



# Water Quality Program

## Permit Submittal Electronic Certification

**Permittee:** SNOHOMISH CITY

**Permit Number:** WAR045543

**Site Address:** 116 UNION AVE  
SNOHOMISH, WA 98290-2943

**Submittal Name:** MS4 Annual Report Phase II Western

**Version:** 1

**Due Date:** 3/31/2019

### Questionnaire

Number	Permit Section	Question	Answer
1	S5.A.2	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	Snohomish 2019 SWMP_1_03082019110932
2	S9.D.5	Attach a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period per S9.D.5.	Not Applicable
3	S5.A.3	Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.	Yes
4	S5.A.5.b	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)	Yes
5	S5.C.1.a.i and ii	Attach description of public education and outreach efforts conducted per S5.C.1.a.i and ii.	Snohomish Education Efforts_5_03082019111348
6	S5.C.1.b	Created stewardship opportunities (or partnered with others) to encourage resident participation in activities such as those described in S5.C.1.b.	Yes
8	S5.C.2.a	Describe the opportunities created for the public to participate in the decision making processes involving the development, implementation and updates of the Permittee's SWMP. (S5.C.2.a)	Annual public hearing to be held (typically in March, depending on council schedule).
9	S5.C.2.b	Posted the updated SWMP Plan and latest annual report on your website no later than May 31. (S5.C.2.b)	Yes
9b	S5.C.2.b	List the website address.	<a href="http://www.ci.snohomish.wa.us/213/Stormwater">http://www.ci.snohomish.wa.us/213/Stormwater</a>
10	S5.C.3.a.i - vi	Maintained a map of the MS4 including the requirements listed in S5.C.3.a.i.-vi.	Yes
11	S5.C.3.b.v	Implemented a compliance strategy, including informal compliance actions as well as enforcement provisions of the regulatory mechanism described in S5.C.3.b. (S5.C.3.b.v)	Yes

12	S5.C.3.b.vi	Updated, if necessary, the regulatory mechanism to effectively prohibit illicit discharges into the MS4 per S5.C.3.b.vi. (Required no later than February 2, 2018)	Not Applicable
13	S5.C.3.c.i	Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.3.c.i.	Yes
13b	S5.C.3.c.i	Cite methodology	City's IDDE Manual created in 2011.
14	S5.C.3.c.i	Percentage of MS4 coverage area screened in reporting year per S5.C.3.c.i. (Required to screen 40% of MS4 no later than December 31, 2017 (except no later than June 30, 2018 for the City of Aberdeen) and 12% on average each year thereafter. (S5.C.3)	58
15	S5.C.3.c.ii	List the hotline telephone number for public reporting of spills and other illicit discharges. (S5.C.3.c.ii)	(360) 568-3115 and (360) 568-7070
15b	S5.C.3.c.ii	Number of hotline calls received.	0
16	S5.C.3.c.iii	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.3.c.iii.	Yes
17	S5.C.3.c.iv	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. (S5.C.3.c.iv)	Yes
17b	S5.C.3.c.iv	Describe the information sharing actions. (S5.C.3.c.iv)	See attachment "Snohomish Education Efforts.doc"
18	S5.C.3.d	Implemented an ongoing program to characterize, trace, and eliminate illicit discharges into the MS4 per S5.C.3.d.	Yes
19	S5.C.3.d.iv	Number of illicit discharges, including illicit connections, eliminated during the reporting year. (S5.C.3.d.iv)	2
20	S5.C.3.d.iv	Attach a summary of actions taken to characterize, trace and eliminate each illicit discharge found by or reported to the permittee. For each illicit discharge, include a description of actions according to required timeline per S5.C.3.d.iv	678562 - Bickford Motors ertsR_20_03082019112 724
21	S5.C.3.e	Municipal illicit discharge detection staff are trained to conduct illicit discharge detection and elimination activities as described in S5.C.3.e.	Yes
22	S5.C.4.a	Implemented an ordinance or other enforceable mechanism to address runoff from new development, redevelopment and construction sites per the requirements of S5.C.4.a.	Yes
24	S5.C.4.a.i	Number of exceptions granted to the minimum requirements in Appendix 1. (S5.C.4.a.i., and Section 6 of Appendix 1)	0
25	S5.C.4.a.i	Number of variances granted to the minimum requirements in Appendix 1. (S5.C.4.a.i., and Section 6 of Appendix 1)	0

26	S5.C.4.b.i	Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.4.a.i. (S5.C.4.b.i)	Yes
26b	S5.C.4.b.i	Number of site plans reviewed during the reporting period.	15
27	S5.C.4.b.ii	Inspected, prior to clearing and construction, permitted development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 Determining Construction Site Sediment Damage Potential, or alternatively, inspected all construction sites meeting the minimum thresholds adopted pursuant to S5.C.4.a.i. (S5.C.4.b.ii)	Yes
27b	S5.C.4.b.ii	Number of construction sites inspected per S5.C.4.b.ii.	10
28	S5.C.4.b.iii	Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. (S5.C.4.b.iii)	Yes
28b	S5.C.4.b.iii	Number of construction sites inspected per S5.C.4.b.iii.	10
29	S5.C.4.b.ii, iii and v	Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects). (S5.C.4.b.ii, iii and v)	0
30	S5.C.4.b.iv	Inspected all permitted development sites that meet the thresholds in S5.C.4.a.i upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.4.b.iv)	Yes
31	S5.C.4.b.ii-iv	Achieved at least 80% of scheduled construction-related inspections. (S5.C.4.b.ii-iv)	Yes
32	S5.C.4.b.iv	Verified a maintenance plan is completed and responsibility for maintenance is assigned for projects. (S5.C.4.b.iv)	Yes
33	S5.C.4.c	Implemented provisions to verify adequate long-term operation and maintenance (O&M) of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S5.C.4. a and b. (S5.C.4.c)	Yes
35	S5.C.4.c.iii	Annually inspected stormwater treatment and flow control BMPs/facilities per S5.C.4.c.iii.	Yes
35b	S5.C.4.c.iii	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.4.c.iii	Not Applicable
36	S5.C.4.c.iv	Inspected new residential stormwater treatment and flow control BMPs/facilities and catch basins every 6 months per S5.C.4.c.iv to identify maintenance needs and enforce compliance with maintenance standards.	Yes
37	S5.C.4.c.v	Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.4.c.v)	Yes

38	S4.C.4.c.vi	Verified that maintenance was performed per the schedule in S5.C.4.c.vi when an inspection identified an exceedance of the maintenance standard.	Yes
38b	S5.C.4.c.vi	Attach documentation of any maintenance delays. (S5.C.4.c.vi)	Not Applicable
39	S5.C.4.d	Provided copies of the Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity to representatives of proposed new development and redevelopment. (S5.C.4.d)	Yes
40	S5.C.4.e	All staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement are trained to conduct these activities. (S5.C.4.e)	Yes
42	S5.C.4.g	Participated and cooperated with the watershed-scale stormwater planning process led by a Phase I county. (S5.C.4.g)	Not Applicable
43	S5.C.5.a	Updated and implemented maintenance standards as protective, or more protective, of facility function as those specified in Chapter 4 of Volume V of the Stormwater Management Manual for Western Washington (as amended 2014). (Required no later than December 31, 2016, except no later than June 30, 2017 for Permittees in Lewis and Cowlitz counties, and no later than June 30, 2018 for the City of Aberdeen, S5.C.5.a).	Yes
44	S5.C.5.a	Applied a maintenance standard that is not specified in the Stormwater Management Manual for Western Washington.	Not Applicable
45	S5.C.5.a.ii	Performed timely maintenance per S5.C.5.a.ii.	Yes
46	S5.C.5.b	Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (S5.C.5.b)	Yes
46b	S5.C.5.b	Number of known municipally owned or operated stormwater treatment and flow control BMPs/facilities. (S5.C.5.b)	34
46c	S5.C.5.b	Number of facilities inspected during the reporting period. (S5.C.5.b)	34
46d	S5.C.5.b	Number of facilities for which maintenance was performed during the reporting period. (S5.C.5.b)	0
47	S5.C.5.b	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.5.b.	Not Applicable
48	S5.C.5.c	Conducted spot checks and inspections (if necessary) of potentially damaged stormwater facilities after major storms as per S5.C.5.c.	Yes

49	S5.C.5.d	Inspected all municipally owned or operated catch basins and inlets as per S5.C.5.d, or used an alternative approach. (Required once no later than August 1, 2017 and every two years thereafter, except once no later than June 30, 2018 and every two years thereafter for the City of Aberdeen)	Not Applicable
49b	S5.C.5.d	Number of known catch basins.	1737
49c	S5.C.5.d	Number of catch basins inspected during the reporting period.	1008
49d	S5.C.5.d	Number of catch basins cleaned during the reporting period.	33
50	S5.C.5.d.i-ii	Attach documentation of alternative catch basin cleaning approach, if used. (S5.C.5.d.i or ii)	Not Applicable
51	S5.C.5.f	Implemented practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.5.f)	Yes
52	S5.C.5.g	Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.5.g.)	Yes
53	S5.C.5.h	Implemented a Stormwater Pollution Prevention Plan for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under an NPDES permit that covers stormwater discharges associated with the activity. (S5.C.5.h)	Yes
54	S7.A	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A)	Yes
55	S7.A	For TMDLs listed in Appendix 2: Attach a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s). (S7.A)	Snohomish TMDL Status 2018_55_03082019112 203
56	S8.A	Attach a description of any stormwater monitoring or stormwater-related studies as described in S8.A.	Snohomish Monitoring Report_20_56_03082019112303
57	S8.B.1	Participated in cost-sharing for the regional stormwater monitoring program (RSMP) for status and trends monitoring. (S8.B.1)	Yes
58	S8.C.1	Participated in cost-sharing for the regional stormwater monitoring program (RSMP) for effectiveness studies. (S8.C.1) (Required to begin no later than August 15, 2014)	Yes
59	S8.D.1	Contributed to the RSMP for source identification and diagnostic monitoring information repository in accordance with S8.D.1. (Required to begin no later than August 15, 2014)	Yes

60	G3	Notified Ecology in accordance with G3 of any discharge into or from the Permittees MS4 which could constitute a threat to human health, welfare or the environment. (G3)	Yes
61	G3	Number of G3 notifications provided to Ecology.	2
62	G3.A	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	Yes
63	S4.F.1	Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)	Yes
64	S4.F.3.a	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a.	Not Applicable
65	S4.F.3.d	Attach a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)	Not Applicable
66	G20	Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)	Not Applicable
67	G20	Number of non-compliance notifications (G20) provided in reporting year.	0
67b	G20	List the permit conditions described in non-compliance notification(s).	Not Applicable

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

Steve Schuller

3/12/2019 4:59:17 PM

Signature

Date

# Department of Ecology - Environmental Report Tracking System

ERTS # 678562

## Initial Report

External Reference # WAR 011000

### Caller Information

First Name MARLEY  
Last Name KIRKHAM  
Business Name EARTH SOLUTIONS NW LLC  
Street Address 1805 136TH PL NE SUITE 201  
Other Address  
City BELLEVUE State WA Zip 98005  
E-mail Confidential\_FL   
Phone (425) 449-4704 Ext Type Business

### Where did it happen

Berth Anchorage  
Location Name BICKFORD TRAILER SALES  
Street Address 3100 BICKFORD AVE  
Other Address  
City/Place SNOHOMISH State WA Zip 98290  
County - Region SNOHOMISH NWRO FS ID  
WIRA #  
Waterway Type CATCH BASIN  
Latitude Longitude  
Topo Quad 1:24:000 SNOHOMISH  
Direction/Landmark (mile post, cross roads, township/range)

### What happened

Spills Program Oil Spill? Y

Incident Date 1/16/2018 Received Date 1/16/2018 17:05

Medium Fresh water

Material Lube Oil/Motor Oil

Sheen Only  Quantity To Water

Source

Type Other Primary

Cause

Incident Type Oil Spill

Activity Other

Impact WATER POLLUTION

Vessel Name

Hull Number

### Primary Potentially Responsible Party Information

First Name VERNE  
Last Name WOOLEY

Business Name AERO CONSTRUCTION

Street Address

Other Address

City State WA Zip  
Phone (425) 754-8103 Ext Type Business  
E-mail

### Additional Contact Information

Name Phone Ext Type

### More Information

UPDATE 01/19/2018 1111:

From: Lewis Conklin [mailto:Lewis.Conklin@earthsolutionsnw.com]  
Sent: Friday, January 19, 2018 11:11 AM  
To: Marley Kirkham <Marley.Kirkham@earthsolutionsnw.com>; ECY RE NWRO ERTS <nwroerts@ECY.WA.GOV>  
Cc: Mike Bickford <mikeb@bickford.net>; verne@pceaero.com  
Subject: I am reporting an environmental issue - WAR-011000 Bickford Update

Hello,

We have an update on the report below, the contractor has done the following work/cleanup:

- 1) The truck in question spilled between 8.5 and 9 gallons of oil.
- 2) The contractor immediately placed diapers on the spill area.
- 3) The contractor excavated out the contaminated soil to a depth of 1.5 to 2-feet and transported to the Cadman burner.
- 4) The contractor used wipes and a vac-truck to clean out two basin structures prior to discharge into the plugged vault.
- 5) The contractor entered the 300' long by 80' wide vault to start the vault cleanup.
- 6) The contractor used diapers and a vac-truck to clean the vault.
- 7) The contractor dumped 10 gallons of Dawn dish washing soap twice into the plugged vault.
- 8) The contractor continued to clean the vault, use a vac-truck and use a pump to circulate water in the vault.
- 9) The contractor continues to circulate the vault water until it is in a clean condition.
- 10) The contractor plans to use a level spreader to discharge clean water onto a vegetated grassy area.

## Department of Ecology - Environmental Report Tracking System

**ERTS # 678562**

Thank you,

Lewis Conklin  
Geotechnical Services Manager  
Earth Solutions NW, LLC

1805 - 136th PI NE, Suite 201, Bellevue, WA 98005  
Phone: 425-449-4704  
Fax: 425-449-4711  
Cell: 206-793-7550  
Email: lewis.conklin@earthsolutionsnw.com

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From: Marley Kirkham [mailto:Marley.Kirkham@earthsolutionsnw.com]  
Sent: Tuesday, January 16, 2018 5:05 PM  
To: ECY RE NWRO ERTS <nwroerts@ECY.WA.GOV>  
Cc: Lewis Conklin <Lewis.Conklin@earthsolutionsnw.com>  
Subject: I am reporting an environmental issue.

Hello,

I am reporting a contained oil spill at a site as a representative for the WAR-011000 permittee (Bickford).

WAR 011000 Bickford Ford  
3100 Bickford Ave, Snohomish, WA (Snohomish County) 98290  
Spill occurred ~18:30 on 1/16/2018. Contractor states that a semi truck high-sided on a catchbasin, which was then ripped off dumping approximately 10 gallons of oil into the onsite storm system. Contractor states that the vault is plugged and oil is contained in the vault. No discharge has occurred in this incident.

For further details please call contractor onsite: Verne Wooley- Aero Construction 425-754-8103

Thank you,

Marley Kirkham

Assistant Erosion Control Manager  
Earth Solutions NW, LLC  
1805 - 136th PI NE, Suite 201, Bellevue, WA 98005  
Phone: 425-449-4704  
Cell: 206-235-3250  
Fax: 425-449-4711  
Email: marley.kirkham@earthsolutionsnw.com

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[Entry Person](#) SACAYANAN, TAMARA

[Entry Date](#) 1/17/2018

Department of Ecology - Environmental Report Tracking System

ERTS # 678562

Referral

Referral # 234718

Referral Method

- E-mail ERTS number
- E-mail attachment
- Print
- Telephone

Person Referred to Braund, Trevor

Primary

Phone (425) 649-7291 Fax

E-mail trbr461@ecy.wa.gov; 3607632296@onpage.com

Program/Organization SPILLS, PREVENTION, PREPAREDNESS AND RESPONSE

Address

City Bellevue WA

Region/Location NWRO

Referral Date 1/17/2018

Referral # 234719

Referral Method

- E-mail ERTS number
- E-mail attachment
- Print
- Telephone

Person Referred to Dobrowski, Evan

Primary

Phone (425) 649-7276 Fax

E-mail EMAIL NW STRM H20

Program/Organization WATER QUALITY

Address

City Bellevue WA

Region/Location NWRO

Referral Date 1/17/2018

Referral # 234720

Referral Method

- E-mail ERTS number
- E-mail attachment
- Print
- Telephone

Person Referred to Funk, Andrew

Primary

Phone (425) 649-7215 Fax

E-mail afun461@ecy.wa.gov

Program/Organization WATER QUALITY

Address

City Bellevue WA

Region/Location NWRO

Referral Date 1/17/2018

Referral # 234887

Referral Method

- E-mail ERTS number
- E-mail attachment
- Print
- Telephone

Person Referred to SNOHOMISH CITY PUBLIC WORKS, TIM JACKSON

Primary

Phone (360) 568-7070 Fax

E-mail EMAIL SNOHOMISH CITY PUB WKS

Program/Organization SNOHOMISH (CITY)

Address

City Snohomish WA 98290

Region/Location PUBLIC WORKS

Referral Date 1/22/2018

ERTS # 678562

Followup

<b>Inspector Information</b>		<b>Where did it happen</b>		<b>Followup #1</b>
Referral # 234719		Berth Anchorage		
<input checked="" type="checkbox"/> Lead Inspector Crotty, Colleen		Location Name BICKFORD TRAILER SALES		
Program/Organization WATER QUALITY		Street Address 3100 BICKFORD AVE		
		Other Address		
* Region/Location NWRO		City/Place SNOHOMISH	State WA	Zip 98290-
# of Ecology Staff	Overtime <input type="checkbox"/>	County SNOHOMIS	Region NWRO	FS ID
<b>Action</b>	Start Date	End Date	Waterway	Type CATCH BASIN
NO ACTION NEEDED	1/17/2018		WRIA #	
<b>What happened</b>	Spills Program Oil Spill? N	Latitude	Longitude	
Incident Date 1/16/2018		Topo Quad 1:24,000 SNOHOMISH		
<b>Medium</b>		Direction/Landmark (mile post, cross roads, township/range)		
SURFACE WATER-FRESH				
<b>Material</b>				
PETROLEUM - MOTOR OIL				
Quantity Unit Est.				
GALLON	<input type="checkbox"/>			
<b>Source</b>	Regulated? <input type="checkbox"/>	<b>Potentially Responsible Party Information</b>		
		Check if the primary PRP provided notice to Ecology <input type="checkbox"/>		
		Primary <input checked="" type="checkbox"/>	First	Last
		Name VERNE	WOOLEY	
		Business Name AERO CONSTRUCTION		
		Street Address		
		Other Address		
		City	State WA	Zip
		Phone (425) 754-8103	Ext	Type Business
		E-mail		
<b>Activity</b>				
OTHER				
<b>Impact</b>				
WATER POLLUTION				
<b>Vessel</b>				
<b>Narrative</b>				
<p>On 1/17/18 I received the ERTS report and searched PARIS. The database shows 2 expired permits for this site but no active permits under this WAR #.</p> <p>I contacted Trevor Braund with Spill Response. He had already contacted Marley Kirkham with Earth Solutions to verify the report details. 10 gallons of motor oil spilled into the construction sites private system due to a punctured oil tank. System is plugged and not connected to citys system during construction. He got no response when contacting Verne Wooley, the contractor, and also left a message with SnohCo PUD.</p> <p>On 1/19/2018 we received a status update from Earth Solutions as to the remediation/mitigation work the site has done.</p> <ol style="list-style-type: none"> <li>1) The truck in question spilled between 8.5 and 9 gallons of oil.</li> <li>2) The contractor immediately placed diapers on the spill area.</li> <li>3) The contractor excavated out the contaminated soil to a depth of 1.5 to 2-feet and transported to the Cadman burner.</li> <li>4) The contractor used wipes and a vac-truck to clean out two basin structures prior to discharge into the plugged vault.</li> <li>5) The contractor entered the 300' long by 80' wide vault to start the vault cleanup.</li> <li>6) The contractor used diapers and a vac-truck to clean the vault.</li> <li>7) The contractor dumped 10 gallons of Dawn dish washing soap twice into the plugged vault.</li> <li>8) The contractor continued to clean the vault, use a vac-truck and use a pump to circulate water in the vault.</li> <li>9) The contractor continues to circulate the vault water until it is in a clean condition.</li> <li>10) The contractor plans to use a level spreader to discharge clean water onto a vegetated grassy area.</li> </ol> <p>Based on this information it appears that a site visit to address the spill is not necessary and that the issue is being taken care of sufficiently.</p> <p>1/22/2018 I contacted Earth Solutions to ask for a copy of the sites current CSWGP Ecology Permit Coverage Letter under the Stormwater General Permit. Mr. Lewis Conklin responded that the site will need to update their permit. This indicates to me that the site is operating under an expired CSWGP, which expired in 2015. Mr. Conklin sent me emails showing that the site has been aware they are not covered under an active permit since early 2017, and had attempted to contact Tonya Wolfe about how to rectify it. I directed them to contact Shawn Hopkins,</p>				

Department of Ecology - Environmental Report Tracking System

**ERTS # 678562**

who was listed as the sites previous Permit Administrator.

Vessel Emergency

Entry Person: Crotty, Colleen

Entry Date 1/22/2018

Department of Ecology - Environmental Report Tracking System

ERTS # 680244

Initial Report

External Reference #

Caller Information

Where did it happen

First Name: KIO, Last Name: SIMPSON, Business Name: CITY OF SNOHOMISH, Street Address, Other Address, City, State: WA, Zip, E-mail, Phone: (425) 330-9055, Ext, Type: Business, Confidential\_FL checkbox.

Berth, Anchorage, Location Name, Street Address: 10 AVE A, Other Address, City/Place: SNOHOMISH, State: WA, Zip, County - Region: SNOHOMISH, NWRO, FS ID, WIRA #, Waterway, Type, Latitude, Longitude, Topo Quad 1:24:000: SNOHOMISH, Direction/Landmark (mile post, cross roads, township/range).

What happened

Spills Program Oil Spill? N

Incident Date: 4/2/2018, Received Date: 4/2/2018 9:13

Medium: CATCH BASIN

Material: SEWAGE/SLUDGE

Quantity, Unit

Source: OTHER

Cause: OTHER

Activity: OTHER

Impact: WATER POLLUTION

Vessel Name

Hull Number

Primary Potentially Responsible Party Information

First Name, Last Name: UNKNOWN

Business Name

Street Address

Other Address

City, State: WA, Zip

Phone, Ext, Type

E-mail

Additional Contact Information

Name, Phone, Ext, Type

More Information

REPORT OF A SANI-CAN THAT HAS BEEN TIPPED OVER. CITY WENT OUT TIPPED IT UP. TOOK VACTURE TRUCK UP WASHING IT OUT AND CLEANED OUT A CATCH BASIN

CITY WAS NOTIFIED THIS MORNING

Entry Person: SACAYANAN, TAMARA

Entry Date: 4/2/2018

# Department of Ecology - Environmental Report Tracking System

**ERTS # 680244**

## Referral

<b>Referral Method</b>		<b>Person Referred to</b> SNOHOMISH CITY PUBLIC WORKS, TIM JACKSON	<b>Referral #</b> 237655
<input type="radio"/> E-mail ERTS number		<b>Phone</b> (360) 568-7070 <b>Fax</b>	<b>Primary</b> <input type="checkbox"/>
<input checked="" type="radio"/> E-mail attachment		<b>E-mail</b> EMAIL SNOHOMISH CITY PUB WKS	
<input type="radio"/> Print		<b>Program/Organization</b> SNOHOMISH (CITY)	
<input type="radio"/> Telephone		<b>Address</b> 116 Union Avenue	
		<b>City</b> Snohomish <b>WA</b> 98290	
		<b>Region/Location</b> PUBLIC WORKS	
		<b>Referral Date</b>	
<b>Referral Method</b>		<b>Person Referred to</b> NWRO WQ,	<b>Referral #</b> 237656
<input type="radio"/> E-mail ERTS number		<b>Phone</b> (425) 649-7105 <b>Fax</b> (425) 649-7098	<b>Primary</b> <input type="checkbox"/>
<input checked="" type="radio"/> E-mail attachment		<b>E-mail</b> nwrowqerts@ecy.wa.gov	
<input type="radio"/> Print		<b>Program/Organization</b> WATER QUALITY	
<input type="radio"/> Telephone		<b>Address</b> 3190 160th Ave SE	
		<b>City</b> Bellevue <b>WA</b> 98008-5452	
		<b>Region/Location</b> NWRO	
		<b>Referral Date</b> 4/2/2018	

## Followup (None)

# WATER QUALITY INCIDENT REPORT FORM

(Call Department of Ecology If Spill is Significant)

Today's Date 4/3/18 Time Reported 7:15 Am CORR LOG# \_\_\_\_\_  
Call Taker's Name Kevin Base # \_\_\_\_\_  
Date of Incident 4/2/18 Time of Occurrence 7:00 Am

## Caller Information

Name Scott A Cox  
First Middle Last  
Business Name City of Snohomish  
Street Address 1801 1st St

City Snohomish State WA Zip 98290  
E-mail SMTP.COX@SnohomishWA.GOV  
External Ref. # \_\_\_\_\_

Phone: 425 328 0076 Ext \_\_\_\_\_ Type \_\_\_\_\_

Caller Requests to Remain Anonymous

## Incident Description

Matrix Soil  Sediment  Water

Contaminate  Oil/Fuel  Sewage/Septic  
 Detergents  Other \_\_\_\_\_

Odor:  Sewage  Rancid/sour  Petroleum/gas  Sulfide  Other\* None

Color:  Clear  Brown  Gray  Yellow  Green  Orange  Red  Other\* Blue

Floatables:  Toilet Paper  Suds  Oil Sheen  Excessive Algae  Other\* none

Quantity estimate 1 gal. Cause Tipped sani-cans (portable out-house)

## Other Agencies Complainant Contacted:

Agencies Responding \_\_\_ Fire \_\_\_ Police  City Other DOE

Referred to 911?  YES  NO

## Referred to:

Name Tammy Phone 425 649 7000 Ext \_\_\_\_\_ Type \_\_\_\_\_

## \*Additional Information

There was no visible sign of spill until sani-cans (2) were tipped up, at that point roughly 1 gal of blue fluid poured out onto the ground. Vector truck was already in place to clean it up. entire site was ~~thoroughly~~ thoroughly rinsed and vacuumed up, then decanted @ the city's treatment facility

# Washington Department of Ecology

## Electronic Submission Cover Letter



**WQWebSubmittal - Submittal Submission Id: 1657889 - 3/12/2019 4:59:18 PM**

Company Name	Signer Name	System Name
City of Snohomish	Steve Schuller	WQWebPortal

### Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for City of Snohomish	Copy of Record CityofSnohomish Tuesday March 12 2019
WAR045543_20_03082019112724	678562 - Bickford Motors ertsR_20_03082019112724
IDDE event	Sani CanertsReferral-ERTS 680244
WAR045543_1_03082019110932	Snohomish 2019 SWMP_1_03082019110932
WAR045543_5_03082019111348	Snohomish Education Efforts_5_03082019111348
WAR045543_56_03082019112303	Snohomish Monitoring Report_20_56_03082019112303
WAR045543_55_03082019112203	Snohomish TMDL Status 2018_55_03082019112203

### Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.

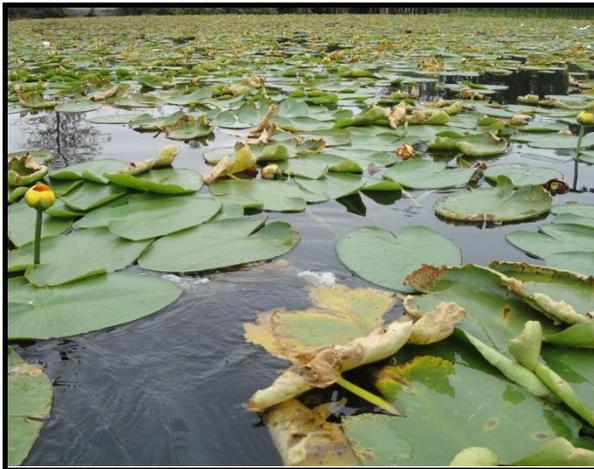
For Ecology Use Only



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# STORMWATER MANAGEMENT PROGRAM



CITY OF SNOHOMISH

2019

## 1.0 INTRODUCTION

This document has been prepared to satisfy the Western Washington Phase II Municipal Stormwater Permit (Permit) requirement for the continued development and updating of the Stormwater Management Program (SWMP). The purpose of the SWMP is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable and to protect water quality.

The National Pollutant Discharge Elimination System (NPDES) Permit is a federal permit that regulates stormwater and wastewater discharges to waters of the State. While it is a federal permit, the regulatory authority was delegated to the Washington State Department of Ecology (Ecology). In response, Ecology developed and issued the Western Washington Phase II Municipal Stormwater Permit. The Permit was issued by Ecology on January 17, 2007, and was modified in 2009 and 2012. A new permit was issued August 1, 2013, and it was to be in effect until July 31, 2018 however, Ecology issued an extension to July 31, 2019 as they prepare to write the next upcoming permit. It is the intent of this SWMP to recognize the current permit requirements and to plan for these requirements where appropriate. Once the new Permit is issued in 2019, the City will begin the process of planning and making modifications to its existing SWMP with the intent of fully complying with the new permit requirements.

All municipalities affected by the permit must create and implement a SWMP which addresses the following required program elements:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Run-Off from New Development, Redevelopment and Construction Sites
- Municipal Operations and Maintenance
- Total Maximum Daily Loads (TMDLs), if applicable to the jurisdiction

The City of Snohomish SWMP will be updated annually and submitted with the City's Annual Report to Ecology. The City of Snohomish is posting this document on the City web site (<http://www.ci.snohomish.wa.us/213/Stormwater>) so it can be reviewed by the public. Comments on the SWMP can be made by submitting comments in writing to City of Snohomish. Comments can be delivered or mailed to City of Snohomish, 116 Union Ave., Snohomish, WA 98290 ATTN: Andrew Sics, P.E., Senior Utilities Engineer. Email comments may be sent to: [sics@snohomishwa.gov](mailto:sics@snohomishwa.gov).

## 2.0 PUBLIC EDUCATION AND OUTREACH PROGRAM

The following section describes the Permit requirements related to Public Education and Outreach and the planned activities the City intends to conduct to meet these requirements.

### 2.1 Permit Requirements

The 2013 Permit (Section S5.C.1) requires the City to:

- Include an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourages public participation. The target audiences include the general public, engineers/contractors/developers/land use planners, residents, landscapers and property managers/owners.
- Create stewardship opportunities to participate in such activities as stream teams, storm drain marking, volunteer monitoring, education, and riparian plantings.
- Measure the understanding and adoption of the targeted behaviors for at least one target audience no later than February 2, 2016.

## **2.2 Planned Activities**

Future activities planned to meet the Public Education and Outreach requirement of the permit are listed in Table 2-1.

**Table 2-1**

**Planned Activities for Public Education and Outreach Program**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
EDUC-1	Engineers/Contractors/Developers/Land Use Planners – Stormwater treatment and flow control BMPs/facilities: Pamphlet passed out with permits	Ongoing
EDUC-2	General public – pet waste handling facilities/education located at parks	Ongoing
EDUC-13	General public – Create stewardship activities by advertising the Sound Salmon Solutions and Snohomish Conservation District websites on the City website	Ongoing
EDUC-14	Volunteers to be used for LID and rain garden projects within City Parks directed by the Parks Department	Ongoing
EDUC-15	Farmer’s Market informational booth to educate the general public on IDDE, pet waste and other general stormwater topics	Annually, May – Sept. (weekly)
EDUC-3	General public – general impacts of stormwater: Utility bill insert on stormwater topics	Annually
EDUC-19	Kla-Ha-Ya Days informational booth to educate the general public on IDDE, pet waste and other general stormwater topics	Annually (July)
EDUC-20	Redistribute restaurant flyers	June 30, 2018
EDUC-21	Community Stormwater Outreach Event	Fall 2019

### 3.0 PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

The following section describes the Permit requirements related to Public Involvement and Participation and the planned activities the City intends to conduct to meet these requirements.

#### 3.1 Permit Requirements

The 2013 Permit (Section S5.C.2) requires the City to:

- Provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate structures or other similar activities.
- Provide the opportunity for the public to participate in the decision making processes involving the SWMP.
- The SWMP and Annual Report shall be posted to the City’s website no later than May 31<sup>st</sup> of each year.

#### 3.2 Planned Activities

Future activities planned to meet the Public Involvement and Participation requirement of the permit are listed in Table 3-1.

**Table 3-1**

**Planned Activities for Public Involvement and Participation**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
PI-1	Hold public meeting on the Annual SWMP via the City Council	By May (each year)
PI-2	Post final SWMP and Annual Report to City Website	By April 30th (each year)
PI-3	Post final SWMP in City Hall foyer.	By April 30 <sup>th</sup> (each year)
PI-4	Post public opportunities to get involved on City website (i.e. links to Sound Salmon Solutions, Snohomish Conservation District, Snohomish County, Dept. of Ecology, etc.)	Ongoing

## **4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION**

The following section describes the Permit requirements related to Illicit Discharge Detection and Elimination (IDDE) and the planned activities the City intends to conduct to meet these requirements.

### **4.1 Permit Requirements**

The 2013 Permit (Section S5.C.3) requires the City to:

- Provide ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges.
- Field assess at least one high priority waterbody in 2013 for IDDE purposes. *(Completed in 2015.)*
- Update City stormwater basemap which shall include all known outfalls, receiving waters, stormwater treatment and flow control facilities, conveyances where the outfall is 24-inches in diameter (or larger), and land use.
- Maintain an ordinance that effectively prohibits non-stormwater, illicit discharges into the storm system to the maximum extent allowable under state and federal law. The ordinance shall describe the allowable discharges and shall have an escalating enforcement procedure. This ordinance shall be reviewed and revised (if necessary) by February 2, 2018. The City shall have a compliance strategy to enforce the ordinance such as public education, technical assistance, source control and/or maintenance of stormwater facilities.
- Implement IDDE program that includes field screening of the system for illicit discharges/connections (40% of the system to be inspected no later than December 31, 2017 and then an average of 12% each year thereafter), procedures for detecting illicit discharges/connection and related enforcement, training for City staff, and informing businesses of hazards with illicit discharges,
- Publicize hotline for public reporting of spills and illicit discharges.

### **4.2 Planned Activities**

Future activities planned to meet the Illicit Discharge and Detection and Elimination requirement of the permit are listed in Table 4-1.

**Table 4-1**

**Planned Activities for Illicit Discharge Detection and Elimination**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
IDDE-1	Provide general public with information related to IDDE including hotline on City website	Ongoing
IDDE-2	Maintain stormwater basemap	Ongoing
IDDE-4	Field Screen 10% of system for IDDE each year from 2013 through 2017 and then 12% of the system each year thereafter (Maintain records of which areas have been field screened and date inspected).	<ul style="list-style-type: none"> <li>▪ 12% of total system (annually)</li> </ul>
IDDE-5	Renew IDDE training for field staff and public employees (Track each training session with names of employees and date)	<ul style="list-style-type: none"> <li>▪ November 2020</li> </ul>
IDDE-6 / EDUC- 9	Provide businesses with brochures related to IDDE (track number of brochures and date delivered).	<ul style="list-style-type: none"> <li>▪ Businesses: Ongoing</li> <li>▪ Construction: Ongoing with permit handouts</li> </ul>

## **5.0 CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES**

The following section describes the Permit requirements related to controlling runoff from new development, redevelopment and construction sites. It also describes the planned activities the City intends to conduct to meet these requirements.

### **5.1 Permit Requirements**

The 2013 Permit (Section S5.C.4) requires the City to:

- Implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment and construction site activities.
- Adopt an ordinance to address runoff from new development, redevelopment and construction site activities that will be effective no later than December 31, 2016.
  - The ordinance addressing specific requirements in S5.C5.a(i) through (iii) shall apply to all applications submitted on or after January 1, 2017 and shall apply to projects approved prior to January 1, 2017 which have not started construction by January 1, 2022.
  - Adopt Minimum Requirements, thresholds and definitions in Appendix 1 of the Permit.
  - Include legal authority to inspect and enforce maintenance standards for private stormwater facilities for new development or redevelopment.
- Implement a site plan review process, inspection and enforcement to meet development standards for both private and public projects.
  - Review all stormwater site plans.
  - Inspect all permitted sites that have a high potential for sediment transport.
    - Prior to clearing and construction
    - During construction (for erosion control)
    - After construction (permanent stormwater facilities; maintenance plan in place for treatment/flow control BMPS/facilities). If an inspection identifies an exceedance of the maintenance standard, then the following maintenance should be performed:
      - Inspections to be held within 1 year for typical maintenance, except catch basins
      - Within 6 months for catch basins
      - Within 2 years for maintenance that requires capital construction of less than \$25,000.
    - Maintain records of all inspections, warning letters, notices of violations, and other enforcement records.
  - Include provision to verify adequate long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities. The ordinance must:
    - Clearly identify the party responsible for maintenance

- Establish maintenance standards as protective as Chapter 4, Volume V of the *Stormwater Management Manual for Western Washington*.
  - Address annual inspections of all permitted stormwater treatment and flow control BMPs/Facilities unless there are maintenance records to justify a different frequency.
  - Address inspections of all permitted stormwater treatment and flow control BMPs/Facilities and catch basins in new residential developments every six months until 90% of the lots are constructed (or when construction is stopped and the site is fully stabilized).
- At least 80% of scheduled inspections need to be completed to be in compliance with the permit.
- Make available the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to developers.
- Train staff in the site plan review process, inspections, and enforcement. Maintain records of this training and names of staff trained.
- Implement low impact development (LID) code no later than December 31, 2016.
  - Conduct review of LID codes using Integrating LID into *Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership).
  - Submit summary of the review with annual report by March 31, 2017. The summary is to include existing LID requirements, a list of participants (job title, brief job description, department represented), the codes, rules, standards, and revisions made which incorporate LID principles and LID BMPs. It shall be organized into a) measures to minimize impervious surfaces, (b) measures to minimize loss of native vegetation and c) other measures to minimize stormwater runoff.
- Watershed-scale stormwater planning (i.e. provide support to NPDES Phase I Permittee if the County chooses a watershed that includes the City of Snohomish).

## 5.2 Planned Activities

Future activities planned to meet the Control Runoff from New Development, Redevelopment and Construction Sites requirement of the permit are listed in Table 5-1.

**Table 5-1**

**Planned Activities for Controlling Runoff from New Development, Redevelopment and Construction Sites**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
CTRL-1	Review site plans for compliance with City Code (Keep track of number of site plans reviewed)	Ongoing
CTRL-2	Provide post construction inspections prior to approval for compliance with City Code (Maintain inspection records; see CTRL-4).	Ongoing
CTRL-3	Inspect constructions sites prior to and during construction for erosion control (Maintain inspection records; see CTRL-4).	Ongoing
CTRL-4	Maintain records of inspections (Include name of inspector, date, findings, warning letters, notices of violations, enforcement actions).	Ongoing <i>(Need to complete 80% of scheduled inspections)</i>
CTRL-5	Provide annual inspections of all stormwater treatment and flow control BMPs/facilities. <ul style="list-style-type: none"> <li>▪ Maintain inspection records; see CTRL-4.</li> <li>▪ Document if a reduced inspection frequency is used.</li> <li>▪ If inspection reveals that a maintenance standard is not being maintained, need to perform maintenance:               <ul style="list-style-type: none"> <li>○ within 1 year (all facilities except catch basins)</li> <li>○ within 6 months (catch basins) or</li> <li>○ within 2 years (maintenance that requires capital construction of less than \$25,000).</li> </ul> </li> </ul>	Ongoing <i>(Need to complete 80% of scheduled inspections)</i>
CTRL-6	Train staff in the site plan review process, inspections, and enforcement. Maintain records of this training and names of staff trained.	Ongoing/New Hires By Dec. 31, 2020
CTRL-7	Make available the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to developers.	Ongoing

## 6.0 MUNICIPAL OPERATIONS AND MAINTENANCE

The following section describes the Permit requirements related to the City's stormwater operation and maintenance practices. It also describes the planned activities the City intends to conduct to meet these requirements.

### 6.1 Permit Requirements

The 2013 Permit (Section S5.C.5) requires the City to:

- Implement an operations and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Implement maintenance standards as protective as Chapter 4, Volume V of the *Stormwater Management Manual for Western Washington*.
- If an inspection identifies an exceedance of the maintenance standard, then the following maintenance should be performed:
  - Inspections to be held within 1 year for typical maintenance, except catch basins
  - Within 6 months for catch basins
  - Within 2 years for maintenance that requires capital construction of less than \$25,000.
- Perform annual inspections and take appropriate maintenance actions of all permitted stormwater treatment and flow control BMPs/Facilities unless there are maintenance records to justify a different frequency.
- Spot check and if necessary, repair potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events (24 hour storm event with a 10 year or greater recurrence interval).
- Inspect (and clean if necessary) all catch basins and inlets owned by the City at least once no later than August 1, 2017 and every two years thereafter.

Alternatives to this schedule include:

- Revised inspection frequency allowed if maintenance records for double the length of the proposed inspection frequency warrant a reduced inspection frequency. If these records are not available, certified (per G19), written statements to document a specific, less frequent inspection schedule may be submitted and shall be based on actual inspection and maintenance experiences.
- Conduct inspections by "circuit basis" whereby 25% of catch basins and inlets within each circuit are inspected. Include an inspection of the catch basin immediately upstream of any system outfall if applicable. Clean all catch basins within a given circuit for which the inspection indicates cleaning is needed.
- Clean all pipes, ditches, catch basins and inlets within a circuit once during the permit term. Circuits selected for this alternative must drain to a single point.

- Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned by the City including streets, parking lots, roads highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.
  - The following activities are to be addressed: pipe cleaning, cleaning of culverts that convey stormwater in ditch systems, ditch maintenance, street cleaning, road repair and resurfacing (including pavement grinding), snow and ice control, utility installation, pavement striping maintenance, maintaining roadside areas, including vegetation management, dust control, applications of fertilizers/pesticides/herbicides (including reducing nutrients and pesticides using alternatives that minimize environmental impacts), sediment and erosion control, landscape maintenance and vegetation disposal, trash and pest waste management, and building exterior cleaning and maintenance.
- Implement training program for employees on O&M practices. Follow up training and documentation of training shall be conducted. A list of trained staff shall be maintained.
- Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned by the City. A schedule for implementation of structural BMPs and periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP shall be included in the SWPPP. Generic SWPPPs applicable to multiple sites may be used.
- Maintain records of inspection and maintenance or repair activities.

## **6.2 Planned Activities**

Future activities planned to meet the Municipal Operations and Maintenance requirement of the permit are listed in Table 6-1.

**Table 6-1**

**Planned Activities for Municipal Operations and Maintenance**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
O&M-1	Maintain records of inspections and maintenance activities.	Ongoing
O&M-2	Provide annual inspections of all stormwater treatment and flow control BMPs/facilities. <ul style="list-style-type: none"> <li>▪ Maintain inspection records; see O&amp;M-1.</li> <li>▪ Document if a reduced inspection frequency is used.</li> <li>▪ If inspection reveals that a maintenance standard is not being maintained, need to perform maintenance:               <ul style="list-style-type: none"> <li>○ within 1 year (all facilities except catch basins)</li> <li>○ within 6 months (catch basins) or</li> <li>○ within 2 years (maintenance that requires capital construction of less than \$25,000).</li> </ul> </li> </ul>	Ongoing
O&M-3	Spot check treatment and flow control facilities/BMPs and repair if necessary.	After 24-hour/10-year storms (Ongoing)
O&M-4	Train staff in O&M operations, inspection procedures, reporting water quality concerns, and on efforts to reduce pollutants to runoff. Maintain records of this training and names of staff trained.	Ongoing/New Hires <ul style="list-style-type: none"> <li>▪ By Dec. 31, 2020</li> </ul>
O&M-8	Inspect catch basins and inlets	Inspect 50% annually ( <i>all cbs to be inspected by Aug. 1, 2019</i> ).

## **7.0 COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS**

The following section describes the Permit requirements related to the City's participation associated with the Snohomish River Tributaries' Total Maximum Daily Load (TMDL). It also describes the planned activities the City intends to conduct to meet these requirements.

### **7.1 Permit Requirements**

The 2013 Permit (Appendix 2) requires the City to:

- **Business Inspections:** Inspect commercial animal handling areas (veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production) and commercial composting facilities to ensure implementation of source control BMPs for bacteria by August 1, 2016. Implement an ongoing inspection program to re-inspect facilities with bacteria source control problems a minimum of every three years.
- **Public Education and Outreach:** Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- **Operations and Maintenance:** Install and maintain animal waste collection and/or education stations at municipal parks and other City owned lands reasonably expected to have dog and horse use and the potential for pollution of stormwater.
- **IDDE:** During IDDE-related field screening, screen for bacteria sources in any screened MS4 subbasins which discharge to surface waters in the TMDL area.
- **Targeted Source Identification and Elimination:** By February 2, 2014, the City shall review the fecal coliform data collected per approved QAPPs under the 2007 Permit and identify a minimum of one high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts. Prepare written documentation of this review and the identified high priority area and submit it with the 2014 Annual Report. The City shall begin to implement source identification and elimination efforts in the MS4 subbasins discharging to the identified high priority area no later than August 1, 2014. Stormwater quality sampling for bacteria sources is required. Each annual report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).
- **Surface Water Monitoring:** Review the fecal coliform data collected per approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as appropriate for continued characterization and long term trends evaluation of fecal coliform. Submit a draft revised QAPP to Ecology for review and approval, no later than February 2, 2015. If Ecology does not request changes within 60 days, the draft QAPP is considered approved. At a minimum, the monitoring program shall:

- Begin by August 1, 2015.
- Collect 12 samples in at least one location per calendar year.
- Submit available data to the Environmental Information Management (EIM) database by May 31st of each year.
- Provide data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, July 2004, Ecology Publication No. 04-03-030.

## 7.2 Planned Activities

Future activities planned to meet the TMDL requirement of the permit are listed in Table 7-1.

**Table 7-1**

**Planned Activities for TMDL Requirements**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
TMDL-4/ IDDE-4	Field screen for bacteria sources during IDDE screenings (i.e. look for fungus, algae, color, rotten egg or musty smell)	Annually (August)
TMDL-5	Continue stormwater sampling for fecal coliform (w/ revised sites)	Monthly <i>(or frontload toward summer...min. 12 samples per year, begin by Aug. 1, 2015)</i>
TMDL-6/ REP-2	Include TMDL Summary with Annual Report regarding source identification and elimination activities (procedures followed, sampling results from TMDL-5, Show figure with results)	March, Annually <i>(Due Mar. 31<sup>st</sup>)</i>
TMDL-7	Submit data to EIM database	May, Annually <i>(by May 31<sup>st</sup>)</i>
TMDL-8	Inspect veterinary offices for source control BMPs	April 2018 (re-inspect problem areas)
TMDL-9/ EDUC-2	Promote proper pet waste management behavior with pet waste stations at parks	Ongoing

## 8.0 MONITORING

The following section describes the Permit requirements related to monitoring. It also describes the planned activities the City intends to conduct to meet these requirements.

### 8.1 Permit Requirements

The 2013 Permit (Section S8) requires the City to:

- Describe any monitoring related studies conducted throughout the year in the Annual Report.
- Reporting involved with the Regional Stormwater Management Program is not necessary as part of the Annual Report. The regional program includes status and trends monitoring, stormwater management program effectiveness studies, and source identification/diagnostic monitoring.

### 8.2 Planned Activities

Future activities planned to meet the monitoring requirement of the permit are listed in Table 8-1.

**Table 8-1**

**Planned Activities for TMDL Requirements**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
MON-1	Opt into Regional Stormwater Management Program by paying the following fees: <ul style="list-style-type: none"><li>▪ Status and Trends Monitoring: \$2,276</li><li>▪ Stormwater Program Effectiveness: \$3,792</li><li>▪ Source Identification and Diagnostic Monitoring: \$352</li></ul>	Aug. 15 <sup>th</sup> , each year
MON-2	Describe any stormwater monitoring conducted for the year in the Annual Report	By March 31 <sup>st</sup> , each year

## 9.0 REPORTING REQUIREMENTS

The following section describes the Permit requirements related to reporting. It also describes the planned activities the City intends to conduct to meet these requirements.

### 9.1 Permit Requirements

The 2013 Permit (Section S9) requires the City to:

- Submit an Annual Report by March 31<sup>st</sup> of each year with the first reporting period being from January 1, 2014 to December 31, 2014. The report will include:
  - Copy of the current SWMP
  - Annual Report Form (per DOE)
  - Attachments (summaries, descriptions, reports, etc.)
  - Certification and signature
  - Notification of any annexations, incorporations or jurisdictional boundary changes
- Keep all records related to the permit and the SWMP for at least five years.
- All records related to the permit shall be available to the public at reasonable times during business hours.

### 9.2 Planned Activities

Future activities planned to meet the monitoring requirement of the permit are listed in Table 9-1.

**Table 9-1**

**Planned Activities for Reporting Requirements**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
REP-1	Submit Annual Report	March 31 <sup>st</sup> , each year
REP-2 / TMDL-6	Include TMDL Summary with Annual Report regarding source identification and elimination activities (procedures followed, sampling results in TMDL-5, can show figure with results)	March 31 <sup>st</sup> , each year

# CITY OF SNOHOMISH

SNOHOMISH COUNTY  
WASHINGTON



## FECAL COLIFORM WATER QUALITY MONITORING REPORT (2013 -2018)

February 2019

G&O #19439  
PREPARED BY:



3710 168<sup>th</sup> St. NE, Ste B-210  
Arlington, WA 98223  
(360) 454-5490

## INTRODUCTION

### PURPOSE

In June 2003, the Department of Ecology published the *Lower Snohomish Tributaries Fecal Coliform Bacteria Total Maximum Daily Load (TMDL): Detailed Implementation Plan*. This Plan recognized that at the time, many of the streams in the Lower Snohomish Watershed did not meet State Water Quality Standards for swimming due to the high amounts of bacteria present. To address this issue, a TMDL was issued and an Implementation Plan was put into effect. The goal of the TMDL was to have 75% of sampled stations throughout the Lower Snohomish River tributaries to be in compliance with State Water Quality Standards (WAC 173-201A) by 2007. It was anticipated that by 2009, all sampled stations would be in compliance.

The TMDL Implementation Plan found that at the mouth of the Pilchuck River, near the town of Snohomish, water quality improves. During the dry season, there are occasional spikes observed near the City of Snohomish that cause the 90th percentile to be exceeded. The Plan indicated that a constant source of bacteria from the Catherine Creek system (upstream, near Lake Stevens) should be a priority for investigation due to the high levels of bacteria observed and the high concentration of people living in the Lake Stevens area. The Plan also noted that the sources of fecal coliform are likely to be livestock access to the stream, inadequate pasture management, and failing on-site sewage disposal systems.

As a requirement to the Western Washington Phase II Municipal Stormwater Permit issued initially in 2007 and again in 2013, jurisdictions with upstream tributaries to the Snohomish River were required to meet the TMDL Implementation Plan by having them address commercial animal handling and compost areas as well as to develop a Bacterial Pollution Control Plan. These actions were required with the intent to help reduce the amount of bacteria within the Snohomish River and its tributaries.

In an effort to address the issued TMDL on the Snohomish River, the City of Snohomish began monitoring for fecal coliform and other parameters such as temperature, pH, dissolved oxygen, conductivity, and turbidity in 2008. Prior to monitoring, the City of Snohomish prepared a Quality Assurance Project Plan (QAPP) that was reviewed and approved by Ecology in 2007. The QAPP identified ten locations throughout the city that were to be monitored for the intended parameters. These sites were selected to best represent areas throughout the City where fecal coliform could be entering the tributary system to the Snohomish River. In March 2010, the City received approval from Ecology to relocate two of the sample site locations (SNOH1 and SNOH2) in order to better address potential problem areas revealed by the first 3 years of sample analysis. In 2011, the City removed two of the sample sites due to employee safety (SNOH9 and SNOH12) and in 2015 removed one site (SNOH10) due to redundancies and site complications. Figure 1 shows the remaining sampling sites (SNOH3 – SNOH8). In February 2015, the City has revised their QAPP to reflect these site changes which was subsequently approved by the Department of Ecology. In addition to conducting monitoring, the City

of Snohomish developed a Bacterial Pollution Control Plan in 2011. The Plan was intended to assist the City in attaining the goal of reducing the ecological impacts of stormwater runoff and stormwater bacterial pollution.

The following Water Quality Report summarizes the data collected over the past six years, from 2013 through 2018. The Report will detail the results from the monitoring data collected and will also analyze the trends that were observed as they relate to water quality improvement.

## AREAS OF ANALYSIS

The fecal coliform samples collected throughout the city were located at sites chosen to provide a well-mixed and representative sample (See Figure 1). Table 1 lists the locations of the sampling sites.

**Table 1**  
**Sampling Sites for Fecal Coliform in Snohomish**

Station name	Site Description	Latitude/Longitude
SNOH3	Weaver Rd. (CMP)	N 47°56.279/ W 122°06.626
SNOH4	72 <sup>nd</sup> St. SE, Near SR 9 (Concrete Box Culvert)	N 47°55.879/ W 122°06.409
SNOH5	64 <sup>th</sup> St. S.E. (Concrete Pipe under Road)	N 47°56.306/ W 122°05.759
SNOH6	13 <sup>th</sup> St., Near Ave. A	N 47°55.640/ W 122°05.581
SNOH7	E. of Ave. A, Near 8 <sup>th</sup> St. in Park (CMP)	N 47°55.292/ W 122°05.559
SNOH8	Cady Park (CMP)	N 47°54.593/ W 122°05.599

The following will discuss data pertaining to the results found at each of these sites.

## WATER QUALITY MONITORING PARAMETERS

The following describes the state of the waters monitored and the trends they are anticipated to follow over the next few years. It is important to note that this data represents only a snap shot of time. By observing only this brief period of time as opposed to looking at data representing numerous years, expected trends may be skewed.

### FECAL COLIFORM

The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of man or other animals. At the time this occurred, the source water may have been contaminated by pathogens or disease producing bacteria or viruses which can also exist in fecal material. Some waterborne pathogenic diseases include typhoid fever, viral and bacterial gastroenteritis and hepatitis A. The presence of fecal contamination is an indicator that a potential health risk exists for individuals exposed to this water. Fecal coliform bacteria may occur in ambient water

as a result of the overflow of domestic sewage or nonpoint sources of human and animal waste.

The City began monitoring for fecal coliform in March 2008 and has continued to monitor through today. Appendix A displays the resulting graphs of this data for the past six years (2013-2018). The raw data can be found in Appendix B. The resulting samples reveal results that exceed the State Water Quality Standards for the Snohomish River. The State Standard for the river includes having an annual geometric mean that does not exceed 100 colonies/100 mL due to the classification of the river being a “primary contact recreational” area. Any surface waters running into Blackmans Lake are subject to the state standard of having a geometric mean that does not exceed 50 colonies/100 mL. In addition, for runoff entering Snohomish River, not more than 10% of the annual samples taken can exceed 200 colonies/100mL whereas runoff entering Blackmans Lake is subject to having no greater than 10% of the samples taken exceed 100 colonies/100mL. Table 1 shows a summary of the annual geometric means whereas Table 2 shows the sampling sites that have exceeded the 10% threshold designated by the State Standard.

**TABLE 1**  
**Annual Geometric Mean for Fecal Coliform Samples**

<b>Site</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
SNOH3	46	20	28	46	52	14
SNOH4	47	70	18	46	<b>113</b>	30
SNOH5	45	7	5	16	29	39
SNOH6	90	73	79	<b>143</b>	<b>129</b>	<b>154</b>
SNOH7	87	44	<b>122</b>	<b>127</b>	<b>129</b>	<b>187</b>
SNOH8	53	43	35	31	42	16

1. Black shading represents exceedance of State Water Quality Standard of an annual geometric mean greater than 100 colonies/100 mL (or 50 colonies/100 mL for SNOH5).

**TABLE 2  
Fecal Coliform Results Exceeding 10% of Annual Sample Collected**

<b>Site</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
SNOH3				<b>x</b>	<b>x</b>	
SNOH4	<b>x</b>	<b>x</b>			<b>x</b>	<b>x</b>
SNOH5	<b>x</b>	<b>x</b>		<b>x</b>	<b>x</b>	<b>x</b>
SNOH6	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
SNOH7	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
SNOH8	<b>x</b>	<b>x</b>		<b>x</b>	<b>x</b>	

1) "x" represents sites that had over 10% of the annual fecal coliform results (or one minimum) greater than 200 colonies/100 mL (or 100 colonies/100 mL for SNOH5).

From Table 1, it is apparent that sampling site "SNOH7" (East of Ave. A, near Park St.) has had a consistent violation of state water quality standards since 2015. The SNOH7 site has revealed a consistently increasing geometric mean from 44 to 187 colonies/100 mL over the past five years. SNOH6 fecal coliform levels however, have increased from the 70's to well over 100 in the last three years. This spike, and to a lesser extent the SNOH7 fecal coliform increase, likely resulted from the Blackmans Lake Outlet Control re-channelization project which began in August 2016. Historically, the City elected to further examine the SNOH6 and SNOH7 sites due to their proximity to Blackmans Lake. Further study may be warranted since the annual geometric mean for SNOH6 has been increasing over the past few years and since the annual geometric mean for SNOH7 has consistently violated the State Water Quality Standard. In 2106, the City sent an informational flyer to the residents along the stream as a measure to address the rising fecal coliform levels in this area. The City also holds annual stormwater related workshops for the City as a whole. However, there is the opinion that the high fecal coliform levels seen at these two sites are the result of a high population of waterfowl at Blackman's Lake.

With the exception of SNOH4 in 2017, the remaining sites were fairly consistent over the past six years in meeting the state water quality standard of a geometric mean below 100 colonies/100 mL (or 50 mL for waters flowing into Blackmans Lake). Although these sites generally have met the standard for geometric mean, they are consistently not meeting the standard requiring less than 10% of the samples collected having less than 200 colonies/100 mL or (100 mL for waters flowing into Blackmans Lake). In 2017, all six sites were not in compliance with the 10% standard, but then in 2018, both SNOH3 and SNOH8 met the standard (see Appendices A and B for further detail). If necessary, the City may want to do additional testing just upstream and downstream of areas that violate the 10% rule to get a better understanding of the sources at hand and to narrow down the potential source of bacterial contamination. Sampling shall be taken to represent both dry and wet weather seasons since wet weather seasons typically reveal higher results due to high sediment loads during storms as seen in the data provided in Appendix A and B. In 2017, the City observed the surrounding land use and did a stream

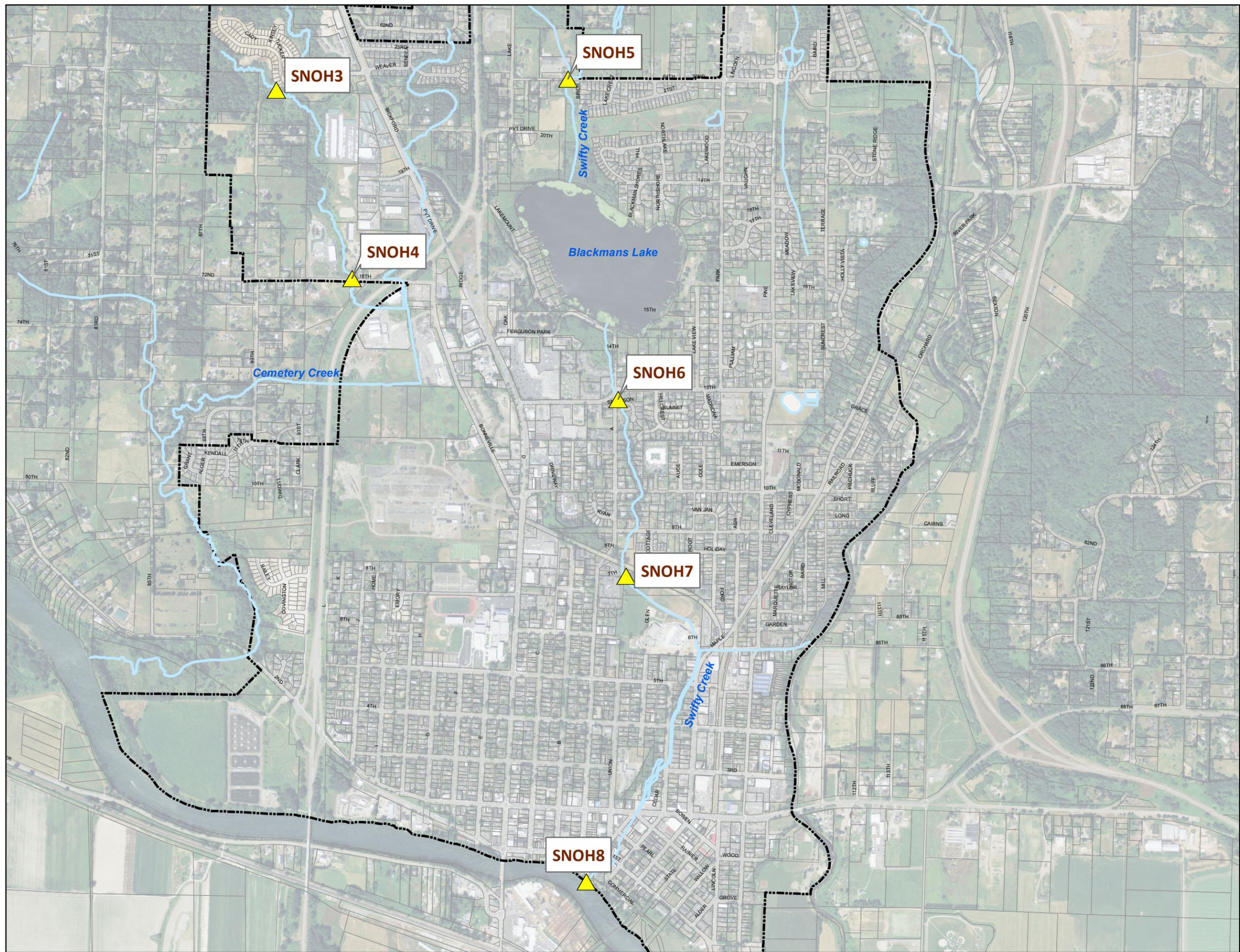
reconnaissance to aid in determining the origin of the bacteria so as to minimize pollution of the water in the future. The resulting conclusion was that the bacteria is likely due to the large population of waterfowl located upstream in Blackmans Lake. If results throughout the increased monitoring period still exceed state standards, the City may want to investigate methods such as DNA typing to help confirm the opinion that the source is due to waterfowl.

## **SNOHOMISH WATER QUALITY SUMMARY**

Overall, it appears that most of the sampled sites fell within the water quality standards for fecal coliform over the period with the exception of SNOH6 located near 13<sup>th</sup> St. west of Ave. A and SNOH7 located east of Ave. A. SNOH7 violated the geometric standard in 2015 through 2018. SNOH6 violated the standard in 2016 through 2018. It is recommended that the City continue to observe these sites in the future for potential pollutants related to fecal coliform. The City may want to add additional monitoring sites upstream to narrow the region responsible for polluting the area. DNA typing sites may also help to identify the source at hand.

Although budget constraints have prevented the City from monitoring water quality parameters outside of fecal coliform, it is recommended that the City continue to monitor these parameters should funds become available. Water quality indicators such as dissolved oxygen and temperature are vital in determining the overall health of the hydraulic system.

Figure 1  
Sampling Locations



**Legend**

-  Sampling Station
-  streams
-  City Limits
-  Parcel

**CITY OF SNOHOMISH**

FIGURE 1  
FECAL COLIFORM  
SAMPLING SITES

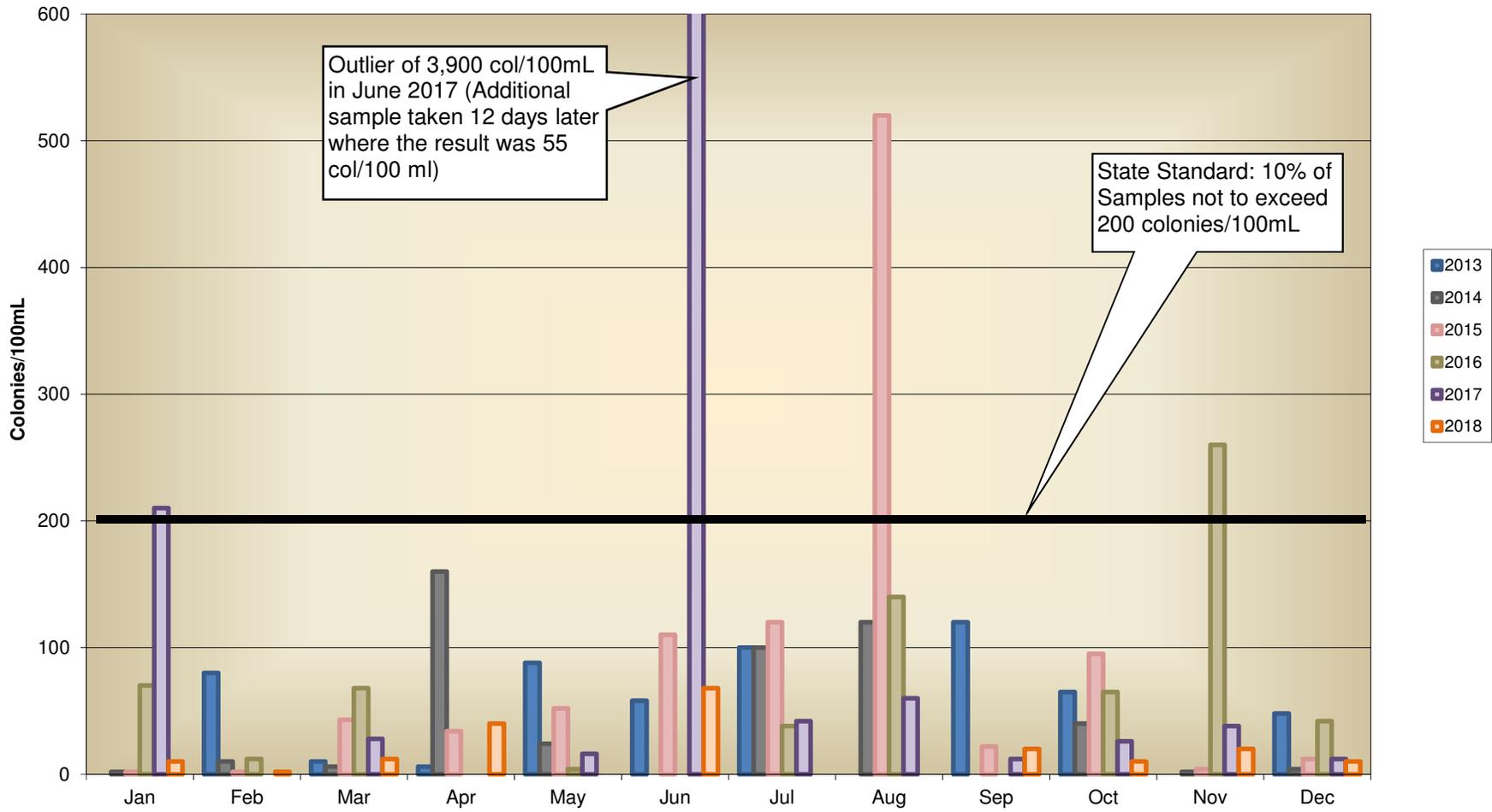


**Gray & Osborne, Inc.**  
CONSULTING ENGINEERS

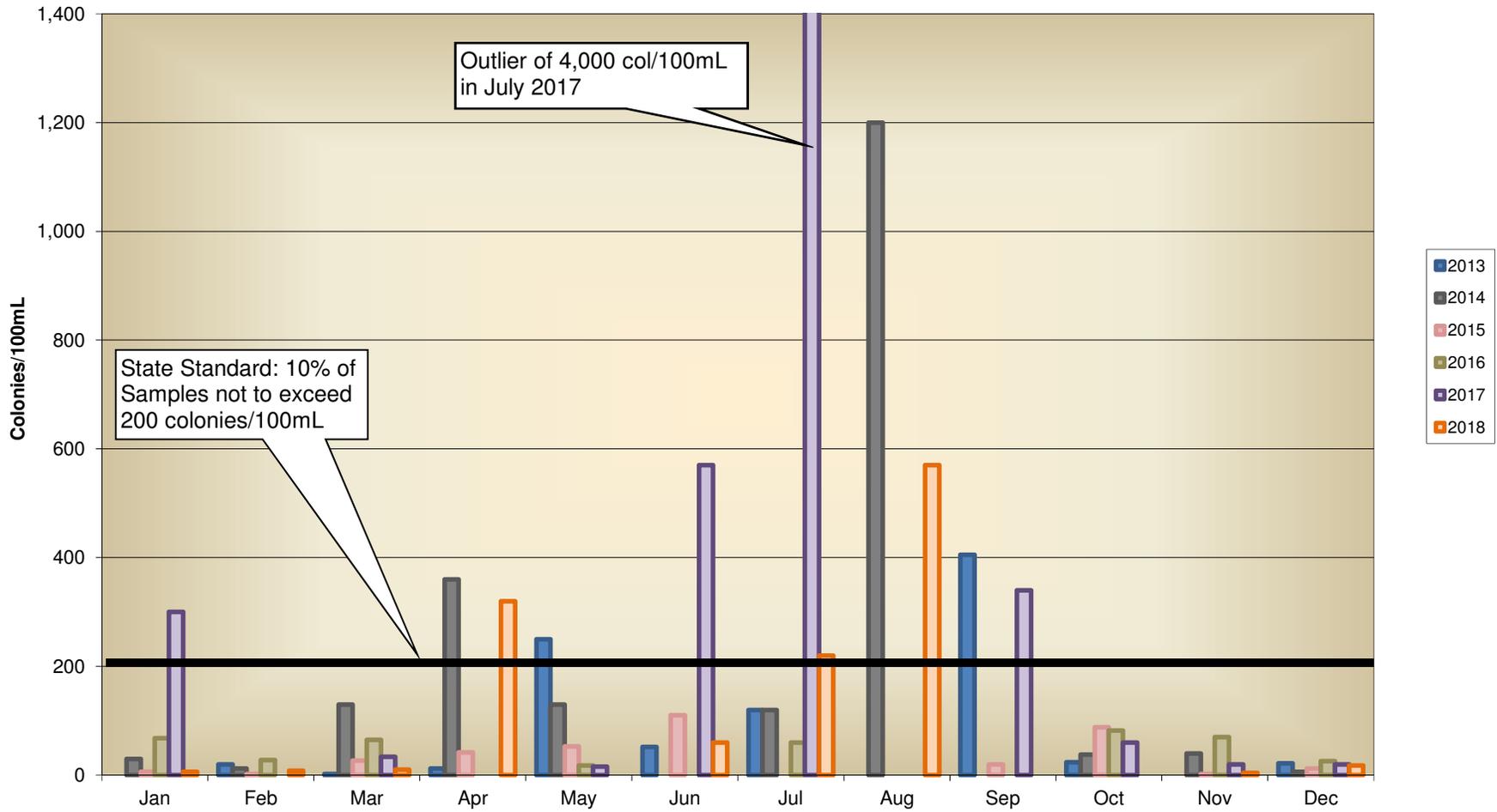
# Appendix A

## Graphs

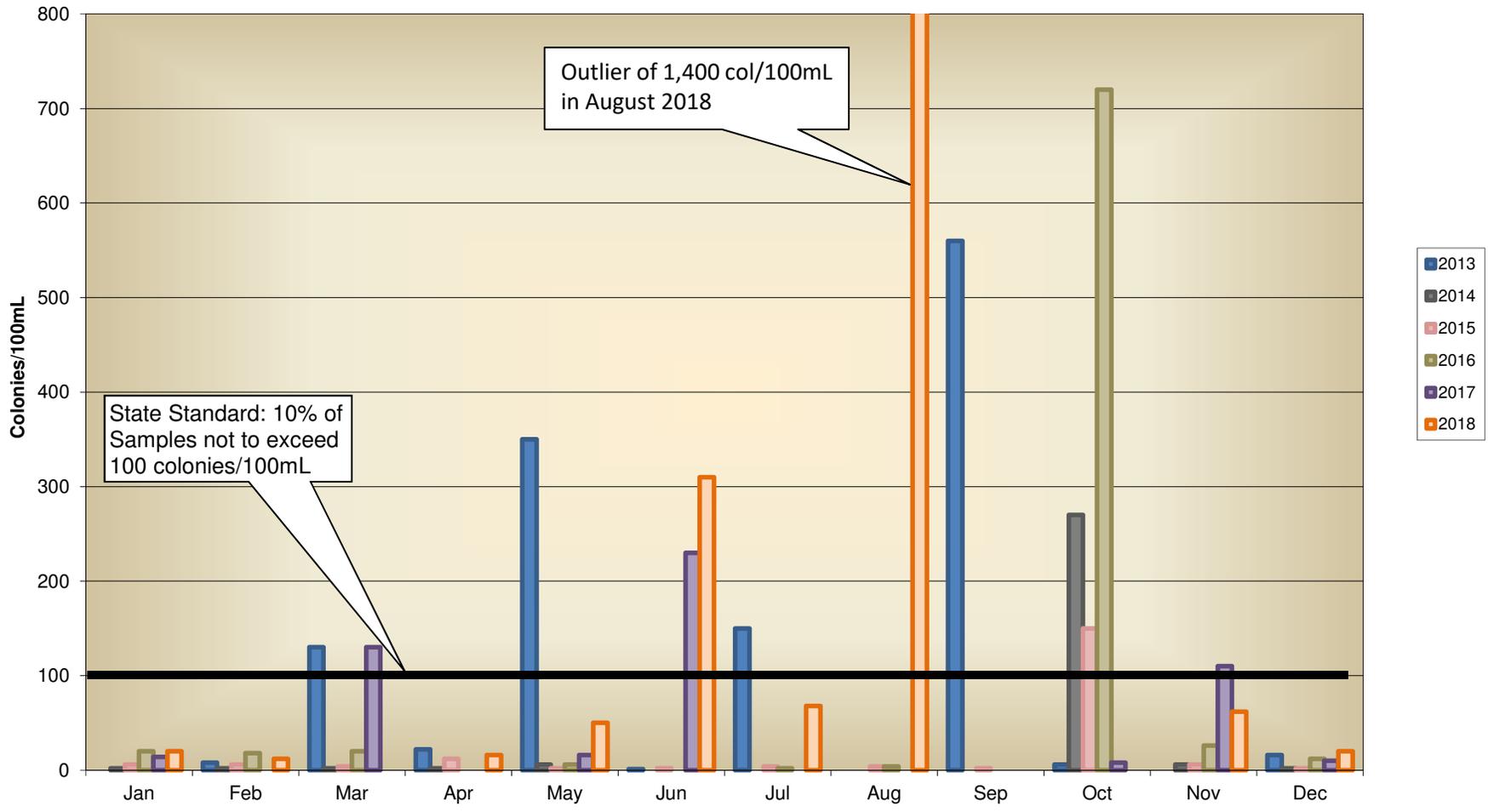
### Fecal Coliform Monitoring SNOH3 - Weaver Rd.



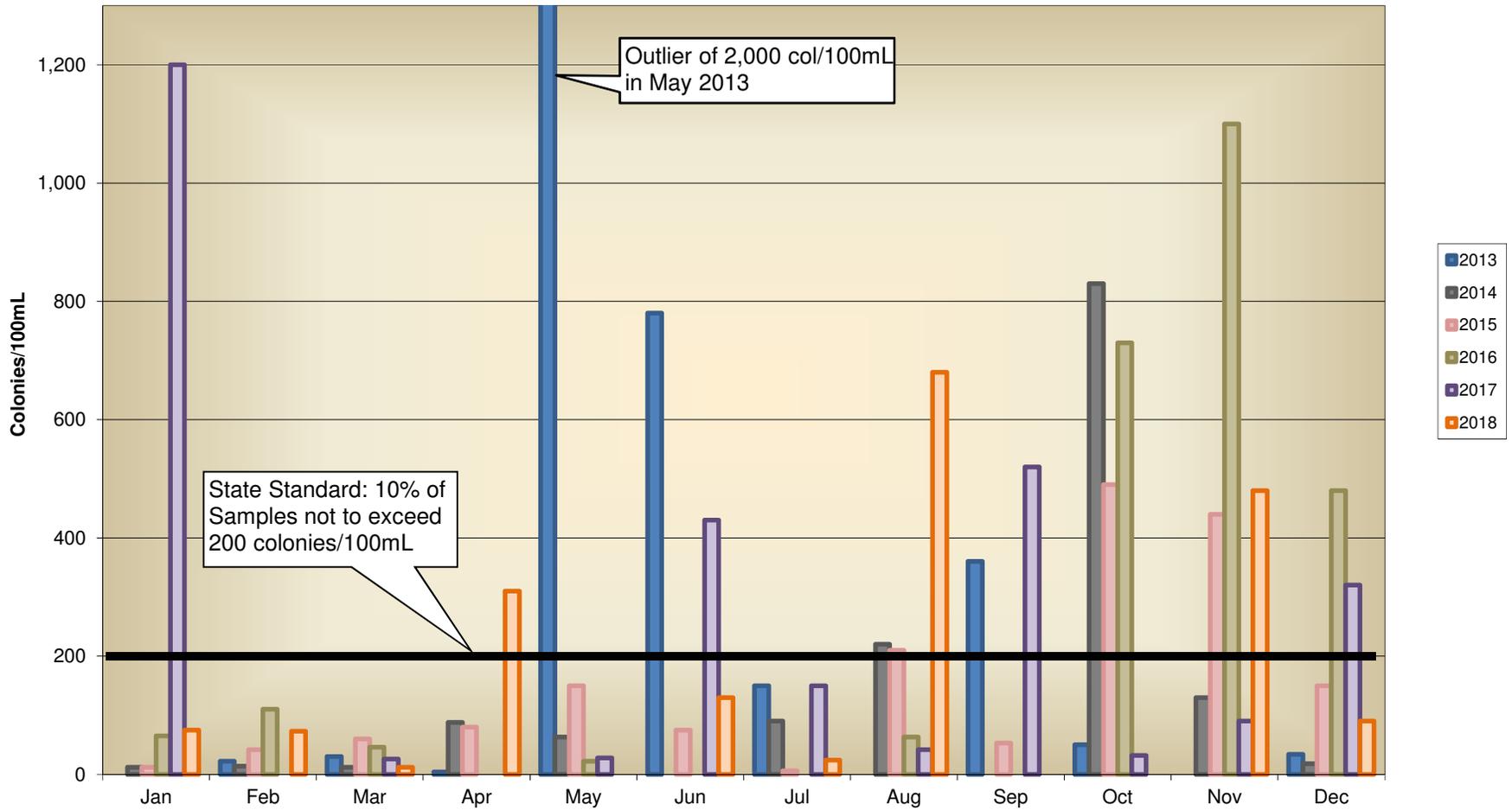
### Fecal Coliform Monitoring SNOH4 - 72nd St. SE



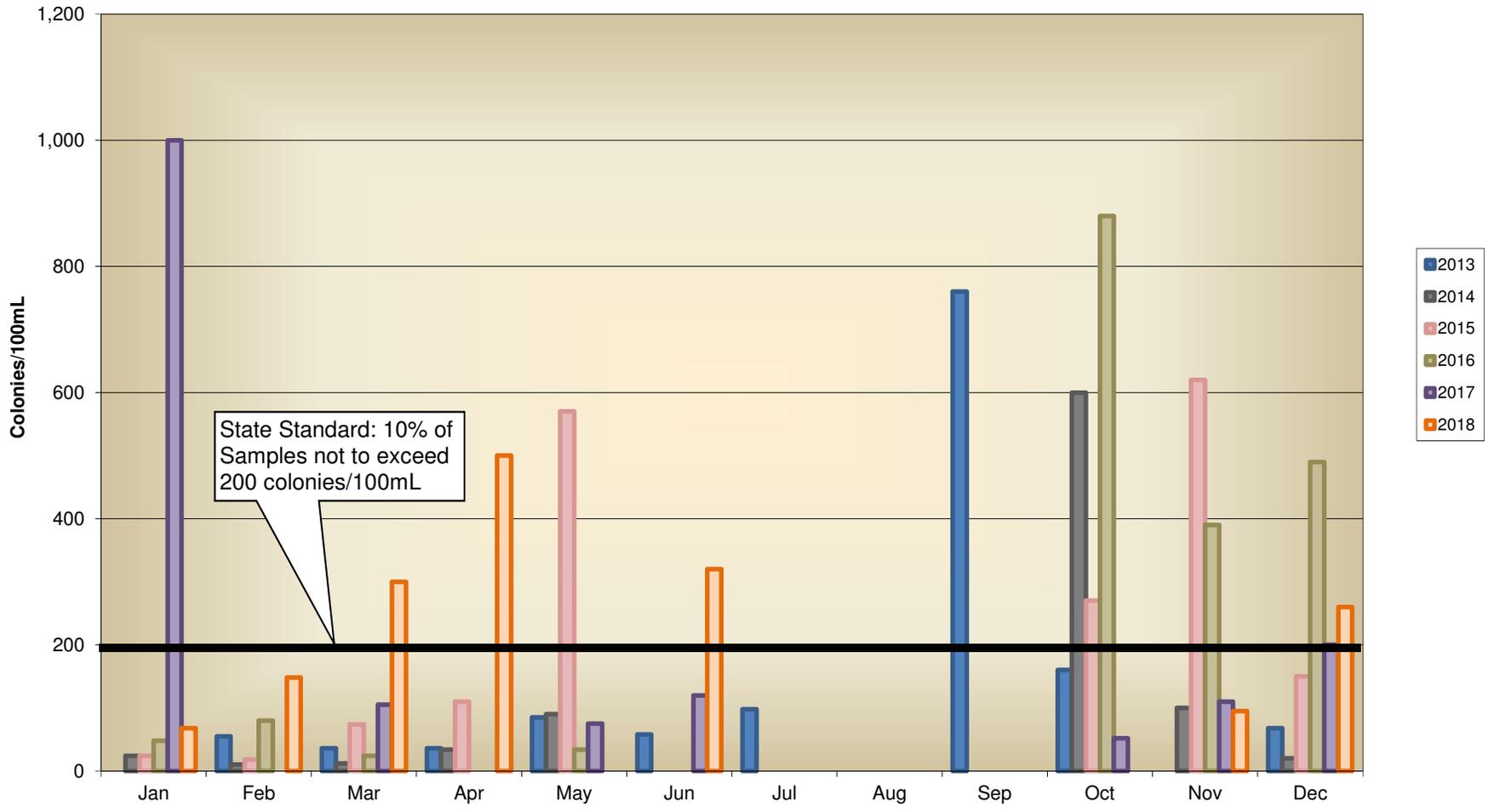
### Fecal Coliform Monitoring SNOH5 - 64th St. SE



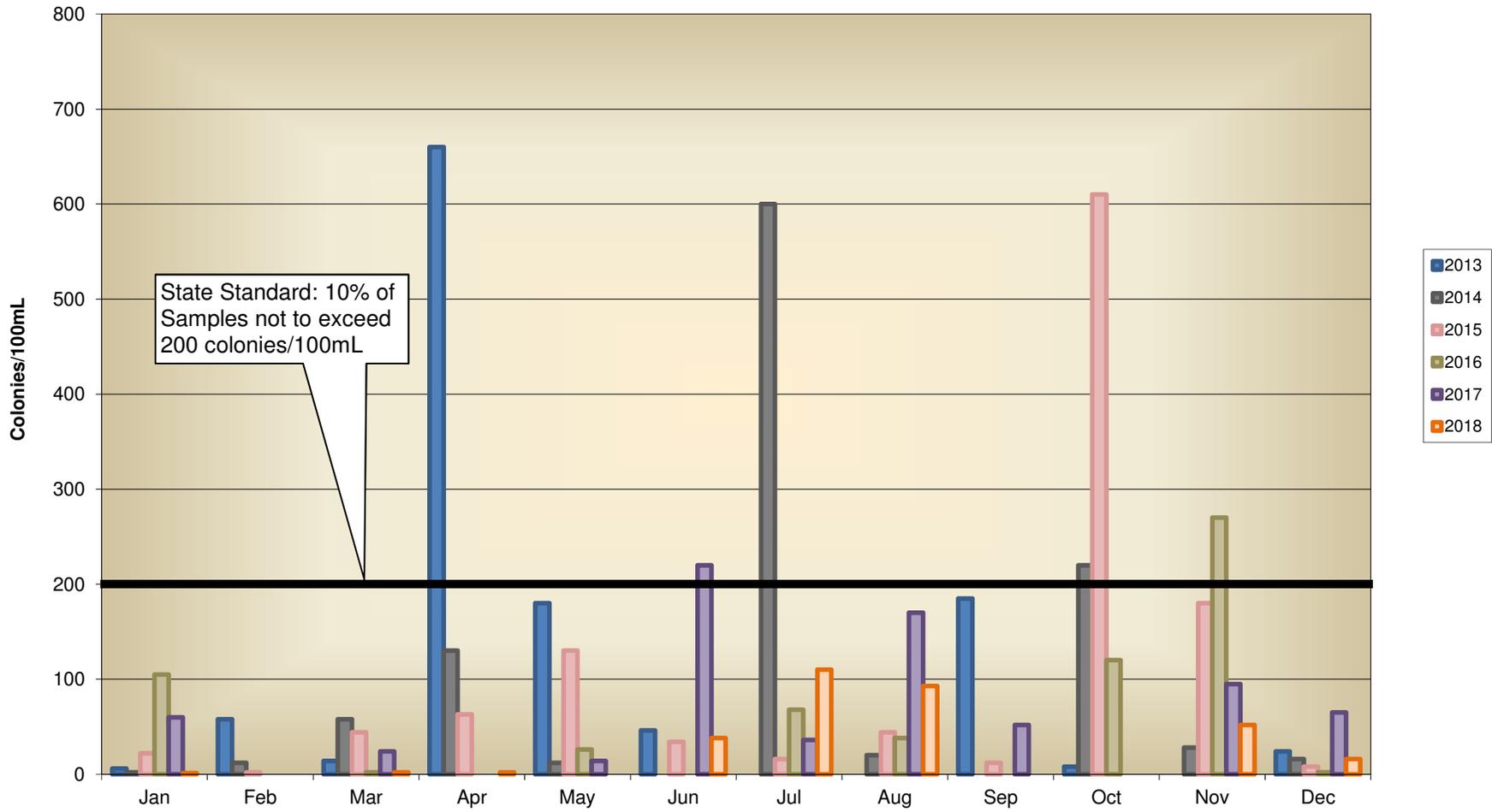
### Fecal Coliform Monitoring SNOH6 - 13th St. SE



### Fecal Coliform Monitoring SNOH7 - E. of Ave. A



### Fecal Coliform Monitoring SNOH8 - Cady Park



# Appendix B

## Raw Data

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2013</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<b>2/19/2013</b>	80	28E	8E	22E	55	6E
<b>3/19/2013</b>	10E	2E	130	30E	36E	58
<b>4/16/2013</b>	6E	12E	22E	4E	36E	14E
<b>5/23/2013</b>	88	250	350	2000E	85	660E
<b>6/18/2013</b>	58	52	<1	780E	58	180E
<b>7/16/2013</b>	100	120	150	150	98	46E
<b>9/4/2013</b>		670E	570	360		230
<b>9/17/2013</b>	120	140	550		760E	140
<b>10/16/2013</b>	65	24E	6E	50	160	8E
<b>12/17/2013</b>	48E	22E	16E	34E	68	24E
Annual Avg Mean	64	132	180	381	151	137
Geometric Mean	46	47	45	90	87	53
State Std	200	200	200	200	200	100
Meet State Std?	Yes	Yes	Yes	Yes	Yes	Yes
10% sampled > State Std of 200 (or 100 in River)?	No	Yes	Yes	Yes	Yes	Yes

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2014</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<i>1/22/2014</i>	2E	30E	2E	12E	24E	<2
<i>2/19/2014</i>	10E	12E	2E	14E	10E	12E
<i>3/18/2014</i>	6E	130	<2	12E	12E	58
<i>4/15/2014</i>	160	360	<2	88	34E	130
<i>5/30/2014</i>	24	130	6E	63	90	12E
<i>7/29/2014</i>	100	120		90		600
<i>8/22/2014</i>	120	1200E		220		20E
<i>10/21/2014</i>	40	38	270	830	600	220
<i>11/20/2014</i>	2	40	6	130	100	28
Annual Avg Mean	52	229	41	162	124	120
Geometric Mean	20	92	6	66	47	38
State Std	200	200	200	200	200	100
Meet State Std?	Yes	Yes	Yes	Yes	Yes	Yes
10% sampled > State Std of 200 (or 100 in River)?	No	<b>Yes</b>	No	No	No	<b>Yes</b>

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2015</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<i>1/20/2015</i>	2	6	6	12	24	22
<i>2/24/2015</i>	2	2	6	42	18	2
<i>3/19/2015</i>	43	27	4	60	74	44
<i>4/29/2015</i>	34	42	12	80	110	63
<i>5/19/2015</i>	52	53	2	150	570	130
<i>6/16/2015</i>	110	110	2	75		34
<i>7/23/2015</i>	120		4	6		16
<i>8/20/2015</i>	520		4	210		44
<i>9/24/2015</i>	22	20	2	53		12
<i>10/29/2015</i>	95	88	150	490	270	610
<i>11/30/2015</i>	4	2	6	440	620	180
<i>12/16/2015</i>	12	12	2	150	150	8
Annual Avg Mean	85	36	17	147	230	97
Geometric Mean	28	18	5	79	122	35
State Std	100	100	50	100	100	100
Meet State Std?	Yes	Yes	Yes	Yes	No	Yes
10% sampled > State Std of 200 (or 100 in River)?	No	No	No	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2016</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<i>1/22/2016</i>	70	68	20	65	48	105
<i>2/17/2016</i>	12	28	18	110	80	NS
<i>3/16/2016</i>	68	65	20	46	24	2
<i>4/20/2016</i>						
<i>5/18/2016</i>	4	18	6	22	34	26
<i>6/1/2016</i>						
<i>7/20/2016</i>	38	60	2	NS	NS	68
<i>8/22/2016</i>	140	NS	4	63	NS	38
<i>9/26/2016</i>						
<i>10/17/2016</i>	65	82	720	730	880	120
<i>11/14/2016</i>	260	70	26	1100	390	270
<i>12/19/2016</i>	42	26	12	480	490	2
Annual Avg Mean	78	52	92	327	278	79
Geometric Mean	46	46	16	143	127	31
State Std	100	100	50	100	100	100
Meet State Std?	Yes	Yes	Yes	No	No	Yes
10% sampled > State Std of 200 (or 100 in River)?	Yes	No	Yes	Yes	Yes	Yes

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2017</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<b>1/18/2017</b>	210	300	14E	1200E	1000E	60
<b>3/24/2017</b>	28E	34E	130	26E	105	24E
<b>5/2/2017</b>	16E	16E	16E	28E	75	14E
<b>6/9/2017</b>	3900E	570	230	430	120	220
<b>6/23/2017</b>	55	110	8E	140	73	2E
<b>7/21/2017</b>	42	4000E		150		36E
<b>8/24/2017</b>	60			42E		170E
<b>9/29/2017</b>	12E	340		520		52E
<b>10/27/2017</b>	26E	60	8E	32E	52	
<b>11/29/2017</b>	38E	20E	110	90	110	95
<b>12/22/2017</b>	12E	20E	10E	320	200	65
Annual Avg Mean	400	547	66	271	217	74
Geometric Mean	52	113	29	129	129	42
State Std	100	100	50	100	100	100
Meet State Std?	Yes	No	Yes	No	No	Yes
10% sampled > State Std of 200 (or 100 in River)?	Yes	Yes	No	Yes	No	Yes

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**

**Fecal Coliform Monitoring Results<sup>(1)</sup>**

<b>2018</b>	<b>SNOH3</b>	<b>SNOH4</b>	<b>SNOH5</b>	<b>SNOH6</b>	<b>SNOH7</b>	<b>SNOH8</b>
<b>1/26/2018</b>	10E	6E	20E	75	68	1
<b>2/23/2018</b>	2E	8E	12E	73	148	
<b>3/29/2018</b>	12E	10E	16E	120	300	2
<b>4/27/2018</b>	40E	320	50	310	500	2E
<b>6/15/2018</b>	68	60	310	130	320	38E
<b>7/31/2018</b>		220	68	24E		110
<b>8/31/2018</b>		570	1400E	680E		93
<b>11/9/2018</b>	20E	4E	62	480	95	52
<b>12/7/2018</b>	10E	18E	20E	90E	260	16E
<b>12/27/2018</b>	8E	16E	4E	190E	120	10E
Annual Avg Mean	21	113	179	227	223	39
Geometric Mean	14	30	39	154	187	16
State Std	100	100	50	100	100	100
Meet State Std?	Yes	Yes	Yes	No	No	Yes
10% sampled > State Std of 200 (or 100 in River)?	No	Yes	Yes	Yes	Yes	No

1. Units are colonies/100mL; E = Estimated Count; NS = Not Sampled (dry, low flow, etc.); ND = Non Detect; TNTC = Too numerous to count; ( ) = Duplicate Sample

**City of Snohomish**  
**Education Efforts associated with the NPDES Phase II Permit**

The Western Washington Phase II Municipal Stormwater Permit (August 2013) requires the City of Snohomish to provide an education program designed to target certain audiences. These audiences and topics are presented in Tables 1 through 4 along with the education activity provided by the City to address these areas.

**TABLE 1**  
**General Public and Business**  
**Education Efforts for General Awareness**

<b>Education Activity</b>	<b>General Impacts of Stormwater</b>	<b>Impacts from Impervious Surfaces</b>	<b>Impacts of Illicit Discharges</b>	<b>LID (Principles/ BMPs)</b>	<b>Stewardship Opportunities</b>
Utility bill insert on stormwater topics	✓	✓	✓		
Puget Sound posters at library/city hall	✓	✓	✓		
Link to rain garden handbook on city website	✓	✓		✓	
Link to LID Technical Guidance Manual on website				✓	
Draft of SWMP available on City website for comment					✓
Link to Sound Salmon Solutions on City website	✓		✓		✓
Link to Snohomish Conservation District on City website	✓			✓	✓
Wrapped Public Works trailers w/ IDDE related messages	✓		✓		
BMP poster to all restaurants	✓		✓		
Worked with ECOSS to provide spill kits to businesses	✓		✓		

<b>Education Activity</b>	<b>General Impacts of Stormwater</b>	<b>Impacts from Impervious Surfaces</b>	<b>Impacts of Illicit Discharges</b>	<b>LID (Principles/ BMPs)</b>	<b>Stewardship Opportunities</b>
Link to EPA website on City's website	✓	✓	✓	✓	
Make available free car wash kit to fundraising entities complete with brochure	✓	✓	✓		
City occupies a booth at local farmer's market May-Sept. for stormwater educational purposes	✓	✓	✓		
Kla Ha Ya Days – Drive wrapped truck educating about IDDE related issues while passing out brochures during the parade; Occupy booth as well.	✓	✓	✓		
Auto Maintenance Flyer on website and City Hall	✓		✓		
Community Stormwater Education and Outreach Event on stormwater pollution prevention	✓	✓	✓	✓	✓

**TABLE 2**  
**Engineers, Contractors, Developers, and Land Use Planner**  
**Education Efforts for General Awareness**

<b>Education Activity</b>	<b>Tech. Stds. for Stormwater Site and Erosion Control Plans</b>	<b>LID (Principles/ BMPs)</b>	<b>Stormwater Treatment and Flow Control BMPs/facilities</b>
Pamphlet passed out with permits			✓
Link to rain garden handbook on city website		✓	✓
Link to LID Technical Guidance Manual on website	✓	✓	✓

**TABLE 3**  
**General Public and Business**  
**Education Efforts for Behavior Change**

<b>Education Activity</b>	<b>Use and Storage of Automotive Chemicals, Hazardous Cleaning Supplies, Carwash Soaps and other Haz. Materials</b>	<b>Equipment Maintenance</b>	<b>Prevention of Illicit Discharges</b>
Brochure to mobile pet groomers	✓	✓	✓
Brochure to mobile carpet cleaners	✓		✓
BMP poster to all restaurants in the city	✓		✓
Worked with ECOSS to provide spill kits to businesses	✓		✓
Worked with ECOSS to revisit businesses that were provided spill kits	✓		✓
Emailed tip sheet to power washers to prevent illicit discharges	✓		✓

**TABLE 4**  
**Residents, Landscapers and Property Managers/Owners**  
**Education Efforts for Behavior Change**

<b>Education Activity</b>	<b>Yard Care Techniques</b>	<b>Use/Storage of Pesticides/Fertilizers/ Household Chemicals</b>	<b>Carpet Cleaning and Auto Repair/ Maintenance</b>	<b>Vehicle/ Equipment/ Home Building Maintenance</b>
Workshop w/ Conservation District for property owners along streams	✓	✓		
Natural Yard Care Workshop w/ Snohomish County	✓	✓		
Natural Yard Care Education Evaluation (Regional Study)	✓	✓		
<b>Education Activity</b>	<b>Pet Waste Management</b>	<b>LID (Principles/ BMPs)</b>	<b>Stormwater Facility Maintenance</b>	<b>Dumpster / Trash Compactor Maintenance</b>
Pet waste handling facilities/education at parks	✓			
Brochure to landscapers/HOAs on how to do detention pond maintenance			✓	
Link to rain garden handbook on city website		✓	✓	

**City of Snohomish  
TMDL Status Report  
NPDES Phase II Permit Year 2018  
(January – December 2018)**

- The list of animal handling facilities was prepared in June 2015. Inspections of appropriate BMP practices within these facilities was conducted on June 21, 2018. All veterinary clinics at that time had implemented appropriate BMPs.
- The City continues to implement and uphold the measures and ordinances referenced in its 2010 Bacterial Pollution Control Plan.
- Per Appendix 2 of the Phase II Permit, the City has Ordinance 2173 and Snohomish City Code Section 15.16 in place which prohibits animal wastes into stormwater systems. The City also has pet waste stations located at parks within the city limits.
- The City continued to monitor for fecal coliform in seven locations on a monthly basis throughout the year. These sites are listed in Table 1.

**TABLE 1  
Snohomish Fecal Coliform Monitoring Sites**

<b>Station name</b>	<b>Site Description</b>	<b>Latitude/Longitude</b>
SNOH3	Weaver Rd. (CMP)	N 47°56.279/ W 122°06.626
SNOH4	72 <sup>nd</sup> St. SE, Near SR 9 (Concrete Box Culvert)	N 47°55.879/ W 122°06.409
SNOH5	64 <sup>th</sup> St. S.E. (Concrete Pipe under Road)	N 47°56.306/ W 122°05.759
SNOH6	13 <sup>th</sup> St., Near Ave. A	N 47°55.640/ W 122°05.581
SNOH7	E. of Ave. A, Near 8 <sup>th</sup> St. in Park (CMP)	N 47°55.292/ W 122°05.559
SNOH8	Cady Park (CMP)	N 47°54.593/ W 122°05.599

- In April 2015, a revised Quality Assurance Protection Plan (QAPP) was finalized (with Ecology’s comments) reflecting the City’s intention to continue monitoring for fecal coliform at sites SNOH3 through SNOH8 with a priority for investigative efforts related to sites SNOH6 and SNOH7 due to historically high data in this region.
- The City did an onsite inspection of Swifty Creek between sample sites SNOH6 and SNOH7 on December 16, 2015. The City prepared an informational streamside mailer to the residents abutting Swifty Creek in that area.
- In February 2019, a Water Quality Monitoring Report was prepared to analyze the fecal coliform monitoring data collected by the City over the past year.
- The City also completed the Blackman Lake outlet flow control project in 2017 from Blackman Lake at Ferguson Park to just downstream of SNOH6. The

purpose of the Blackmans Lake Outlet Improvement Project is to reduce the flooding problems that occur in the area adjacent to the lake. This project consisted of replacing the four existing culverts at Ferguson Park Road, constructing a berm, overflow channel and a gravel path/maintenance access along Avenue A, removing sediment and debris from the existing outlet channel (Swift Creek) from the Woodlake Manor Apartment driveway to Smithson Place, and mitigation plantings. Constructing the overflow channel and removing sediment and debris from the existing outlet channel increases the capacity of this flow conveyance system.

This project provided for the construction of approximately 580 lineal feet of open channel, 370 lineal feet of sediment removal from an existing channel, 150 lineal feet of 24-inch culvert replacement, earth berm, paving, and plantings.