-F-011	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	2	<0.080	<0.080	<0.080
W15B067-07	3149-W-051	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.83	<0.080	<0.080	<0.080
W15B067-08	3248-W-012	<0.080	<0.080	0.15	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	0.09
W15B067-09	3449-J-066	<0.080	0.18	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.48	<0.080	<0.080	<0.080
W15B067-10	FD	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080
W15B067-11	3049-W-067	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.160	<0.080	<0.080	<0.080

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).

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 (2014-2015)	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.	Eleven UICs were cleaned by City crews in PY3. 40.52 yards of debris removed.	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	The City is currently in the early stages of the study.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status (2014-2015)	Summary and Date of Any Proposed Adaptive Management Modifications
IND 1&2 (Industrial Inspection & Monitoring)						
A. Business Inspection Program	Ongoing	Develop and conduct a 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	Doing inspections at auto businesses in the UIC area. See Table B3, page 10.	None

2. NPDES MS4 Stormwater Management Plan Implementation Status

The implementation status for BMPs that apply City-wide are reported in Table B3 (this is duplicated from Section 3 of the NPDES Annual Report submitted to DEQ in November 2015).

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 B2** summarizes the BMPs detailed in the NPDES report that also serve areas of the City where stormwater is managed using UICs. **Bold** entries identify those UIC-specific activities that were added/ modified to comply with the WPCF permit, and the aspects of these BMPs that is UIC-specific is highlighted in the BMP description of **Table B1**.

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) A. Ensure Staff/Stakeholder Training B. Educate Residents C. Educate Businesses
Injection system operation and maintenance;	**RC 1 (Stormwater System Maintenance Plan)*** 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) ILL 5 (Facilitate Public Reporting) 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) **A. Business Inspection Program****
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 is currently focusing on the automotive sector in both the MS4 and UIC areas of the City

City of Gresham NPDES Annual Stormwater Compliance Report

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	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.	16 miles. 3.2 cubic yards (cy) removed. ~400 staff hours.	A request was submitted to DEQ in fall 2012 to reduce the miles of pipe cleaned in favor of conducting other 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. City is working with the new permit coordinator to update the request and put of for public comment, which is expected to happen in fall/winter 2015.
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.	100% inspected. 6,259 residential cbs cleaned. 2,300 staff hours. Parked cars keep 100% from being cleaned, even though notices are issued. Trucks return on various days as resources allow for follow up. 126 cy removed. 1522 arterial cbs cleaned. 54 cy removed. The City purchased a new vactor cleaning truck and the crews spend more time cleaning adjacent lateral pipes with better technology. This reduces the debris that enters the mainline system and the overall need for as many mainline pipe cleaning miles annually.	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.	Removed 241 cy of debris from 8 publicly-owned ponds. Conducted 159 rain garden site inspections. Conducted routine maintenance on 29 rain gardens removing about 54 cy of debris. Conducted 161 inspections at 62 ponds, swales and ditches. Conducted routine maintenance removing just over 9 cy of debris. Routine maintenance is litter removal, minor sediment removal, mowing, pruning, removal of invasive weeds and volunteer trees and debris blockage near inlets and outlets. Inspected 128/128 underground vault systems removing 15 cy of debris from 92 structures replacing 400 cartridge filter media. Represents over 4,100 staff hours.	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.	~7,000 staff hours were allocated to the repair and maintenance of pipes, catch basins, manholes, the inspection of new construction connections, conducting locates, emergency response, outfall maintenance, slope stabilization, shop equipment repair and general housekeeping of the maintenance yard, inspect facilities after large rain fall events, and gps work for system asset mapping.	None
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 248/248 sedimentation manholes removing 24 cy of debris from 21 structures. Inspected 196/196 flow control manholes removing 33 cy of debris from 39 structures. Inspected 222/222 detention pipes removing 6 cy of debris from 29 structures. Represents almost 450 staff hours.	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.	Records available upon request.	None
G. Underground Injection Controls (UIC's) Maint. &	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.	NA	None
Stormwater Maintenance Manual (Previous SWMP)		Implement the Stormwater Operations Maintenance Manual in order to improve overall maintenance program efficiency and to enhance the water quality related BMPs, as appropriate.		Report on implementation of recommendations.		

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	Summary and Date of Any Proposed Adaptive Management Modifications
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. The City completed its Hydromodification and Retrofit Assessment requirements in 2014. During the first portion of 2014-15, The Watershed Division and the Department of Environmental Services as a whole underwent a significant transition and reorganization as a response to projected budget gaps, in an effort to control future rate increases. As such, the Watershed Policy group lost two positions and the Stormwater Manual update was postponed until staff could restabilize and meet other regulatory requirements. During the second half of FY 14-15, staff began to work on the Manual update once again. The Manual update is expected to be completed in PY 21.	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
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. During PY 20, staff obtained approval from City Council to take over the maintenance responsibility for 41 multiple owner residential private stormwater facilities, which represents a significance maintenance work load impact in the next three to five years. During PY 21, staff will work on notifying batches of owners in order to gain legal access to the private properties into the future. Underground facilities in the right of way will be maintained as needed. Staff will also prioritize and conduct cost estimates for conducting maintenance at the facilities with the highest need in order to maintain water quality function and allow for future budget planning and appropriation. During PY 22-24, all facilities are expected managed to meet good to excellent condition standards.	
C. Private Water Quality Facility Maint. Program (cont.)					During PY 20, staff conducted additional technical assistance to facility owners that were noticed for maintenance. Staff conducted some follow up inspections and the final results will be reported during PY 21.	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.	See Table 3.2 for a description of Natural Resource project work conducted during this reporting period.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	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: *Council approved tree code amendments *Professional review of tree list *Monthly Urban Forestry Committee Meetings See also Table 3-8. There were 44 tree related code enforcement issues during PY 20. Just over $5,000 in fines were collected. Three violations required mitigation planting beyond the typical fine and tree replacement correction. The fines are being collected in a tree fund that spends the funds in this order of priority: o Along streams to help the city meet state environmental requirements o Along streets to enhance the visual appeal of our corridors & centers o In tree-deficient neighborhoods to improve aesthetics and manage runoff	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.	Almost 5,800 street miles swept during 10 sweeps of the city using a contracted services. 2,002 cy removed. 411 hours of additional sweeps were conducted by staff removing an additional 700 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.	Applied 4,977 gallons of Magnesium Chloride (MgCl2) to 276 lane miles (streets vary from 2 to 4 lanes). Applied 35 yards of sanding rock and used 140 hours of staff time to sweep the rock after the inclement weather period. The PY 19 report incorrectly stated that 3,650 gallons of MgCl2 were applied. The correct amount is 7,650 gallons.	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
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. Annual inspections by DEQ or Metro and storm water management compliance is part of the inspection protocol.	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.	Conducted annual pesticide review meeting and inventory of pesticide storage. 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
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.	7.8 M gallons flushed using SOP.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	Summary and Date of Any Proposed Adaptive Management Modifications
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.	32 sites inspected. Eight sites had no flow. Two sites had screening levels that exceeded action levels. One site was tracked to a plugged abandoned line with high iron bacteria that was likely causing the high levels of ammonia and conductivity. The other site was tracked to a meat processing plant. The plant was issued a notice of violation and ordered to connect to the sanitary sewer system. Additionally, they built a cover and a berm to protect the stormwater system inlet from the processing area rinsate. See Table 3.5 The City's illicit discharge enforcement response procedures are described in Section 7 of the Stormwater Monitoring Plan on the City's website at:	None
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. About 11, 300 feet TV'd for finals, routine or investigative inspections. Represents over 500 staff hours.	None
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 3-6.	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 hauled by Thermo Fluids and donated to Oregon Heat, quantity not tracked. 35 gallons of waste antifreeze One 30 gallon barrels of squashed oil filters 356 passenger car tires Used batteries are returned to the vendor for recycling In addition, all cardboard and scrap metal that goes through the shop is recycled. No spills reported. DEQ enforcement database search revealed no compliance issues in Multnomah County for the City's waste haulers: Thermo Fluids, Automotive Xpress Delivery, Battery Systems, and Tire Disposal & Recycling. Staff confirmed that all vendors are properly permitted via DEQ permit database search.	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 3-7.	None
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 11,424 gallons of curbside oil collected. Hazardous Waste Event collected: 3,883 cfl bulbs. lamps and tubes, 3240 lbs. of bulky plastics, 2,953 lbs. of batteries, and 4,912 mixed electronics like microwaves, TVs, printers, etc., and 45 cell phones for donation, with an estimated 1,100 cars total cars/households participating.	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.	During FY 14-15, the City switched to a new utility billing system and is in the process of updating and digitalizing accounts, making future account analysis more powerful. Based on this system update, our records show 24,014 total accounts (active and inactive). Last year total accounts were reported as 24,286. The difference is assumed to be part of data cleanup from the software switchover. County Sanitarian records show 15 tanks were decommissioned within Gresham. Cleaned 83 miles of pipe and inspected 44 miles with the CCTV camera. Conducted 11 mainline repairs, 36 lateral repairs, 13 manhole repairs and 7 trench/sinkhole repairs. The Wastewater CIP continued the replacement of the 1950s mainline pipe. High pressure grout was injected into the area outside 134 manholes to reduce infiltration. New Construction: 64 new mainline CCTV inspections. 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

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	Summary and Date of Any Proposed Adaptive Management Modifications
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) 60 new businesses licenses came into the city. Review for environmental compliance concerns was provided to 19 food/bar related establishments, 3 grocery, 3 automotive and 1 dental office.	None
A. Business Inspection Program				2a) Report status of ongoing program development.	2a) The business inspection program is now developed. The 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, as well as some automotive inspections annually, given that automotives have now achieved good site management practices. As resources allow, additional sectors may be inspected, but total effort will vary depending on other regulatory requirements in a given year and time spent on enforcement actions.	None
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 identitfy any businesses neeing a DEQ 1200-Z or COLS permit. Table 3-9 contains a list of currently permitted industries.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	Summary and Date of Any Proposed Adaptive Management Modifications
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) Staff inspected 66 auto related businesses. Some went out of business from the previous year. All passed inspections with minor corrections made through voluntary compliance. No enforcements. Projections for PY 21, include 35-45 Wellfield/1200Z/Pretreatment Inspections and 10-12 automotive businesses. (2d) Staff inspected 16 permitted industrial sites (1200Z/COLS and Wastewater Pretreatment). Rolling Frito Lay and NW Retreaders were found to have compliance issues and were corrected. One, McDonald and Wetle was given a timeline for compliance that was not met. Enforcement work will go into PY 21. (3) See Table 3-8. Additionally, Gresham partnered with the EcoBiz program to conduct outreach to about 20 Gresham automotive businesses. Ecobiz staf ultimately assisted four businesses with secondary containment, spill berms for the garage doors, materials recycling and waste reduction, signage, etc. in order to meet the certification standards. Participating businesses include: All About Automotive, HK Motors, ARS, and Weston Kia.	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.	During PY 20, staff reviewed the DEQ database of permitted facilities and checked for DEQ enforcement actions. There are currently 14 permitted facilities within Gresham's jurisdiction. No DEQ enforcements have been taken on any of these permitted industries and no additional assistance was requested by DEQ. Gresham staff inspected 10/14 industries to ensure wellfield protection area code implementation. Some corrective measures were requested. One industry failed to comply with corrective measures by the deadline and enforcement will occur during PY 21. These are listed in Table 3-9.	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 per permit cycle.	Track updates to the Manual.	The EPSC Standard Operating Details were updated and are being implemented. The Manual itself will be adopted in coordination with the Stormwater Manual update which is expected to be completed in PY 21.	None
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 managment that result, if applicable.	A total of 200 sites were inspected: 184 with residential or commercial building permits and 16 sites with grading permits. There were 12 disapproved inspections affecting 10 sites. Correction notices were related to installing/maintaining perimeter control or permanent vegetation, protecting stockpiles, and sweeping streets. During PY 20, Watershed staff attended the Certified Erosion and Sediment Control Lead Training (CESCL), Certified Inspector of Sediment and Erosion Control Training Course at StormCon 2014, and the Mid-Willamette Erosion control and Stormwater Management Summit.	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

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	Summary and Date of Any Proposed Adaptive Management Modifications
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: * Invasive Species Identification (4) * NASSCO-National Association for Sewer Service Companies (2) * Oregon State Pesticide Licensure Renewal (4) *APWA Short School (8) *Standard Operating Procedures for new employees *Equipment Use and Safety for new employees	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 3-8. For PY 21, staff will continue to support the implementation of the Backyard Habitat Conservation Program, KOIN TV Public Service Campaign, Watershed Council outreach, individualized customer response, neighborhood illegal discharge response, and Nadaka Park education programs.	None
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 3-8. For PY 21, staff will continue to support the implementation of the GREAT Business Program, the EcoBiz Program, the SCAP program, the EPSC contractor outreach and will also conduct focused outreach to carpet cleaning companies.	None
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.;	This year's Annual Report included a public comment period from October 14-27, 2015. 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 ~750 households. A notice was emailed to the local active Watershed Councils and the City's Natural Resource & Sustainability Committee.	None
				*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 year;	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 3-10.	
				*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 of supporting raw data collected during PY 20. Proposed changes to the Monitoring Plan that fall within the city's ability to adaptively manage without notice and by inclusion of the changes within the annual report as defined in Schedule B 2. e. of the permit are described in Section 2.	None

BMP Name	Compliance Date	BMP Description	Measurable Goals	Reporting Elements	Status 2014-2015	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 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 conducted during PY 20 include: *Provide maps for operations and maintenance activities. *Created a digital inspection form for rain garden inspections. *Created canvassing maps for the downspout disconnection program. *Ongoing maintenance of stormwater asset data and drainage treatment areas *Maps of census areas for program diversity analysis *Address exports for illicit discharge issues, business program notices, community education events and workshops	None
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 almost 800,000. The City's Website Home Page receives 11,000+ visits per month. The City's Watershed Division web page, where public comment documents are housed electronically, receives ~1,600 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.	NA	None

Section C – UIC Inventory Changes

1. List of UIC System Changes (closed, retrofitted, modified, discovered)

In PY 3, the City's GIS database for UICs was updated based on construction projects as well as field observations. All devices, except the 9 listed as "new," are likely listed in DEQ's database. **Table C1** lists any UIC which had an edit made to the GIS record in the past year.

Summary of system updates included in **Table C1**:

- 9 UICs are listed as "New." These UICs were added in the past permit year and are likely not in DEQ's database.
- 4 UICs are listed as "Converted to SMH." These were existing UICs that were converted to sedimentation manholes, so are no longer UICs, but now function as pre-treatment for new UICs that were added.
- 3 UICs are listed "Decommissioned." These were existing UICs that were closed following the Decommissioning procedure listed in the City's UICMP. Two of these were within the Waste Management Area, and all three were part of a single project that created rain gardens near Burnside and Eleven Mile.
- 2 UICs are listed as "Not Found". These were points that existed in GIS, but field investigation was unable to confirm existed.
- 25 UICS are listed as "More Accurate Location". These are existing UICs that the location was updated based on GPS data collected based on field observations.

2. Plans for UIC System Updates in Coming Year

<u>A. UIC Retrofits within Waste Management Area</u>
The City has identified and reported five UICs that are within a 335' waste management area, determined by GSI to be protective for conditions in Gresham. All of these devices are included in Gresham's UIC Master Plan and included in CIP project plans for retrofits to meet permit requirements.

Two of the five UICs identified as being within a Waste Management Area were corrected during PY2. The City developed design plans, specifications & contract documents and secured a contractor in April of 2014 to fix all of five locations, but because we were unable to secure an easement to implement corrective actions utilizing green infrastructure, the City is currently working to re-design a solution that will manage stormwater using shallow horizontal UICs that allow for installation of pretreatment BMPs and provide adequate vertical separation to be more protective of groundwater. Plans should be complete in late 2015 and construction completed by mid-2016.

<u>B. Risk Analysis and Spill Prevention</u>
In PY1, the City finalized a risk assessment of all City-owned UICs and their susceptibility to spills. The project was conducted as a way to work with the City's Water Division in an effort to prevent spills from entering UICs where pretreatment/spill control BMPs do not currently exist. The City used this assessment to identify the highest priority locations and then determined which of these can be retrofitted in the coming year. Based on feasibility for the high

risks sites identified in this assessment, the City designed and developed plans that included adding rain gardens for 2 UICs, 88 spill control manholes, and 23 baffled catch basins as a pretreatment retrofit for existing UICs. The City developed specifications & contract documents and secured a contractor in May of 2014. Construction began in July 2014 and was completed in January 2015.

During the risk analysis/spill prevention field assessment work, the city identified some existing sedimentation manholes that could perform better if they were re-sealed and/or had modifications to the "gooseneck" where water leaves the sedimentation manhole and flows to the UIC. The city will consider upgrades to these pre-treatment devices in the coming year.

C. Additional UICs for Increased Infiltration

The city will be exploring the possibility of adding additional UICs in areas of the city deemed to have suitable infiltration rates, but are currently draining to surface water through the municipal separate storm sewer system (MS4). The city is looking at ways to reduce stormwater volumes currently flowing to streams within our jurisdiction, and adding UICs as a way to manage some of the volume currently flowing through our MS4 pipes may be a cost-effective stormwater retrofit options for managing large areas of existing development.

Change/Update	OBJECTID	MAINID	WIDTH	IE_OUT	RIM	Gresham ID	UIC_Depth	GlobalID	Township	Section_	QuartSec	Range	Latitude	Longitude	Landuse
New	32337	24588	48	318.01	324.33	3155-K-026		{23CD1B08-2D1C-4FB3-990B-6DAAFF43A159}	1s	02	NW	3e	45.5155	-122.408769	RESIDENTIAL
New	33137	24575	48	256.68	262.18	3249-W-060	18	{DCF0963C-6189-4CFF-9AB3-2E89F3DE2A9B}	1s	05	SW	3e	45.504613	-122.471614	RESIDENTIAL
New	33537	24574	48	256	262.96	3249-W-061	18	{94462855-8D4B-428F-962B-16B9F9B260B4}	1s	05	SW	3e	45.504608	-122.471081	RESIDENTIAL
New	33538	24573	48	257.88	264.83	3249-W-062	18	{41FF2922-2FD8-4000-97FA-A8C16A0E23BC}	1s	08	SW	3e	45.504598	-122.46989	RESIDENTIAL
New	33539	24596	48	332.04	336.45	3153-F-095	18	{A7D53857-C80E-438D-A2FA-32628610D255}	1s	03	NW	3e	45.516961	-122.432695	RESIDENTIAL
New	33541	24594	48	240.76	246.2	3148-W-023	18	{EE8D01B8-6B52-4338-BE50-372A4E836E9F}							
New	33937	24592	48	0	249.73	3148-W-066	18	{5106737E-D897-45F2-8A70-6F09420659D0}	1s	06	NE	3e	45.519122	-122.481562	RESIDENTIAL
New	33938	24591	48	241.18	246.85	3154-W-067	18	{7CC0BA61-AC16-468F-A1F3-DB73ACDA51D6}							
New	33939	24590	48	240.23	247.15	3148-W-068	11.85	{D92B3DDD-80AF-4D11-8FD5-A4A3188356FD}	1s	06	NE	3e	45.519123	-122.480886	RESIDENTIAL
Converted to SMH	8259	5513	48	318.47	324.98	3155-K-041	11.58	{98496687-5441-4444-956A-C9D92257E0F2}	1s	02	NW	3e	45.51223989	-122.4083388	RESIDENTIAL
Converted to SMH	16974	22758	48	241.03	246.36	3048-W-083		{460552D3-3C43-41F3-9CE7-76C3CDEC0430}	1n	31	SE	3e	45.51921613	-122.481268	COMMERCIAL
Converted to SMH	17528	23313	48	241.03	247.8634	3048-W-082		{888E5338-C230-4845-893F-A19F928E274D}	1n	31	SE	3e	45.51921388	-122.4815582	RESIDENTIAL
Converted to SMH	32737	24577	48	258.43	261.86	3249-W-059	18.38	{4957A93B-175F-43A0-A39A-B91D48FBD3AD}	1s	05	SW	3e	45.504616	-122.471822	RESIDENTIAL
Decommissioned	16972	22756	48	0	247.64	3148-W-053	16	{6EC1DB57-19B5-429C-B370-0EAFA7EE5D75}	1s	06	NE	3e	45.5190904	-122.4817881	RESIDENTIAL
Decommissioned	16973	22757	48	0	247.82	3148-W-054	17.5	{D0ADB913-6B41-43C5-AABA-BAD000A73212}	1s	06	NE	3e	45.51908611	-122.4815579	RESIDENTIAL
Decommissioned	16975	22759	48	0	248.8	3148-W-056	0	{97999765-F088-4F34-A8F1-CC479C5DE9D6}	1s	06	NE	3e	45.51909474	-122.4807661	RESIDENTIAL
Not Found	1328	784	48	0	265	3249-W-039		{243D9B89-695E-467C-9AF1-09788EFBAD48}	1s	05	SW	3e	45.50461574	-122.4715594	RESIDENTIAL
Not Found	15379	21158	48	0	262.44	3248-W-080		{A9E9A70C-0E23-4B79-A72E-D0ABBD604D1D}	1s	06	SE	3e	45.50638575	-122.4820136	RESIDENTIAL
More Accurate Location	207	19033	48	329.59	335.63	3153-F-087	14.58	{13ED6B70-D20D-4FB1-9CC3-F8E127F7CD2A}	1s	03	NW	3e	45.5168777	-122.4332056	RESIDENTIAL
More Accurate Location	907	733	48	260.38	264.32	3349-W-057	19.33	{10CD8466-6B66-44DF-B01A-859052BA41D5}	1s	08	NW	3e	45.5044307	-122.4698616	RESIDENTIAL
More Accurate Location	908	736	48	258.48	263.98	3249-W-037		{7030F3DF-80E0-41CD-8423-8F72D40BDF30}	1s	05	SW	3e	45.50462612	-122.4703347	RESIDENTIAL
More Accurate Location	909	737	48	256.89	263.16	3349-W-056		{570338B6-D7C2-42DB-9B4C-094BBEAED5EB}	1s	08	NW	3e	45.50443741	-122.4708369	CIVIC
More Accurate Location	2000	1175	48	293.25	297.78	3449-J-066		{271DAE44-0ABE-48C0-945A-0EC77B71AB43}	1s	08	SW	3e	45.49230185	-122.4754502	CIVIC
More Accurate Location	2145	1700	48	0	297.1	3448-J-005	19.5	{C99983DE-DE06-4B50-90E2-BC2CFBA46954}	1s	07	SE	3e	45.49250918	-122.4756486	RESIDENTIAL
More Accurate Location	2147	1703	48	0	301.23	3449-J-065		{E732174F-1288-4440-AE34-D4288FF6407A}	1s	08	SW	3e	45.49107176	-122.4754484	OFFICE
More Accurate Location	2651	2732	48	236.75	242.05	3053-F-009	13.65	{DB3CB0A5-0460-4F8A-8A84-2F922CD7C733}	1n	34	SW	3e	45.52495738	-122.4336747	CIVIC
More Accurate Location	2671	2738	48	251.04	256	3053-F-008	17.77	{5EC64545-6FBE-4E00-B1A1-68BA9130394E}	1n	34	SW	3e	45.52453398	-122.4336913	CIVIC
More Accurate Location	2672	2739	48	264.54	269.5	3053-F-007	17.15	{E52CA3D3-EA0C-416A-950F-13B41E8E7508}	1n	33	SE	3e	45.52411149	-122.4336926	CIVIC
More Accurate Location	2680	2750	48	305.49	310.5	3053-F-002	16.25	{7B6ABA93-9545-4D96-BACF-39BF00F5C063}	1n	33	SE	3e	45.52187398	-122.4337399	COMMERCIAL
More Accurate Location	2681	2751	48	308.85	313.6	3053-F-001	15.75	{C1939AB1-5A89-4223-A9E5-44E23FAA81A5}	1n	33	SE	3e	45.52137683	-122.433733	UNDEVELOPED
More Accurate Location	2790	3926	48	0	260.05	3150-F-010	15.95	{DC8633F8-9D24-4438-9F3E-C20621C845CA}	1s	05	NE	3e	45.51518587	-122.4583927	COMMERCIAL
More Accurate Location	5391	3638	48	293.25	298.25	3053-F-004	17	{16DE4A49-84C0-454E-B4D2-D9C46424C61B}	1n	33	SE	3e	45.52290765	-122.433725	RESIDENTIAL
More Accurate Location	6690	4661	48	275.89	280.75	3053-F-006	16.85	{8D039068-576C-4F8D-88AB-BE55FA05CE5E}	1n	33	SE	3e	45.52370927	-122.4337121	RESIDENTIAL
More Accurate Location	6732	4685	48	285.18	290.5	3053-F-005	15.5	{5E65F55E-09F5-4253-85ED-7FA8B57AA7C5}	1n	33	SE	3e	45.52333019	-122.4336963	RESIDENTIAL
More Accurate Location	6782	4738	48	300.06	305.5	3053-F-003	16.25	{56193BEB-0116-437A-9CEC-D558A3E51283}	1n	33	SE	3e	45.52248535	-122.4337212	RESIDENTIAL
More Accurate Location	7446	5112	48	0	338.19	3153-F-065		{5E50BBF2-0313-4E21-86EB-D9420FA9D79D}	1s	03	NW	3e	45.51710847	-122.4315403	RESIDENTIAL
More Accurate Location	7497	5136	48	330.1	335.58	3153-F-027	19.83	{E6E3D253-F554-44CA-80A4-02C9DFA10078}	1s	03	NW	3e	45.51686965	-122.4333429	RESIDENTIAL
More Accurate Location	7584	5178	48	0	338.76	3153-F-029	19	{CAA13A43-98C8-4FAD-8924-55F1B78B5891}	1s	03	NW	3e	45.5163038	-122.4326603	RESIDENTIAL
More Accurate Location	7947	5362	48	0	262.73	3150-F-006	20.05	{C7EDAA0A-03DF-4E17-84FB-CD412C136F8C}	1s	05	NE	3e	45.5136207	-122.4583898	TRANSPROTATION
More Accurate Location	8072	5431	48	0	265.77	3150-F-005		{CED5021B-6D48-432E-B24C-B9FDCF894842}	1s	05	NE	3e	45.51268371	-122.4583751	TRANSPROTATION
More Accurate Location	8346	5552	48	0	266.13	3250-F-007		{DF6B6019-4C51-4ECA-8151-2D929AEF91C6}	1s	05	SE	3e	45.51081226	-122.4583476	PARKING
More Accurate Location	17154	22939	48	0	266.14	3250-F-021		{BCA4FFA1-4052-469E-941F-2AD1447C83A1}	1s	05	SE	3e	45.51056061	-122.4583425	INDUSTRIAL
More Accurate Location	17590	23375	48	0	264.7872	3349-W-087	20.42	{41FCF1CE-AD66-422D-9A21-81DD8751BE24}	1s	08	NW	3e	45.50443562	-122.4717532	CIVIC