

# Gresham and Fairview NPDES Annual Report

## for Public Comment PERMIT YEAR 22

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



Summer 2016: student interns mapped and marked private storm drains in Gresham



CITY OF  
GRESHAM

City of Gresham  
City of Fairview  
November 2017

**National Pollutant Discharge Elimination System  
Permit No. 101315  
EPA Reference No. ORS108013  
Permit Year 22 Annual Report  
City of Gresham and City of Fairview**

"We the undersigned, certify under penalty of law that this document and all attachments were prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment from knowing violations."



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## Preface

The Cities of Gresham and Fairview submit this report in accordance with requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit # 101315. This report is intended to provide a brief summary of the activities conducted by these agencies to prevent the entry of pollutants into their stormwater, and surface water conveyance systems.

This report has four major sections. Section 1, Overview, provides the historical background, location of required elements within the report, and a description of Gresham and Co-permittee's watersheds. Section 2, Environmental Monitoring Program, is the summary of the City of Gresham's data collection efforts conducted on behalf of the Co-permittees and has an associated Appendices A-D for the monitoring data and Sections 3 through 4 consist of the Stormwater Management Plan (SWMP) implementation status reports for the City of Gresham and the City of Fairview, respectively. Additional supporting documentation for Section 3 is provided in Appendices A through E.

## **Section One--Overview of Required Elements**

### **A. History**

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

The Cities of Gresham and Fairview, and Multnomah County submitted a permit renewal package (for the period September 1, 2000 through August 31, 2005) as co-permittees to DEQ in March 2000. Gresham submitted an update to its portion of that package in December 2001. On March 1, 2004, DEQ issued a renewed permit. However, several interest groups requested a petition for reconsideration on the renewed permit. On May 17, 2004, DEQ granted this request and a revised permit was reissued by DEQ on July 28, 2005, subsequently followed by submittal and approval of an updated Stormwater Monitoring Plan and Stormwater Management Plans (SWMP) for Gresham and co-permittees. These documents were approved by DEQ in July 2006 (PY 12).

On August 1, 2008, Gresham and Co-permittees submitted a permit renewal package that included the required elements as stated in Schedule B 2) c) of the permit, including an updated joint Monitoring Plan and individual Stormwater Management Plans.

On December 12, 2010 DEQ issued a renewed permit with the City of Gresham and the City of Fairview as Co-Permittees and issued a separate renewed permit to Multnomah County. DEQ authorized permittees to make minor changes to their SWMPs in order to be consistent with the final permit language by April 1, 2011. This annual report is based upon the City of Gresham and Fairview's respective final SWMPs dated April 1, 2011.

## Cities of Gresham and Fairview Environmental Monitoring Data

### B. Reporting Requirements

This section summarizes the requirements for the annual report as described in Schedule B 5) Reporting Requirements of the permit and provides a reference to the location of each element within this report. As noted in the permit, this Annual report is provided to DEQ by November 1 of each year in electronic and hard copy format and is also posted on Gresham's website and cross-linked from the City of Fairview's website.

#### SWMP Implementation Status

The status of the SWMP best management practices implementation and measurable goals for Gresham and Fairview is described in **Section 2** Environmental Monitoring Program and in **Sections 3** and **4**, respectively.

#### Proposed Changes, Adaptive Management & New BMPs

The detailed description of the adaptive management process was submitted with the permit year 16 annual report which is available on the City's website at [www.greshamoregon.gov/watershed](http://www.greshamoregon.gov/watershed) in the stormwater documents section. For purposes of brevity, the ongoing annual review process consists of data intake from various staff who are responsible for the implementation of a particular best management practice (BMP). Factors examined as part of the data intake process include but are not limited to:

- \*Was the BMP measurable goal attained? If not, why? How will progress be made towards future attainment?
  - \*For multi-year BMPs, were milestones or timelines met?
  - \*Does the BMP need to be refined or improved?
  - \*Are staffing/financial resources available to support such a BMP improvement or refinement?
- Proposed changes, adaptive management or addition of BMPs for Gresham and Fairview, if applicable, are described in **Section 2** Environmental Monitoring Program and in **Sections 3**, and **4**, respectively.

#### Summary of Fiscal Year Expenditures and Projected Annual Budgets

Previous and projected budgets for Gresham are included in **Table 3-10** and in **Section 4** for Fairview.

#### Summary of Monitoring Program Results/Data

Gresham and Fairview's monitoring data and summary of assessments or evaluations and any proposed changes to the monitoring plan are reported in **Section 2 Environmental Monitoring Program** and its subsequent **Appendices**.

#### Summary of Inspections & Enforcement, Public Education Programs, and Dry Weather Screening

These annual reporting program components as described in Gresham and Fairview's approved SWMPs and are reported in **Sections 3**, and **4**, respectively.

## **Cities of Gresham and Fairview Environmental Monitoring Data**

### **Overview of Urban Growth Boundary (UGB) Expansion Areas**

A summary of activities that apply for the City of Gresham is included in **Appendix B: UGB Summary**. This requirement does not apply to the City of Fairview whose permitted area does not contain any UGB expansion area.

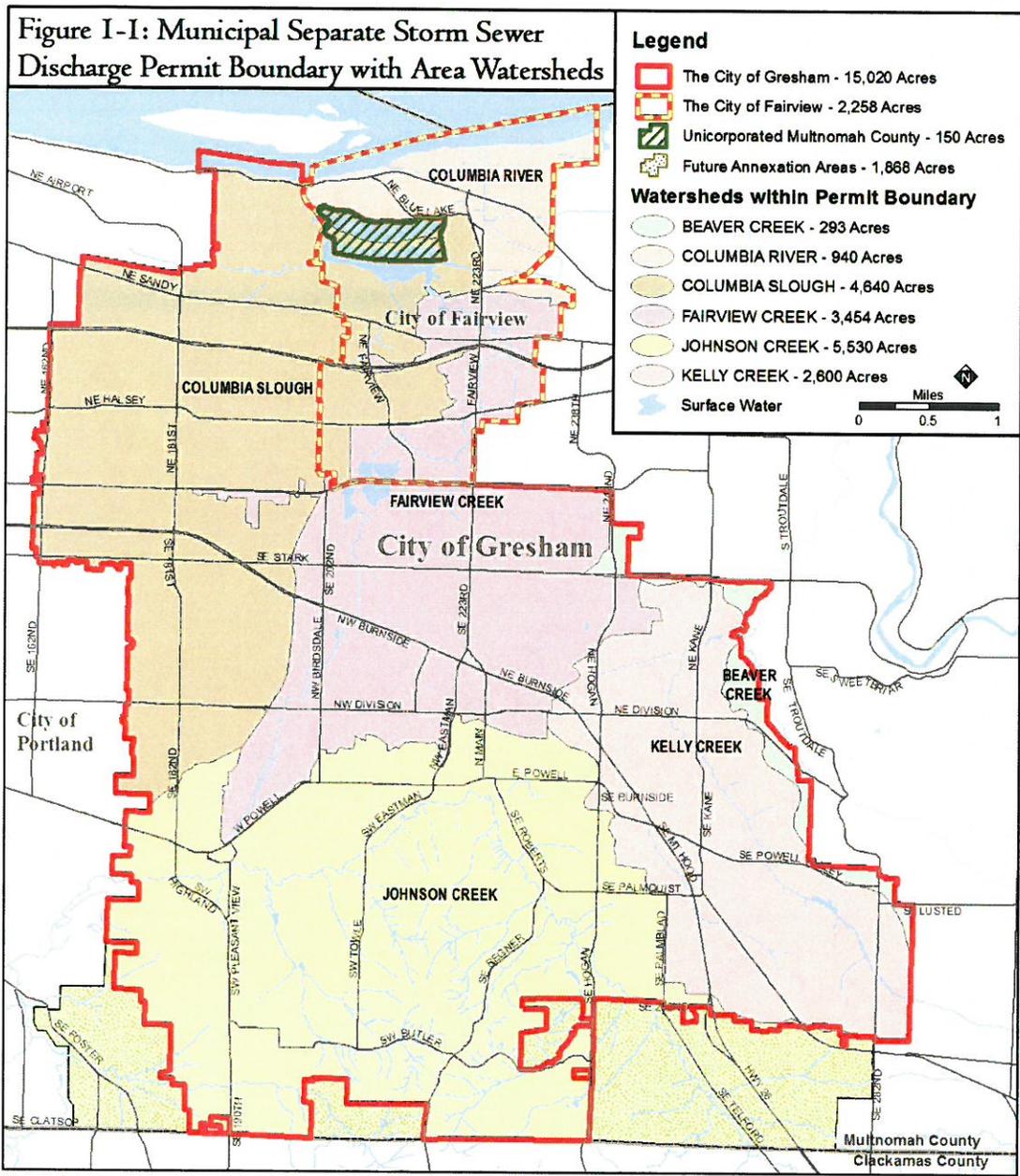
### **Legal Authority**

See **Appendix A: Adequate Legal Authority** for documentation of legal authority for the Cities of Gresham and Fairview.

### **Permit Boundary and Map of Major Watersheds**

On the following page **Figure 1-1** depicts the permit boundary and a map of the major watersheds within the permit area.

Cities of Gresham and Fairview Environmental Monitoring Data



**Cities of Gresham and Fairview Environmental Monitoring Data**

**Section Two:**

**Cities of Gresham & Fairview Environmental Monitoring Program Annual Report**

**A. History**

**Background**

The data reported in this PY 22 Annual Report reflects the Cities of Gresham and Fairview's implementation of the Environmental Monitoring Plan that was approved by DEQ and became effective July 1, 2011. The City submitted an updated Environmental Monitoring Plan to DEQ in November, 2015. No objects to the updated plan were received within the 30 day waiting period, and it was implemented on July 1, 2016.

The City of Gresham collects data for Multnomah County under an Interjurisdictional Agreement and that data is included in this report.

**B. Required Elements**

This section of the Annual Compliance Report summarize the Environmental Monitoring Plan implementation and permit requirements contained in Schedule B. As described in the City of Gresham and Fairview's NPDES Permit, Schedule B) 5., the annual report must include:

f. A summary of monitoring program results, including monitoring data that are accumulated throughout the reporting year and/or assessments or evaluations.

g. Any proposed modifications to the monitoring plan that are necessary to ensure that adequate data and information are collected to conduct stormwater program assessments.

The environmental monitoring requirements specified in Table B-1 of the NPDES permit are summarize below in **Table 1**. Elements required by the permit are *italicized* text.

**Table 1. Environmental Monitoring Requirements Summary**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
Instream Monitoring	<i>Three (3) sites in the Columbia Slough basin:</i> 1. Fairview Lake @ Lake Shore Park (FVL1) 2. Fairview Creek @ mobile estates (FCI0) 3. Fairview Creek @ Stark (FCI1)	<i>Four (4) events/year</i>	<i>DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS, Chlorophyll-a (May-Oct); nutrients (nitrate, ammonia, Total P, ortho-phosphorus); Total recoverable and dissolved metals (copper, lead and zinc); legacy pesticides (JC only)</i>	The City of Portland collects data on the entire Columbia Slough, but based on their probabilistic sampling design, locations monitored any permit year will be reported to DEQ by Portland.
	<i>Two (2) sites in the Sandy River basin:</i> 1. Kelly Creek @ Mt. Hood Community College Pond (KCI1) 2. Kelly Creek @ Detention Pond (KCI4)			
	<i>Four (4) sites in the Johnson Creek subbasin:</i> 1. Johnson Creek @ Jenne Rd (JC11) 2. Johnson Creek @ Palmblad (JC12) 3. Kelley Creek @ Pleasant Valley Grange (KI1) 4. Kelley Creek @ Rodlun Rd (KI2)			
Continuous Instream Monitoring	<i>Two (2) continuous monitoring stations:</i> 1. Johnson Creek @ Regner 2. Fairview Creek @ Glisan*	<i>Ongoing</i>  15-minute interval	<i>Temperature and flow</i>	Flow data collected by USGS through Joint Funding Agreement #3225. *Fairview gage does not collect temperature. City of Gresham periodically collects summer temperature at Glisan location, as well as other locations throughout city.

**Cities of Gresham and Fairview Environmental Monitoring Data**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)	Notes
Stormwater Monitoring - Storm Event	<p><i>Three (3) sites.</i></p> <p>Monitored 10 random and spatially balanced stormwater locations.</p>	<p><i>Three (3) events/year</i></p> <p>Monitored 1 event at each location (totaling 10)</p>	<p><i>DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS; nutrients (nitrate, ammonia, Total P, ortho-phosphorus); Total recoverable and dissolved copper, lead and zinc; pesticides</i></p>	<p>The permit requirements as described by Schedule B)2)e)ii) would result in 9 data points annually. The City's approved monitoring approach results in 10 data points.</p>
Macro-Invertebrate Monitoring	<p><i>One (1) site in the Columbia Slough basin:</i></p> <ol style="list-style-type: none"> <li>1. Fairview Creek @ mobile estates (FCI0)</li> <li>2. Fairview Creek @ Stark (FCI1)</li> </ol> <p><i>One (1) site in the Sandy River basin:</i></p> <ol style="list-style-type: none"> <li>1. Kelly Creek @ Mt. Hood Community College Pond (KCI1)</li> <li>2. Kelly Creek @ Detention Pond (KCI4)</li> </ol> <p><i>Two (2) sites in the Johnson Creek subbasin:</i></p> <ol style="list-style-type: none"> <li>1. Johnson Creek @ Jenne Rd (JCI1)</li> <li>2. Johnson Creek @ Palmblad (JCI2)</li> <li>3. Kelley Creek @ Pleasant Valley Grange (KI1)</li> <li>4. Kelley Creek @ Rodlun Rd (KI2)</li> </ol>	<p>One (1) event/year during summer/low flow conditions</p>	<p><i>Macroinvertebrates</i></p>	<p>Collected during same week as instream water quality data collection occurred in summer.</p>
Structural BMP Monitoring	<p><i>One (1) site - inlet and outlet:</i></p> <ol style="list-style-type: none"> <li>1. Columbia Slough Water Quality Facility</li> <li>2. Brookside Regional Facility</li> <li>3. Hayden's Meadows filtration stormwater planters</li> <li>4. Kane Road pervious pavement</li> </ol>	<p><i>Two (2) events/year through Dec. 31, 2013.</i></p> <p>Monitored 1 event at all facilities, and 2 events at Brookside stormwater</p>	<p><i>DO, pH, temperature, conductivity, turbidity, E. coli, hardness, BOD, TSS; nutrients (nitrate, ammonia, Total P, ortho-phosphorus); Total recoverable and dissolved metals (copper, lead and zinc)</i></p>	

## Cities of Gresham and Fairview Environmental Monitoring Data

### C. Summary of Monitoring Program Results

The data collected in PY 21 are provided in Appendix A of the monitoring report. The in-stream data have been compared to the relevant DEQ water quality criteria. Values that do not meet the water quality standards are highlighted. Data from Stormwater (wet weather sampling) and Structural BMP Monitoring have not been compared to water quality standards because of the mixing that occurs in-stream. Sampling locations are shown in Appendix B and C.

Maps of dry weather screening fixed and rotating monitoring are shown in Appendix D. Results are discussed in Section 3 BMP: ILL 2&3 Illicit Discharge Detection and Elimination: Field Screening and Investigation and the locations and data is listed in Table 3-5.

#### Instream Monitoring

Instream monitoring results are generally within expected ranges. Stream pH was slightly below the standard of 6.5 in several streams in the winter and spring, and slightly above the 8.5 standard at one site in the summer. The low pH values were associated with rain events. Rainwater naturally has a low pH and likely contributed to these values. Stream temperature was above the 18°C salmon rearing standard in most streams in the summer. One site in Kelly Creek was above the 13°C salmon spawning standard in the winter; this site is just downstream of the large, surface-release inline pond on Mt. Hood Community College campus that is known to contribute heat to the stream. To our knowledge the 13°C standard in this stream was mistakenly applied and was originally intended for Kelley Creek in Johnson Creek. The City is working with ODFW to confirm and correct this possible error.

Two sites had exceedances above the standard of 406 *E. coli* colony forming units (CFU/100ml). *E. coli* levels this year were generally lower than previous years, which may indicate success of some of the City's actions aimed at reducing this bacterium with our illicit discharge detection and elimination efforts, and by increasing public awareness of the issue. However, the quarterly sampling events during the wet season fell on days with little antecedent rainfall, which generally correlates with lower bacteria levels.

One summer sample in Fairview Lake exceeded the Columbia Slough TMDL level for total phosphorus. High phosphorus levels have been noted at this location before, particularly during the summer, when green algae have utilized all of the available nutrients and nitrogen becomes the limiting nutrient. Blue-green algae/cyanobacteria have frequently been noted in the lake in mid to late summer, when the presence of phosphorus and their ability to fix nitrogen allow them to thrive in the warm lake water.

#### Continuous Instream Monitoring

The City of Gresham collected continuous instream temperature data at several sites within the city and collaborated with other jurisdictions to collect data at several sites upstream and downstream of the city. Together with USGS, Multnomah County, and East Multnomah Soil and Water Conservation District we collected continuous temperature data at 49 stream sites. A summary of the number of days that the maximum daily temperature at each continuous temperature monitoring station exceeded the salmon rearing temperature standard (18°C), as well as the highest temperature reached at each station is included in Table A3 for the Monitoring report.

Very few sites had no exceedances (highlighted in blue), while most streams had sites where the 7-day average of the daily maximum (7DADM) was >18°C for 100 days or more (highlighted in red). All sites with no exceedances were near forested headwaters of streams. All but one of the sites with >100 days of exceedances were close to the outlet of an instream pond. Paired sites that were upstream and downstream of inline ponds showed temperature increases of 4-9°C during the heat of the summer. The City is aware of the impact in-line ponds can have on temperature - Fujitsu Pond is a highly ranked Natural Resource CIP project, and the City is also studying ways to reduce temperature loading from public and private ponds on Butler and Hogan Creeks.

#### Stormwater Monitoring

Similar to previous years, stormwater monitoring data revealed that higher traffic sites (>1000 vehicle trips per day) have higher pollutant concentrations for many pollutants in comparison to residential streets (<1000 trips/day). Also similar to previous years, relatively high levels of several heavy metals were found at several sites. Cars are likely a major source of these pollutants. The City has is plans to conduct special monitoring studies to examine heavy metal sources in stormwater and potential avenues for reductions.

## Cities of Gresham and Fairview Environmental Monitoring Data

### Structural BMP Monitoring

The structural BMP monitoring consisted of monitoring two storms at each of two facilities, and one storm at each of two additional facilities. This year we switched from monitoring time-weighted composite samples to taking grab samples. This change in sampling scheme has allowed us to see patterns of pollutant concentrations throughout storms. One fairly consistent pattern that we have observed is that regional facilities, which are designed for both water quality and detention, often show high pollutant removal during small storms or at the beginning of large storms, but have reduced removal efficiency at the peak of large storms when the basins are full.

The Columbia Slough Regional Water Quality Facility, which has been monitored for several years, and has shown wide variations in pollutant removal performance. During this event sampled this year, we added monitoring sites upstream and downstream of a large beaver dam that was impounding water. We found that this dam likely added moderate pollutant removal capacity during low to moderate flows.

One storm was monitored at sites along a major arterial street that had various treatments of pervious and standard pavement. The results showed that both full-depth pervious pavement with an underdrain, and a 3-inch pervious overlay effectively reduced levels of many pollutants.

Two storms were monitored at Brookside Regional Facility, which is a newly-built small detention pond with a low-flow water quality swale. We found that this facility is effectively reducing several pollutants, especially heavy metals, pesticides, nutrients, and TSS, particularly during low to moderate flows.

Two events were monitored in newly constructed filtration street-side stormwater planters with two different amended soil blends. The first event was sampled immediately after the soil was added in the fall, and second event was sampled in late spring after a winter of

### Macroinvertebrate Sampling

Macroinvertebrates were collected at all of the instream monitoring locations, except Fairview Lake and KCI3 (see Macroinvertebrate data table in Appendix A). Results are similar to previous years, with the Kelley Creek location (KI2) showing the least amount of impairment (i.e., the greatest abundance and highest number of sensitive species). This site is predominantly surrounded by an undeveloped forested area. All of the other locations have biological communities that indicate moderate or severe impairment according to the statewide Benthic Index of Biological Integrity (B-IBI). Data trends will be assessed based on eight years of data for most sites. Only one site had a significant slope: KCI1 had a significantly positive slope. Due to natural variations in field conditions, it

### D. Adaptive Management

No adaptive management changes are proposed.

**Cities of Gresham and Fairview Environmental Monitoring Data**

**Cities of Gresham and Fairview  
Environmental Monitoring Program Appendices A, B, C, & D**

**Prepared by:  
City of Gresham, Department of Environmental Services  
Water Resources Division**

**Cities of Gresham and Fairview Environmental Monitoring Data**

**Appendix A—Gresham and Fairview Program Raw Data**

- Monitoring Site Locations & Criteria
- Instream-Long term Trend Sampling Data
- Temperature Sampling Data
- Stormwater Sampling Data
- BMP Sampling Data
- Macroinvertebrate Sampling Data

**Cities of Gresham and Fairview Environmental Monitoring Data**

**Table A1: Water Quality Monitoring Site Locations & Criteria**

**Instream-Long term & Macroinvertebrate Site Locations**

FCI0	Fairview Creek @ West of Blue Lake Rd in Trailer Park
FCI1	Fairview Creek @ Conifer Park Subdivision, N of Stark
FVL1	Fairview Lake @ Public Dock on NE 217th
JCI1	Johnson Creek @ 174th Ave (Jenne Rd)
JCI2	Johnson Creek @ 252nd Ave. (Palmsblad)
KI1	Kelley Creek @ Foster Rd. (tributary of JC)
KI2	Kelley Creek @ Rodlun Rd (tributary of JC)
KCI1	Kelly Creek @ Mt. Hood Community College Pond Outflow
KCI3	Kelly Creek @ Detention Pond Outflow
KCI4	Kelly Creek @ Detention Pond Inflow
	Beaver Creek @ Lower Bridge (Monitored on behalf of Multnomah County, shown on Gresham Map of
BCI1	Instream Sites)
	Beaver Creek @ Division X Troutdale Rd. (Monitored on behalf of Multnomah County, shown on
BCI2	Gresham Map of Instream Sites)

**Structural BMP Evaluation Monitoring Locations**

CSWQF-1	Columbia Slough Water Quality Facility - Stormdrain Creek
CSWQF-2	Columbia Slough Water Quality Facility - East Inlet
CSWQF-3	Columbia Slough Water Quality Facility - Outlet
CSI	Columbia Slough Water Quality Facility - outfall of cells 1 and 2
CSUSB-1	Columbia Slough Water Quality Facility - upstream of beaver dam
CSDSB-1	Columbia Slough Water Quality Facility - downstream of beaver dam
BrookBub-1	Street runoff at Brookside
BRF1-1	Brookside Regional Facility - Inlet
BRF2-1	Brookside Regional Facility - Outlet
HMPB121-1	Hayden's Meadow rain garden B12 Portland blend - Inlet
HMPB122-1	Hayden's Meadow rain garden B12 Portland blend - Outlet
HMG71	Hayden's Meadow rain garden A7 Gresham blend - Inlet
HMPA21	Hayden's Meadow rain garden A2 Portland blend - Inlet
HMG72	Hayden's Meadow rain garden A7 Gresham blend - Outlet
HMPA22	Hayden's Meadow rain garden A2 Portland blend - Outlet
HMGB112	Hayden's Meadow rain garden B11 Gresham blend - Outlet
HMGB111	Hayden's Meadow rain garden B11 Gresham blend - Inlet
HMPB121-2	Hayden's Meadow rain garden B12 Portland blend - Inlet
HMGB151	Hayden's Meadow rain garden B15 Gresham blend - Inlet
HMPB122-2	Hayden's Meadow rain garden B12 Portland blend - Outlet
HMGB152	Hayden's Meadow rain garden B15 Gresham blend - Outlet
KanePP 1	Kane Road Full Pervious
KanePO 1	Kane Road Pervious Overlay
KaneIP 1	Kane Road Impervious
KaneIC 1	Kane Road Impervious with Contech filter cartridges
KanePP 2	Kane Road Full Pervious
KanePO 2	Kane Road Pervious Overlay
KaneIP 2	Kane Road Impervious
KaneIC 2	Kane Road Impervious with Contech filter cartridges
KanePP 3	Kane Road Full Pervious
KanePO 3	Kane Road Pervious Overlay
KaneIP 3	Kane Road Impervious
KaneIC 3	Kane Road Impervious with Contech filter cartridges

## Cities of Gresham and Fairview Environmental Monitoring Data

### TMDL Constituent Water Quality Criteria

#### Fairview Creek & Lake

Temperature	No designated salmon and steelhead spawning use. Rearing: 18 degrees Celsius
<i>E. coli</i>	406 organisms/100mL (OAR 340-41)
Phosphorus	0.1549 mg/L (Columbia Slough 1998 TMDL)
Mercury	Aquatic life: 2.4 ug/L acute; 0.012 ug/L chronic. MCL: 2 ug/L

#### Johnson Creek (including Kelley Creek trib)

Temperature	Spawning: 13 degrees Celsius (55.4 F) - October 15 to May 15. Rearing: 18 degrees Celsius
<i>E. coli</i>	406 organisms/100mL (OAR 340-41)
PCBs	Acute 2.0 ug/L, Chronic 0.014 ug/L (per Table 30)
PAHs	Not included in Table 40 or 41. Table 30 only lists saltwater acute level of 300 ug/L
Dieldrin	Acute 0.24 ug/L, Chronic 0.056 ug/L (per Table 30)
DDT	Acute 1.1 ug/L, Chronic 0.001 ug/L (per Table 30)
Mercury	Acute 2.4 ug/L, Chronic 0.012 ug/L (per Table 30)

#### Kelly Creek

Temperature	Spawning: 13 degrees Celsius (55.4 F) - October 15 to May 15. Rearing: 18 degrees Celsius
<i>E. coli</i>	406 organisms/100mL (OAR 340-41)

#### Columbia Slough

Temperature	No designated salmon and steelhead spawning use. Rearing: 18 degrees Celsius
<i>E. coli</i>	406 organisms/100mL (OAR 340-41)

pH	between pH 6.5 - 8.5
DO	No spawning 6.5 mg/L: cool-water aquatic life (avg) 4.0 mg/L: absolute minimum (Columbia Slough TMDL) 5.5 mg/L: warm-water aquatic life
Phosphorus	0.1549 mg/L (Columbia Slough 1998 TMDL)
Chlorophyll- <i>a</i>	0.015 mg/L
Pb	Based on hardness. Table 30 has formula
PCBs	Acute 2.0 ug/L, Chronic 0.014 ug/L (per Table 30)
Dieldrin	Acute 0.24 ug/L, Chronic 0.056 ug/L (per Table 30)
DDT/DDE	Acute 1.1 ug/L, Chronic 0.001 ug/L (per Table 30)
Dioxins	Fish tissue 0.07 ng/kg (Columbia Slough 1998 TMDL)
Mercury	Acute 2.4 ug/L, Chronic 0.012 ug/L (per Table 30)

### Non-TMDL WQ Constituents from OAR 340-41 Table 30

Metals	Based on hardness, formula in Table 30
pH	Between 6.5-8.5: same for all watersheds in the permit area (OAR 340-41)
DO	Not evaluated, since the criteria are for averages. Cold water aquatic life; spawning: 11 mg/L;

#### Analysis Coding for the Reported Data

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

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

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

**Dup** = Duplicate Sample    **MRL** = method reporting limits are included at the top of each data set where they are constant. For parameters were no

**FD** = Field Duplicate Sample

**Blank** = Deionized Water Sample

Exceedance of TMDL or other water quality criteria

Chronic exceedance of metal (Table 30)

Acute exceedance of metal (Table 30)

Cities of Gresham and Fairview Environmental Monitoring Data

Table A2.1 Instream-Long term Trend Sampling

Sample ID	Site ID	Date	Time	24-hr Rainfall	Field DO	Field pH	Field Temp	Conductivity	Turbidity	BOB5	DOC	TSS	NH3-N	Chlorophyll-a	NO3-N	Ca-PM	TKN	Total-P	Hardness	Hg-Total	Cu-Total	Pb-Total	Zn-Total	Cu-Diox	
				inches	mg/L		C	µS/cm	NTUs	mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg CaCO3/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Test Method		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B		SM 5210B	
Method Reporting Limit		2		2		2		2		2		2		2		2		2		2		2		2	
W16G28-01	FC01	7/26/2016	14:28	0.00	4.44	7.61	22.4	102.1	102.1	2.33	3	2	22	5.6	560	87	310	118	33.2	0.00100	1.630	0.188	5.1	0.762	
W16G28-02	FC01	7/26/2016	14:40	0.00	5.03	7.66	19.2	123.9	2.23	2	2	2	20	2	1300	66	210	70	115.0	0.00100	0.935	0.343	2.9	0.639	
W16G28-03	FC01	7/26/2016	14:50	0.00	5.39	8.08	25.8	141.0	22.07	9	36	36	20	94.1	1000	37	1250	252	70.2	0.00161	1.400	0.608	2.8	0.821	
W16G28-04	FC01	7/26/2016	15:02	0.00	5.84	7.82	21.0	98.4	6.43	4	5	5	54	2	370	49	440	70	42.5	0.00137	1.560	0.190	4.2	1.560	
W16G28-05	FC01	7/26/2016	15:12	0.00	6.21	8.21	22.5	102.1	6.84	5	6	6	43	2	700	43	380	68	36.5	0.00219	1.590	0.288	2.7	1.070	
W16G28-06	KC01	7/26/2016	15:22	0.00	4.25	7.52	22.5	68.4	1.41	4	2	2	20	2	700	43	470	56	47.3	0.00158	2.990	0.282	15.1	1.890	
W16G28-07	KC01	7/26/2016	15:32	0.00	2.09	7.10	18.2	72.6	7.69	10	6	6	20	2	1400	35	330	69	54.3	0.00168	1.360	0.100	20.4	0.892	
W16G28-08	K01	7/26/2016	11:39	0.00	6.34	7.57	17.9	75.9	4.47	2	2	2	20	2	1400	35	330	69	54.3	0.00168	1.360	0.100	20.4	0.892	
W16G28-09	K02	7/26/2016	10:15	0.00	5.35	7.27	16.3	74.7	3.33	2	2	2	20	2	1400	35	330	69	54.3	0.00168	1.360	0.100	20.4	0.892	
W16G28-10	BC01	7/26/2016	13:38	0.00	5.54	8.96	22.2	95.1	1.43	2	2	2	20	2	1200	68	310	98	71.5	0.00100	1.980	0.100	3.0	0.874	
W16G28-11	BC02	7/26/2016	12:05	0.00	6.19	7.58	19.5	67.5	5.20	2	2	2	20	2	1000	74	450	124	46.9	0.00154	2.140	0.150	3.2	1.330	
W16G28-12	FD-K01	7/26/2016	10:15	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-13	FC01	7/26/2016	14:52	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-14	FC01	7/26/2016	14:55	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-15	FC01	7/26/2016	14:58	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-16	FC01	7/26/2016	15:01	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-17	FC01	7/26/2016	15:04	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-18	FC01	7/26/2016	15:07	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-19	FC01	7/26/2016	15:10	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-20	FC01	7/26/2016	15:13	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-21	FC01	7/26/2016	15:16	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-22	FC01	7/26/2016	15:19	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-23	FC01	7/26/2016	15:22	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-24	FC01	7/26/2016	15:25	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-25	FC01	7/26/2016	15:28	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-26	FC01	7/26/2016	15:31	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-27	FC01	7/26/2016	15:34	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-28	FC01	7/26/2016	15:37	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-29	FC01	7/26/2016	15:40	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-30	FC01	7/26/2016	15:43	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-31	FC01	7/26/2016	15:46	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-32	FC01	7/26/2016	15:49	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-33	FC01	7/26/2016	15:52	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-34	FC01	7/26/2016	15:55	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-35	FC01	7/26/2016	15:58	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-36	FC01	7/26/2016	16:01	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-37	FC01	7/26/2016	16:04	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-38	FC01	7/26/2016	16:07	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-39	FC01	7/26/2016	16:10	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-40	FC01	7/26/2016	16:13	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-41	FC01	7/26/2016	16:16	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-42	FC01	7/26/2016	16:19	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-43	FC01	7/26/2016	16:22	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-44	FC01	7/26/2016	16:25	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-45	FC01	7/26/2016	16:28	0.10	5.46	7.23	13.8	65.6	2.80	2	2	2	20	2	1700	65	530	124	78.5	0.00164	2.150	0.231	3.7	1.560	
W16G28-46	FC01																								

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Table A-2. Instream-Long term Trend

Sample ID	Site ID	Date	Ph-Diox	Zn-Diox	E. coli	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	alpha-BHC	Alpha-BHC	beta-BHC	gamma-BHC	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone
			µg/L	µg/L	MPN/100ml	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L										
			EPA 206.8	EPA 206.8	SM 9222B	EPA 8061	EPA 8061	EPA 8061	EPA 8061	EPA 8061	EPA 8061										
			0.1	0.5	10	0.5-various	0.5-various	0.5-various	0.5-various	1.0-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various	0.5-various
Method Reporting Limit																					
W16G28-21	FC01	7/8/2016	0.1	2.83	170																
W16G28-42	FC01	7/8/2016	0.1	1.82	310																
W16G28-01	FV-1	7/8/2016	0.1	5.50	10																
W16G28-43	JC01	7/8/2016	0.1	3.38	85	1.1	1.1	1.1	1.1	1.2	1.1	2.9	1.1	2.2	1.9	4.2	1.1	1.1	1.1	3.7	1.1
W16G28-44	JC02	7/8/2016	0.1	7.85	4	1.2	3.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3	5.8	1.2	1.2	1.2	1.2	1.2	1.2
W16G28-45	KC01	7/8/2016	0.1	1.85	10																
W16G28-46	KC01	7/8/2016	0.1	5.20	62																
W16G28-47	KC04	7/8/2016	0.1	8.17	146																
W16G28-48	K11	7/8/2016	0.1	1.02	670																
W16G28-49	K12	7/8/2016	0.1	1.65	110																
W16G28-10	BC01	7/8/2016	0.1	1.88	31																
W16G28-11	BC02	7/8/2016	0.1	1.63	660																
W16G28-12	FD-K11	7/8/2016	0.1	1.02	1000																
W16201-41	FC00	10/5/2016	0.1	4.31	20																
W16201-42	FC01	10/5/2016	0.1	6.45	78																
W16201-43	FC01	10/5/2016	0.1	1.01	85																
W16201-44	JC01	10/5/2016	0.1	4.30	130	0.99	0.99	0.99	0.99	0.99	0.99	1.3	0.99	3.7	7.5	0.99	0.99	0.99	0.99	1.1	0.99
W16201-45	JC02	10/5/2016	0.1	1.73	45	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
W16201-46	KC01	10/5/2016	0.1	16.70	84																
W16201-47	KC03	10/5/2016	0.1	7.82	47																
W16201-48	K11	10/5/2016	0.1	6.07	146																
W16201-49	K12	10/5/2016	0.1	15.46	820																
W16201-10	BC01	10/5/2016	0.1	2.10	20																
W16201-11	BC02	10/5/2016	0.1	1.50	728																
W16201-12	FC00	10/5/2016	0.1	1.50	10																
W16201-13	FC01	10/5/2016	0.1	1.51	35																
W16201-14	FC02	10/5/2016	0.1	1.51	10																
W17A229	FV-1	10/1/2017	0.1	5.54	20																
W17A229-41	JC01	10/1/2017	0.1	0.99	10																
W17A229-42	JC02	10/1/2017	0.1	3.58	31	0.75	0.75	1	1	1	1	1	1	1.5	3.5	1	1	1	1	1	1
W17A229-43	JC03	10/1/2017	0.1	1.29	52	0.72	0.72	1.2	1.2	1.2	1.2	1.2	1.2	1.2	4.4	1.2	1.2	1.2	1.2	1.2	1.2
W17A229-44	JC04	10/1/2017	0.1	9.35	10																
W17A229-45	KC01	10/1/2017	0.1	5.08	10																
W17A229-46	KC02	10/1/2017	0.1	2.81	52																
W17A229-47	KC03	10/1/2017	0.1	3.18	110																
W17A229-48	K11	10/1/2017	0.1	1.33	10																
W17A229-49	K12	10/1/2017	0.1	2.33	10																
W17A229-50	BC01	10/1/2017	0.1	1.08	63																
W17A229-51	BC02	10/1/2017	0.1	1.08	63																
W17A229-52	FD-BC01	10/1/2017	0.1	3.11	42	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	1.4	0.98	0.98	0.98	0.98	0.98	0.98	0.98
W17E01-441	FC00	5/20/2017	0.1	3.29	52																
W17E01-442	FC01	5/20/2017	0.1	5.09	246																
W17E01-443	JC01	5/20/2017	0.1	0.813	110																
W17E01-444	JC02	5/20/2017	0.1	3.76	170	1	1	1	1	1	1	1	1	1	2.8	1	1	1	1	1	1
W17E01-445	JC03	5/20/2017	0.1	1.25	85	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.5	1.1	1.1	1.1	1.1	1.1	1.1
W17E01-446	KC01	5/20/2017	0.1	10	130																
W17E01-447	KC02	5/20/2017	0.1	8.29	95																
W17E01-448	K11	5/20/2017	0.1	3.31	110																
W17E01-449	K12	5/20/2017	0.1	2.29	82																
W17E01-450	BC01	5/20/2017	0.1	1.73	47																
W17E01-451	BC02	5/20/2017	0.1	0.891	98																
W17E01-452	FD-BC02	5/20/2017	0.1	1.42	97																

Analysis Coding for the Reported Data  
 Bold = < than detection value or an Estimated value for bael  
 N/A = constituents not sampled due to equipment failure or a  
 ND = Not Detected  
 Dup = Duplicate Sample  
 MRU =  
 Exceedance of TMDL or other water quality criteria  
 Chronic exceedance of metal (Table 30)  
 Acute exceedance of metal (Table 30)  
 Exceedance of City WPCF Permit action level

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Table A2. Instream-Long Term Trend									
Sample ID	Site ID	Date	gamma-Chlordane ng/L	Heptachlor ng/L	Heptachlor Epoxide ng/L	Methoxychlor ng/L	Toxaphene ng/L	Test Method	EPA 8081
Method Reporting Limit									
Sample ID	Site ID	Date	gamma-Chlordane ng/L	Heptachlor ng/L	Heptachlor Epoxide ng/L	Methoxychlor ng/L	Toxaphene ng/L	Test Method	EPA 8081
Method Reporting Limit									
W16G338-21	FC01	7/8/2016							
W16G338-42	FC11	7/8/2016							
W16G338-01	FV11	7/8/2016							
W16G338-03	JG11	7/8/2016	1.1	1.1	1.1	1.1	1.1	480	
W16G338-04	JG12	7/8/2016	3.1	1.2	1.2	1.2	1.2	57	
W16G338-05	KC11	7/8/2016							
W16G338-06	KC12	7/8/2016							
W16G338-07	KC13	7/8/2016							
W16G338-08	KC14	7/8/2016							
W16G338-09	K11	7/8/2016							
W16G338-10	K12	7/8/2016							
W16G338-11	BC11	7/8/2016							
W16G338-12	BC12	7/8/2016							
W16G338-13	FC11	10/5/2016							
W16G338-14	FC12	10/5/2016							
W16G338-15	FV11	10/5/2016	0.99	0.99	0.99	0.99	0.99	50	
W16G338-16	JG11	10/5/2016	0.97	0.97	0.97	0.97	0.97	49	
W16G338-17	JG12	10/5/2016							
W16G338-18	KC11	10/5/2016							
W16G338-19	KC12	10/5/2016							
W16G338-20	KC13	10/5/2016							
W16G338-21	KC14	10/5/2016							
W16G338-22	K11	10/5/2016							
W16G338-23	K12	10/5/2016							
W16G338-24	BC11	10/5/2016							
W16G338-25	BC12	10/5/2016							
W16G338-26	FC11	10/5/2016							
W16G338-27	FC12	10/5/2016							
W16G338-28	FV11	10/5/2016							
W16G338-29	FV12	10/5/2016							
W16G338-30	JG11	10/5/2016							
W16G338-31	JG12	10/5/2016							
W16G338-32	KC11	10/5/2016							
W16G338-33	KC12	10/5/2016							
W16G338-34	KC13	10/5/2016							
W16G338-35	KC14	10/5/2016							
W16G338-36	K11	10/5/2016							
W16G338-37	K12	10/5/2016							
W16G338-38	BC11	10/5/2016							
W16G338-39	BC12	10/5/2016							
W16G338-40	FC11	10/5/2016							
W16G338-41	FC12	10/5/2016							
W16G338-42	FV11	10/5/2016							
W16G338-43	FV12	10/5/2016							
W16G338-44	JG11	10/5/2016							
W16G338-45	JG12	10/5/2016							
W16G338-46	KC11	10/5/2016							
W16G338-47	KC12	10/5/2016							
W16G338-48	KC13	10/5/2016							
W16G338-49	KC14	10/5/2016							
W16G338-50	K11	10/5/2016							
W16G338-51	K12	10/5/2016							
W16G338-52	BC11	10/5/2016							
W16G338-53	BC12	10/5/2016							
W16G338-54	FC11	10/5/2016							
W16G338-55	FC12	10/5/2016							
W16G338-56	FV11	10/5/2016							
W16G338-57	FV12	10/5/2016							
W16G338-58	JG11	10/5/2016							
W16G338-59	JG12	10/5/2016							
W16G338-60	KC11	10/5/2016							
W16G338-61	KC12	10/5/2016							
W16G338-62	KC13	10/5/2016							
W16G338-63	KC14	10/5/2016							
W16G338-64	K11	10/5/2016							
W16G338-65	K12	10/5/2016							
W16G338-66	BC11	10/5/2016							
W16G338-67	BC12	10/5/2016							
W16G338-68	FC11	10/5/2016							
W16G338-69	FC12	10/5/2016							
W16G338-70	FV11	10/5/2016							
W16G338-71	FV12	10/5/2016							
W16G338-72	JG11	10/5/2016							
W16G338-73	JG12	10/5/2016							
W16G338-74	KC11	10/5/2016							
W16G338-75	KC12	10/5/2016							
W16G338-76	KC13	10/5/2016							
W16G338-77	KC14	10/5/2016							
W16G338-78	K11	10/5/2016							
W16G338-79	K12	10/5/2016							
W16G338-80	BC11	10/5/2016							
W16G338-81	BC12	10/5/2016							
W16G338-82	FC11	10/5/2016							
W16G338-83	FC12	10/5/2016							
W16G338-84	FV11	10/5/2016							
W16G338-85	FV12	10/5/2016							
W16G338-86	JG11	10/5/2016							
W16G338-87	JG12	10/5/2016							
W16G338-88	KC11	10/5/2016							
W16G338-89	KC12	10/5/2016							
W16G338-90	KC13	10/5/2016							
W16G338-91	KC14	10/5/2016							
W16G338-92	K11	10/5/2016							
W16G338-93	K12	10/5/2016							
W16G338-94	BC11	10/5/2016							
W16G338-95	BC12	10/5/2016							
W16G338-96	FC11	10/5/2016							
W16G338-97	FC12	10/5/2016							
W16G338-98	FV11	10/5/2016							
W16G338-99	FV12	10/5/2016							
W16G338-100	JG11	10/5/2016							
W16G338-101	JG12	10/5/2016							
W16G338-102	KC11	10/5/2016							
W16G338-103	KC12	10/5/2016							
W16G338-104	KC13	10/5/2016							
W16G338-105	KC14	10/5/2016							
W16G338-106	K11	10/5/2016							
W16G338-107	K12	10/5/2016							
W16G338-108	BC11	10/5/2016							
W16G338-109	BC12	10/5/2016							
W16G338-110	FC11	10/5/2016							
W16G338-111	FC12	10/5/2016							
W16G338-112	FV11	10/5/2016							
W16G338-113	FV12	10/5/2016							
W16G338-114	JG11	10/5/2016							
W16G338-115	JG12	10/5/2016							
W16G338-116	KC11	10/5/2016							
W16G338-117	KC12	10/5/2016							
W16G338-118	KC13	10/5/2016							
W16G338-119	KC14	10/5/2016							
W16G338-120	K11	10/5/2016							
W16G338-121	K12	10/5/2016							
W16G338-122	BC11	10/5/2016							
W16G338-123	BC12	10/5/2016							
W16G338-124	FC11	10/5/2016							
W16G338-125	FC12	10/5/2016							
W16G338-126	FV11	10/5/2016							
W16G338-127	FV12	10/5/2016							
W16G338-128	JG11	10/5/2016							
W16G338-129	JG12	10/5/2016							
W16G338-130	KC11	10/5/2016							
W16G338-131	KC12	10/5/2016							
W16G338-132	KC13	10/5/2016							
W16G338-133	KC14	10/5/2016							
W16G338-134	K11	10/5/2016							
W16G338-135	K12	10/5/2016							
W16G338-136	BC11	10/5/2016							
W16G338-137	BC12	10/5/2016							
W16G338-138	FC11	10/5/2016							
W16G338-139	FC12	10/5/2016							
W16G338-140	FV11	10/5/2016							
W16G338-141	FV12	10/5/2016							
W16G338-142	JG11	10/5/2016							
W16G338-143	JG12	10/5/2016							
W16G338-144	KC11	10/5/2016							
W16G338-145	KC12	10/5/2016							
W16G338-146	KC13	10/5/2016							
W16G338-147	KC14	10/5/2016							
W16G338-148	K11	10/5/2016							
W16G338-149	K12	10/5/2016							
W16G338-150	BC11	10/5/2016							
W16G338-151	BC12	10/5/2016							
W16G338-152	FC11	10/5/2016							
W16G338-153	FC12	10/5/2016							
W16G338-154	FV11	10/5/2016							
W16G338-155	FV12	10/5/2016							
W16G338-156	JG11	10/5/2016							
W16G338-157	JG12	10/5/2016							
W16G338-158	KC11	10/5/2016							
W16G338-159	KC12	10/5/2016							
W16G338-160	KC13	10/5/2016							
W16G338-161	KC14	10/5/2016							
W16G338-162	K11	10/5/2016							
W16G338-163	K12	10/5/2016							
W16G338-164	BC11	10/5/2016							
W16G338-165	BC12	10/5/2016							
W16G338-166	FC11	10/5/2016							
W16G338-167	FC12	10/5/2016							
W16G338-168	FV11	10/5/2016							
W16G338-1									

**Cities of Gresham and Fairview Environmental Monitoring Data**

**Table A3 Continuous Temperature Monitoring**

Site	Basin	Stream	Max 7DADM (*C)	days 7DADM >18*C
Beaver_USKellyConfl	Beaver	Beaver	22.2	87
Beaver_GlenOtto	Beaver	Beaver	22.8	127
Beaver_DSKellyConfl	Beaver	Beaver	23.8	128
Beaver_302nd	Beaver	Beaver	20.9	55
Beaver_Corry	Beaver	Beaver	20.8	67
Beaver_SouthFork_302nd	Beaver	South Fork	17.1	0
Kelly_aboveMHCC_KCI2	Beaver	Kelly	21.8	83
Kelly_KCDPoutlet_KCI3	Beaver	Kelly	18.8	31
Kelly_USGolfCourse	Beaver	Kelly	18.9	16
KellyBelowMHCC_KCI1	Beaver	Kelly	24.0	142
Fairview_ConiferPark_FC11	Fairview	Fairview	19.3	44
Fairview_Division	Fairview	Fairview	20.7	49
Fairview_Birdsdale	Fairview	Fairview	21.5	90
Fairview_223rd_FC10	Fairview	Fairview	22.8	128
Fairview_Glisan	Fairview	Fairview	25.9	181
Brigman_DSInlinePonds	Johnson	Brigman	22.6	135
Brigman_USInlinePonds	Johnson	Brigman	23.5	87
BUC1	Johnson	Butler	19.9	33
BUC2	Johnson	Butler	20.5	55
BUC4	Johnson	Butler	21.1	79
BUC3	Johnson	Butler	23.2	96
Hogan_USGolfCourse	Johnson	Hogan	15.3	0
Hogan_USCedarLake	Johnson	Hogan	19.4	34
Hogan_DSgolfCourse	Johnson	Hogan	20.2	58
Hogan_DSCedarLake	Johnson	Hogan	24.6	159
Johnson_DSBrigman_53	Johnson	Johnson	21.0	62
Johnson_282nd	Johnson	Johnson	21.1	70
Johnson_RobertsPropUSBeaverDam	Johnson	Johnson	21.4	80
Johnson_RobertsPropDSBeaverDam	Johnson	Johnson	21.6	83
Johnson_Palmblad_JCI2	Johnson	Johnson	21.9	83
Johnson_USNechacokee	Johnson	Johnson	22.7	87
Johnson_USOcciotoBeaverDam	Johnson	Johnson	23.1	95
Johnson_Sycamore max	Johnson	Johnson	23.3	92
Johnson_Regner max	Johnson	Johnson	23.4	87
Johnson_DSHighland_41	Johnson	Johnson	23.5	103
Johnson_NorthFork_HeadwatersFarm	Johnson	North Fork	17.8	0
Kelley_190th	Johnson	Kelley	19.0	29
Kelley_USBrooksideOutfall	Johnson	Kelley	19.3	14
Kelley_PVG_KI1	Johnson	Kelley	20.0	52

7 Day Average of the Daily Maximum=7DADM

Red = temperature exceedances for more than 100 days

Blue = no temperature exceedances

Temperature is not a pollutant associated with stormwater runoff since the rainy season does not coincide with summer temperatures. This data is provided to help the reader understand the general condition and impacts to streams in Gresham and Fairview.



Cities of Gresham and Fairview Environmental Monitoring Data

A4 Stormwater SA

Lab ID	System_ID	Trips per Day	Land Use	Functional Class	Date	Time	Acenaph- thylene	Anthra- cene	Benzo(a)- anthra- cene	Benzo(b)- fluoran- thene	Benzo(ghi)- perylene	Benzo(k)- fluoran- thene	Dibenzo (a,h)ant hracene	Fluoran- thene	Indeno- (1,2,3- cd)pyrene	Phenan- threne	Pyrene	Butyl benzyl phthalate	Di-n- butyl phthalate	Dimethy- l phthalate	Di-n- octyl phthalate	Di-(2- ethyl- hexyl)- phthalate
Method Reporting Limit							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
							MFPN/10 0ml															
W16S115-07294-W-010	<1000		Residential	Residential	10/13/2018	15:00	0.020	0.020	0.010	0.011	0.024	0.023	0.010	0.010	0.022	0.011	0.020	0.018	0.020	0.018	0.020	0.017
W16S115-093148-W-014	>1000		Residential	Community	10/13/2018	15:30	0.020	0.020	0.010	0.010	0.015	0.033	0.010	0.010	0.027	0.020	0.054	0.010	0.010	0.010	0.010	0.010
W16S115-083248-W-085	>1000		Commercial	Minor Arterial	10/13/2018	10:50	0.020	0.027	0.050	0.061	0.100	0.180	0.030	0.081	0.014	0.200	0.330	0.100	0.100	0.100	0.100	0.051
W16S115-043056-W-027	<1000		Residential	Residential	10/13/2018	14:40	0.020	0.020	0.010	0.010	0.015	0.014	0.010	0.010	0.100	0.010	0.020	0.012	0.010	0.010	0.010	0.010
W16S115-083056-F-017	>1000		Vacant	Minor Arterial	10/13/2018	12:20	0.020	0.020	0.010	0.010	0.017	0.022	0.010	0.010	0.100	0.019	0.030	0.010	0.010	0.010	0.010	0.010
W16S115-083150-F-030	>1000		Residential	Residential	10/13/2018	12:50	0.020	0.020	0.010	0.010	0.011	0.013	0.010	0.010	0.100	0.010	0.020	0.014	0.010	0.010	0.010	0.010
W16S115-073151-F-064	>1000		Commercial	Collector	10/13/2018	11:40	0.020	0.020	0.010	0.010	0.018	0.032	0.010	0.010	0.035	0.020	0.068	0.010	0.010	0.010	0.010	0.010
W16S115-083151-F-032	<1000		Residential	Residential	10/13/2018	14:20	0.020	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.100	0.010	0.010	0.010	0.010	0.010	0.010	0.010
W16S115-083251-F-013	<1000		Residential	Residential	10/13/2018	13:50	0.020	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.100	0.010	0.010	0.010	0.010	0.010	0.010	0.010
W16S115-103153-F-040	<1000		Residential	Residential	10/13/2018	9:57	0.020	0.020	0.010	0.010	0.015	0.023	0.010	0.010	0.100	0.019	0.020	0.031	0.010	0.010	0.010	0.010
W16S115-11FD							0.020	0.020	0.010	0.010	0.010	0.010	0.010	0.100	0.010	0.010	0.012	0.010	0.010	0.010	0.010	0.010

Analytic Coding for the Reported Data

Bold = < than detection value or an Estimated value for bacteria  
 NA = constituents not sampled due to equipment failure or other extenuating circumstance  
 NM= not met NP= not detected  
 Dup = Duplicate Sample  
 MR1 = method reporting limits are included at the top of each data s  
 means they vary by sample  
 PD = Field Duplicate Sample

Cities of Gresham and Fairview Environmental Monitoring Data

1.4 Stormwater SA										Stormwater Sampling									
Lab ID	System_ID	Trips per Day	Land Use	Functional Class	Date	Time	2.4.5-T	2.4.5-TP (Silvex)	2.4-D	2.4-DB	Acifluorfen	Bentazon	3,5-Dichloro benzoic acid	Dicamba	Dichlorprop	Dimoseb	Pentachlorophenol		
Method Reporting Limit							0.040 ug/L	0.040 ug/L	0.040 ug/L	0.040 ug/L	0.040 ug/L	0.040 ug/L	0.200 ug/L	0.040 ug/L	0.040 ug/L	0.040 ug/L	0.040 ug/L		
W16S/J15-07/2347-M-010		<1000	Residential	Residential	10/13/2016	15:00	<0.100	<0.100	<0.0200	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.056		
W16S/J15-08/3146-W-014		>1000	Residential	Community	10/13/2016	15:30	<0.100	<0.100	<0.0201	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.062		
W16S/J15-08/3245-W-055		>1000	Commercial	Minor Arterial	10/13/2016	10:50	<0.100	<0.100	<0.0202	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	2.270		
W16S/J15-04/3055-W-027		<1000	Residential	Residential	10/13/2016	14:40	<0.100	<0.100	<0.0203	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.030		
W16S/J15-08/3055-F-017		>1000	Vacant	Minor Arterial	10/13/2016	12:20	<0.100	<0.100	<0.0204	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	3.570		
W16S/J15-08/3150-F-030		>1000	Residential	Residential	10/13/2016	12:50	<0.100	<0.100	<0.0205	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.143		
W16S/J15-07/3151-F-064		>1000	Commercial	Collector	10/13/2016	11:40	<0.100	<0.100	<0.0206	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.058		
W16S/J15-08/3151-F-032		<1000	Residential	Residential	10/13/2016	14:20	<0.100	<0.100	<0.0207	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.024		
W16S/J15-08/3251-F-013		<1000	Residential	Residential	10/13/2016	13:50	<0.100	<0.100	<0.0208	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.027		
W16S/J15-10/3153-F-040		<1000	Residential	Residential	10/13/2016	9:57	<0.100	<0.100	<0.0209	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.040		
W16S/J15-11/FD							<0.100	<0.100	<0.0210	<0.400	<0.200	<0.400	<0.200	<0.200	<0.400	<0.400	0.131		

Analysis Coding for the Reported Data

- Bold = < than detection value or an Estimated value for bacteria
- NA = constituents not sampled due to equipment failure or other extenuating circumstance
- NM = not met ND= not detected
- Dup = Duplicate Sample
- FD = Field Duplicate Sample
- MRL = method reporting limits are included at the top of each data sheet means they vary by sample

Cities of Gresham and Fairview Environmental Monitoring Data

A5: Stormwater BMP Monitoring Data

Sample ID	Site ID	Point Code	Date	Storm	24-hr Rainfall inches	Field DO mg/L	Field pH	Field Temp C	Conductivity uS/cm	Turbidity NTUs	NH3-N ug/L	BOD5 ug/L	NO3-N ug/L	O-PO4 ug/L	TKN ug/L	Total-P ug/L	TSS mg/L	Hardness mg CaCO3/L	Cu mg/L	Mg mg/L	Hg Total ug/L	DOC ug/L	
W16K148-01		BrookBub-1	9/17/2016	1	0.88 NA	NA	15.1 NA			68.2	142	9	180	56	1150	207	38	22.7	7.4	1.02	0.0713	1.9	
W16K148-02		BRF-1	9/17/2016	1	0.88 NA	NA	16.6 NA			58.8	467	21	360	115	2490	275	91	46	13.7	2.9	0.0128	23.9	
W16K148-03		BRF-2	9/17/2016	1	0.88 NA	NA	14.7 NA			15.2	20	2	140	108	670	128	2	105	21.8	13.2	0.00132	5.78	
W16K152-01		BrookBub-2	9/17/2016	1	0.88 NA	NA	17.6 NA			7.95	20	3	740	53	620	92	6	26.6	7.89	2.11	0.00333	8.71	
W16K152-02		BRF-1	9/17/2016	1	0.88 NA	NA	17.6 NA			26.7	21	4	270	63	780	130	14	26.6	6.83	2.32	0.00336	8.77	
W16K152-03		BRF-2	9/17/2016	1	0.88 NA	NA	16.9 NA			16.8	20	3	220	67	580	105	5	86.1	21.4	8.43	0.00264	8.03	
W16K152-04		BrookBub-3	9/17/2016	1	0.88 NA	NA	19 NA			10.7	20	2	1600	49	630	87	4	50.7	1.3	4.4	0.0027	6.85	
W16K152-05		BRF-3	9/17/2016	1	0.88 NA	NA	17.6 NA			15.3	20	2	840	61	490	109	5	55.4	13.3	5.37	0.00281	5.53	
W16K062-01		CSWQF-1	11/5/2016	2	0.25	9.85	6.22	14.2	15.1	11.9					430	53	540	96	5	41.4	10.3	0.00199	5.47
W16K062-02		CSWQF-2	11/5/2016	2	0.25	7.2	6.93	14.3	17.2	24.7	41	7	290	81	590	164	35	15.9	4.58	1.06	0.0062	8.76	
W16K062-03		CSWQF-3	11/5/2016	2	0.26	6.99	6.83	14.2	45.5	14	41	5	1300	91	480	128	8	15.8	4.37	1.2	0.00643	7.87	
W16K062-04		CSWQF-4	11/5/2016	2	0.26	6.91	6.89	13.8	55.3	14.6	26	2	1800	63	340	90	4	58.3	14.9	5.12	0.00121	2.06	
W16K062-05		CSWQF-5	11/5/2016	2	0.26	5.59	6.88	13.7	51	8.5	20	2	1300	69	420	98	12	50.6	13.1	4.36	0.00277	3.16	
W16K062-06		CSWQF-6	11/5/2016	2	0.67	6.75	6.21	14.5	7.2	36.6	20	5	110	41	650	214	11	10	2.95	0.646	0.00589	3.7	
W16K062-07		CSWQF-7	11/5/2016	2	0.67	7.75	7.02	14.5	7.9	32.4	20	5	110	53	470	135	117	9.29	2.7	0.619	0.0126	4.52	
W16K062-08		CSWQF-8	11/5/2016	2	0.81	6.23	6.56	14.5	7.9	22.8	38	3	120	46	430	123	16	9.27	2.64	0.651	0.00447	2.98	
W16K062-09		CSWQF-9	11/5/2016	2	0.81	2.56	6.45	14.2	26.5	27.4	20	3	160	46	480	140	19	12.6	3.48	0.96	0.0049	3.84	
W16K062-10		CSWQF-10	11/5/2016	2	1.14	3.35	6.02	14.3	18.1	23.5	20	3	120	30	330	108	19	10.6	2.97	0.77	0.00449	3.07	
W16K062-11		CSWQF-11	11/5/2016	2	1.14	2.42	6.8	13.6	8.9	14.8	21	2	170	36	280	78	9	10.1	3.84	1.1	0.00299	3.09	
W16K062-12		CSWQF-12	11/5/2016	2	1.14	2.48	6.58	13.6	9.4	15.5	20	2	160	34	270	68	8	10.4	3.94	0.891	0.00229	2.02	
W16K062-13		CSWQF-13	11/5/2016	2	1.21	2.13	6.29	14.2	14.7	17.4	21	2	220	60	320	132	5	14.1	3.84	1.1	0.00299	3.09	
W16K129-01		BRF-1	11/4/2016	3	0.63	9.24	6.97	13.8	15.9	14.6	36	2	280	67	370	125	16	16	4.33	1.25	0.00345	3.81	
W16K129-02		BRF-2	11/4/2016	3	0.88	5.32	6.62	13.2	27.1	92.8	20	2	630	100	970	216	24	30.5	7.7	2.74	0.00707	6.13	
W16K129-03		BRF-3	11/4/2016	3	1.23	4.65	6.99	13.1	26.9	153	22	2	690	149	900	371	48	27.8	6.85	2.6	0.0073	6.19	
W16K129-04		BRF-4	11/4/2016	3	0.63	7.95	6.81	13.6	29.4	34.2	20	2	540	46	480	102	3	30.8	7.42	2.87	0.00348	4.5	
W16K129-05		BRF-5	11/4/2016	3	0.89	4.21	6.83	13	26.8	79.7	20	2	620	77	700	161	12	28.5	6.95	2.7	0.0053	5.48	
W16K129-06		BRF-6	11/4/2016	3	1.38	4.71	7.13	13.2	24.6	148	20	2	650	119	830	257	33	26.3	6.53	2.43	0.00736	6.08	
W16K129-07		HMPB121-1	11/4/2016	4	0.68	8.25	7.34	12.5	6.4	174	20	2	100	20	390	173	187	17.3	4.98	1.17	0.0085	1.23	
W16K129-08		HMPB122-1	11/4/2016	4	0.68	7.33	6.97	13	34.9	145	20	2	630	85	750	284	33	40.9	10.8	3.38	0.00898	6.21	
W16K129-09		HMPA71	11/4/2016	4	0.78	7.2	6.77	12.3	38.9	30.2	57	2	100	33	340	67	4	43	13.2	2.43	0.00283	2.67	
W16K129-10		HMPA21	11/4/2016	4	0.78	4.77	6.46	12.3	11.3	135	20	2	100	20	380	107	59	15.6	4.34	1.15	0.00622	2.63	
W16K129-11		HMPA22	11/4/2016	4	0.78	5.58	6.37	12.7	75.8	340	33	4	2300	618	2310	1950	57	66.5	18.3	5.04	0.024	18.3	
W16K129-12		HMPA23	11/4/2016	4	0.89	5.05	6.74	12.5	42.9	4.75	20	5	440	339	1400	812	141	47.9	12.2	4.23	0.0036	11.8	
W16K129-13		HMPB12	11/4/2016	4	0.98	4.26	6.96	13	120.2	288	27	3	5400	187	2540	1670	2980	194	31.1	6.37	0.0057	15.4	
W16K129-14		HMPB11	11/4/2016	4	0.98	4.26	6.96	13	120.2	288	27	3	5400	187	2540	1670	2980	194	31.1	6.37	0.0057	15.4	
W16K129-15		HMPB12-2	11/4/2016	4	0.98	4.26	6.96	13	120.2	288	27	3	5400	187	2540	1670	2980	194	31.1	6.37	0.0057	15.4	
W16K129-16		HMPB151	11/4/2016	4	0.98	5.08	6.85	12.5	4.5	139	20	2	100	20	2400	182	214	11.1	5.27	0.988	0.00743	1	
W16K129-17		HMPB152	11/4/2016	4	0.98	5.49	7.16	12.6	54.3	112	20	2	100	20	2400	182	214	11.1	5.27	0.988	0.00743	1	
W16K129-18		HMPB153	11/4/2016	4	1.23	6.6	6.51	12.7	54.3	306	20	4	2300	144	1620	558	94	61.3	3.3	0.705	0.00652	1	
W16K129-19		HMPB154	11/4/2016	4	1.23	5.41	6.42	13.1	98.8	405	34	5	110	230	3040	890	97	108	27.6	5.03	0.0178	12.2	
W16K047-01		KanePO_1	3/7/2017	5	0.32	11.65	6.12	8.5	19.9 NA	65	2	330	23	460	79	20	21.2	5.81	1.82	0.00368	2.16		
W16K047-02		KanePO_2	3/7/2017	5	0.32	10.78	6.38	7.9	23.2 NA	128	3	460	23	790	158	78	23.7	6.52	1.8	0.00518	1.89		
W16K047-03		KanePO_3	3/7/2017	5	0.32	10.78	6.38	7.9	23.2 NA	128	3	460	23	790	158	78	23.7	6.52	1.8	0.00518	1.89		
W16K047-04		KanePO_4	3/7/2017	5	0.32	15.37	6.4	7.4	11.3 NA	264	7	100	20	1370	288	198	20.7	5.52	1.89	0.0045	2.82		

Cities of Gresham and Fairview Environmental Monitoring Data

AS: Stormwater BMP Monitoring Data

Sample ID	Site ID	Point Code	Date	Storm	24-hr Rainfall inches	Field DO mg/L	Field pH	Field Temp C	Conductivity uS/cm	Turbidity NTUs	NH3-N ug/L	BOD5 ug/L	NO3-N ug/L	O-PO4 ug/L	TKN ug/L	Total-P ug/L	TSS mg/L	Hard- ness mg CaCO3/ L	Ca mg/L	Mg mg/L	Hg- Total ug/L	DOC ug/L
W17C047-06	Kane Road Full Penivous	KanePP_2	3/7/2017	5	0.38	9.75	6.55	8.1	23.5	NA	41	2	440	33	440	77	15	26	7.1	2.01	0.00412	2.44
W17C047-06	Kane Road Penivous Overflow	KanePO_2	3/7/2017	5	0.32	12.88	6.58	7.5	20.3	NA	90	2	590	31	450	91	24	21.3	6.04	1.51	0.00327	2.95
W17C047-07	Kane Road Impenivous	KaneIC_2	3/7/2017	5	0.38	6.89	7.06	8.2	14	NA	263	4	140	20	1060	208	114	20.5	5.3	1.76	0.00413	3.14
W17C047-08	Kane Road Impenivous with Contact filter cartridges	KaneIC_2	3/7/2017	5	0.38	10.07	6.57	7.4	14.5	NA	230	3	100	20	750	127	67	19	5.35	1.38	0.00394	2.59
W17C047-09	Kane Road Full Penivous	KanePP_3	3/7/2017	5	0.48	5.54	6.49	7.9	18.1	NA	54	2	230	28	520	80	25	20.6	5.75	1.52	0.00437	2.11
W17C047-10	Kane Road Penivous Overflow	KanePO_3	3/7/2017	5	0.48	6.64	6.54	7.6	19.3	NA	99	2	510	30	500	113	36	20.9	5.69	1.46	0.00394	2.22
W17C047-11	Kane Road Impenivous	KaneIC_3	3/7/2017	5	0.59	6.54	6.67	7.9	10.2	NA	212	3	100	20	740	106	73	12.7	3.4	1.03	0.00371	2.78
W17E090-01	Kane Road Impenivous with Contact filter cartridges	KaneIC_3	3/7/2017	5	0.48	6.23	6.65	7.6	11.1	NA	239	3	100	20	810	153	82	16.4	4.47	1.28	0.00431	2.3
W17E090-01	Hayden's Meadow rain garden B12 Portland blend inlet	HMPB12-1	5/11/2017	6	0.22	8.02	6.69	15.1	78.8	387	490	14	140	46	1400	364	160	55.2	18.5	2.21	0.0127	14.9
W17E090-02	Hayden's Meadow rain garden A7 Portland blend outlet	HMPA7-1	5/11/2017	6	0.23	8.46	6.79	13.1	137.4	166	30	10	280	95	1020	287	71	76.1	23	4.55	0.0173	16.3
W17E090-03	Hayden's Meadow rain garden A7 Gresham blend inlet	HMGSA7-1	5/11/2017	6	0.28	6.01	6.62	15.7	52.7	74.2	30	6	100	23	820	134	100	38.6	13.3	1.3	0.00634	9.05
W17E090-04	Hayden's Meadow rain garden A7 Gresham blend outlet	HMGSA7-2	5/11/2017	6	0.28	6.29	7.64	14.1	113	34	21	3	100	127	740	194	17	57.5	18	3.07	0.00639	11
W17E090-05	Hayden's Meadow rain garden A2 Portland blend inlet	HMPA2-1	5/11/2017	6	0.28	6.36	6.67	14.2	85.4	222	63	22	120	46	1200	317	184	82.2	29.2	2.23	0.0182	20.8
W17E090-06	Hayden's Meadow rain garden A2 Portland blend outlet	HMPA2-2	5/11/2017	6	0.28	5.9	7.91	14.3	168.1	86.2	80	6	150	45	1100	198	132	91.9	31.3	3.36	0.00632	12.4
W17E090-07	Hayden's Meadow rain garden B15 Gresham blend inlet	HMGSA15-1	5/11/2017	6	0.22	8.83	6.34	15.9	29.8	48.4	42	7	100	29	650	75	52	11.7	3.86	0.511	0.00753	12.3
W17E090-08	Hayden's Meadow rain garden B15 Gresham blend outlet	HMGSA15-2	5/11/2017	6	0.23	8.95	6.59	12.9	95.4	40.9	20	4	230	105	820	162	38	46.4	13.3	3.2	0.00683	11.4

Analysis Coding for the Reported Data

**BD** = < than detection value or an Estimated value for bacteria  
**NA** = constituents not sampled due to equipment failure or other extenuating circumstance  
**NM** = not measured  
**ND** = not detected  
**Dup** = Duplicate Sample  
**FD** = Field Duplicate Sample  
 where they are constant. For parameters where no MRL is included, this means they vary by sample.

Cities of Gresham and Fairview Environmental Monitoring Data

A5: Stormwater BMP Monitoring Data

Sample ID	Site ID	Point Code	Date	Storm	24-hr Rainfall inches	Cu-Dissolv. ug/L	Pb-Dissolv. ug/L	Zn-Dissolv. ug/L	Cu- Total ug/L	Pb- Total ug/L	Zn- Total ug/L	E. coli MPN/100ml	2,4,5-T ug/L	2,4-D ug/L	2,4-DB ug/L	2,4,5-TP (Silvex) ug/L	Acifluor-fen ug/L	Benazon ug/L	Dicamba ug/L
W16108-01	Street runoff at Brookside	BrookBub-1	9/17/2016		0.88	0.2	0.1	0.5	0.2	0.1	0.5	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16108-02	Brookside regional facility inlet	BRF-1	9/17/2016		0.88	21.1	0.1	9.88	17.6	1.8	31.7	1600	0.1	0.428	0.4	0.1	0.2	0.4	0.2
W16108-03	Brookside regional facility outlet	BRF-2	9/17/2016		0.88	1.07	0.1	8.37	18.4	1.33	133	3000	0.1	10.7	0.4	0.1	0.2	0.4	0.2
W16152-01	Street runoff at Brookside	BrookBub-2	9/17/2016		0.88	4.47	0.1	4.44	4.52	0.131	7.12	860	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16152-02	Brookside regional facility inlet	BRF-1-2	9/17/2016		0.88	5.48	0.1	15.7	7.45	0.656	27.7	1600	0.1	4.28	0.4	0.1	0.2	0.4	0.2
W16152-03	Brookside regional facility outlet	BRF-2-2	9/17/2016		0.88	3.52	0.1	7.84	4.18	0.197	11	1700	0.1	2.37	0.4	0.1	0.2	0.4	0.2
W16152-04	Street runoff at Brookside	BrookBub-3	9/17/2016		0.88	3.95	0.1	2.87	4.67	0.1	4.08	1200	0.1	1.37	0.4	0.1	0.2	0.4	0.2
W16152-05	Brookside regional facility inlet	BRF-1-3	9/17/2016		0.88	3	0.1	9.96	3.99	0.182	14.1	3400	0.1	1.14	0.4	0.1	0.2	0.4	0.2
W16152-06	Brookside regional facility outlet	BRF-2-3	9/17/2016		0.88	2.88	0.1	6.54	3.64	0.186	11.4	3000	0.1	2.22	0.4	0.1	0.2	0.4	0.2
W16K062-01	CSWDF Stormdrain Creek	CSUB-1	11/5/2016		0.25	4.83	0.32	130	9.95	2.44	182	580	0.1	0.285	0.4	0.1	0.2	0.4	0.2
W16K062-02	CSWDF Main outfall from calls 1 and 2	CSUB-1	11/5/2016		0.25	4.33	0.228	113	7.16	1.42	142	900	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-03	CSWDF upstream of beaver dam at first rock terrace	CSUSB-1	11/5/2016		0.26	3.43	0.197	46	5.24	0.958	89.7	420	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-04	CSWDF downstream of beaver dam at last rock terrace	CSUSB-1	11/5/2016		0.26	0.853	0.1	19.3	1.24	0.213	23.1	710	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-05	CSWDF Outlet	CSWQF-1	11/5/2016		0.67	2.51	0.192	31.5	11.1	3.74	90.3	13000	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-06	CSWDF Stormdrain Creek	CSUB-2	11/5/2016		0.87	2.2	0.2	28.4	21.7	11.6	205	20000	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-07	CSWDF Main outfall from calls 1 and 2	CSUB-2	11/5/2016		0.81	2.38	0.1	24.2	4.96	1.31	41.5	11000	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-08	CSWDF upstream of beaver dam at first rock terrace	CSDSB-2	11/5/2016		0.81	2.39	0.149	26.9	6.71	2.15	56.6	9200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-09	CSWDF downstream of beaver dam at last rock terrace	CSWQF-2	11/5/2016		0.81	2.34	0.111	26.9	5.4	1.59	44.9	9200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-10	CSWDF Outlet	CSWQF-3	11/5/2016		1.14	1.68	0.1	21.4	3.3	0.978	34.3	9200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-11	CSWDF Stormdrain Creek	CSL-3	11/5/2016		1.14	1.58	0.1	19.4	2.73	0.79	28.1	4100	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-12	CSWDF upstream of beaver dam at first rock terrace	CSUSB-3	11/5/2016		1.14	1.4	0.1	16.7	2.78	0.795	27.6	2500	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K062-13	CSWDF downstream of beaver dam at last rock terrace	CSWQF-3	11/5/2016		1.21	2.3	0.1	17.9	3.8	0.644	24.1	5500	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-01	Brookside regional facility inlet	BRF-1-1	11/4/2016		0.63	2.44	0.1	8.99	3.96	0.667	15.1	2900	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-02	Brookside regional facility inlet	BRF-1-2	11/4/2016		0.89	3.12	0.107	9.09	5.19	1.17	17.3	9200	0.1	0.475	0.4	0.1	0.2	0.4	0.2
W16K129-03	Brookside regional facility inlet	BRF-1-3	11/4/2016		1.23	3.27	0.114	6.22	6.57	1.83	17.2	10000	0.1	0.795	0.4	0.1	0.2	0.4	0.2
W16K129-04	Brookside regional facility outlet	BRF-2-1	11/4/2016		0.63	2.21	0.1	10.6	3.08	0.431	13.9	1300	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-05	Brookside regional facility outlet	BRF-2-2	11/4/2016		0.89	2.74	0.118	7.48	3.93	0.874	13	4100	0.1	0.238	0.4	0.1	0.2	0.4	0.2
W16K129-06	Brookside regional facility outlet	BRF-2-3	11/4/2016		1.38	2.81	0.1	5.44	5.91	1.62	17.6	9200	0.1	0.75	0.4	0.1	0.2	0.4	0.2
W16K129-07	Hayden's Meadow rain garden B17 Portland blend inlet	HMPB121-1	11/4/2016		0.66	4.06	0.1	0.783	5.12	2.44	29.4	52	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-08	Hayden's Meadow rain garden B12 Portland blend outlet	HMPB121-2	11/4/2016		0.66	2.35	0.181	2.81	5.58	3.39	13.9	390	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-09	Hayden's Meadow rain garden A7 Gresham blend inlet	HMPA21	11/4/2016		0.78	0.813	0.1	1.22	1.56	0.309	3.9	52	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-10	Hayden's Meadow rain garden A2 Portland blend inlet	HMPA21	11/4/2016		0.78	1.22	0.1	0.678	3.81	0.991	8.48	1200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-11	Hayden's Meadow rain garden A7 Gresham blend outlet	HMPA22	11/4/2016		0.78	4.75	0.397	6.73	11	9.21	32.5	86	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-12	Hayden's Meadow rain garden A2 Portland blend outlet	HMPA22	11/4/2016		0.89	5.2	0.435	4.37	14.3	10.9	37	3800	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-13	Hayden's Meadow rain garden B11 Gresham blend inlet	HMPB112	11/4/2016		0.98	4.34	0.1	1.93	0.5	4.32	23.5	85	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-14	Hayden's Meadow rain garden B17 Portland blend inlet	HMPB121-1	11/4/2016		0.98	0.449	0.1	1.3	4.7	19.8	190	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-15	Hayden's Meadow rain garden B12 Portland blend inlet	HMPB121-2	11/4/2016		0.98	0.384	0.1	0.81	4.5	1.99	24.1	20	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-16	Hayden's Meadow rain garden B15 Gresham blend inlet	HMPB151	11/4/2016		0.98	0.2	0.1	1.08	5.25	2.69	35.3	200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-17	Hayden's Meadow rain garden B12 Portland blend outlet	HMPB121-2	11/4/2016		1.23	3.48	0.263	2.4	9.09	6.33	22.3	1200	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W16K129-18	Hayden's Meadow rain garden B15 Gresham blend outlet	HMPB152	11/4/2016		1.23	5.6	0.355	3.74	15.5	14.8	46.7	310	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17C047-01	Kane Road Full Penivous	KanePP_1	3/7/2017		0.26	1.72	0.1	16.7	4.29	1.28	36.7	31	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17C047-02	Kane Road Penivous Overlay	KanePO_1	3/7/2017		0.26	2.24	0.1	5.7	12.8	0.89	142	520	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17C047-03	Kane Road Impervious	KaneRf_1	3/7/2017		0.32	2.94	0.1	9.3	22.3	8.67	135	230	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17C047-04	Kane Road Impervious with Conlect filter cartridges	KaneRf_1	3/7/2017		0.32	2.72	0.194	22.7	26.7	9.57	205	63	0.1	0.2	0.4	0.1	0.2	0.4	0.2

Cities of Gresham and Fairview Environmental Monitoring Data

A5: Stormwater BMP Monitoring Data

Sample ID	Site ID	Point Code	Storm	24-hr Rainfall inches	Cu-Dissolv.	Pb-Dissolv.	Zn-Dissolv.	Cu- Total	Pb- Total	Zn- Total	E. coli MPN/ 100ml	2,4,5-T	2,4-D	2,4-DB	2,4,5-TP (Silvex)	Acifluor-fen	Bentazon	Dicamba
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
					EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	SM 9223B	EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3
W17C047-06	Kane Road Full Previous	KanePP_2	5	0.38	1.62	0.1	14.4	3.04	1	23.4	52							
W17C047-06	Kane Road Previous Overlay	KanePO_2	5	0.32	2.05	0.1	61.3	5.11	1.5	87.2	98							
W17C047-07	Kane Road Impervious	KanePP_2	5	0.38	4.31	0.235	25.9	20	5.83	113	130							
W17C047-08	Kane Road Impervious with Contact filter cartridges	KanePP_2	5	0.38	2.64	0.115	20.8	11.9	3.38	78.6	63							
W17C047-09	Kane Road Full Previous	KanePP_3	5	0.48	1.83	0.1	14.5	4.13	1.44	32.8	75							
W17C047-10	Kane Road Previous Overlay	KanePO_3	5	0.48	2.14	0.1	54.1	6.83	2.05	89.4	20							
W17C047-11	Kane Road Impervious	KanePP_3	5	0.59	2.72	0.1	15.9	10.9	3.22	62.7	86							
W17C047-12	Kane Road Impervious with Contact filter cartridges	KanePP_3	5	0.48	2.44	0.128	18.9	14	4.43	88.8	59							
W17E090-01	Hayden's Meadow rain garden B12 Portland blend inlet	HMPR12-1	6	0.22	2.68	0.1	1.85	15.2	5.65	62.9	31	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-02	Hayden's Meadow rain garden B12 Portland blend outlet	HMPR12-1	6	0.23	2.68	0.1	4.83	8.55	3.16	32.5	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-03	Hayden's Meadow rain garden A7 Gresham blend inlet	HMG47-1	6	0.28	2.95	0.1	1.23	10.1	4.14	66.6	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-04	Hayden's Meadow rain garden A7 Gresham blend outlet	HMG47-2	6	0.28	4.42	0.1	4.1	6.02	0.952	10.8	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-05	Hayden's Meadow rain garden A2 Portland blend inlet	HMP42-1	6	0.28	18.4	0.1	1.7	38.9	6.77	61.1	10	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-06	Hayden's Meadow rain garden A2 Portland blend outlet	HMP42-2	6	0.28	7.04	0.1	11.8	17.4	2.95	84.4	520	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-07	Hayden's Meadow rain garden B15 Gresham blend inlet	HMG15-1	6	0.22	4.86	0.1	3.72	5.82	0.456	13.7	31	0.1	0.2	0.4	0.1	0.2	0.4	0.2
W17E090-08	Hayden's Meadow rain garden B15 Gresham blend outlet	HMG15-2	6	0.23	6.02	0.101	2.73	7.61	0.826	8.57	20	0.1	0.2	0.4	0.1	0.2	0.4	0.2

Analysis Coding for the Reported Data

**BD** = < than detection value or an Estimated value for bacteria  
**NA** = constituents not sampled due to equipment failure or other extenuating circumstance  
**NM** = not measured  
**Dup** = Duplicate Sample  
**FD** = Field Duplicate Sample  
 where they are constant. For parameters where no MRL is included, this means they vary by sample.

Cities of Gresham and Fairview Environmental Monitoring Data

A5: Stormwater BMP Monitoring Data

Sample ID	Site ID	Point Code	Date	Storm	24-hr Rainfall inches	Picloram ug/L	Dichlor-prop ug/L	Dinoseb ug/L	Pentachloro- phenol ug/L	3,5-Dichloro- benzoic acid ug/L
W16148-01	Street runoff at Brookside	BrookBus-1	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16148-02	Brookside regional facility inlet	BRF-1	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16148-03	Brookside regional facility outlet	BRF-1	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-01	Street runoff at Brookside	BrookBus-2	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-02	Brookside regional facility inlet	BRF-2	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-03	Brookside regional facility outlet	BRF-2	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-04	Street runoff at Brookside	BrookBus-3	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-05	Brookside regional facility inlet	BRF-3	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16152-06	Brookside regional facility outlet	BRF-3	9/17/2016	1	0.88	0.2	0.4	0.4	0.04	0.2
W16K062-01	CSWOF Stormdrain Creek	CSWOF-1	11/5/2016	2	0.25	0.2	0.4	0.4	0.04	0.2
W16K062-03	CSWOF Main outfall from cals. 1 and 2	CS-1	11/5/2016	2	0.25	0.2	0.4	0.4	0.04	0.2
W16K062-04	CSWOF upstream of beaver dam at first rock terrace	CSUSB-1	11/5/2016	2	0.26	0.2	0.4	0.4	0.04	0.2
W16K062-05	CSWOF downstream of beaver dam at last rock terrace	CSUSB-1	11/5/2016	2	0.26	0.2	0.4	0.4	0.04	0.2
W16K062-06	CSWOF Outlet	CSWOF-1	11/5/2016	2	0.26	0.2	0.4	0.4	0.04	0.2
W16K067-01	CSWOF Stormdrain Creek	CSWOF-2	11/5/2016	2	0.67	0.2	0.4	0.4	0.04	0.2
W16K068-01	CSWOF Main outfall from cals. 1 and 2	CS-2	11/5/2016	2	0.81	0.2	0.4	0.4	0.04	0.2
W16K068-02	CSWOF upstream of beaver dam at first rock terrace	CSUSB-2	11/5/2016	2	0.81	0.2	0.4	0.4	0.04	0.2
W16K068-03	CSWOF downstream of beaver dam at last rock terrace	CSUSB-2	11/5/2016	2	0.81	0.2	0.4	0.4	0.04	0.2
W16K068-04	CSWOF Outlet	CSWOF-2	11/5/2016	2	0.81	0.2	0.4	0.4	0.04	0.2
W16K068-05	CSWOF Stormdrain Creek	CSWOF-3	11/5/2016	2	1.14	0.2	0.4	0.4	0.04	0.2
W16K068-06	CSWOF Main outfall from cals. 1 and 2	CS-3	11/5/2016	2	1.14	0.2	0.4	0.4	0.04	0.2
W16K068-07	CSWOF upstream of beaver dam at first rock terrace	CSUSB-3	11/5/2016	2	1.14	0.2	0.4	0.4	0.04	0.2
W16K068-08	CSWOF downstream of beaver dam at last rock terrace	CSUSB-3	11/5/2016	2	1.14	0.2	0.4	0.4	0.04	0.2
W16K129-01	Brookside regional facility inlet	CSWOF-3	11/4/2016	3	0.63	0.2	0.4	0.4	0.04	0.2
W16K129-02	Brookside regional facility inlet	BRF-1	11/4/2016	3	0.89	0.2	0.4	0.4	0.04	0.2
W16K129-03	Brookside regional facility inlet	BRF-1	11/4/2016	3	0.89	0.2	0.4	0.4	0.04	0.2
W16K129-04	Brookside regional facility inlet	BRF-1	11/4/2016	3	1.23	0.2	0.4	0.4	0.04	0.2
W16K129-05	Brookside regional facility outlet	BRF-2	11/4/2016	3	0.63	0.2	0.4	0.4	0.04	0.2
W16K129-06	Brookside regional facility outlet	BRF-2	11/4/2016	3	0.89	0.2	0.4	0.4	0.04	0.2
W16K129-07	Hayden's Meadow rain garden B12 Portland blend inlet	HMPB12-1	11/4/2016	4	1.38	0.2	0.4	0.4	0.04	0.2
W16K129-08	Hayden's Meadow rain garden B12 Portland blend outlet	HMPB12-1	11/4/2016	4	0.68	0.2	0.4	0.4	0.04	0.2
W16K129-09	Hayden's Meadow rain garden A7 Gresham blend inlet	HMGAT1	11/4/2016	4	0.68	0.2	0.4	0.4	0.04	0.2
W16K129-10	Hayden's Meadow rain garden A2 Portland blend inlet	HMPA21	11/4/2016	4	0.78	0.2	0.4	0.4	0.04	0.2
W16K129-11	Hayden's Meadow rain garden A7 Gresham blend inlet	HMGAT1	11/4/2016	4	0.78	0.2	0.4	0.4	0.04	0.2
W16K129-12	Hayden's Meadow rain garden A2 Portland blend outlet	HMPA22	11/4/2016	4	0.78	0.2	0.4	0.4	0.04	0.2
W16K129-13	Hayden's Meadow rain garden B11 Gresham blend outlet	HMGAT2	11/4/2016	4	0.89	0.2	0.4	0.4	0.04	0.2
W16K129-14	Hayden's Meadow rain garden B11 Gresham blend inlet	HMGAT1	11/4/2016	4	0.89	0.2	0.4	0.4	0.04	0.2
W16K129-15	Hayden's Meadow rain garden B12 Portland blend inlet	HMPB12-2	11/4/2016	4	0.96	0.2	0.4	0.4	0.04	0.2
W16K129-16	Hayden's Meadow rain garden B12 Portland blend outlet	HMPB12-2	11/4/2016	4	0.96	0.2	0.4	0.4	0.04	0.2
W16K129-17	Hayden's Meadow rain garden B15 Gresham blend inlet	HMGAT1	11/4/2016	4	1.23	0.2	0.4	0.4	0.04	0.2
W16K129-18	Hayden's Meadow rain garden B15 Gresham blend outlet	HMGAT2	11/4/2016	4	1.23	0.2	0.4	0.4	0.04	0.2
W17C047-01	Kane Road Full Penvious	KanePP_1	3/7/2017	5	0.32					
W17C047-02	Kane Road Penvious Overlay	KanePP_1	3/7/2017	5	0.26					
W17C047-03	Kane Road Impervious	KaneIP_1	3/7/2017	5	0.32					
W17C047-04	Kane Road Impervious with Contact filter cartridges	KaneIP_1	3/7/2017	5	0.32					

Cities of Gresham and Fairview Environmental Monitoring Data

A5: Stormwater BMP Monitoring Data										
Sample ID	Site ID	Point Code	Date	Storm	24-hr Rainfall inches	Picloram ug/L	Dichlor-prop ug/L	Dinoseb ug/L	Pentachloro-phenol ug/L	3,5-Dichloro-benzoic acid ug/L
						EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3	EPA 515.3
						0.2	0.4	0.4	0.04	0.2
W17C047-05	Kane Road Full Penivous	KanePP_2	3/7/2017	5	0.38					
W17C047-06	Kane Road Penivous Overlay	KanePO_2	3/7/2017	5	0.32					
W17C047-07	Kane Road Imperivous	KaneIP_2	3/7/2017	5	0.38					
W17C047-08	Kane Road Imperivous with Contact filter cartridges	KaneC_2	3/7/2017	5	0.38					
W17C047-09	Kane Road Full Penivous	KanePP_3	3/7/2017	5	0.48					
W17C047-10	Kane Road Penivous Overlay	KanePO_3	3/7/2017	5	0.48					
W17C047-11	Kane Road Imperivous	KaneIP_3	3/7/2017	5	0.59					
W17C047-12	Kane Road Imperivous with Contact filter cartridges	KaneC_3	3/7/2017	5	0.48					
W17E090-01	Hayden's Meadow rain garden B12 Portland blend inlet	HMPB12-1	5/11/2017	6	0.22	0.2	0.4	0.4	0.051	
W17E090-02	Hayden's Meadow rain garden B12 Portland blend outlet	HMPB12-2	5/11/2017	6	0.23	0.2	0.4	0.4	0.04	
W17E090-03	Hayden's Meadow rain garden A7 Gresham blend inlet	HMGSA7	5/11/2017	6	0.28	0.2	0.4	0.4	0.04	
W17E090-04	Hayden's Meadow rain garden A7 Gresham blend outlet	HMGSA7-2	5/11/2017	6	0.28	0.2	0.4	0.4	0.04	
W17E090-05	Hayden's Meadow rain garden A2 Portland blend inlet	HMPA21	5/11/2017	6	0.28	0.2	0.4	0.4	0.051	
W17E090-06	Hayden's Meadow rain garden A2 Portland blend outlet	HMPA22	5/11/2017	6	0.28	0.2	0.4	0.4	0.044	
W17E090-07	Hayden's Meadow rain garden B15 Gresham blend inlet	HMGSB15	5/11/2017	6	0.22	0.2	0.4	0.4	0.04	
W17E090-08	Hayden's Meadow rain garden B15 Gresham blend outlet	HMGSB15-2	5/11/2017	6	0.23	0.2	0.4	0.4	0.04	

Analysis Coding for the Reported Data

**Bold** = < than detection value or an Estimated value for bacteria  
**NA** = constituents not sampled due to equipment failure or other extenuating circumstance  
**NM** = not measured  
**Dup** = Duplicate Sample  
**FD** = Field Duplicate Sample  
 where they are constant. For parameters where no MRL is included, this means they vary by sample.



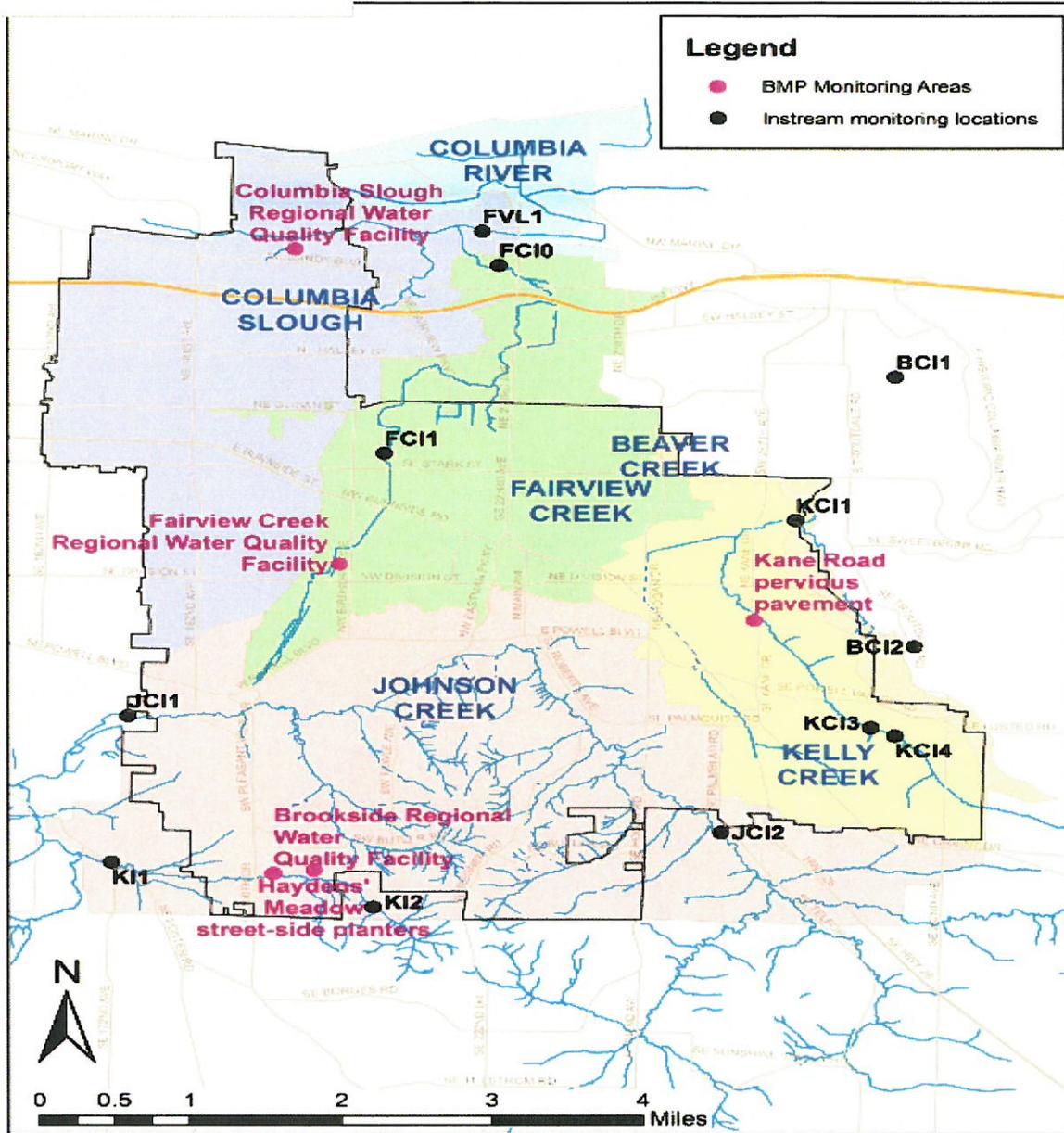




**Appendix B--Map of Instream Monitoring Site Locations**

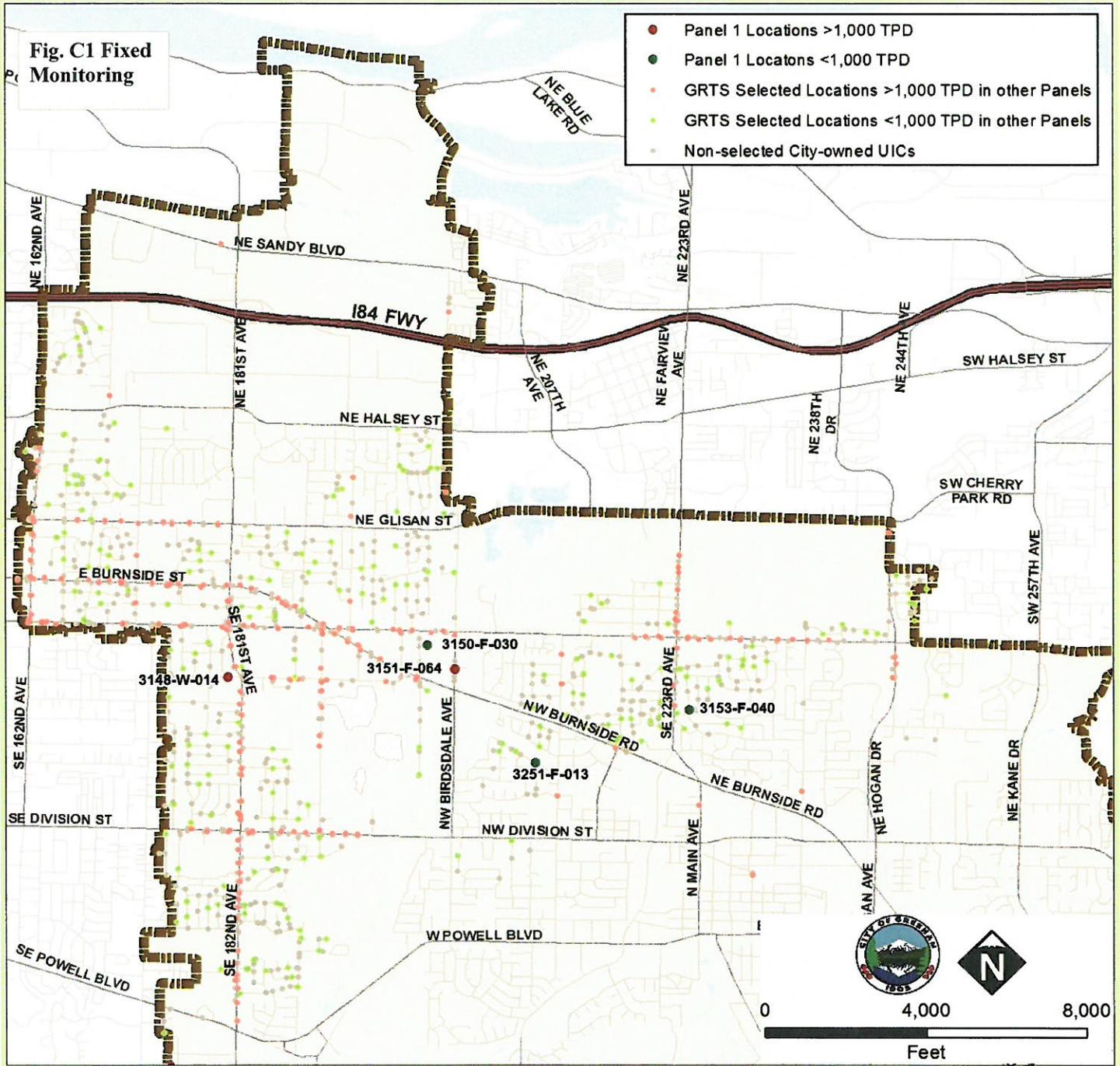
Cities of Gresham and Fairview Environmental Monitoring Data

Figure B1 Instream and Stormwater Facility (BMP) Monitoring Site



**Appendix C**  
**Maps of Wet Weather Stormwater Monitoring Locations**

Cities of Gresham and Fairview Environmental Monitoring Data





**Appendix D  
Maps of Fixed and Rotating Dry Weather Screening Monitoring  
Locations**

Cities of Gresham and Fairview Environmental Monitoring Data

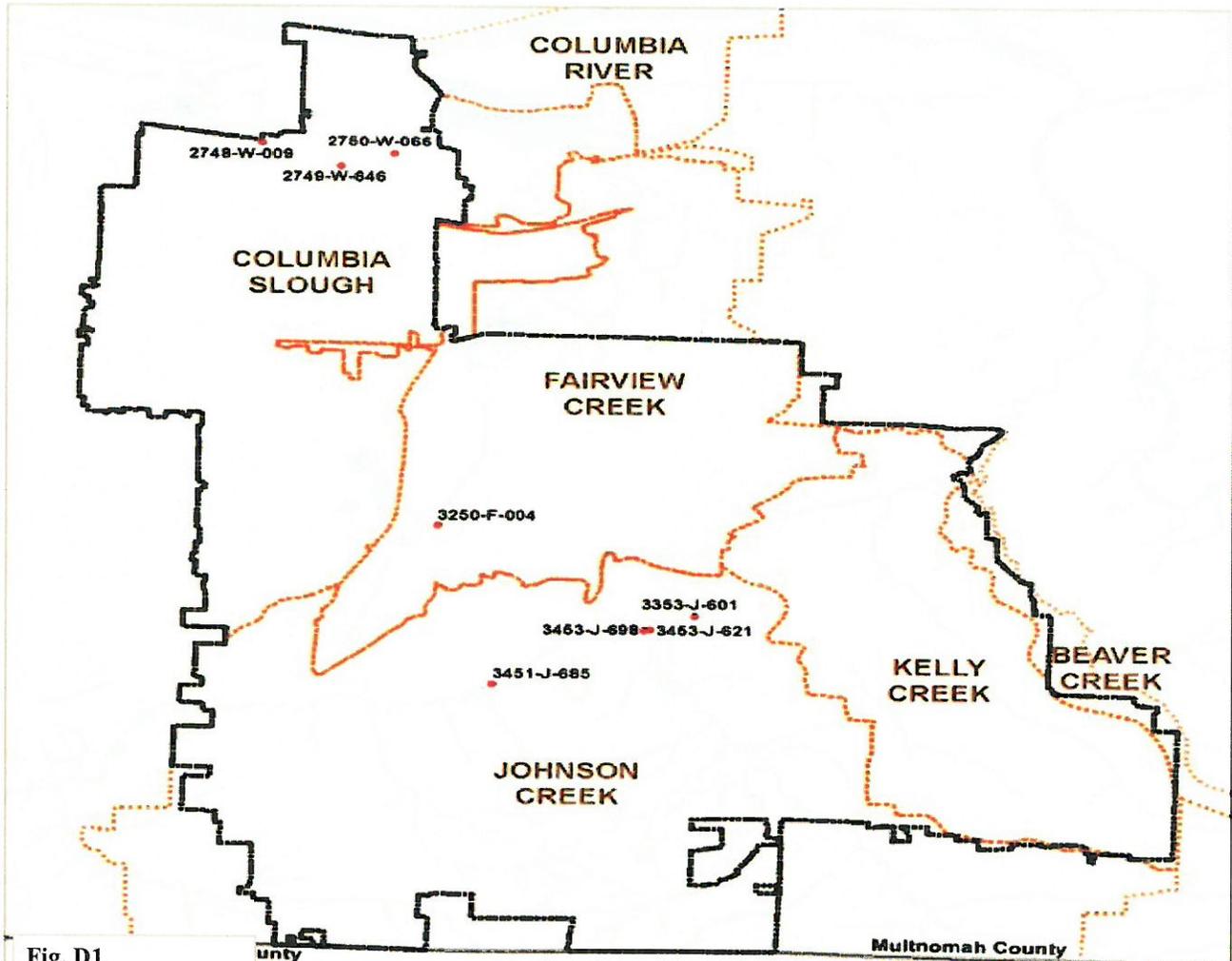


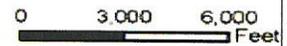
Fig. D1

Fixed Locations for Dry Weather Screening



- Public Stormwater Structures
- Gresham City Limits Line
- County boundary
- ▭ Stormwater Basins

DISCLAIMER NOTICE  
The information on this map was gathered from a variety of sources. Gresham does not have made it into one authoritative source, and therefore, no warranty is made. Changes in information may occur without notice. The information contained herein is subject to change without notice.



Cities of Gresham and Fairview Environmental Monitoring Data

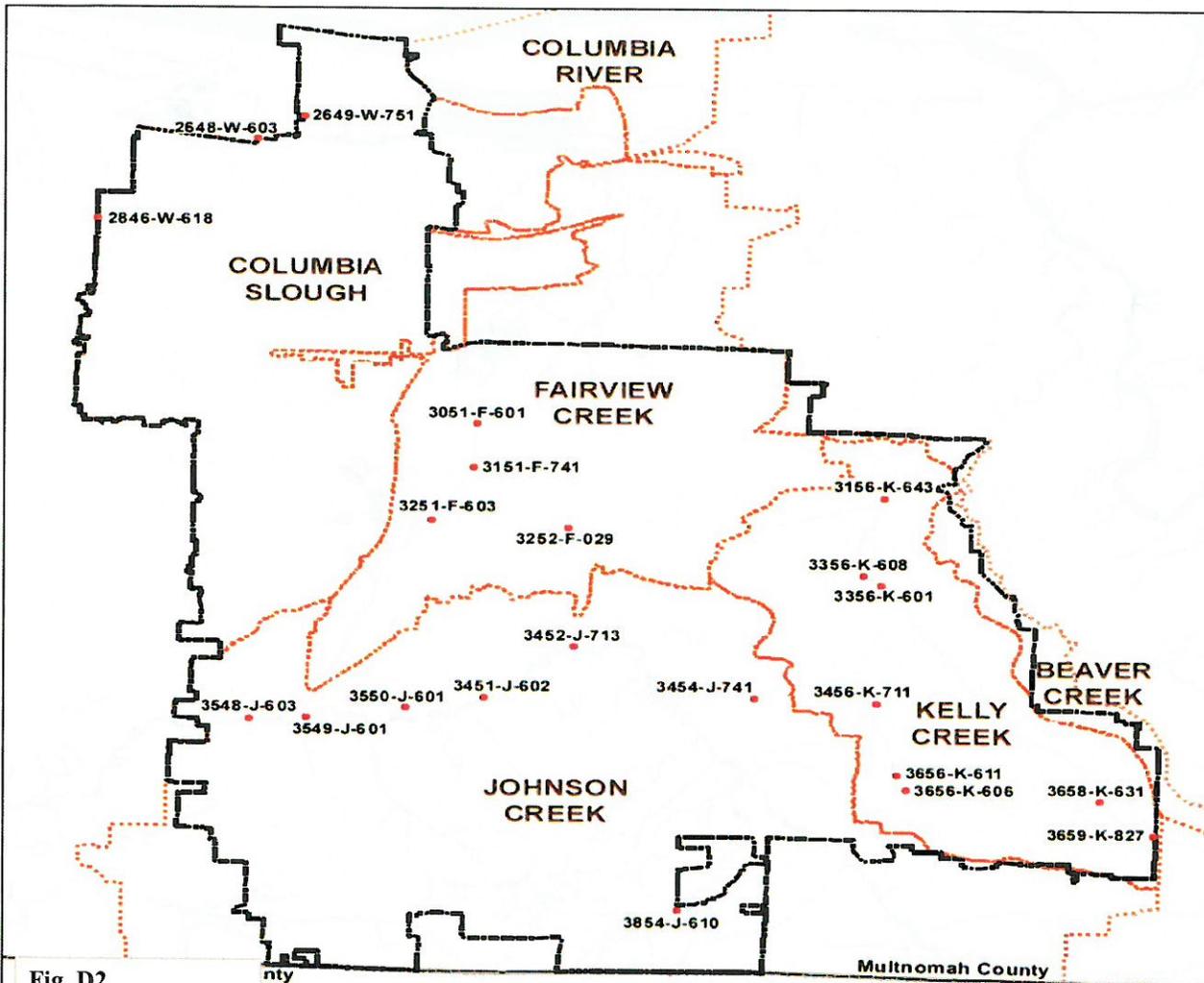
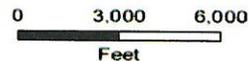


Fig. D2

Dry Weather Screening Rotating Monitoring Locations

- Public Stormwater Structures
- Gresham City Limits Line
- County boundary
- ▭ Stormwater Basins

CITY OF GRESHAM



DISCLAIMER AND NOTICE  
The information on this map has been prepared by the City of Gresham. It is provided as a service to the public and is not intended to be used for any other purpose. The City of Gresham does not warrant the accuracy, completeness, or timeliness of the information. The information is subject to change without notice.

## Section Four – City of Fairview Summary of Program Monitoring

### Municipal National Pollutant Discharge Elimination System Annual Report for Permit Year 22, Permit #101315, November 1, 2017

#### Executive Summary

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

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

This Permit Year (PY) 22 Annual Report documents implementation activities from July 1, 2016 through June 30, 2017 within the city limits of Fairview. Activities include, but are not limited to, the Best Management Practices (BMP) contained within the Stormwater Management Plan (SWMP). The status of the BMP's and adaptive management are summarized in the table that follows. Table 4-2 (Prioritization Criteria) summarizes the time period July 1, 2016 to June 30, 2017 implementing the 2015 SWMP. Section 2 of this report summarizes the Environmental Monitoring Program that is conducted by the City of Gresham on behalf of the City of Fairview.

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

There are no Urban Growth Boundary expansion areas contiguous to the City of Fairview. Consequently there are no associated concept planning, significant land use changes or significant development activities to report for PY 22.

## Stormwater Management Program Budget

City of Fairview Stormwater Management program costs for Permit Year 22 are primarily associated with the Department of Public Works.

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

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

The table below outlines fund expenditures for PY 22 and provides the anticipated budget for Permit Year 23.

<b>Table 4-1</b>		
	<b>2016-2017</b>	<b>2017-2018</b>
<b>Program Area</b>	<b>PY 22 Expenditures</b>	<b>PY 23 Anticipated Budget</b>
Stormwater Fund	\$523,335	\$805,343
Street Fund	\$495,042	\$849,979

Compliance Type	SWMP Element # - Illicit Discharge Detection and Elimination	Step Descriptions	Restoration Status	Tracking Methods	Status	Summary and Date of Previous Annual Report Assessment	Responsible Party
Illicit Discharge Enforcement	Ongoing	<p>Implement City code sections 13.40.050 and 13.40.110:</p> <ul style="list-style-type: none"> <li>City code section 13.40.050 prohibits constructing, using, maintaining, or continuing an illicit connection to the storm drain system.</li> <li>City code section 13.40.110 discusses enforcement actions for failing to comply with control of non-stormwater discharge. The penalty for a first violation is \$250. A penalty of \$1,000 may be imposed for each subsequent failure to comply and each day of a continuing violation shall constitute a separate offense.</li> </ul> <p>The City may order compliance by written notice that includes performance of monitoring, analysis, and reporting; elimination of illicit connections or discharges; abatement or remediation; payment of fines; and implementation of source control or treatment BMPs. The public works director may also exercise authority to enforce a construction permit or NPDES permit through a stop work order if necessary.</p>	For identified illicit discharges conduct appropriate enforcement actions.	Track number, location and resolution of enforcement actions.	<p>There are (3) total illicit discharge investigations, enforcements and clean up implemented this PY 22, are as follows:</p> <ol style="list-style-type: none"> <li>1. Iron Eagle Trailer (21414 NE Sandy Blvd, Fairview, OR).</li> <li>2. 5501 NE 22nd, Fairview, OR (by Chook Landing, Portland Metro)</li> <li>3. 21861 NE Park lane, Fairview, OR (Construction site)</li> </ol> <p>The enforcement details are as follows:</p> <ol style="list-style-type: none"> <li>1. Iron Eagle Trailer (Commercial Facility)- A concerned citizen called Fairview in regards to a significant diesel spill coming from the identified responsible party (I.E.T.). I was onsite immediately for investigation and assessment. The spill has reached the downstream point of discharge at Sandy Blvd. into a 10" diameter storm drain pipe. The pipe outlet or downstream conveyance was not known because the storm drainage system belongs to Multnomah County. The source of spill is upstream about 500 ft. of Impervious pavement driveway that leads to the trailer office. Immediately I called and notified Gresham Fire Department for assessment, containment, clean-up and disposal. It was found out that the spill was caused by a customer according to the office manager. The spill was contained onsite by GFD and delegated the clean-up and disposal to an environmental service provider.</li> <li>2. 5501 NE 22nd, Fairview, Oregon (Portland Metro) - A call was received from the City of Gresham concerning a leaking white plastic tank located about 250 ft north of Maine Drive and on the east side of NE 22nd. The tank has cracked and leaking some type of white granulated substance. The tank is on an embankment in close proximity to a temporary pond. There was no evidence of the substance that reached any storm drain system. Lt. Fryer, E74 "C" shift with the Gresham Fire Department was on site. He coordinated the containment, collection, clean-up and disposal with the Hazmat team.</li> <li>3. 21816 NE Park lane, Fairview, OR - City staff witnessed a landscape contractor working on a newly constructed residential home. One of the worker intentionally washes and flushes sediments of soil materials directly into the downstream catch basin without any insert silt bags or bio-bags. All of the turbid water runoff flushes directly into the catch basin. Notified and instructed the supervisor to contain the sediments and turbid water onsite by sweeping of the soil and install a berm of bio-bags around the catch basin and install an insert bag for best management practices. He was also instructed to extract the accumulated sediments inside the catch basin.</li> </ol>		
Illicit Discharge Field Screening Procedures	Ongoing	<p>Conduct dry weather inspections of accessible outfalls following the procedure in the Stormwater Operation and Maintenance (O&amp;M) Manual to search for, detect, and prevent illegal dumping of pollutants and illicit connections (including connections from sanitary sewers and commercial and/or industrial wastewater sewers) to the storm sewer system. Any dry weather flows identified will be reported to the public works department.</p> <p>Annually update maps as necessary to indicate field screening locations.</p>	Inspect accessible outfalls annually. Maintain maps of outfall inspection locations.	Track number and percent of outfalls inspected.	<p>Violations for Containment - Chemical Storage - storm runoff - Enforcement in progress.</p> <p>The City of Fairview has identified and mapped a total of 38 outfalls, 9 of which are categorized as high priority outfalls. The 38 total outfalls (100%) were inspected for structural integrity and cleaned for maintenance capacity, this PY 22.</p> <p>The City of Fairview has recently updated and refined the stormwater GIS data on Structural Stormwater Facility Maps reflecting public facilities (BMP #1, Structural Public Stormwater Facilities) including outfall facilities.</p>	No modification	Storm Lead Worker Map Tech

<p>Illicit Discharge Investigation Procedures</p>	<p>1-Jul-12</p>	<p>Implement follow-up actions on a prioritized basis when problems are reported to the public works department. Follow up actions may include sampling for pH, dissolved oxygen, temperature, conductivity, ammonia, and total chlorine. If elevated results or poor water quality are detected, additional samples could be collected for lab analysis. If screening results indicate a potential problem, staff will conduct upstream investigations. The City will revise and document standard operating procedures to address new permit requirements and to document and update the details of the illicit discharge field screening and investigation procedures by June 30, 2012.</p>	<p>Deviation revised procedures by July 1, 2012. Unlil procedures are revised, investigate problems reported within 2 weeks of the initial report.</p>	<p>Track number and type of problems reported, and track problem resolutions. Track status of revisions to procedures.</p>	<p>See BMP # 11 (Illicit Discharge, Detection and Elimination, Enforcement). There are (3) total of IDEE investigations concluded this FY 22, which resulted to enforcement actions. There were no samples taken from all the (3) incidents.</p>	<p>No modification</p>	<p>Engineering Associate City of Gresham (GA)</p>
<p>Spill Prevention</p>	<p>Ongoing</p>	<p><b>Wellhead Protection Program.</b> The wellhead protection program serves to prevent spills and illegal dumping. The City will work to maintain its existing agreement with the City of Gresham for wellhead inspection in the Columbia South Shore Well Field Wellhead Protection Area and continue to implement wellhead protection throughout Fairview for the protection of groundwater. This program is included here because of its residual benefits to stormwater. <b>Wellhead Protection - Intergovernmental Agreement.</b> The City of Gresham and the City of Portland entered into an intergovernmental agreement for the implementation of the Columbia South Shore Well Field Wellhead Protection Program in 2003 (City of Gresham contract number, 1609). This agreement provides protection of the Columbia South Shore Well Field Wellhead Protection Area lying within Gresham and Fairview from contamination by hazardous substances generated at industrial and commercial facilities.</p>	<p>Once during the permit term, conduct inspections of all businesses with regulated quantities in the well field.</p>	<p>Track the number of inspections conducted.</p>	<p>City of Fairview with 3.5 square miles geographic area is located in the Columbia South Shore Wellhead Protection Area. City of Fairview maintains the existing Intergovernmental Agreement with the City of Gresham established in 2003 for inspection of the regulated and monitored industrial/commercial facilities in the Columbia South Shore Wellhead Protection Program. (Zone 1)</p> <p>There were six (6) total of regulated industrial/commercial facilities that were inspected during FY 22. Updated and most recent Hazardous Material Inventory Report (HMIR) and Site Plan were required in the notification letters that were sent to both regulated and monitored facilities last October, 2017 with January 31, 2017 deadline. The reporting is a tool used to evaluate and assess the classification of facilities, either an upgrade or downgrade of being regulated or monitored facilities. The six inspected regulated facilities are as follows:</p> <ul style="list-style-type: none"> <li>• All Storage PH, II, - 20918 NE Sandy Blvd., Fairview</li> <li>• Northbrook Village, 180-Unit Apartment, - 22022 NE Haley, FV</li> <li>• Fairview Woods 49-Unit Apartment, - NE 28th St., Fairview</li> <li>• New Fairview Elementary School, - NE Main St., Fairview</li> <li>• Reynolds School District Maintenance Yard, - NE Gilman St, FV</li> <li>• Townsend Farms, - NE Townsend Way, Fairview, OR</li> </ul> <p>The Columbia South Shore Wellhead Protection Program Committee meets quarterly to discuss any changes to code provisions and updates of the Wellhead Protection Program Reference Manual.</p> <p>The Columbia South Shore Wellhead Protection Program Reference Manual was recently updated this FY 22 by the City of Portland under the supervision of Doug Wise.</p>	<p>No modification</p>	<p>Engineering Associate City of Gresham (GA)</p>

Spill Name	Compliance Date	Spill Description	Responsible Entity	Tracking Measures	Status	Summary and Date of Required Adaptive Management Modifications	Responsible Party
Spill Clean-up	Ongoing	<p>Maintain agreement with the City of Gresham Fire Department for clean-up after structural fires and vehicular accidents to prevent pollutants and debris from being washed into the storm drain system.</p> <p>When there is a hazardous spill or a spill of any other substance that:</p> <ul style="list-style-type: none"> <li>• Is hazardous in any quantity</li> <li>• Is non-hazardous and greater than 42 gallons on the ground</li> <li>• Or is any quantity that has entered a waterway or a dry well.</li> </ul> <p>The City of Gresham Fire Department staff notifies the Oregon Emergency Response System (OERS). OERS then notifies the Oregon Department of Environmental Quality (DEQ) and other state and local agencies that may be affected.</p> <p>The responsible party, if identified, is required to contact an environmental clean-up company and pay for clean-up costs. Examples could include spillage of a 55-gallon-drum of restaurant grease or sanitary sewer overflows on private property, resulting in or having the risk of resulting in, discharges to the public stormwater system. DEQ remains the enforcement authority in these cases. DEQ may choose to enforce against the responsible party under the following conditions: 1) the party has acted maliciously; 2) the party is a repeat offender; or 3) the party has failed to report the incident to DEQ.</p> <p><b>Non-Hazardous Substances</b></p> <p>Public Works staff will investigate and provide emergency containment and clean-up as necessary. If the responsible party can be identified, he or she is directed to provide containment and site clean-up. If the spill is an imminent threat to waters of the state, the City reserves the right to provide clean-up and bill the responsible party for the work. The responsible party will be invoiced for any response and clean-up provided by the City. Examples include spills or dumping of paint, auto fluids, carpet cleaning wastes or concrete, etc. into catch basins or onto the street.</p> <p>In non-emergency situations, such as dumping of debris on private property near a stream bank, Public Works staff will notify the responsible party, verbally and in writing, and specify a timeframe for clean-up. Staff will refer the incident to Code Enforcement if the responsible party does not respond within the specified time frame. Code enforcement has the authority to issue Abatement Procedures, Violations or Civil Actions.</p> <p><b>Releases from Traffic Accidents</b> If there is a spill of automotive fluids resulting from a traffic accident, the Gresham Fire Department will spread an absorbent compound (usually clay) and specialized absorbent pads on automotive fluids. Buckets are placed underneath dripping fluids. The road is swept and cleared and, when necessary, additional protection is placed around the catch basins. Large leaking spills from commercial vehicles or semi-trucks are captured using a dike's plastic pool. From a legal standpoint, the generator of the spill is responsible, therefore the waste materials are bagged and placed inside the wrecked vehicle or given to the tow truck driver for disposal. The City will perform the clean-up or utilize private clean-up contractors in order to continue the spill response program, when no responsible party can be identified.</p>	<p>Maintain agreement with City of Gresham Fire Department, investigate spills and provide emergency containment and clean-up as necessary.</p>	<p>Track spill locations, type of materials and response activities.</p>	<p>There were no reported and recorded spill incident events that took place this PY 22 within the City of Fairview jurisdiction.</p>	<p>None, see above report.</p>	<p>Gresham Fire Engineering Associate PW Superintendent</p>
Municipal vehicle monitoring and maintenance	Ongoing	<p>Ensure that materials from municipal vehicles do not leak, spill, or otherwise release contaminants onto roadways or open spaces where they may be washed into storm drains or waterways. Municipal vehicles are inspected by the driver during loading and unloading. If any leaks are observed between the regular maintenance the vehicles are repaired immediately.</p>	<p>Maintain vehicles on a 4-month schedule.</p>	<p>Track status of municipal vehicle maintenance.</p>	<p>All City fleet vehicles (Public Works, Administration and Police departments) were regularly maintained and serviced as scheduled (every 3 months) with auto service providers. No vehicular leaks were detected.</p>	<p>No modification</p>	<p>PW Superintendent Police Dept.</p>
Water Line Flushing	Ongoing	<p>The City periodically flushes all public water lines to ensure the reliability and quality of the domestic water system. To minimize impacts to the storm system, discharges are dechlorinated with the use of ascorbic acid (vitamin C). The flushing crew periodically tests the chlorine levels of the discharge prior to entering the storm system.</p>	<p>Dechlorinate wastewater flushing with vitamin C.</p>	<p>NA</p>	<p>No chlorine detected.</p>	<p>No modification</p>	<p>Water Lead Worker</p>

2017 Status	Compliance Status	2017 Status	Compliance Status	2017 Status	Compliance Status	2017 Status	Compliance Status
Industrial and Commercial Facility Inspections	Ongoing	Implement the City's Industrial and Commercial Facility Inspection procedure that is included in the Stormwater Operation and Maintenance Manual to control the discharge of pollutants in stormwater from industrial and commercial facilities to the municipal separate storm sewer system.	Spend one week (40 hours) implementing commercial and industrial inspection procedures.	Track number of facility inspections and follow-up.	There were (4) total of inspected regulated industrial/commercial facilities during this PY 22. Inspection procedures were in conformance and compliance with the City of Fairview's Stormwater Operation and Maintenance Manual and the Columbia South Shore Wetland Protection Program Reference Manual. See BMP 1.4 Spill Prevention.  A total of 55.50 inspection hours (pre-documentation, inspection / photos, final documentation and follow up) were spent. This PY 22, which exceeded the recommended 40 hours of inspection requirements.  The City of Fairview has updated its inventory list for regulated, non-regulated, and monitored business facilities as reference for inspectors. Coordinated inspection effort is performed with the City of Gastonia through an GJA.	No modification	Engineering Associate
Screen Industrial/Businesses and Track NPDES Stormwater Permits	Annually	Annually, the City will review their business license inventory to determine whether any new facilities would be subject to an industrial stormwater NPDES permit. This determination will occur based on a review of the applicable SIC codes related to the 1200-series NPDES permit. If a facility is identified that would be subject to an industrial stormwater NPDES permit, the facility and DEC will be notified within 30 days.  During industrial and commercial inspections staff will obtain a copy of the facility's permit or work with the facility to either obtain a permit, or eliminate the potential for contact of pollutants with stormwater, thereby eliminating the need for a permit. In cases where discharges appear contaminated, the City will send a copy of the inspection report to DEC.	Annually notify DEC of any existing or new industrial facilities within the City's jurisdiction that may potentially be subject to an industrial stormwater NPDES permit.	Track number and type of new facilities identified as needing permits.  Screening process of applicable Industrial/Commercial SIC codes reflecting the 1200-series NPDES permit is being conducted during pre-application review process of land use permit. All 1200-C General Stormwater Construction, 5-yr permit term expired last November 30, 2015. Permit renewals are required for all current permit holders for the next 5 year term (November, 2020).  There were seven (7) total of developments with active 1200-C permits during this PY 22 and are as follows:  <ul style="list-style-type: none"> <li>All Storage PH - II - 20918 NE Sandy Blvd., Fairview</li> <li>Northbrook Village 180 Unit Apartment - 22022 NE Halsey, FV</li> <li>Fairview Woods 49 Unit Apartment - NE 205th St, Fairview</li> <li>New Fairview Elementary School - NE Main St, Fairview</li> <li>Reynolds School District Maintenance Yard - NE Gilsen St, FV</li> <li>Townsend Farms - NE Townsend Way, Fairview, OR</li> <li>Dean Hurford Development - NW Corner of Halsey &amp; 223rd. Permit not renewed and was closed on July, 2017</li> </ul>	No modification	Engineering Associate	
Erosion Control Activities	Ongoing	Ordinance 3-1983 adopts an erosion control plan. The ordinance includes an Erosion Control Technical Guidance Handbook (Technical Guidance) that describes regulations, standards and provisions for erosion control as well as fees and penalties for violation. The City enforces the erosion control requirements through a permitting process required for sites disturbing 500 ft <sup>2</sup> or more as discussed under the BMP Development Review.  The Technical Guidance prescribes the following four steps to consider in planning for erosion control: <ul style="list-style-type: none"> <li>Step 1: Identify Site Characteristics</li> <li>Step 2: Lay Out Precursor/Construction Plan and Proposed Best Measure</li> <li>Step 3: Measures During Construction</li> <li>Step 4: Post Construction Measures</li> </ul> The Technical Guidance also has requirements for single-family homes and duplexes on existing lots of record, private developments construction, private construction in public rights-of-way, public works construction, erosion control measures, inspections and enforcement, and penalties. Non-stormwater masses on construction sites are also addressed through the City's nuisance ordinance in Chapter 8 of the municipal code.	Inform all construction site owners that have 1 acre or more of disturbed land that they are required to obtain a 1200-C permit from DEC.  Review development sites required to meet City erosion control requirements.	Track the number of erosion control permits issued annually.  Resolution 49-2013 approved compliance order agreement with Environmental Protection Agency to implement reporting requirements and standards associated with the NPDES stormwater permit which includes addition of the Erosion Prevention and Sediment Control (EPSC) Manual from the City of Gastonia (Ordinance 2-2014). The City developed a standard operating procedures for implementation of Erosion and Sediment Control Standards.  Total of 19 (12 < 1 acre, 7 > 1 acre, with 1200-C SW Construction permits) erosion and sediment control permits were issued and inspected during PY 22. Site developments of these 12 permits were less than an acre (43,560 ft <sup>2</sup> ) of disturbed earth. Seven sites disturbed of greater than an acre were required to obtain a 1200-C General SW Construction permit from DEC during the Planning Development Review Process.	No modification	Permit Tech Engineering Associate	



2016-2017	Compliance Plan	2016-2017	Responsible Staff	Tracking Method	Status	Monitoring and Reporting Methodology	Responsible Staff
		Continue to facilitate efforts by the public to report illegal dumping, illicit connections, and other incidents. Implement public reporting program as described in the Stormwater Operation and Maintenance (O&M) Manual.	Respond to reports and/or complaints from citizens regarding observed water quality problems.	Track the number of reports/complaints received, and the follow-up actions conducted (including the timing of the follow-up action).	There were no reported events and/or complaints from citizens relating to illegal dumping and illegal connection events during this PY 22.	No modification	Engineering Associate PW Superintendent Code Compliance
Report illegal Dumping and illegal Connections	Ongoing	Educate the public about the harmful effects of dumping oil, antifreeze, pesticides, paints, solvents, and other potentially harmful chemicals into storm sewers or drainage channels.	Support recycling and disposal programs, programs that provide convenient means to dispose of materials, existing solid waste management programs. Educate the public regarding the stormwater pollution that results from dumping and illegal connections.	Track the number of public recycling and disposal programs conducted annually.	The Fairview Point contains education outreach articles educating the public about harmful effects of dumping hazardous materials and waste into storm sewers or drainage channels as well as public recycling and disposal. City's website posted contact information as well about reporting illegal dumping and illegal connections (BMP 4.3). Also, staff leads public complaints, reporting, and inquiry regarding illegal dumping, connections and other issues about harmful effects into our storm drainage system and any receiving water bodies. There are 11 total news letter articles published during PY 22 about educational outreach on healthy environment.	No modification	PW Assistant Metro Recycling
Participate in a Public Education Effectiveness Evaluation	Ongoing	By November 1, 2014, the City of Fairview will coordinate with other local Phase I jurisdictions to provide information related to an effectiveness evaluation. The effectiveness evaluation information will focus on assessing changes in targeted behaviors and will allow for additional information that can be used in adaptive management of the City's education and outreach strategy.	Coordinate with other local jurisdictions in providing/complimenting information regarding a public education effectiveness evaluation by November 1, 2014.	Report on activities annually.	City of Fairview recently submitted "Public Education Effectiveness Evaluation" report (Schedule A-4, NPDES Permit Term 2010-2015) to DEC last, November 1, 2015.  The City has a current ICA with the City of Greenham regarding participation in the ACWA public education effectiveness evaluation. This coordinated effort involves compilation of existing educational survey information and development of conclusions to inform how public education efforts result in behavioral change. DHM Consulting prepared a report in compliance to meet DEC's intended requirements that pertained to general and targeted findings about evaluation on education effectiveness to public. These targeted findings are focused on pet care, car care, lawn and garden care, and home care which are distinct municipal stormwater pollutant sources where source control activities (like public education) are generally a preferred treatment approach.	No modification	Engineering Associate

EPC Form	Compliance Date	EPC Description	Responsible Party	Training Measures	Status	Sampling and Date of Progressed Activities (Responsible Party)	Responsible Party
Staff Education and Training	Ongoing	Conduct training for new employees and current employees on stormwater requirements and train existing employees when there is a significant update to the documents used by the City that regulates stormwater pollution control activities.	Provide annual training to personnel involved in stormwater management.	Track personnel receiving training annually.	<p>City of Fairview's engineering staff (responsible reporting party) conducted (2) in-house trainings with (nine (9) Public Works Operation &amp; Maintenance staff during PY 22 (August 31, 2015 and April 28, 2016). Topics discussed were: Stormwater Management on Facilities / Stormwater Operation &amp; Maintenance Standard Operating Procedures (SOP) / SW Regulatory Compliance / Spill Prevention and What To Do When You Have a Spill Emergency Protocol &amp; Contact Information.</p> <p>The responsible reporting party (Engineering Associate) has attended a total of 28 committee meetings, trainings (off-site and on-line), seminars, workshops and trainings during PY 22 (July 1, 2016 to June 30, 2017), which are as follows:</p> <ol style="list-style-type: none"> <li>1. 7/21/2016 - EPCN Webinar</li> <li>2. 9/6/2016 - EBBA Mechanical Pipe Restraint Webinar</li> <li>3. 9/7/2016 - Wetland Protection Program Confirmation Meeting</li> <li>4. 9/14/2016 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>5. 10/11/2016 - Wetland Protection Program Coordination Mtg</li> <li>6. 10/12/2016 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>7. 11/9/2016 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>8. 11/15/2016 - DEQ Industrial Stormwater Permit</li> <li>9. 11/17/2016 - Watershed Group 2017 Planning Mtg, KOIN 6 TV</li> <li>10. 11/19/2016 - Groundwater 101 Workshop &amp; Guided Tour</li> <li>11. 11/29/2016 - FEMA Training</li> <li>12. 12/12/2016 - Stormwater Outreach Meeting</li> <li>13. 12/14/2016 - ACWA 2016 (Portland's Manual Update)</li> <li>14. 1/11/2017 - CD85 Application Workshop</li> <li>15. 1/19/2017 - ACWA, DEQ Draft MS4 Permit II Discussion</li> <li>16. 2/8/2017 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>17. 2/8/2017 - ACWA Stormwater Outreach Collaborative</li> <li>18. 2/22/2017 - Confined Space Entry Training</li> <li>19. 3/8/2017 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>20. 3/15/2017 - Sanitary Sewer Modeling (XP Solutions)</li> <li>21. 4/12/2017 - DEQ Construction/Post-Construction SW Runoff</li> <li>22. 5/01/2017 - Lateral Connection Repair</li> <li>23. 5/8/2017 - Fluid Handling System</li> <li>24. 5/10/2017 - Annual ACWA Stormwater Summit (Eugene)</li> <li>25. 5/26/2017 - Training with East Mediation</li> <li>26. 6/7/2017 - Riparian Protection and TMDL</li> <li>27. 6/14/2017 - ACWA Monthly Committee Meeting (Salem, OR)</li> <li>28. 7/12/2017 - Clean Rivers Coalition</li> </ol>	No modification	Engineering Associate PW Superintendent Development Analyst

SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation	SWMP Element #5 - Public Involvement and Participation
<p>Provide for Public Participation with the annual report, SWMP and Benchmark Submittals</p>	<p>Annually by November 1</p>	<p>Co-permittees must submit an annual report for the portion applicable to its jurisdiction by November 1 of each year. SWMP revisions and pollutant load reduction benchmarks are required for substantial to DEC at the permit renewal substantial (180 days prior to permit expiration). Prior to substantial of these items, the City will provide the public with an opportunity to comment on the annual report, revisions to the SWMP and proposed pollutant load reduction benchmarks. The documents will be made available on the City's website or through web links. Comments on the documents will be collected and considered and a response to comments will be provided.</p>	<p>Provide for public participation with the annual report, SWMP and pollutant load reduction benchmarks prior to the permit renewal application deadline.</p>	<p>N/A</p>	<p>Public review and comments were solicited for public participation through publication on the City's website, Oregonian Newspaper and Oregon Live Media on NPDES MS4 annual compliance report during PY 22. City of Fairview has published the updated 2015 Stormwater Management Plan (SWMMP) and the Pollutant Load Reduction Benchmarks (PLRB) in the City's website, Oregonian Newspaper and Oregon Live Media for public review and comments, last PY 20.</p>	<p>No modification</p>	<p>Engineering Associate Permit Tech Engineering Associate Map Tech</p>
<p><b>SWMP Element #6 - Post-Construction Site Runoff</b></p>							
<p>Development Review for Private Projects</p>	<p>Ongoing</p>	<p>Implement and enforce regulations which give legal authority to: 1) require site-drainage designs and systems which address water quality; and/or 2) minimize the total volume of runoff and the peak rate of runoff, where local conditions permit. The City implements these regulations through its Community Development Department and Public Works Department. New development and redevelopment projects are reviewed for conformance to the following existing City regulations:  <ul style="list-style-type: none"> <li>Fairview Comprehensive Plan, June 2004—provides the guiding direction to protect the natural environment and ensure that long-term growth does not adversely affect the natural resources;</li> <li>Community Development Department—Land Use and Building Permits; Land Use Code Enforcement;</li> <li>Title 19, Development Code—requires accommodation and treatment of stormwater runoff and system installation conforming to standards and specifications adopted by the City.</li> <li>City of Fairview Standard Specifications for Public Works Construction</li> </ul> </p>	<p>Review development plans for conformance with standards. Maintain map of private water quality facilities</p>	<p>Track seepage of new and re-development activities requiring stormwater treatment annually. Track the number and type of private water quality BMPs built.</p>	<p>There were 3 total development reviews for private stormwater management facilities and 3 total development reviews for agency stormwater management facilities conducted this PY 22.   <b>Private Stormwater Management Facilities:</b>  <ul style="list-style-type: none"> <li>Northbrook Proposed 180-Unit Apartment (Jeff Parker Dev.)</li> <li>Fairview Woods Proposed 49-Unit Apartment</li> <li>All Star Ph. II, Proposed Apartment Unit Complex</li> </ul> <b>Agency Stormwater Management Facilities:</b>  <ul style="list-style-type: none"> <li>New Fairview Elementary School, 225 NE Main St</li> <li>Reynolds School District, Vestibular Modular Building</li> <li>Reynolds School Maintenance Yard Improvement Project</li> </ul> <p>The City has recently updated both municipal and private stormwater facilities on GIS mapping. New polygon layers were created for both municipal and private stormwater facilities and sub-basins. New identified and updated facilities and their attributes were integrated in the City's GIS system, last PY 20.</p> </p>	<p>No modification</p>	<p>Permit Tech Engineering Associate Map Tech</p>

Compliance Issue	Compliance Issue	Responsible Goals	Tracking Measures	Status	Summary and Date of Proposed Adaptive Management Modifications	Responsible Party
<p>Review Applicable Code and Development Standards related to Stormwater Management</p>	<p>1-Jan-14</p>	<p>Review and the City's current stormwater treatment standards for compliance with new MS4 NPDES permit language by January 1, 2014. Review the City's current public works development code provisions to ensure that applicable barriers related to the use of Low Impact Development techniques are minimized and eliminated where practicable by January 1, 2014. If necessary, update the City's post-construction stormwater design standards and code language.</p>	<p>Track progress related to the review of the City's code and development standards per provisions in the MS4 NPDES permit.</p>	<p>City of Fairview is currently using the 2015 City of Portland's Stormwater Management Manual as a reference for CIP projects, developers, consulting firms and builders. In the future the City is planning to adopt the City of Gresham's SW Management Manual as a reference for guidelines implementation. City of Fairview's Standard Specifications, Standard Drawings and Design Standards (1) document has been updated by Consultant. Fairview's Stormwater Management Plan was updated last 2015 by Consultant as well.</p> <p>City of Fairview's Resolution 49-2013 approved compliance order agreement with Environmental Protection Agency (EPA) to implement reporting requirements and standards associated with the NPDES MS4 stormwater permit which includes adoption of the Erosion Prevention and Sediment Control (EPSC) Plan from the City of Gresham. The Erosion Control Plan, Review, Inspection and Enforcement Standard Operating Procedures describe the roles and responsibilities of Public Works Inspectors, acting as the lead Erosion Control Inspector will respect to erosion control-related plan review, inspections, documentation, and enforcement and serves as the City of Fairview's Standard Operating Procedure (SOP).</p> <p>Low Impact Development (LID) design methodology and the post-construction stormwater design standards will be addressed in the newly updated SW Design Standards which conforms to the provisions of our current public works development code.</p>	<p>No modification</p>	<p>Engineering Associate Development Analyst</p>

<p>Design Standards for Public Projects</p>	<p>Design Standards for Public Projects</p>	<p>Follow the Standard Specifications for Public Works Construction which requires treatment of stormwater runoff through the use of BMPs. Maintain database of BMPs that are implemented.</p>	<p>Ensure that public works stormwater related projects address treatment of runoff as appropriate.</p>	<p>Number and type of public stormwater quality BMPs built.</p>	<p>The City of Fairview completed some of the proposed CIP projects in the Consolidated Stormwater Master Plan, which are as follows:</p> <p>The following CIP stormwater related projects are identified in the project list of the Consolidated SW Master Plan (CSMP) and were designed/constructed this PY 22, are as follows:</p> <ul style="list-style-type: none"> <li>• GN-4, Hydraulic System Modeling. City of Fairview has awarded the professional services to Cardno for the SW modeling this PY 22.</li> <li>• NE 7th St. (Main to Cedar) Sidewalk, Storm, Street Improvement Project. Grant proceeds from Community Development Block Grant (CDBG). Release order of \$66,282.00 was awarded to Fairview as the CDBG funding for this PY 22. The project close-out was last Mar, 2017 (PY 22).</li> <li>• NE 7th St. (Main to Depot) Right-of-Way Improvement Project. All County Surveyors (Consultant) has completed the design and construction is also anticipated this PY 22.</li> <li>• Interlachen Sanitary Pipe assessment and evaluation. Project is under pre-design milestone and construction is anticipated on PY 23.</li> <li>• NE Lincoln St. (7th to 8th) R-O-W Improvement Project. All County Surveyors (Consultant) has completed the design of the project and it will be next in line for the CDBG funding application.</li> </ul> <p>Pavement Surface Treatment Maintenance - One Crack Seal and one Slurry Seal projects were completed this PY 22. Pavement preventive maintenance will not only preserve the City's steel capital asset but to mitigate storm run-off pollutants in the streets preventing infiltration into ground waters.</p> <p>The above projects contribute to address collection, conveyance, detention, treatment and disposal of surface storm run-off. The destination/disposal standard is classified under direct on-site infiltration and off-site storm-only pipe system flow conveyance. Also, the sanitary sewer project addresses environmental regulatory compliance preventing infiltration and inflow (I &amp; I) into sewer piping system.</p>	<p>No modification</p>	<p>Engineering Associate</p>
<p><b>SWMP Element #7 - Pollution Prevention for Municipal Operations</b></p>							
<p>O&amp;M Plan</p>	<p>1-Nov-13</p>	<p>Use the O&amp;M Plan as a guide for designing and maintaining public storm facilities in order to maximize water quality benefits while maintaining flood capacity. The O&amp;M Plan is intended to help locate and eliminate pollutants and provides a framework for maintaining field inspectors records.</p>	<p>Implement the procedures in the O&amp;M Plan. Review the O&amp;M Plan by November 1, 2013, and update as necessary to maximize water quality benefits while maintaining flood capacity.</p>	<p>Track annual changes made to the O&amp;M Plan</p>	<p>City of Fairview's O&amp;M Manual along with the Standard Operating Procedures were recently incorporated in our SW mobile GIS labels and are implemented during the annual maintenance schedule in monitoring and inspecting stormwater facilities for maintenance activities. O&amp;M staff uses the manual as a guideline in performing proper routine maintenance on stormwater facilities for the intended purpose of maintaining water quality benefits, as well as maintaining flood capacity. Responsible reporting party conducted staff education and training to O &amp; M staff on how to utilize the mobile tablet as a new tool in relation to the Standard Operating Procedures, updated inspection forms and actual application in the maintenance of storm water facilities.</p>	<p>No modification</p>	<p>Engineering Associate PW Superintendent Storm Lead Worker</p>

Risk Name	Compliance Plan	EPA Description	Measurable Goals	Tracking Measures	Status	Summary and Date of Physical Assessment	Responsible Party
Right of way-ORM	Ongoing	The City contracts with Multnomah County for road maintenance that includes street sweeping, roadside mowing and brushing and pavement maintenance. The maintenance program is substantially similar to, and at least as protective as, the OOD Routine Road Maintenance program approved under the current 410 limit.	Maintain contract with Multnomah County for road maintenance.		<p>City of Fairview maintains an ISA with Multnomah County for road maintenance activities. Road maintenance activities performed at county roads this PY 22, are as follows:</p> <ul style="list-style-type: none"> <li>• Catch basin cleaning - two times: September and October.</li> <li>• Roadside mowing - As needed</li> <li>• Roadside brushing - Once or twice a year</li> <li>• Route sweeping - 3 times: Aug, Oct, Dec, Jan and April</li> <li>• Misc. sweeping (snow gravel pick up)</li> <li>• Crack Sealing Pavement Preventive Maintenance - None this PY 22, due to severe weather conditions.</li> <li>• Pavement Marking Restoration - None this PY 22</li> </ul>	No modification	PW Superintendent
Street Sweeping	Ongoing	The City contracts with Multnomah County for street sweeping (approximately 6 times per year). The frequency is based on weather conditions, road conditions and funding.	Maintain contract with Multnomah County.	Track frequency of sweepings.	Multnomah County conducted a total of 5 street sweeping this PY 22. Please see details above, Right of Way operation and maintenance.	No modification	PW Superintendent
De-icing and Yard Debris Activities	Ongoing	Sand and gravel are applied to roadway surfaces to assist with traction during inclement weather. The sand is removed and recycled as soon as possible after the snow or ice event. Yard debris is picked up from residents weekly by the City's solid waste provider.	As weather permits, remove gravel when it is no longer needed.	Track processes conducted for sand and gravel removal.	<p>There are two de-icing events that took place during this PY 22:</p> <ul style="list-style-type: none"> <li>• Once in December, 2016</li> <li>• Once in January, 2017</li> </ul> <p>Applicants for riparian buffer permits were encouraged to use native vegetation that is self sustainable without the need for pesticides or herbicides and to be in compliance with FMC chapter 19.105. This is implemented during the Natural Resources Land Use permitting process.</p> <p>There were (2) dock permits, which include Natural Resources Riparian reviews issued this PY 22.</p>	No modification	Permit Tech
Native Vegetation	Ongoing	Encourage the use of native vegetation in riparian areas on private and public property to reduce the need for fertilizers, pesticides, and herbicides. Planting and landscape policies for riparian buffer areas encourage use of vegetation (indigenous or imported) that is self-sustainable without the need for pesticides or herbicides. Riparian buffer permits are issued for alterations to the landscape within 50 feet of Fairview Creek, Fairview Lake, the Columbia Slough and their tributaries (City code chapter 19.105).	Review planting plans associated with riparian buffer permits.	Track number of riparian buffer permits.	<p>These were (2) dock permits, which include Natural Resources Riparian reviews issued this PY 22.</p> <p>There were total of 27 City of Fairview neighborhood parks and recreation (Total of 442.56 acres) that were treated with approved Portland Parks and Recreation pesticides this PY 22. In addition, there are 4 Metro parks and 3 Reynolds School District parks. Most of these parks were only treated with a mixture of herbicides as needed for invasive or unwanted native vegetation. Planting native vegetation was also incorporated in the City planting projects and during maintenance activities.</p> <p>Our Parks &amp; Recreation Lead worker had been in total compliance in reviewing his chemical applicator license bi-annually. Also, he attends seminars and trainings related to Parks and Recreation Pest Management presentations.</p>	No modification	Engineering Associate Parks Lead Worker
Integrated Pest Management	Ongoing	<p>The City encourages use of the Portland Parks and Recreation Pest Management Guide. This guide emphasizes controlling pests that are harmful to the health or aesthetic value of park plantings in a manner that is cost-effective, safe, and environmentally responsible. It is an approach that uses multi-faceted strategies that minimize negative impacts on the environment and on human health.</p> <p>The controls used in this program include manual, mechanical, cultural, biological and chemical methods. Often a combination of methods is used. Examples of Integrated Pest Management include:</p> <ul style="list-style-type: none"> <li>• Timing of chemical applications to avoid runoff.</li> <li>• Mowing high grass and brush to reduce weed seed crops in rough areas.</li> <li>• Pruning of trees and shrubs to increase air circulation to reduce susceptibility to disease and insect problems.</li> <li>• Appropriate fertilizing to encourage plant health and resistance to pests (i.e., weeds, insects and diseases).</li> <li>• Using plants with natural resistance to pests.</li> <li>• Combining bird scaring and over-seeding along with any application of broadleaf weed control to eliminate the cause of the problem, and therefore the need for repeated applications.</li> </ul>	Use Portland Parks and Recreation approved chemicals. Incorporate native plants in City planting projects to reduce chemical and fertilizer usage, as well as maintenance requirements.	Track City planting projects that incorporate native plants.	<p>City of Fairview's Park Lead Worker is a certified Oregon Department of Agriculture (ODA) chemical applicator who updates his certification on biennial renewal period. All events involving chemical applications are supervised by the Park Lead Worker.</p>	No modification	Parks Lead Worker
Chemical Applicator Licensing	Ongoing	Maintain staff certification in public pesticide application and follow Oregon Department of Agriculture (ODA) requirements related to herbicide application.	All chemical applications will be supervised by an ODA Certified Applicator.	N/A		No modification	Parks Lead Worker

NPDES Permit	Compliance Title	NPDES Description	Risk/Compliance Status	Reporting Frequency	CDBG	Priority and Other Funding	Responsible Party
Track Municipal Facilities	Ongoing	The City has one facility that includes the treatment, storage or transport of municipal waste. This facility is the Corporation Yard Dumpster. Collection of waste from municipal litter receptacles is collected and stored in a dumpster at this site until the City's garbage hauler collects the waste on a weekly basis. The dumpster has a cover on it and runoff from the site is treated by a structural stormwater filter. No additional stormwater management practices are deemed necessary for this site.	N/A	N/A	Public Works crew regularly monitored our Corporation Yard Dumpster facility known as the Greenwood Shop. Collected waste from municipal litter receptacles is collected and stored in this covered dumpster and collected by City's garbage hauler on a weekly basis. Storm runoff from the site is treated with Oil-Water separator / Concrete Structural Containment Vault (tiller cartridges by CorTech) / Bio-swale Retention Pond. Also, stockpile of construction materials needed for maintenance activities are covered and bermed to protect migration from run-off and wind erosion.	No modification	Engineering Associate
Litter Receptacles	Ongoing	Provide, collect, and maintain litter receptacles in strategic public areas and during major public events to provide disposal of pet waste bags and prevent trash from entering the stormwater system.	Maintain at least one litter receptacle at all public parks greater than 1 acre. Provide collection a minimum of once per week.	Track number of litter receptacles.	City of Fairview conducts public outreach through Fairview Outlook monthly magazine on healthy watershed campaign. One of the topics is about "Dog Waste Scooping" and dog waste bag receptacles are provided in every City Park. There are 43 litter receptacles that are maintained and collected once a week and after significant events.	No modification	Parks Lead Worker
Sanitary Sewer System Program	Ongoing	Litter wastewater infiltration through the operation, maintenance and construction of the sanitary sewer infrastructure based on existing conditions and projected sanitary flows.	Respond to pump station failures. Perform cleaning of the problem areas of the City's sanitary sewer system. Construct pipe restoration projects to replace defective pipe and reduce inflow and infiltration.	Track identified sanitary problems and resolutions related to the storm system each year.	We have no pump station failure or sanitary problem issues this FY 22. A high profile sanitary sewer rehabilitation project is under pre-design milestones by a Qualification Based Selected Consultant. It is the Interlachen Sanitary Sewer Pipe Rehabilitation, which is about 50-yr old sewer piping system. Project completion is forecasted on FY 23. Another significant sanitary sewer pipe bursting rehabilitation project was completed last February, 2016 on Ridge St. This project addressed capacity and estimated inflow and infiltration (I & I) issues.	No modification	Engineering Associate
Consolidated Stormwater Master Plan (CSMP)	Ongoing	The Consolidated Stormwater Master Plan (CSMP) adopted in 2007 combines infrastructure improvements including retrofit opportunities with federal and state water quality requirements. Projects were developed to address water quantity and quality issues, utilizing hydrologic and hydraulic modeling as well as information from the TMDL regulatory program and the NPDES stormwater discharge permit.	Continue to make progress in the implementation of the CSMP.	Track the number, type and watershed location of projects that are completed.	City of Fairview has updated the Consolidated Stormwater Master Plan (CSMP). CIP project list by Brown and Caldwell last August 9, 2016. The following CIP projects are identified in the project list of the Consolidated SW Master Plan (CSMP) and were designed/constructed this FY 22, are as follows: <ul style="list-style-type: none"> <li>• GN-4 Hydraulic System Modeling: City of Fairview has awarded the professional services to Cardno for the SW modeling this FY 22.</li> <li>• NE 7th St. (Main to Cedar) Sidewalk, Storm, Street Improvement Project: Grant proceeds from Community Development Block Grant (CDBG). Release order of \$69,282.00 was awarded to Fairview as the CDBG funding for this FY 22. The project close-out was last May, 2017 (FY 22).</li> <li>• NE 7th St. (Main to Depot) Right-of-Way Improvement Project: All County Surveyors (Consultant) has completed the design and construction is also anticipated this FY 22.</li> <li>• Interlachen Sanitary Pipe assessment and evaluation: Project is under pre-design milestone and construction is anticipated on FY 23.</li> <li>• NE Lincoln St. (7th to 8th) R-O-W Improvement Project: All County Surveyors (Consultant) has completed the design of the project and it will be next in line for the CDBG funding application.</li> </ul>	No modification	Engineering Associate

SWMP Element #8: Structural Stormwater Facility Operations and Maintenance	Compliance Data	EPA's Description	Resource/Task	Funding Measures	Status	Secondary and Data of Program Alteration Revisions	Responsible Party
Inspect and Maintain Public Storm Facilities	Ongoing	Perform inspection and required maintenance as stated in the O&M Plan—clean catch basins and storm pipe, sedimentation manholes, channels and stormwater detention basins in areas where sediment and/or debris tend to accumulate.	Inspect 50 percent of detention lines, ponds, swales and outfalls. Inspect natural stream channels from bridge and road crossing. Clean catch basins and inspect adjacent pipes in one third of the City annually. Clean all water quality manholes (5). Update maps of City Structural Stormwater Facilities.	Track facilities inspected and maintained. Track number of catch basins cleaned. Estimate quantity of sediment removed from catch basins and water quality manholes.	<p>The following are City of Fairview's stormwater quality facilities that are structurally inspected and operationally maintained annually:</p> <ul style="list-style-type: none"> <li>• Catch Basins: A total of 490 and are divided into 3 zones for maintenance purposes. Zone 1 (189 CBA), Zone 2 (176 CBA) and Zone 3 (125 CBA). Each zone is inspected and maintained annually. Zone 3 was inspected by city staff and cleaned by Multnomah County crew this FY 22. City of Fairview has an Inter-Governmental Agency (IGA) with Multnomah County with respect to catch basin cleaning; however, inspection and monitoring is done by Fairview O &amp; M staff.</li> </ul> <p>City of Fairview's O &amp; M crew started using mobile tablet / iPad for field inspection and monitoring and has completed the structural and maintenance inspections of the following stormwater facilities, this FY 22:</p> <ul style="list-style-type: none"> <li>• Outfalls: 38 total (9 High Priority Outfalls)</li> <li>• Underground Inpction Control Facilities (UICs) / Sumps and Sedimentation Manholes: 3 total</li> <li>• Rain Gardens: 4 total</li> <li>• Detention Ponds: 4 total</li> <li>• Flow Control Manholes: 4 total</li> <li>• Vortex Manholes: 3 total</li> <li>• Trash Racks: 3 total</li> <li>• Weir: 1 total</li> <li>• Oil/Water Separator: 1 total</li> <li>• Storm Cartridges/Chairs: 2 total</li> <li>• Natural Streams</li> <li>• Bio-Filtration Swales</li> <li>• Detention Pipelines</li> </ul>	No modification	Engineering Associate Storm Lead Worker PW Supplemental Map Tech

Compliance Item	Compliance Status	Description	Responsible Party	Tracking Metrics	2016-2017 (PY 22)	Summary and Key Findings	Responsible Party
Private Water Quality Facilities Inspection and Maintenance	Ongoing	Requires plans conforming to the requirements of City of Fairview Standard Specifications for Public Works Construction and City of Portland Stormwater Management Manual at the time of permitting for stormwater facilities related to new private development and redevelopment/retrofitting. Include recording of operations and maintenance plans for stormwater quality facilities.	Ensure new private stormwater facilities plans conform to City requirements. Inspect new facilities for conformance to approved O&M plans.	Track number of inspections conducted and inspection results.	<p>City of Fairview engineering staff participates during pre-application and engineering review routing process for permit acquisition on new private and public agency development and re-development. The reporting staff manages review, comments and feedbacks on plans, specifications, stormwater report and calculations during the review process. It is one of the requirements from the consultants and project owners to include submittal of Operation and Maintenance Agreement (to be permitted with Multnomah County) on stormwater facilities maintenance activities at post-construction period. There are 7 total of new private developments conducted for permitting process this PY 22, are as follows:</p> <ul style="list-style-type: none"> <li>• Fairview Woods Apartment Proposed 49-Unit Apartment</li> <li>• Jay Ellis Development</li> <li>• New Fairview Elementary School</li> <li>• Reynolds School District Maintenance Yard Improvement</li> <li>• All Star - Ph. II, Proposed Apartment Units</li> <li>• Arada Road (223rd - 238th), Multnomah County Road Widening Project</li> <li>• Sandy Blvd (230th - 238th), Multnomah County Road</li> </ul> <p>There were four total of private regulated stormwater business facilities inspected during PY 22, are as follows:</p> <ul style="list-style-type: none"> <li>• Blue Lake Park</li> <li>• Knight Transportation</li> <li>• Thermo King Northwest</li> <li>• Yamaha Sports Plaza</li> </ul>	No modification	Engineering Associate