

# Washington Department of Ecology Electronic Submission Cover Letter



**WQWebSubmittal - Submittal Submission Id: 1617020 - 3/27/2018 8:05:06 AM**

Company Name	Signer Name	System Name
City of Port Angeles	Craig	WQWebPortal

## Attachments:

Document Name Or Description	Document Name
WAR045028_5_03122018115820	05_Stormwater Education Outrea_5_03122018115820
WAR045028_38b_03122018011351	2017 Annual Insp. Tracking Lis_38b_03122018011351
WAR045028_56_03212018074619	2017 sample results_56_03212018074619
WAR045028_65_03122018024808	65 Sampling_65_03122018024808
Submitted Copy of Record for City of Port Angeles	Copy of Record CityofPortAngeles Tuesday March 27 2018
WAR045028_20_03122018122809	20_IDDE Listings_20_03122018122809
WAR045028_03122018025626	2017 IDDE Inspection Listing Long_03122018025626.x
WAR045028_1_03122018113657	2018 COPA SWMP_1_03122018113657

## 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



VUwbRGEKtRzv7edbVB6Rfwb9Z73sRzoqNKoGSALmjTEBe1Lw78xq7JkaEFU92JixLUsUbHZvaqwKxR4SE2LB8adNtbthcE5jt0drbrBw2LI=



# Water Quality Program

## Permit Submittal Electronic Certification

**Permittee:** PORT ANGELES CITY

**Permit Number:** WAR045028

**Site Address:** 321 E FIFTH ST  
Port Angeles, WA 98362

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

**Version:** 1

**Due Date:** 3/31/2018

### Questionnaire

Number	Permit Section	Question	Answer
1	S5.A.2	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	2018 COPA SWMP_1_03122018113 657
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.	05_Stormwater Education Outrea_5_03122018115 820
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
7	S5.C.1.b	Used results of measuring the understanding and adoption of targeted behaviors among at least one audience in at least one subject area to direct education and outreach resources and evaluate changes in adoption of targeted behaviors. (Required no later than February 2, 2016, 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)	The SWMP and contact information are available to the public on the City's website. A link to a comment form is also available on the SWMP page. Copies of the SWMP are available at the front counter of the City's Engineering Department, and provided at the annual Home Show and County Fair.
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://cityofpa.us/376/Stormwater-Management-Program">http://cityofpa.us/376/Stormwater-Management-Program</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	IDDE Response Policy (PW-0610) included in SWMP
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)	55
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)	360-417-4745
15b	S5.C.3.c.ii	Number of hotline calls received.	12
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)	The City trains its staff through IDDE Awareness Training, and businesses through personalized business inspections. A utility bill mailer was sent to all City residents which describes what illicit discharges are and how to report them. A IDDE poster is also located in the entrance to City Hall.
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)	92
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	20_IDDE Listings_20_031220181 22809
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
23b	S5.C.4.a.i-iii	Cite code reference for revised ordinance or other enforceable mechanism to address runoff from new development, redevelopment and construction sites.	PAMC Title 13.63 and PAMC 15.23.030
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.	66
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.	8
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.	33
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)	14
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)	2017 Annual Insp. Tracking Lis_38b_031220180113 51
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)	160
46c	S5.C.5.b	Number of facilities inspected during the reporting period. (S5.C.5.b)	160
46d	S5.C.5.b	Number of facilities for which maintenance was performed during the reporting period. (S5.C.5.b)	66
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.	Not Applicable
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)	Yes
49b	S5.C.5.d	Number of known catch basins.	2531
49c	S5.C.5.d	Number of catch basins inspected during the reporting period.	2182
49d	S5.C.5.d	Number of catch basins cleaned during the reporting period.	2058
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)	Not Applicable
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)	Not Applicable
56	S8.A	Attach a description of any stormwater monitoring or stormwater-related studies as described in S8.A.	2017 sample results_56_03212018074619
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.	10
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)	Not Applicable
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)	65 Sampling_65_03122018 024808
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.*

Craig Fulton

3/27/2018 8:05:05 AM

Signature

Date

**This is a copy of the City's stormwater management plan. It defines what the City plans to do to make stormwater cleaner.**

**We would like your input on methods to improve the quality of stormwater and the environment.**

**Please let us know if you have any comments, ideas or concerns! You can return this directly to the City offices at 321 East Fifth Street, attention Stormwater Engineer. You can also call the stormwater hotline at 360-417-4830, or send an email to [stormwater@cityofpa.us](mailto:stormwater@cityofpa.us)**

# **City of Port Angeles**

## **Stormwater Management Program**

Revised: February 28, 2018



As required by the

Western Washington Phase II Municipal Stormwater Permit

State of Washington – Department of Ecology

Municipal Stormwater Permit Coverage Number: WAR04-5028

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- Appendix A: Public Outreach Plan Activity Matrix
- Appendix B: Illicit Discharge Detection and Elimination (IDDE) Response Policy
- Appendix C: Inter-Departmental Coordinating Mechanisms

## Background and Intent

The City of Port Angeles (City) was issued a Western Washington Phase II Municipal Stormwater Permit (Permit) on January 17, 2007. The Permit was renewed on August 1, 2013. The Permit was issued by the State of Washington's Department of Ecology in compliance with the State of Washington Water Pollution Control Law (Chapter 90.48 Revised Code of Washington) and the Federal Water Pollution Control Act (Title 33 United States Code, Section 1251 et seq).

The Permit authorizes the City to discharge from the municipal separate storm sewer system (MS4) to surface waters and ground waters of the state.

The City is developing this Stormwater Management Program (SWMP) to address the specific requirements of Special Condition S5 of the Permit: "Stormwater Management Program for Cities, Towns, and Counties." The SWMP is a set of planned actions and activities designed to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The City has teamed with Kitsap County to enhance the Public Education and Outreach components of the SWMP. The Permit includes broad ranging requirements which are implemented by various Departments within the City, inter-departmental coordination mechanisms are detailed in Appendix C.

The organization of the City's SWMP reflects the five core components required by Special Condition S5:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Controlling Runoff from New Development, Redevelopment, and Construction Sites
5. Pollution Prevention and Operation and Maintenance for Municipal Operations

The City's SWMP will be updated and submitted to the Department of Ecology annually as required. Electronic copies of updates will be available on the City's stormwater web page. Updates for each calendar year will be submitted by March 31 of the following year. Many of the activities described in the SWMP are planned activities, and their inclusion in this document does not guarantee that they will be implemented as described.

The public is encouraged to participate in the development of the SWMP. Please contact the Department of Public Works and Utilities with questions, comments or suggestions.

Mail: 321 East Fifth St, Port Angeles, WA 98362  
Phone: (360) 417-4745 (illicit discharge hotline)  
(360) 417-4811 (City stormwater engineer)  
Email: [illicit-discharge@cityofpa.us](mailto:illicit-discharge@cityofpa.us)  
Website: <http://www.cityofpa.us> .... CLICK >.>  
LIVING IN... Your Home.... Stormwater  
Web Form: Click [Stormwater Management Plan](#) on the Stormwater webpage

## 1) Public Education and Outreach

The City's public education and outreach program is being developed consistent with the Permit goal: "to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts."

### a) *Education and Outreach Program*

The Permit has established education and outreach goals for four categories based on target audiences and subject areas. The City's program is structured to match these four categories, listed as i-iv below.

A matrix has been prepared to show planned activities for the year, and their relationship to the required target audiences. This matrix is attached as Appendix A to this document. Updates of actual education and outreach activities will be provided with the Annual Report for the year. The following sections provide details on anticipated and ongoing public education and outreach program activities.

#### i.) **General public**

*Education and outreach goals:*

- *General impacts of stormwater flows into surface waters*
- *Impacts from impervious surfaces*
- *Source control BMPs and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping, and buffers*

The program to meet these goals may include the following components:

- **Stormwater website:** the City's stormwater website contains information on general stormwater impacts, impervious surfaces, and opportunities for the public to help improve stormwater quality within the watershed. The webpage may be found at (<http://www.cityofpa.us> CLICK>> LIVING IN.... Your Home.... Stormwater). The website will be updated as more information becomes available. Specific updates are planned to include a list of frequently asked questions, a list of upcoming stormwater-related events, additional links to other websites, and copies of educational materials developed under this program.
- **Localized groups:** Annually, the City may hold a public meeting to discuss the stormwater management plan. In these meetings we discuss local water quality, the effects of impervious surfaces on stream health, and stormwater pollutants generated by home and automobile owners. Meetings may be held with groups such as Streamkeepers, EcoNet, and North Peninsula Builders Association.
- **Informational brochures:** will be made available at facilities such as Port Angeles City Hall (customer service and billing desk, Public Works and Utilities reception area), Clallam County Courthouse, Port Angeles Public Library, City Pier (Arthur D. Feiro Marine Life Center), Peninsula College, and others. The informational brochures are designed to address the education goals listed above. As brochures are developed, electronic copies will be made available through the City's stormwater webpage.

- **Newspaper advertisements:** the City plans to periodically place stormwater-related information in the local newspaper (Peninsula Daily News). This information will be designed to address the education goals listed above and will be timed to reflect the greater impact during the wet winter season. Electronic copies of all newspaper advertisement will be made available through the City's stormwater webpage.
- **Utility bill mailers:** Annually, educational mailers will be sent out with the monthly utility bills, thereby reaching all of the City's utility customers. The mailers will be developed to create a progressive flow of general stormwater related information with practical tips for home and business owners to help improve water quality. Copies of mailers will also be made available on the City's stormwater website and as handouts. The 2018 utility bill mailer may feature topics such as: LID code update, BMPs, dog waste, car washing, and yard debris.
- **Participation in existing events:** educational materials (posters, brochures/handouts, maps, etc) will be distributed at existing local and regional events that attract members of the target audiences. City representatives will be present to answer questions. Events include: Clallam County Fair, Clallam County Home and Lifestyle Show, and others. Event-specific materials will be developed and distributed as appropriate. Announcements of upcoming events and copies of materials used at events will be available on the City's stormwater website.

## ii.) **General public, home-based and mobile businesses**

*Education and outreach goals:*

- *BMPs for use and storage of automotive chemicals, hazardous cleaning and yard care products, carwash soaps, and other hazardous materials*
- *Impacts of illicit discharges and how to report them*

The program to meet these goals may include the following components:

- **Site visits to business owners by City Pollution Prevention Specialist:** The City received grant funding through the State Department of Ecology to support a Pollution Prevention Specialist position. This person will schedule site visit appointments at businesses within the City. The purpose will be to educate them about stormwater pollution and their connection to the local water ways, to educate them about the impacts of illicit discharges and how to report them, to help them implement BMPs on use and storage of hazardous materials, to fill out the Department of Ecology's Source Control Checklist and to report that information to Ecology and the City.
- **Illicit discharge information for the general public:** general illicit discharge information will be distributed to the general public. The information will take the form of one or more of the general public program components described in the previous section. Information will include a description of illicit discharges, applicable laws, environmental effects, preventative measures, reporting

measures, and links to other sources of information. A “stormwater pollution hotline” is available for public reporting of illicit discharges (360-417-4745).

### iii.) Homeowners, landscapers, and property managers

*Education and outreach goals:*

- *Yard care techniques protective of water quality*
- *BMPs for use and storage of pesticides and fertilizers*
- *BMPs for carpet cleaning and auto repair and maintenance*
- *Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees*
- *Stormwater pond maintenance*

The program to meet these goals may include the following components:

- **Informational mailers to target audience:** mailers designed to address the specific education goals will be sent to the target audience. The audience will be selected based on classification in directories such as telephone books and web searches.
- **Informational brochures at City Hall, at local public events and at target commercial establishments:** informational brochures/handouts will be designed to address the specific education goals. The brochures will be placed or displayed at City Hall, at local public events and at businesses within the target group or that cater to the target audience. Examples may include: lawn and garden stores, hardware stores, general stores, landscaping businesses, florists, real estate offices, property management offices, and others. Permission to place the brochures will be obtained from business owners prior to placement. Brochures will be replaced periodically.
- **BMP and LID incentives programs:** the City will implement a new stormwater rebate program that will offer financial incentive to small development projects who implement certain stormwater LID BMPs, on their properties. This program will be advertised on the City website and at local public events. The City has also implemented a rain garden rebate program for existing homes and businesses to further encourage LID. The rain garden rebate reimburses an approved applicant the cost of up to \$1000 for the material required. Program details can be found on the Stormwater webpage.

### iv.) Engineers, contractors, developers, review staff, and land use planners

*Education and outreach goals:*

- *Technical standards for flow control and pollution prevention*
- *Technical standards for stormwater site and erosion control plans*
- *Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees*

The program to meet these goals may include the following components:

- **Stormwater Management Manual for Western Washington:** a copy of the most recent version of the Department of Ecology’s manual is available at the City’s Public Works and Utilities Department’s Engineering Services Office so that designers can access the manual without purchasing or printing it. Staff are available by appointment to assist with the use of the manual.
- **City staff will organize workshops or one on one meetings with developers:** The city stormwater engineer meets regularly with developers and engineers to help them interpret the City stormwater regulations, and to recommend low impact development techniques as generally lower cost stormwater solutions.
- **BMP and LID incentives programs:** see description in previous section
- **City staff training:** City engineering and review staff will attend training sessions as available to further knowledge of technical standards, LID techniques, regulatory requirements, and other stormwater-related topics.

***b) Measurement of Understanding and Adoption Among Targeted Audiences***

The City has entered into an interlocal agreement with Kitsap County for 2018. In conjunction with Kitsap County, the City will measure the understanding and adoption of a targeted behavior for at least one target audience in at least one subject area.

***c) Public Education and Outreach Recordkeeping***

The City will track and maintain records of all public education and outreach activities conducted. An electronic database of this information is maintained by the City’s Public Works and Utilities Department. The database contains the following entries:

- Name of outreach activity/distribution/event
- Date(s)
- Location(s)
- City personnel involved
- Target audience(s)
- Contact information for other group(s)
- Subject area(s)
- Attendance/distribution (actual or approximate)
- Educational materials used (flyers, handouts, slide shows, posters, etc)
- Notes/other

The public education and outreach database is available from the City upon request. An updated version will be included with each annual report. Copies of all material used during public education and outreach activities will be maintained, as well as photos, descriptions of feedback, lessons learned, and other information.

## 2) Public Involvement and Participation

The SWMP will include opportunities for public involvement and participation to ensure that the program addresses the goals and expectations of the public as well as the requirements of the Permit. Public comments will be tracked and responded to as appropriate.

### a) *Public Involvement in SWMP*

The public will have the following opportunities for participation:

- Direct contact with City staff: An email address, phone number, and mailing address will be provided on all City stormwater information distributed. The public will be encouraged to contact City staff at any time with questions or concerns.
- Web page: The City's stormwater web site (<http://www.cityofpa.us> CLICK>> LIVING IN... Your Home... Stormwater) includes the SWMP, encourages public involvement and participation in the development of the SWMP, and gives contact information.
- Public hearings: All City policy decisions will follow standard City procedure and will be brought before City Council through the public hearing process. This includes rate changes, new or revised ordinances, and other official policy decisions. The public will be notified as required and will have a chance to comment during the hearings.
- Engineering counter handout: The SWMP is available in the Public Works and Utilities (PW&U) reception area.
- Stormwater workshops: The City stormwater engineer will hold public information sessions on the stormwater management program to stakeholder groups such as Streamkeepers, EcoNet, and North Peninsula Builders Association.

The current contact information for public involvement is:

Mail: 321 E Fifth Street, Port Angeles, WA 98362  
Phone: (360) 417-4745 (illicit discharge hotline)  
(360) 417-4811 (City stormwater engineer's number)  
Email: [illicit-discharge@cityofpa.us](mailto:illicit-discharge@cityofpa.us)  
Website: <http://www.cityofpa.us> .... CLICK >>  
LIVING IN... Your Home... Stormwater  
Web Form: Click [Stormwater Management Plan](#) on the Stormwater webpage

All opportunities for public involvement and comments received will be tracked on a spreadsheet maintained by the Department of Public Works and Utilities. The City will consider comments as they are received and will follow up with the public as appropriate.

### **b) Availability of Information to the Public**

The most recent annual report to Department of Ecology, the SWMP, and other submittals required by the Permit will be made available to the public on the City's stormwater webpage. The documents will also be available to the public at the Department of Public Works and Utilities (321 East Fifth St, Port Angeles) upon request. Staff will be available by appointment to discuss the documents with any interested parties.

## **3) Illicit Discharge Detection and Elimination**

### **a) Municipal Storm Sewer System Map**

The City's stormwater system is mapped electronically in the City's Geographic Information System (GIS). The data contained in the map is updated and corrected continuously as information is gathered in the field or as new development occurs. Updates are made based on field sketches, design plans, as-built plans, aerial photography, and/or other sources of information that become available.

The stormwater GIS layers contain information on manholes, catchbasins, outfalls, pipes, ditches, culverts, detention ponds, and drainage basins. Other layers within the City's overall GIS dataset contain information relevant to stormwater as well, for example: land use, land cover, zoning, impervious surfaces, topography, natural hydrology, and combined sewers. Aerial photography is also available, with the most recent flyover performed in 2012. This information is available to City employees at any time, and can be made available to the public or other organizations upon request. It can also be accessed on the web at the following address:

<http://pawa.maps.arcgis.com/home/webmap/viewer.html?webmap=ed198cbf682b4dcabf75ee21fcea4bf5>

### **i) Location of Known Outfalls, Receiving Waters and Structural BMPs**

The locations of all known outfalls, receiving waters, and structural BMPs owned, operated and/or maintained by the City have been mapped in the GIS. Additional information regarding tributary conveyances (pipes, ditches, etc), associated drainage areas, and land use will be developed where required.

### **ii) Connections to MS4**

The City continuously updates the stormwater GIS with any new connections or infrastructure allowed or authorized by the City. New connections are mapped from development plans, project plans, field reports, and/or other sources as appropriate.

### **iii) Areas Not Discharging to Surface Waters**

Most of the areas served by the City-owned MS4 discharge into surface waters, however there are three west side basins which generally infiltrate (Lincoln Park Pond, Big Boy Pond and 10<sup>th</sup> and N open space). All of these areas have overflow structures that allow

the water to discharge to surface waters. Also the City has many surface water catch basins which drain to the City's wastewater plant. These basins have been mapped.

#### **iv) Information Available to Ecology**

The City's stormwater GIS is available to Ecology upon request. The City can provide the required mapping information in electronic format and can meet the mapping standards described on Ecology's website, with the exception of metadata, which the City does not have available in electronic format at this time.

#### **v) Information Available to Secondary and Co-Permittees**

The City does not currently have any secondary or co-permittees.

#### **b) *Illicit Discharge Ordinance***

The City developed a comprehensive stormwater ordinance including an illicit discharge provision for the separate stormwater system. The ordinance was written to satisfy the criteria listed in the Permit, including: discharge categories that are NOT prohibited (3.b.i), discharge categories that ARE prohibited (3.b.ii), categories of discharge identified as significant sources of pollution to waters of the State (3.b.iv), escalating enforcement procedures (3.b.v), and enforcement strategies (3.b.vi). The ordinance was passed by the City Council on June 16<sup>th</sup>, 2009. No changes are anticipated in 2018.

#### **c) *Priority IDDE Screening Basins***

In order for the City to comply with its NPDES phase II permit, all permittees shall complete a field screening of at least 40% of the City MS4 system no later than December 31, 2017. The City of Port Angeles has elected to screen on average 12% of its MS4 system beginning in 2014. Each priority field screening basin contains approximately 12% of the cities stormwater catch basins; for a total of eight screening basins, each approximately 300 acres in size. Screening of these basins is accomplished through the use of existing City inspection programs. Every Stormwater catch basin within the priority screening basin is visually inspected during its years screening. Existing programs and tasks are also leveraged to fulfill this requirement including Business Inspections, Manhole Inspections, Outfall Inspections, and Stormwater BMP Inspections.

#### **d) *Detection Program***

The City has developed and implemented an "Illicit Discharge Detection and Elimination (IDDE) Response Policy". This Policy is included as Appendix B to this document. This policy contains all of the elements required by the Permit. The implementation of this Policy will continue in 2018. Each element is discussed in the following sections.

#### **i) *Priority Areas***

Prioritization was completed on February 12, 2010.

#### **Prioritization of Port Angeles Receiving Waterbodies**

Prioritization is based on the Department of Ecology’s 303d list, as well as the significance of the waterbody for potential salmon recovery.

**303d list of most impacted to least impacted waterbodies in the Port Angeles area**

Peabody Creek  
Tumwater Creek  
Port Angeles Harbor  
Dry Creek  
Valley Creek  
Ennis / White Creek

**Creeks with high salmon recovery potential**

Ennis / White Creek system

**Proposed highest priority waterbodies for visual inspection:**

Peabody Creek  
Tumwater Creek  
Ennis / White Creek system

**ii) Field Assessment**

Field assessment has been completed on Peabody, Tumwater, Valley, Mills, Dry, White and the Ennis Creek systems. Inspections and re-inspections of priority water bodies will be made as part of the annual Field Screening of 12.5% of the City MS4. Field assessment activities include visual inspection during dry weather and field screening for illicit discharges in accordance with the City’s “Illicit Discharge Detection and Elimination (IDDE) Response Policy”. This Policy is included as Appendix B to this document.

**iii) Nature of Discharges**

Any illicit discharges discovered by or reported to the City will be characterized using the City’s IDDE Response Policy in terms of potential public or environmental threat. The City will investigate any complaints, reports, or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping within seven days. Problems and violations determined to be emergencies or otherwise judged to be urgent or severe will be investigated immediately.

Follow up training for maintenance staff in the use of the Policy for characterization will be conducted in 2018.

#### **iv) Tracing Source(s) of Discharges**

The City will trace the source of illicit discharges using one or more of the following means and methods:

- Visual observation
- Tracing upstream from manhole to manhole
- Dye testing
- Sewer inspection camera
- Water sampling and analysis
- Site inspections of potential sources

Additional tracing methods will be employed as available and applicable. The results of the tracing investigation will be entered onto the appropriate data base and used for follow-up activities. A drainage contaminate survey was performed on Peabody Creek with a goal of detecting and eliminating illicit connections contributing to high levels of fecal coliform. Sampling of priority areas identified in the contaminate survey continues. Sampling of priority areas identified in the contaminate survey continue.

#### **v) Removing Source(s) of Discharges**

Once identified, sources of illicit discharges will be removed, using the City's enforcement authority as needed.

#### **e) *Public Information***

The City will utilize its Public Education and Outreach Program, as described in Section 1, to disseminate information about illicit discharges.

#### **i) Distribute Information to Target Audiences**

See Section 1.A – Public Education and Outreach Program.

#### **ii) Hotline for Public Reporting of Discharges and Spills**

The City's stormwater pollution hotline will be used for public reporting of discharges and spills. The hotline number will be published with all stormwater information and is available on the City's stormwater website. The hotline number is (360) 417-4745. The public will also be able to report discharges, spills, or other concerns via the City's storm water webpage, utilizing an online form, where information on the spill and photos can be submitted. An email address is also available: [illicit-discharge@cityofpa.us](mailto:illicit-discharge@cityofpa.us). Both the hotline and email are forwarded directly to City staff.

#### **f) *Program Evaluation and Assessment***

The City will track the following information, as required by the Permit:

- Number and type of spills or illicit discharges identified
- Inspections made
- Feedback received from public education efforts (see Section 1 – Public Education and Outreach)

Public reporting of illicit discharges will be tracked using the form developed by the Center for Watershed Protection and incorporated into the City's IDDE Policy. Electronic and paper copies of all records, including follow up reports and actions, will be maintained at the Public Works and Utilities office. A summary of this information will be included in the City's Annual Report.

### ***g) Illicit Discharge Training***

The City will provide appropriate training for municipal field staff as described below.

#### **i) Field Staff Training**

The City will ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal, and illicit connections are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques, or requirements. The City will document and maintain records of training provided and staff trained. Refresher training for City field staff was held in 2015 and 2016.

#### **ii) Ongoing Training Program**

The City has developed and implemented an ongoing training program for all municipal field staff, which, as part of their normal job responsibilities, might come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system. Staff has been trained on the identification of an illicit discharge/connection and on the proper procedures for reporting and responding to the illicit discharge/connection. Follow-up training was provided in 2015 to address changes in procedures, techniques, or requirements. City staff will continue to attend select sessions held through the Statewide LID Training Program to assist staff in design, implementation, and maintenance of LID best management practices and facilities. The City will document and maintain records of future training provided and staff trained.

### ***h) Stormwater Ordinance***

The City developed and adopted an ordinance that addresses runoff from new development, redevelopment, and construction site activities at sites 2000 sq-ft and greater. The ordinance adopts most of the Department of Ecology's 2014 Stormwater Management Manual for Western Washington and the Low Impact Development Technical Guidance Manual. Please see the Port Angeles Municipal Code, Section 13.63 for more detail.

In conjunction with the Stormwater Ordinance, the City has developed and implemented a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. The program is being applied to all sites one acre and greater, including projects less than one acre that are part of a larger common plan of development or sale. The program applies to both private and public development, including roads. The program is enforced through the City Ordinance described above as well as through the City's development standards (The City of Port Angeles Urban Services Standards and Guidelines).

**i) Minimum Requirements, Technical Thresholds, and Definitions**

The minimum requirements, technical thresholds, and definitions in Appendix 1 of the permit have been effective for the City since 2009.

**ii) Site Planning Process, and BMP Selection and Design**

The site planning processes and Best Management Practice (BMP) selection and design criteria contained in the Department of Ecology manual have been effective for the City since 2009.

**iii) Legal Authority to Inspect Private Facilities**

The ordinance includes provisions allowing City inspectors the legal authority to inspect private stormwater facilities that discharge into the City's MS4.

**iv) LID Required**

As of December 31, 2016 the City has updated its development codes to require LID where feasible.

**v) Erosivity Waiver**

The City does not allow developers to apply the Erosivity Waiver in Appendix 1, Minimum Requirement #2 of the permit. Therefore, the City does not plan to include enforcement sanctions for construction sites that provide notice of intent to apply the waiver but do not meet the requirements.

***i) Permitting Process***

The City has developed a permitting process with plan review, inspection, and enforcement capability as described below. The permitting process is applied to both private and public projects greater than one acre, and is administered by qualified personnel.

**i) Review of Stormwater Site Plans**

The City reviews stormwater site plans as part of the permitting process. Plans are reviewed for compliance with the stormwater ordinance (PAMC 13.63) and the City's Urban Services Standards and Guidelines, which implement the ordinance. The review includes the minimum requirements, technical thresholds, and definitions in Appendix 1 of the Permit. The City works with developers to ensure that stormwater site plans meet the criteria established by both the Department of Ecology and the City.

**ii) Pre-Construction Inspection of Development Sites**

During site plan review, City staff uses the definitions and requirements in Appendix 7 of the permit (Identifying Construction Site Sediment Transport Potential) to determine which sites have a high potential for sediment transport. These high priority sites will be inspected by qualified personnel prior to clearing and grading activities.

### **iii) Inspection of Development Sites During Construction**

Qualified City staff inspect all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforcement is used as required.

### **iv) Post-Construction Inspection of Development Sites**

Qualified City staff inspect all permitted development sites upon completion of construction and prior to final approval or occupancy. The purpose of the inspection is to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs. City staff also verifies that a maintenance plan is completed and that responsibility for maintenance is clearly assigned. Enforcement is used as required.

### **v) Inspection Compliance**

The City maintains compliance with sections ii, iii, and iv above by the presence and records of an established inspection program designed to inspect all sites and achieving at least 80% of scheduled inspections.

### **vi) Enforcement Strategy**

The City has developed an enforcement strategy to respond to cases of non-compliance. This enforcement strategy is included in the City's Stormwater Ordinance PAMC 13.63.

### **vii) Erosivity Waiver**

At this time, the City does not allow developers to apply the Erosivity Waiver in Appendix 1, Minimum Requirement #2 of the Permit. Therefore, the City will perform review and inspection tasks for all construction sites as described above.

### ***j) Operation and Maintenance of Post-Construction Stormwater Facilities***

The City has developed and implemented a program to verify adequate long-term operation and maintenance of post-construction stormwater facilities and BMPs that are permitted pursuant to the City's permit process.

### **i) Operations and Maintenance Ordinance**

The City has developed a comprehensive stormwater ordinance which requires private developers to clearly identify the party responsible for maintenance, requires inspection of facilities in accordance with Chapter 4, Volume V of the Department of Ecology's Stormwater Management Manual for Western Washington, and establishes enforcement procedures.

### **ii) Maintenance Standards**

The City has adopted the 2014 Department of Ecology's Stormwater Management Manual for Western Washington. The City is currently implementing the maintenance standards included in Chapter 4 of Volume V.

### **iii) Annual Inspections**

The City will continue to annually inspect all private stormwater treatment and flow control facilities (other than catch basins) permitted. This inspection schedule may be adjusted for a different frequency if maintenance records justify the change.

### **iv) Inspections During Construction**

The City will inspect all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development every six months during the period of heaviest house construction. The purpose of the inspections will be to identify maintenance needs and enforce compliance with maintenance standards as necessary.

### **k) Recordkeeping**

The City will keep and maintain records of inspections and enforcement actions by staff. This will include inspection reports, warning letters, notices of violations, and other enforcement actions. Records of maintenance inspections and maintenance activities will also be maintained.

### **l) Notice of Intent Availability**

Copies of the “Notice of Intent for Construction Activity” and the “Notice of Intent for Industrial Activity” are available to representatives of proposed new development and redevelopment. Paper copies can be found at City Hall at the front desk of the Engineering Department. The City’s stormwater website also directs owners of construction sites and industrial facilities to the Ecology websites where they can find additional information and electronic copies of the notices of intent.

### **m) Training**

The City staff responsible for implementing the program to control runoff from new development, redevelopment, and construction sites have been trained to conduct these activities. Follow-up training will be provided as required. The City will document and maintain records of training.

## **4) Pollution Prevention and Operation and Maintenance for Municipal Operations**

The City has developed and implemented an operations and maintenance program that includes a training component and has the goal of preventing or reducing pollutant runoff from municipal operations. The program elements are described below.

### **a) Maintenance Standards**

The City has adopted the 2014 Department of Ecology’s Stormwater Management Manual for Western Washington including the maintenance standards included in Chapter 4 of Volume V. The City is using the maintenance standards to determine if/when maintenance is required.

When an inspection identifies an exceedance of a maintenance standard, maintenance shall be performed within the following timeframes:

- Within 1 year for wet pool facilities and retention/detention ponds
- Within 6 months for typical maintenance
- Within 9 months for maintenance requiring re-vegetation
- Within 2 years for maintenance that requires capital construction of less than \$25,000

These timeframes may be exceeded if there are circumstances that are beyond the City's control. Such circumstances may include, but not be limited to, denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each such exceedance of the required timeframes, the City will document the extenuating circumstances.

### **b) Annual Inspections**

The City will perform annual inspections of all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins. The City will take appropriate maintenance actions in accordance with the maintenance standards in Chapter 4, Volume V of the Department of Ecology's Stormwater Management Manual for Western Washington (2014).

The City may reduce the inspection frequency based on inspection records. The reduction will be based on inspection records for double the length of time of the proposed inspection frequency, or upon written statements based on actual inspection and maintenance experience and certified as required.

### **c) Spot Checks**

The City will perform "spot checks" of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major storm events (greater than 24-hour 10-yr). If the spot checks indicated widespread damage and/or maintenance needs, the City will inspect all stormwater treatment and flow control facilities that may be affected. Repairs and other maintenance actions will be taken based on inspection results and in accordance with the City's maintenance standards.

### **d) Catch Basin Inspections**

Over the past two years the City has inspected all catch basins and inlets owned and/or operated by the City as required by the last Permit. Catch basins and inlets will continue to be cleaned based on inspection results and in accordance with the maintenance standards established in the 2014 *Stormwater Management Manual for Western Washington*. Decant water will be disposed of in accordance with Appendix 6 of the Permit – *Street Waste Disposal*.

The City continues to inspect the City's stormwater CBs every two years for maintenance requirements.

### **e) Inspection Program**

The City's inspection program will be constructed to comply with the requirements in sections a, b, c, and d above. The inspection program will be designed to inspect all sites and to achieve inspection at 95% of sites. The program will include full documentation of activities using City Works, a data base program which overlays the City's existing GIS program.

The City also has an existing large diameter culvert inspection program. The major culverts that conduct the City creeks under roads are visually inspected in the late summer every two to three years. Maintenance deficiencies are corrected before the wet winter season begins.

### **f) Road Runoff Control and Maintenance**

The City has established and implemented practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the City, and road maintenance activities conducted by the City. The following activities have been addressed:

- Pipe cleaning
- Culvert cleaning
- 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

### **g) Public Land Runoff Control and Maintenance**

The City has established and implemented policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City, including, but not limited to, parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities. The following policies and procedures have been adopted:

- Application of fertilizer, pesticides, and herbicides including the development of nutrient management and integrated pest management plans
- Sediment and erosion control
- Landscape maintenance and vegetation disposal
- Building exterior cleaning and maintenance

### **h) Training Program**

The City has implemented an on-going operations and maintenance training program for employees whose construction, operations or maintenance job functions may impact stormwater quality. The training addresses the importance of protecting water quality,

the requirements of the permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training will be provided as needed to address changes in procedures, techniques, or requirements. Training is documented.

**i) Stormwater Pollution Prevention Plans**

The City has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities that it owns and/or operates. The City’s applicable facilities and current status of SWPPPs or similar documents for each are summarized in the following table. While not all of the documents listed are specifically SWPPPs, they all have relevance to the prevention, containment, and handling of substances that could result in the pollution of municipal stormwater. The City SWPPPs for all facilities that are required to have them.

**Table 1: Status of Stormwater Pollution Prevention Plans for City Facilities**

<b>Facility Name</b>	<b>Facility Use</b>	<b>Document</b>	<b>Status</b>
Sanitary and Storm Sewer Collection System	Collection of sanitary and combined sewerage	“Illicit Discharge Detection and Elimination (IDDE) Response Policy”	Most Recent Revision: December 2014
Corp Yard	Maintenance, equipment & materials storage for water, wastewater, & streets utilities	“City of Port Angeles Maintenance Facility Stormwater Pollution Prevention Plan”	Most Recent Update: February 2013
Port Angeles Wastewater Treatment Plant	Wastewater treatment plant (secondary treatment)	“City of Port Angeles Wastewater Treatment Plant SWPPP”	December, 2001
Regional Transfer Station	Solid waste transfer station (previously a landfill)	“Port Angeles Transfer Station/ Landfill Stormwater Pollution Prevention Plan”	Updated November 2012
Electric Utility Handling & Warehouse Building	Electric transformer storage and handling	“Spill Prevention Control and Countermeasure Plan”	Completed November 2003
CSO Facilities	Combined sewer collection, storage, and conveyance, and discharge	“Amendment to the 2006 CSO Facilities Reduction Plan”	Updated August 2012

Several of these facilities are regulated by their own environmental permits. See the table below for a listing of individual stormwater or other related permits.

**Table 2: Existing Individual Stormwater and Stormwater-Related Permits**

<b>Facility Name</b>	<b>Type of Permit</b>	<b>Permit Number</b>
Regional Transfer Station	NPDES General Permit for Stormwater Discharges Associated with Industrial Activities	WAR005613
City of Port Angeles Municipal Solid Waste Facility	Solid Waste Handling Facility Permit	SLW98-0001
Port Angeles Wastewater Treatment Plant/CSO Facilities	NPDES Waste Discharge Permit	WA0023973

In addition, there are approximately twenty non-City-owned facilities in Port Angeles that are regulated by NPDES General Industrial Stormwater Discharge Permits. Because these facilities are regulated directly by the Department of Ecology, their individual stormwater collection infrastructure is not considered part of the municipal stormwater system, although in some cases they do discharge into it.

***j) Recordkeeping***

The City will maintain records of inspections and maintenance or repair activities conducted.

***k) Stormwater NPDES and Capital Needs Assessment***

The City retained Herrera Environmental Consultants to complete a comprehensive study of the Stormwater Utility. This project utilized Ecology grant funding to develop a functional resourcing and financial analysis of the staffing, equipment and funding mechanisms necessary to meet the requirements outlined in the NPDES Phase II Municipal Stormwater Permit. Additionally, the analysis included a capital facilities program (CFP) component defining a range of funding support options for CFP projects. The analysis assessed the gap between current resources and the resources necessary to meet operating costs and capital costs under the current and future (2013-2018) Phase II Permit regulatory requirements. In 2012, the City’s stormwater rate was \$6 per month for each equivalent residential unit (ERU). This analysis showed a funding gap and resulted in sequential stormwater rate increases to cover necessary expenses:

-Effective January 2018. \$16.87 per month for each ERU

This revenue is not sufficient to implement all projects in the 6 year Capital Facilities Plan. The City plans to evaluate the Stormwater Utility revenues and obligations again in 2018 to seek public input.

## **Documents Referenced**

“City of Port Angeles Maintenance Facility SWPPP” City of Port Angeles, 2013

“Amendment to the 2006 CSO facilities Reduction Plan” City of Port Angeles, June 2007

“Illicit Discharge Detection and Elimination – A Guidance Manual for Program Development and Technical Assessments” Center for Watershed Protection, October 2004

“Port Angeles Transfer Station/ Landfill Stormwater Pollution Prevention Plan” City of Port Angeles, June 2010

“Spill Prevention Control and Countermeasure Plan” (Electric Utility) City of Port Angeles, November 2003

“Western Washington Phase II Municipal Stormwater Permit” State of Washington Department of Ecology, Issued August 1, 2013 and Modified on January 2015.

“Washington State Department of Ecology 2014 Stormwater Management Manual for Western Washington”

“City of Port Angeles Municipal Code Title 13.63, Stormwater Ordinance” last modified in August 2009

“City of Port Angeles Urban Service Standards and Guidelines” last modified in 2010

“Stormwater NPDES and Capital Needs Assessment” Prepared for City of Port Angeles December 2012

**SWMP Appendix A**  
**Public Outreach Plan Activity Matrix**

2017 Planned Activities / Events	Location(s)	City Personnel	Target Audience	Contact Information (other groups)	Subject Area(s)
Library "Science, Technology, Engineering & Math Career Day"	Port Angeles Library	Jonathan Boehme	5th grade Port Angeles students	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	LID - Watersheds, Rain gardens, pervious pavement, pollution prevention
KONP Home Show	Port Angeles High School Gymnasium	Lucio Baack, Vince McIntyre	General public	<a href="mailto:lbaack@cityofpa.us">lbaack@cityofpa.us</a>	IDDE Program, LID Rain Garden Rebate Program, Natural Yard Care
County Fair	Port Angeles	Jonathan Boehme, Lucio Baack, Bob Kajfasz	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Focusing on pet waste awareness, natural yardcare.
Library Skill Share Fair	Port Angeles	Jonathan Boehme, Vince McIntyre	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	focusing on the benefits of installing LID such as rain garden, City Rebate program.
Utility Bill Mailer	Port Angeles	Jonathan Boehme	General Public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	LID, Pollution Prevention Hotline
Business Stormwater Education	Site visits to businesses within the City	Jason Hart	Local businesses within the City	<a href="mailto:jhart@cityofpa.us">jhart@cityofpa.us</a>	IDDE, Pollution Prevention
B-Wet Grant support	Individual class rooms and Peabody Creek from NPS Visitor's Center to Creek outfall at the Harbor	Jonathan Boehme	4th and 5th grade students, teachers and parents in Port Angeles and Sequim School Districts	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Water quality and negative effects on water quality and biota from pet waste, fertilizers and pest control products and car washing
Local Cinemas	Deer Park	Jonathan Boehme	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Pollution Prevention
Stormwater Runoff Controls Workshop	Port Angeles	Jonathan Boehme, Vince McIntyre	Landscapers/ Contractors	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Runoff Development Controls, how to use Developer Tool Kit

**SWMP Appendix B**  
**Illicit Discharge Detection and Elimination (IDDE)**  
**Response Policy**



# PUBLIC WORKS & UTILITIES DEPARTMENT POLICY AND PROCEDURES

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## ILLICIT DISCHARGE DETECTION and ELIMINATION (IDDE) RESPONSE PW- 0610

### 1.0 PURPOSE:

1.1 To establish a uniform procedure for IDDE response within the City of Port Angeles.

### 2.0 ORGANIZATIONS and SPECIFIC POSITIONS AFFECTED:

2.1 Public Works & Utilities Department staff

2.2 Key response personnel in order of response to pollution report:

- |                                    |                  |                |
|------------------------------------|------------------|----------------|
| 1. Stormwater Lead Worker          |                  | Cell: 461-5174 |
| 2. Streets Superintendent          | Office: 417-4825 | Cell: 912-0260 |
| 3. Assistant Stormwater Engineer   | Office: 417-4720 |                |
| 4. Stormwater Engineer             | Office: 417-4811 | Cell: 460-3456 |
| 5. Source Control Coordinator      | Office: 417-4693 | Cell: 808-6930 |
| 6. Deputy Director of Public Works | Office 417-4803  | Cell: 808-3089 |

### 3.0 POLICY:

3.1 This policy will implement an ongoing program to detect and address non-stormwater discharges, including spills, and illicit connections into the City's municipal separate storm sewer system. It shall be followed throughout the Public Works and Utilities organization. The Stormwater Engineer is the authorized department representative for the implementation of this program and the maintenance of this policy.

### 4.0 SAFETY ASPECTS:

4.1 Follow all safety measures as promulgated in the Public Works and Utilities Department Accident Prevention Plan.

4.2 Do not enter private property without permission (If the property owner is unwilling to allow access, and access is necessary for the investigation, contact the legal department or stormwater engineer for assistance).

### 5.0 DEFINITIONS:

5.1 Illicit discharge: any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

5.2 Small non-hazardous spills: Under 5 gallons of oil based products, paints or automotive fluids.

5.3 Large non-hazardous spills: Over 5 gallons of oil based products, paints or automotive fluids.

5.4 Hazardous or very large spills: Spills over 20 gallons of any chemical, flammable, or unknown substance. \* Gasoline is very flammable. Treat a gasoline spill of over five gallons as a hazardous spill.

- 5.5 A discharge which could constitute a threat to human health, welfare, or the environment:  
Large non-hazardous spills, hazardous or very large spills, or discharges exceeding thresholds in Section 7.3(3),
- 5.5 Dangerous system: A flooded stream system or a flooded large diameter culvert or manhole.

**6.0 EQUIPMENT FOR RESPONSE PERSONNEL:**

**Required Equipment:**

- Appropriate PPE (e.g., nitrile gloves, glasses, reflective vests, etc.)
- This SOP
- Hand Sanitizer

**Other Equipment As Needed:**

- System map
- Spill trailer or spill kit
- Sterile sample bottles

**7.0 PROCEDURES:**

7.1 Illicit Discharge Contact Methods

- a. The official number for the public or City staff to report suspected illicit discharges is:

Public Works Emergency and Afterhours Phone Number	360-417-4745
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- b. Illicit discharges can also be reported by email using the following address:

[illicit-discharge@cityofpa.us](mailto:illicit-discharge@cityofpa.us)

- c. Discharge reporting numbers and email addresses shall be posted on the City website.
- d. During normal working hours, the PWU clerical staff will receive calls and emails. For each call or email a CityWorks Service Request will be created and populated and forwarded to the key response personnel. . PWU clerical staff will be responsible for maintaining the official record of all such contacts. The report of an illicit discharge will also be directly made to one of the following staff personnel in the order listed:
  - Stormwater Leadworker
  - Streets Superintendent
  - Deputy Director of Operations
  - Stormwater Engineer
  - Source Control Coordinator

In addition, email reports shall be automatically distributed to all of the personnel

listed above.

- e. After normal working hours, the PWU on-call staff member will be responsible for handling the call, filling out the Illicit Discharge Contact Form (Appendix 8.1), doing the initial visual inspection of the incident, making initial containment if appropriate, and notifying management and requesting additional support when necessary. All recorded information shall be forwarded to the personnel listed in paragraph (d) no later than 08:00 A.M. the following workday.
- f. Illicit discharges or spills observed by City field personnel during the course of work should be immediately reported to their direct supervisor. In addition, City field personnel shall report the incident using one of the methods listed above to ensure that the key stormwater personnel are notified.

## 7.2 Priority Area Identification and Reconnaissance

- a. The Stormwater Engineer, shall be responsible for conducting a process for locating priority areas likely to have illicit discharges and/ or source control violations. This shall include at a minimum evaluating land uses and associated business/industrial activities present; areas where complaints have been registered in the past; and areas with storage of large quantities of materials that could result in spills.
- b. The lead organization for illicit discharge identification and field reconnaissance response shall be Operations Division, with the primary role for managing it being the Streets Section Superintendent. The Engineering Division shall provide technical support where appropriate. The responsibilities include:
  - (1) At a minimum, visually inspect all priority outfalls in the yearly Field Screening basin during dry weather conditions. Priority outfalls will be as designated by the Stormwater Engineer after consultation with the Streets Division Superintendent. Annually inspect and document the condition, sediment loading, blockages, and any other abnormal conditions for all priority culverts/outfalls.
  - (2) In addition, during dry weather, conduct stream reconnaissance for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. Stream reconnaissance will be conducted on one of the City's six stream systems or shoreline annually within the Port Angeles City limits.
  - (3) Flows suspected of containing illicit discharges due to the presence of odors, colors or sheens shall be tested. Testing will be done either in the field by trained personnel or by the COPA WW Lab. Test parameters include but are not limited to ammonia, surfactants, flouride, fecal coliform, pH, , turbidity, and temperature, . Testing will be performed by the lab within four hours of sample delivery, or by 10:00 am the next day, if the sample is delivered to the lab after 2:00 pm on any business day or on a weekend. Screening for illicit connections shall be conducted using: Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004.

- (4) The results of the inspections and testing shall be documented and maintained on the Spill (Illicit Discharge Characterization) Field Sheet in Appendix 8.5 and input into the City's maintenance tracking software and GIS system to allow tracking of outfall locations, inspection dates, chemical tests conducted, and follow-up procedures implemented to correct any detected illicit discharge. The physical condition of the outfall shall also be noted during the inspections. Illicit discharge data will be used in the preparation of the annual report for the permit.
- c. Results from the program shall be compiled and analyzed by the Stormwater Engineer, who may request additional requirements be done to achieve the overall objectives of this element.

### 7.3 Illicit Discharge Response, Characterization, and Tracing

- a. The lead organization for illicit discharge response shall be Operations Division, with the primary role for managing being the Streets Division Superintendent. The Engineering Division shall provide technical support where appropriate.
- b. If the material is unknown, chemical or hazardous in nature contact the fire department.
- c. Containment. The qualified onsite responding personnel shall immediately assess a spill and determine if it is containable, recoverable, or neither. Attempt to contain and recover the material to the maximum extent practical using the procedure below, if feasible, safe to do so and the appropriate equipment is available. Block the nearby storm drains, so that the area impacted is minimized. If the appropriate equipment is not available, the material is unknown, chemical, or hazardous, wait for properly trained personnel to contain the materials.

#### Small non-hazardous spills

- Use a rag, damp cloth, or absorbent materials for general cleanup of liquids
- Use brooms or shovels for the general cleanup of dry materials
- If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain
- Dispose of any waste materials properly
- Clean or properly dispose of any equipment used to clean the spill

#### Large non-hazardous spills

- Use absorbent materials for general clean up of liquids
- Use brooms, shovels or street sweepers for the general cleanup of dry materials
- If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain
- Clean or dispose of any equipment used to clean up the spill properly

- d. For hazardous or very large spills, chemical spills, or spills of unknown materials immediately contact the Fire Department, followed by the Streets Division Superintendent or Deputy Director of Operations.

e. Illicit discharges indicated by the presence of odors, colors or sheens shall be tested. Testing will be done either in the field by trained personnel or by the COPA WW Lab.. Test parameters include but are not limited to ammonia, surfactants, flouride, fecal coliform, pH, turbidity, and temperature. Screening for illicit connections shall be conducted consistent with the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004. The following additional guidance pertains:

- (1) The spill or illicit discharge will be characterized by the key response personnel, by the stormwater field crew or by on call staff if the discharge occurs after hours. The discharge will be characterized using Appendix 8.4 (Spill Characterization Field Sheet), visual observation and field testing as an unlikely, potential, suspect or obvious discharge. Characterization (or referral to the appropriate agency) shall occur within 7 days of any complaints, reports or monitoring information that indicates a potential illicit discharge, or shall occur immediately on the next business day for discharges deemed to be emergencies, urgent or severe.
- (2) Take a sample of the material in a sterile collection bottle and take the sample to the COPA WW lab for analysis.
- (3) The sample results should be compared to the following thresholds to determine if further IDDE investigation is necessary:

Indicator	Threshold	Comments
pH	<5 or > 10	Good indicator for industrial discharge
Ammonia	>5 mg/L	Good indicator of sanitary sewage, main ingredient in fertilizers
Detergents/ Surfactants	>1 mg/L	Excellent indicator of wash water
Fecal Coliform	>2000 CFU/100mL (Dry Weather) or >5000 CFU/100mL (Wet Weather)	Human sources include failing septics, wastewater leaks or cross-connections. Animal sources include pets, livestock, and wildlife.

f. Verifying and tracing the discharge shall be considered the initiation of the investigation and shall be performed within 21 days of a discharge characterization, unless tracing requires entry into a dangerous system, as defined in 5.5. If a dangerous system exists, verifying and tracing shall be performed when low flow conditions in the stormwater or stream system resume. The Stormwater Engineer shall determine when a dangerous system exists and shall document the delay and set the date to resume the investigation. In all cases, initial investigation shall be performed within 9 months of the discharge characterization. If the tracing

confirms an illicit connection, the connection shall be removed using the City's enforcement authority within 6 months.

Procedures for tracing the source of an illicit discharge include visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures. The equipment and methods described in "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments", Chapter 13 shall be used to trace the spill or illicit discharge to its source. The following additional guidance pertains:

- (1) Review information collected when illicit discharge was initially identified (Spill Characterization Field Sheet).
  - (2) Consider storm drainage basin and land uses.
  - (3) Revisit outfall to verify reported discharge is still present.
  - (4) Contact COPA lab for determination of probable source.
  - (5) Survey the general area / surrounding properties to identify potential sources of the illicit discharge.
  - (6) Investigate illicit discharges using visual inspections of upstream points.
  - (7) Utilize M&O resources and equipment as required (traffic control, video truck, additional staff).
  - (8) Document investigation results for NPDES Permit compliance.
  - (9) If source cannot be found, add the location to a future inspection program.
- g. Results shall be documented and reported to the Deputy Director of Operations and the Stormwater Engineer.
  - h. The Stormwater Engineer shall be responsible for administering the City's response to violations and ensuring consistency with City ordinances. All violation letters to property owners will be signed by the City Engineer level or higher. Technical assistance for eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated will be coordinated by the Stormwater Engineer.
  - i. The IDDE Incident Closure Form will be completed by the personnel responsible for investigating the specific IDDE. This form is to be reviewed by the Stormwater Engineer. When the form is completed by operations personnel it shall be signed by the Deputy Director of Operations unless a violation letter has been issued, whereby the City Engineer shall sign. When the form is completed by engineering personnel it shall be signed by the City Engineer.

#### 7.4 Regulatory Reporting Requirements

- a. Within 24 hours all spills/ discharges which could constitute a threat to human health, welfare, or the environment shall be reported to Ecology regional office (Appendix 8.1).

- b. Immediately report spills or discharges which might cause bacterial contamination of marine waters such as discharges resulting from broken sewer line to Ecology regional office, and Department of Health, Shellfish Program. (Appendix 8.1).
- c.. Immediately report discharges of any size oil or other hazardous substance to Ecology and Washington Emergency Management Division (Appendix 8.1).
- d. Reportable spills/illicit discharges shall be reported to the appropriate regulatory agencies by the following personnel in the order listed:
  - Stormwater Leadworker
  - Streets Superintendent
  - Deputy Director of Operations
  - Stormwater Engineer
  - Source Control Coordinator

Reporting requirements are detailed in Appendix 8.1. If none of the personnel listed above can be reached, contact your supervisor for guidance. The Pollution Investigation Checklist shall be followed and returned to the Stormwater Engineer no later than 08:00 A.M. the following workday. If there is any doubt as to whether a spill is reportable, contact the appropriate regulatory agency for clarification.

#### 7.5 Field Screening

Each year field screening will be performed on average of 12% of the MS4. Percent of MS4 will be measured based on the combination of the number of catch basins and geographic area within City limits. Detection, response and elimination methods will be used as outlined in this policy.

#### 7.6 Public Education

The Stormwater Engineer shall conduct a program to inform City employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Acceptable methods to accomplish this provision include direct training, contract training, brochures, internet, mailers, etc.

The Source Control Coordinator will conduct site visits to target businesses to educate them on the proper requirements for stormwater discharges.

#### 7.7 IDDE Assessment

The Stormwater Engineer shall be responsible for program evaluation and assessment, including tracking the number and type of illicit discharges, including spills identified; inspections made; and any feedback received from public education efforts. A summary of this information shall be included in the City's annual report.

#### 7.8 Training for City Staff

The Streets Division Superintendent will be responsible for arranging for or conducting training requirements for the Streets and Stormwater workforce as well as on-call personnel.

The Stormwater Engineer will be responsible for arranging for or conducting

training for the Engineering Division staff and clerical staff for requirements needed to implement the policy contained herein. The following topics will be covered where appropriate:

<b>TOPIC</b>	<b>TARGET AUDIENCE</b>
Proper chain of contact for initial spill reporting	Clerical staff / on-call staff
Properly filling out the Spill Characterization Field Sheet and Pollution Investigation Checklist.	Field crews / on-call staff
Spill containment and response	Field crews / on-call staff
Simulated spill drill response, containment, and cleanup.	Stormwater Engineer, field crews, on-call staff, clerical staff
IDDE Characterization and Tracing	Stormwater Engineer, Streets Superintendent, Stormwater Leadworker, Deputy Director of Operations, Field Staff, On Call Staff
Requirements in this SOP	Stormwater Engineer, Streets Division, on-call staff, Clerical Staff

## **8.0 APPENDIX:**

- 8.1 Combined Contact & Pollution Investigation Checklist
- 8.2 Public Works & Utilities Emergency Call List for Spill/ Pollution Incidents
- 8.3 Spill Response (Discharge Type) Chart
- 8.4 Spill Characterization Field Sheet and Identification Figures
- 8.5 Stormwater Sampling Checklist
- 8.6 IDDE Incident Closure Form



# APPENDIX 8.1

## COMBINED CONTACT & POLLUTION INVESTIGATION CHECKLIST

This checklist is to be used as an aid in preparing your report and included with the report when forwarded to the Public Works and Utilities Department.

### SPILL INVESTIGATION

- 1. Date and time notification received or spill discovered \_\_\_\_\_
- 2. Name of City employee that discovered/reported the spill \_\_\_\_\_
- 3. If spill reported by public, name of staff reported to: \_\_\_\_\_  
By: \_\_\_\_\_  
(Reporting Citizen's Name) (Address) (Phone #)

- 4. Call to Key Response Personnel received by \_\_\_\_\_  
(This is the key response person who will report to the incident)
- 5. Notification of Authorities: (See PW 0808\_04 Emergency Call List)

Required when a discharge or spill could constitute a threat to human health, welfare, or the environment.

<b>Oil Spill</b>	Phone No.	Name	Date	Time
<b>(Petroleum or Hazardous Materials)</b>				
WS Emergency Management				
Division (24hrs)- <b>Immediate</b>	<u>1-800-258-5990</u>	_____		
National Response Center- <b>Immediate</b>	<u>1-800-424-8802</u>	_____		
Ecology Regional Office-SW- <b>24 Hrs</b>	<u>360-407-6300</u>	_____		
City of PA Stormwater Eng.- <b>24 Hrs</b>	<u>360-460-3456</u>	_____		

#### Bacterial-

#### WWTP or Collections System Failure

Ecology Regional Office-SW- <b>Immediate</b>	<u>360-407-6300</u>	_____		
WS DOH Shelfish Protection- <b>Immediate</b>	<u>360-236-3330</u>	_____		
(If no answer)	<u>360-786-4183</u>	_____		
Clallam County Enviro Health- <b>24 Hrs</b>	<u>360-417-2415</u>	_____		
City of PA Stormwater Eng.- <b>24 Hrs</b>	<u>360-460-3456</u>	_____		

ERTS # \_\_\_\_\_

- 6. Spill/ Discharge Scene:
  - a) Location/Address \_\_\_\_\_
  - b) Time of arrival \_\_\_\_\_
- 7. Type and Amount of pollutant and discharge \_\_\_\_\_
- 8. In the judgment of the qualified onsite personnel, is the spill Containable? Recoverable? Or Neither? (Circle)

Initial Containment Measures \_\_\_\_\_

- 9. Ultimate discharge:
  - a) Date/Time discharge terminated \_\_\_\_\_
  - b) Date/Time cleanup commenced \_\_\_\_\_
  - c) Final Cleanup measures \_\_\_\_\_
  - d) Date/Time cleanup completed \_\_\_\_\_

10. Additional remarks (as necessary) \_\_\_\_\_

Signature \_\_\_\_\_ Title \_\_\_\_\_

**APPENDIX 8.2  
PUBLIC WORKS & UTILITIES  
EMERGENCY CALL LIST**

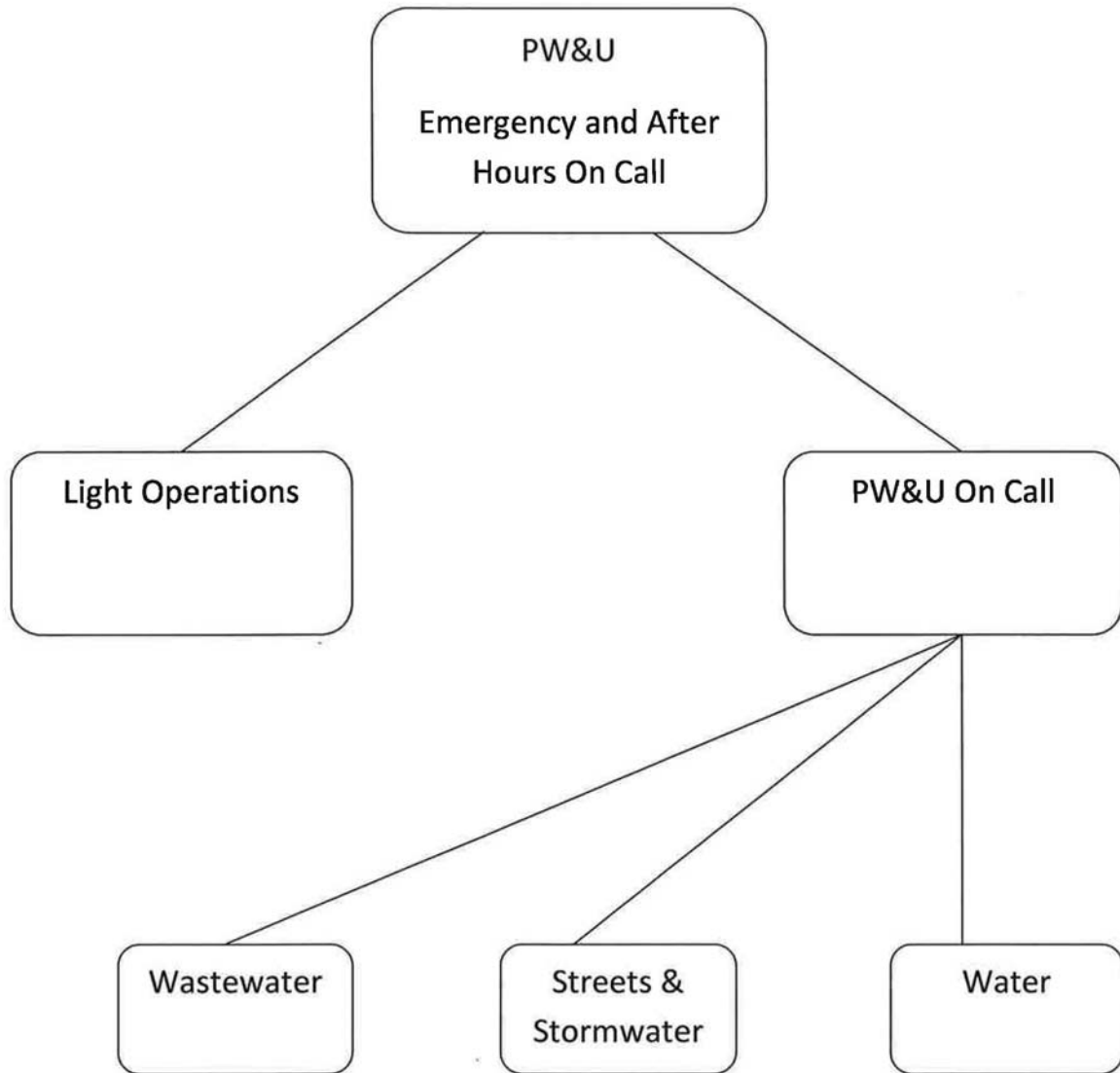
**FOR POLLUTION INCIDENTS**

The following phone/checklist is for the investigation and notification of the proper agencies of a pollution incident. By providing the applicable information, an accurate, orderly investigation and record will be assured. This checklist is to be used as an aid in preparing a final report and shall be included with the report when forwarded to the Public Works & Utilities Director.

<b>City of Port Angeles</b>	<b>Contact Person</b>	<b>Phone Nos.</b>
Street/Stormwater Division	1) Eric Wheatley  2) Mike Brockopp  3) Guy Wehr  4) Street/Stormwater On-Call	Work: 360-417-4825 Cell: 360- 912-0260  Work: 360-565-3854 Cell: 360-461-5174  Work: 360-417-4827 Cell: 360-460-9676  Cell: 360-477-1260
Stormwater Engineer	Jonathan Boehme	Work: 417-4811 Cell: 460-3456
Wastewater Collection	1) Jeff D. Young  2) Jay Divelbiss	Work: 360-417-4845 Cell: 360-461-1044 Work: 360-417-4845 Cell: 360-460-3976
Wastewater Treatment Plant	1) Jeff D. Young  2) Gary Richmond  3) WWTP on-call	Work: 360-417-4845 Cell: 360-461-1044  Work: 360-417-4845 Cell: 360-808-4757 Cell: 360461-0111
Deputy Director of Operations	Mike Puntenney	Work: 360-417-4803 Cell: 360-808-3089
Fire Department	1) Coral Wheeler	Work: 360-417-4650 Dispatch: 360-417-4797

<b>Agency</b>	<b>Contact Person</b>	<b>Phone Nos.</b>
WS Department of Ecology Water Quality, SW Regional Office.  <i>Notification shall be provided not later than 24 hours from the time the Permittee becomes aware of the circumstances. If this information is provided orally, a written submission covering these points shall be provided within five (5) days of the time the Permittee becomes aware of the circumstances, unless the Department waives or extends this requirement on a case-by-case basis.</i>	24 Hour Spill Reporting	360-407-6300
WS Department of Health Shellfish/Marine Division	Dept. of Health Shellfish Program – Appropriate Person: Mark Toy	360-236-3306  Page: 360-786-4183 (After hours only)
Clallam County Department of Health	Andy Brastad	360-417-2415 Fax: 417-2313
Feiro Marine Lab (Water intake at mouth of Peabody Creek)		360-417-6254
Lower Elwha Klallam Tribe	Matt Beirne	360-457-4012 ext 12
Port of Port Angeles	Randy Brackett 24 Hours	360-417-3446 360-457-1909

# APPENDIX 8.3



# APPENDIX 8.4 - SPILL (ILLICIT DISCHARGE) CHARACTERIZATION FIELD SHEET

## Section 1: Background Data

Subwatershed:		Outfall ID:	
Incident Date / Today's Date:		Time (Military):	
Investigators:		Form Completed by:	
Temperature (°F):	Rainfall (in.):	Last 24 hours:	Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space		
<input type="checkbox"/> Ultra-Urban Residential	<input type="checkbox"/> Institutional		
<input type="checkbox"/> Suburban Residential	<input type="checkbox"/> Other: _____		
<input type="checkbox"/> Commercial	<input type="checkbox"/> Known Industries: _____		
Notes (e.g., origin of outfall, suspected violator information, if known):			

## Section 2: Outfall Description – Skip this section if spill occurs in the public right of way or on private property

LOCATION	MATERIAL	SHAPE	DIMENSION (IN.)	SUBMERGED	
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____  Depth: _____ Top Width: _____ Bottom Width: _____	<b>In Water:</b> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully <b>With Sediment:</b> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____			
<input type="checkbox"/> In-Stream	<b>(applicable when collecting samples)</b>				
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (if Present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

## Section 3: Quantitative Characterization - Skip this section if spill occurs in the public right of way or on private property

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> Flow #2	Flow depth		In	Tape Measure
	Flow width	_____ ' _____ "	Ft, In	Tape Measure
	Measured length	_____ ' _____ "	Ft, In	Tape Measure
	Time of travel		S	Stop Watch
Temperature – field measure			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			Mg/L	Test strip – or lab

**Section 4: Physical Indicators for Flowing Spills or Illicit Discharges Only**

Are physical indicators present in the flow?  Yes  No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint	<input type="checkbox"/> 2 – Easily detected	<input type="checkbox"/> 3 – Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint colors in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
Turbidity	<input type="checkbox"/>	See Severity	<input type="checkbox"/> 1 – Slight cloudiness	<input type="checkbox"/> 2 - Cloudy	<input type="checkbox"/> 3 - Opaque
Floatables – Does Not Include Trash!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Few/slight; origin not obvious	<input type="checkbox"/> 2 – Some; indications of origin (e.g., possible suds or oil sheen)	<input type="checkbox"/> 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

**Section 5: Physical Indicators for Both Flowing and Non-Flowing Spills or Illicit Discharges**

Are physical indicators that are not related to flow present?  Yes  No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

**Section 6: Overall Spill or Illicit Discharge Characterization**

<input type="checkbox"/> Unlikely	<input type="checkbox"/> Potential (presence of two or more indicators)	<input type="checkbox"/> Suspect (one of more indicators with a severity of 3)	<input type="checkbox"/> Obvious
-----------------------------------	---	--	----------------------------------

**Section 7: Data Collection –Two samples must be taken for lab analysis. Test parameters are in 7.2 b 3 and 7.3 e**

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

**Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?**



**Figure 8.4.1: Characterizing Submersion and Flow**

## Spill Characterization Field Sheet Section 2

If discharge is discovered in a pipe or open drainage ditch, fill in this section using Figure 8.4.1 above to determine the level of flow and submergence. If the discharge is discovered on the pavement or in a curb and gutter, skip to the bottom of Section 2 and determine if flow is present or not.

### Spill Characterization Field Sheet Section 3

Use this section if the discharge is coming from a pipe or ditch. If you have the Horiba water quality meter, test for temperature and pH and record the results. Ammonia is one of the parameters that will be tested by the City lab.

#### Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS			
PARAMETER	RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter
	Time to fill		Sec
<input type="checkbox"/> Flow #2	Flow depth		In
	Flow width	___' ___"	Ft, In
	Measured length	___' ___"	Ft, In
	Time of travel		S
Temperature			°F
pH			pH Units
Ammonia			mg/L
			Test strip

Figure 8.4.2: Section 3 of the ORI Field Sheet

### Spill Characterization Field Sheet Section 4

#### Odor

Section 4 asks for a description of any odors that emanate from the outfall and an associated severity score. Since noses have different sensitivities, the entire field crew should reach consensus about whether an odor is present and how severe it is. A severity score of one means that the odor is faint or the crew cannot agree on its presence or origin. A score of two indicates a moderate odor within the pipe. A score of three is assigned if the odor is so strong that the crew smells it a considerable distance away from the outfall.

#### Tip

Make sure the origin of the odor is the outfall. Sometimes shrubs, trash or carrion, or even the spray paint used to mark the outfall can confuse the noses of field crews.

### *Color*

The color of the discharge, which can be clear, slightly tinted, or intense is recorded next. Color can be quantitatively analyzed in the lab, but the spill characterization field sheet only asks for a visual assessment of the discharge color and its intensity. The best way to measure color is to collect the discharge in a clear sample bottle and hold it up to the light (Figure 8.4.3).







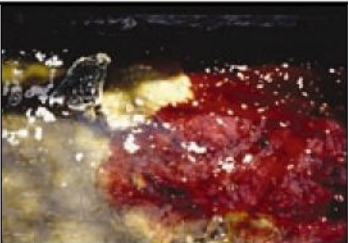


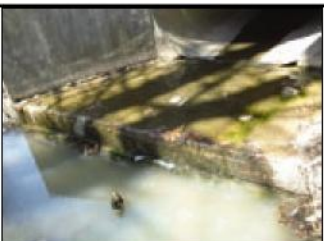



Field crews should also look for downstream plumes of color that appear to be associated with the outfall. Figure 8.4.4 illustrates the spectrum of colors that may be encountered during a spill investigation, and offers insight on how to rank the relative intensity or strength of discharge color. Color often helps identify industrial discharges.

### *Turbidity*

The spill characterization field sheet asks for a visual estimate of the turbidity of the discharge, which is a measure of the cloudiness of the water. Like color, turbidity is best observed in a clear sample bottle, and can be quantitatively measured using field probes. Crews should also look for turbidity in the plunge pool below the outfall, and note any downstream turbidity plumes that appear to be related to the outfall. Field crews can sometimes confuse turbidity with color, which are related but are not the same. Remember, turbidity is a measure of how easily light can penetrate through the sample bottle, whereas color is defined by the tint or intensity of the color observed. Figure 8.4.4 provides some examples of how to distinguish turbidity from color, and how to rank its relative severity. Also, under high intensity or long duration rainfall, Port Angeles streams will be turbid from natural processes upstream. If turbid water is encountered in the stream, investigate waters upstream to determine the source.



**Figure 8.4.3: Using a sample bottle to estimate color and turbidity**

 <p>Color: Brown; Severity: 2 Turbidity Severity: 2</p>	 <p>Color: Blue-green; Severity: 3 Turbidity Severity: 2</p>	 <p>Highly Turbid Discharge Color: Brown; Severity: 3 Turbidity Severity: 3</p>
 <p>Sewage Discharge Color: 3 Turbidity: 3</p>	 <p>Paint Color: White; Severity: 3 Turbidity: 3</p>	 <p>Industrial Discharge Color: Green; Severity: 3 Turbidity Severity: 3</p>
 <p>Blood Color: Red; Severity: 3 Turbidity Severity: None</p>	 <p>Failing Septic System: Turbidity Severity: 3</p>	 <p>Turbidity in Downstream Plume Turbidity Severity: 2 (also confirm with sample bottle)</p>
 <p>High Turbidity in Pool Turbidity Severity: 2 (Confirm with sample bottle)</p>	 <p>Iron Floc Color: Reddish Orange; Severity: 3 (Often associated with a natural source)</p>	 <p>Slight Turbidity Turbidity: 1 (Difficult to interpret this observation; May be natural or an illicit discharge)</p>
<p>Construction Site Discharge Turbidity Severity: 3</p>		<p>Discharge of Rinse from Floor Sanding (Found during wet weather) Turbidity Severity: 3</p>







**Figure 8.4.4: Interpreting Color and Turbidity**

**Floatables**

The last sensory indicator is the presence of any floatable materials in the discharge or the plunge pool below. Sewage, oil sheen, and suds are all examples of floatable indicators; trash and debris are generally not in the context of the Outfall Reconnaissance Inventory (ORI). The presence of floatable materials is determined visually, and some guidelines for ranking their severity are provided in Figure 8.4.5, and described below.

If you think the floatable is sewage, you should automatically assign it a severity score of three since no other source looks quite like it. Surface oil sheens are ranked based on their thickness and coverage. In some cases, surface sheens may not be related to oil discharges, but instead are created by in-stream processes, such as shown in Figure 8.4.6. A thick or swirling sheen associated with a petroleum-like odor may be diagnostic of an oil discharge.

Suds are rated based on their foaminess and staying power. A severity score of three is designated for thick foam that travels many feet before breaking up. Suds that break up quickly may simply reflect water turbulence, and do not necessarily have an illicit origin. Indeed, some streams have naturally occurring foams due to the decay of organic matter. On the other hand, suds that are accompanied by a strong organic or sewage-like odor may indicate a sanitary sewer leak or connection. If the suds have a fragrant odor, they may indicate a sanitary sewer leak or connection. If the suds have a fragrant odor, they may indicate the presence of laundry water or similar wash waters.

 <p>Natural Foam Note: Suds only associated with high flows at the "drop off" Do not record.</p>	 <p>Low Severity Suds Rating: 1 Note: Suds do not appear to travel; very thin foam layer</p>	 <p>High severity suds Rating: 3 Sewage</p>
<b>OIL SHEENS</b>		
 <p>Low Severity Oil Sheen Rating: 1</p>	 <p>Moderate Severity Oil Sheen Rating: 2</p>	 <p>High Severity Oil Film Rating: 3</p>

**SUDS**

**Figure 8.4.5: Determining the Severity of Floatables**



**Figure 8.4.6: Synthetic versus Natural Sheen (a) Sheen from bacteria such as iron floc forms a sheet-like film that cracks if disturbed (b) Synthetic oil forms a swirling pattern**

### **Sample Collection Field Sheet Section 5**

Section 5 of the ORI field sheet examines physical indicators found at both flowing and non-flowing outfalls that can reveal the impact of past discharges. Physical indicators include outfall damage, outfall deposits or stains, abnormal vegetation growth, poor pool quality and benthic growth on pipe surfaces. Common examples of physical indicators are shown in Figures 8.4.7 and 8.4.8. Many of these physical conditions can indicate that an intermittent or transitory discharge has occurred in the past, even if the pipe is not currently flowing. Physical indicators are not ranked according to their severity, because they are often subtle, difficult to interpret and could be caused by other sources. Still physical indicators can provide strong clues about the discharge history of a storm water outfall, particularly if other discharge indicators accompany them.

		
<p>Bacterial growth at this outfall indicates nutrient enrichment and a likely sewage source.</p>	<p>This bright red bacterial growth often indicates high manganese and iron concentrations. Surprisingly, it is not typically associated with illicit discharges.</p>	<p>Sporalitis filamentous bacteria, also known as "sewage fungus" can be used to track down sanitary sewer leaks.</p>
		
<p>Algal mats on lakes indicate eutrophication. Several sources can cause this problem. Investigate potential illicit sources.</p>	<p>Illicit discharges or excessive nutrient application can lead to extreme algal growth on stream beds.</p>	<p>The drainage to this outfall most likely has a high nutrient concentration. The cause may be an illicit discharge, but may be excessive use of lawn chemicals.</p>
 <p>This brownish algae indicates an elevated nutrient level.</p>		

**Figure 8.4.7: Interpreting Benthic and Other Biotic Indicators**

 <p>Reddish staining on the rocks below this outfall indicate high iron concentrations.</p>	 <p>Toilet paper directly below the storm drain outlet.</p>	 <p>Watershed Protection??</p>
 <p>Trash is not an indicator of illicit discharges, but should be noted.</p>	 <p>Staining at the base of the outfall may indicate a persistent, intermittent discharge.</p>	 <p>Excessive vegetation may indicate enriched flows associated with sewage.</p>
 <p>Brownish stain of unclear origin. May be from degradation of the brick infrastructure.</p>	 <p>Cracked rock below the outfall may indicate an intermittent discharge.</p>	 <p>Poor pool quality. Consider sampling from the pool to determine origin.</p>

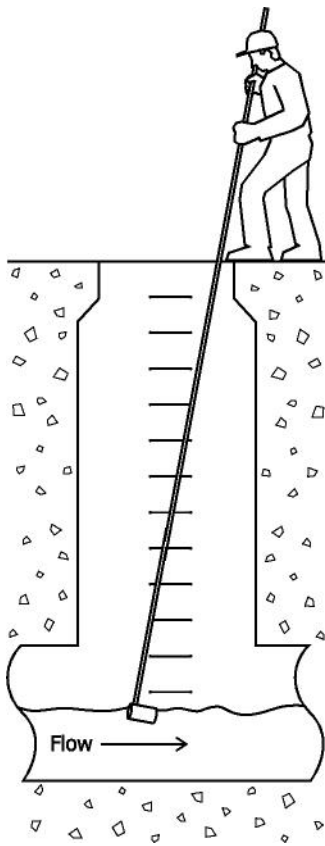
Figure 8.4.8

**Typical Findings at Both Flowing and Non-Flowing Outfalls**

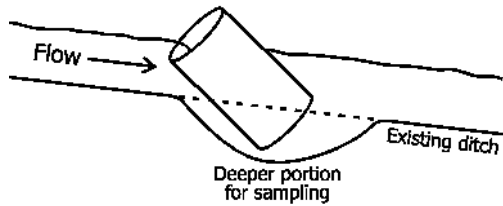
## Appendix 8.5 – Stormwater Sampling Checklist

### General Sampling Techniques

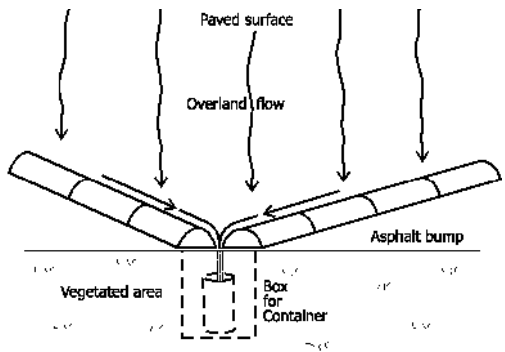
- If possible, notify the wastewater lab ahead of an illicit discharge investigation, a stream survey or a priority outfall survey so they will be aware that timely testing may be required.
- Collect two sample bottles for each sample site from the lab. Lab note: for fecal coliform samples: Bacteria sample containers should be 250-mL or 500mL pre-autoclaved (sterilized) polypropylene bottles with aluminum foil wrapped caps used to preserve sterility near the bottle opening. No preservative should be added. However, if sampling near a major road or highway, EDTA should be added to neutralize the high metals
- Prepare and carry a small sample cooler with ice.
- When collecting the sample:
  - Safety is most important. If a trip hazard is present or if there is deep, or swift water, samples should be taken with a partner. Do not enter any manhole or long culvert, unless you have been trained to enter confined spaces.
  - Wear disposable powder free gloves.
  - The sample should be collected by hand (grab sample) or with sample bottle attached to an extension pole. Samples cannot be pumped or transferred from container to container (dipper).
  - Care should be used at all times to avoid contamination of the inside of the sample bottle cap. (Do not touch the inside of the bottle cap with your hands, or place the open side on the ground.)
  - Do not rinse the bottle.
  - Do not disturb sediment from the stream bed, pipe or manhole. If the flow is too shallow to take a sample without sediment, the flow can be dammed to create a deep spot, or the ditch can be deepened with a shovel to create a small sampling pocket. See examples below.
  - Always collect samples from the active part of the stream or pipe flow.
  - Face the opening of the bottle upstream (or into the tidal flow in marine water).
  - Plunge the sample bottle to mid flow depth and sweep up.
  - Leave ½ inch headspace in the bottle for mixing.
  - As soon as the sample is collected, cap the bottle and label it.
  - Immediately store in a cooler with ice.
  - Deliver to the lab within 6 hours.



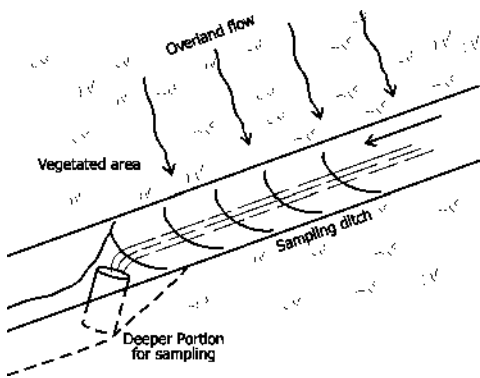
When sampling from a manhole, use a pole to safely sample from above ground. Avoid touching the sides of the manhole or pipes with the bottle to prevent contamination. Place the opening of the bottle upstream so that the flow enters the bottle directly.



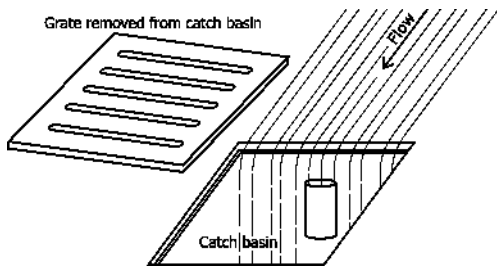
Deepening an existing ditch can allow samples to be collected directly into bottles in some cases. Be careful not to stir up solids from the sides or bottom of the ditch



Overland flow on paved areas can be sampled by constructing asphalt or concrete bumps to collect and concentrate the flow. A box positioned below ground surface in the paved area or the edge of an unpaved area can provide a place to collect samples directly into bottles.



Overland flow from vegetated areas can be sampled by constructing a shallow ditch to intercept the runoff and a deepened area to place bottles to catch the runoff.



Runoff entering a catch basin can sometimes be collected directly into bottles by removing the grate and allowing the runoff to fall into the bottles.



Do not touch openings of bottles. Keep bottles clean to prevent contamination.



Do not allow bottle lids to touch ground. Keep lids clean to prevent contamination.



Do attach a bottle to a pole for sampling in manholes or when a hand sample would be in stagnant water. A boathook is used in this example and the bottle is attached to it with filament strapping tape.



Do not sample in stagnant areas with little flow. Do not stir up bottom sediments or allow foreign materials to enter the sample bottle. (Do be careful to grab a clean sample in cases where stormwater runoff is shallow.) If the runoff is so shallow that it is not possible to sample without the sample being contaminated in the process, then find an alternative way to sample.



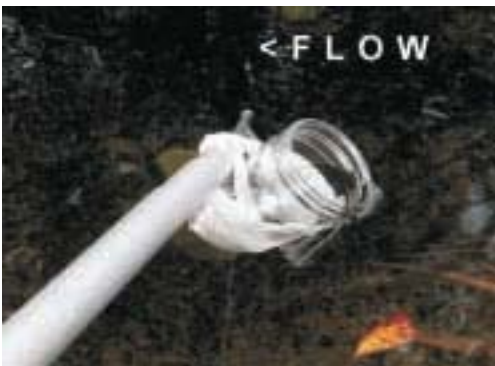
If the water is too shallow to sample with the bottle upright on the pole, try taping it on sideways, but tilted up slightly.



Do not sample with the bottle opening facing downstream, when using a pole or when sampling by hand. Water flowing past your container, pole, or hand and into the container can be contaminated by such contact.



Do not allow water to overfill the bottle, particularly not for sample bottles with preservative. Oil and grease samples should be collected from water falling into the bottle when possible, or otherwise in a single swoop.




Do sample with the opening of the bottle facing upstream, into the flow so the water will enter directly into the bottle. This is true when sampling either by hand or with a pole. Do sample water that is rapidly flowing rather than stagnant.



Do collect samples without overfilling the bottle.

Appendix 8.6 – IDDE Incident Closure Form

 <b>IDDE INCIDENT CLOSURE FORM</b>		
Initial investigation date:	Title:	Investigators:
Cityworks WO#:		
<input type="checkbox"/> No investigation made:	Reason:	
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:	
<input type="checkbox"/> Investigated: No action necessary		
<input type="checkbox"/> Investigated: Requires action	<input type="checkbox"/> Report to Ecology ERTS #	
<input type="checkbox"/> Enforcement Required?	<input type="checkbox"/> Referred to Stormwater Engineering for Enforcement	
Description of Event:		
Description or Actions Taken:		
Conclusion/Findings:		
Date of Case Closed:		

**X** \_\_\_\_\_  
Deputy Director of Public Works & Utilities

**SWMP Appendix C**  
**NPDES Phase II Municipal Stormwater Permit**  
**Inter-Departmental Coordination Mechanisms**

# City of Port Angeles

## NPDES Phase II Municipal Stormwater Permit

### Inter-Departmental Coordination Mechanisms

#### **Background**

The Western Washington Phase II Municipal Stormwater Permit (NPDES permit or “Permit”) is a federal permit issued to municipalities which allows municipal stormwater systems to discharge to waters of the state. The NPDES (National Pollutant Discharge Elimination System) Permit includes broad ranging requirements which are implemented by various departments within the City, including Public Works, Parks & Recreation, Community & Economic Development (CED), Fire and Police.

Furthermore, it is a condition of the 2013 – 2018 NPDES permit (Section S5.A.5.b) that each jurisdiction develops a coordination mechanism to identify departmental responsibilities to eliminate barriers to compliance with the terms of the permit. These operating guidelines have been created to provide clarification of departmental roles and responsibilities for the purposes of complying with the NPDES permit.

#### **Section 1. Name**

The name of this group shall be known as the “Stormwater Permit Coordination Group (SWPCG)”.

#### **Section 2. Purpose**

The effective management of stormwater has an important role to play in reversing the ongoing degradation of wetlands, streams, harbors, and Strait of Juan de Fuca. The purpose of this group is to insure the fulfillment of the conditions of the City’s NPDES Permit by removing internal barriers to permit implementation and by requiring and empowering City departments to cooperate and coordinate with the City’s Stormwater Management Program. The SWPCG serves as the coordinating body.

#### **Section 3. Mission**

The NPDES permit is a broad ranging federal stormwater permit which requires citywide compliance, and as such, shall be viewed as a citywide permit. The mission of the SWPCG is to provide a coordinated, efficient and effective response to all Permit conditions. Each city department is subject to implementing compliance activities when applicable to that department. Each department has an important contribution to make in improving the quantity or quality of stormwater discharged under the Permit.

#### **Section 4. Duration**

The SWPCG shall continue indefinitely in order to preserve momentum and effectively manage the work required for Permit compliance.

## **Section 5. Membership**

The core membership of the SWPCG consists of members from the following departments: Public Works including Engineering and Operations Divisions, Parks & Recreation ,CED, Fire, and Police, as well as the NPDES Permit Coordinator.

On behalf of the Public Works Department, the Permit Coordinator shall lead the group, in coordinating compliance with the NPDES permit. All departments responsible for complying with any portion of the NPDES permit shall work cooperatively with the lead department, responding and providing information in a timely manner, including accurate tracking and reporting data.

Each department, division, section, or workgroup engaging in any activities or programs that the Permit Coordinator determines may be subject to or could support compliance with the municipal permit is expected to comply with municipal permit requirements. Other City workgroups or departments may be added should current needs or future requirements call for expanded responsibility.

### **A. Coordination framework and expectations:**

1. The Permit Coordinator shall be responsible for coordinating the City's municipal permit compliance activities
2. Each departmental representative shall be familiar with all municipal permit requirements, particularly those applicable to their department or workgroup.
3. Each departmental representative may propose options for funding and staffing to meet municipal permit requirements.
4. Each departmental representative shall communicate regularly with department management on the status of applicable compliance activities.
5. The Permit Coordinator, in collaboration with departmental representatives, shall prepare and provide submittals to Ecology to comply with municipal permit requirements. Submittals include, but are not limited to, annual reports, stormwater management program (SWMP) plans, compliance reports and other submittals as required by Ecology.
6. Upon request from the Permit Coordinator, departmental representatives or other staff shall provide information regarding department-specific compliance activities in a timely manner. The Permit Coordinator shall indicate the timeline for any request and may extend the timeline at the request of the department representative if there is flexibility to do so.
7. The Permit Coordinator shall communicate as necessary with departmental representatives and other management about municipal permit requirements, the SWMP, and the status of the City's compliance.

Any Permit Coordinator responsibilities listed above may be delegated to appropriate staff, but the Permit Coordinator shall retain accountability to the City Engineer.

Signature authority for all documents related to the municipal permit that require an official signature shall reside with the Public Works Director, as delegated in a letter from the City Manager to Ecology on September 10, 2013.

**B. Non-compliance:**

All city departments are responsible for working with the NPDES Permit Coordinator to resolve instances of permit noncompliance, including:

1. Notifying the NPDES Permit Coordinator as soon as they become aware of any instance of non-compliance; and
2. Identifying steps and a timeline for resolving issues of non-compliance that will be identified in G3 or G20 notifications to Ecology.

**Section 6. Meetings**

Meetings shall be facilitated by the City Engineer or the Permit Coordinator. Meetings shall be open to any/all staff that need permit information or to share challenges to permit implementation. Meeting frequency, time, and location shall be set by the City Engineer or Permit Coordinator based on the need to meet in order to respond to policy, procedures or barriers to implementation.

**Section 7. Attendance Policy**

Attendance at the meetings is important to continue being an informed SWPCG member and to provide useful input into the process. Meeting attendance is expected of SWPCG members or a designee. If unable to attend a meeting, it is the member's responsibility to inform themselves on issues discussed in those meetings.

**Section 8. Departmental Responsibilities**

It is the responsibility of each department head to assign the duties and responsibilities to the pertinent members of their staff, as well as ensure they are being implemented correctly.

**A. Public Works**

The Public Works Department is responsible for the majority of the NPDES compliance efforts including Sections: S5.C.1 Public Education and Outreach, S5.C.2 Public Involvement, S5.C.3 Illicit Discharge Detection and Elimination, Section S5.C.4. Controlling Runoff from New Development, Redevelopment, and Construction Sites (for both public and private projects), and S5.C.5 Municipal Operations and Maintenance. These responsibilities include, but are not limited to:

*Engineering Division*

1. NPDES Permit coordination.
2. Program development appropriate/applicable to the department.
3. Annual reporting.
4. Development and submittal of the Stormwater Management Program Plan.
5. Serving as point of contact for the Department of Ecology regarding issues of the Permit.
6. Submitting G3 and G20 noncompliance notifications.

7. Updating codes, policies, plans and standards applicable to the Public Works Department for permit compliance.
8. Private stormwater facility maintenance verification.
9. Enforcement of maintenance or water quality violations.
10. Conducting, tracking, and reporting development review in compliance with adopted standards and policies.
11. Tracking, reporting and justifying any deviations (e.g. variances, exceptions etc.) from adopted stormwater development review standards.
12. Inspection of development sites.
13. Collection of final stormwater system record drawings for new development/redevelopment and distribution of them to designated GIS and Public Works staff.
14. Maintaining and updating stormwater system maps for both public and private facilities.
15. Collection and processing of maintenance covenants and operations and maintenance manuals for new development/redevelopment.

*Operations Division*

16. Inspection and maintenance of municipal stormwater components and facilities.
17. Illicit discharge/illicit connection detection and elimination.
18. Operations and maintenance procedures are in place and followed to reduce stormwater impacts to all lands owned and maintained by the City in accordance with the Ecology Stormwater Management Manual for Western Washington.

**C. Community & Economic Development**

CED is responsible for implementation of and compliance with portions of Section S5.C4 of the NPDES Permit entitled “Controlling Runoff from New Development, Redevelopment and Construction Sites”. These responsibilities include, but are not limited to:

1. Updating codes, policies, plans, programs, procedures, and standards appropriate/applicable to CED for permit compliance.
2. Processing permit applications and collecting required documents for all building permits, including stormwater plans and erosion and sediment controls
3. Inspection of building sites for erosion and sediment controls as required by Ecology Stormwater Management Manual for Western Washington

**C. Parks & Recreation**

Parks is responsible for implementation of and compliance with portions of S5.C.3 Illicit Discharge Detection and Elimination and S5.C.5 Municipal Operations and Maintenance. These responsibilities include, but are not limited to:

1. Updating codes, policies, plans, programs, procedures, and standards appropriate/applicable to Parks for permit compliance.
2. Operations and maintenance procedures are in place and followed to reduce stormwater impacts to all lands owned and maintained by the City in accordance with the Ecology Stormwater Management Manual for Western Washington.

3. Report observations of illicit discharges to the Permit Coordinator or other designee

**D. Police and Fire**

The Police and Fire Departments has permit responsibilities under S5.C.3 Illicit Discharge Detection and Elimination. As field personnel, it is their responsibility to report observations of illicit discharges to the Permit Coordinator or other designee. They may also be called upon to assist in enforcement activities or during an illicit discharge event.

**Section 9. Permit Coordinator's Role**

The Permit Coordinator's role is to assure the integrity and fulfillment of the Permit. The Coordinator's role includes, but is not limited to:

1. Coordinate NPDES Permit compliance efforts for the City, including collecting tracking and reporting data from the different departments, as well as preparing and submitting annual reports and updates to the Stormwater Management Program Plan to the Department of Ecology.
2. Assist the different City departments in identifying and understanding their individual responsibilities for complying with the pertinent sections of the Permit.
3. Provide permit compliance guidance to individual departments who are developing or updating their departmental programs or procedures which are necessary to comply with Permit requirements.
4. Develop and implement programs and activities associated with the Public Works Department.
5. Work with individual departments to assist in resolving issues of non-compliance, as well as drafting and submitting G3 or G20 Non-Compliance Notification letters to Ecology.
6. Coordinate required illicit discharge detection and reporting training for all municipal field staff. Assist in other training activities where applicable.
7. Ensure policies are followed.
8. Manage communication and information exchange among the SWPCG. Determine meeting topics and agendas. Assist the City Engineer with meeting facilitation. Provide meeting materials to SWPCG before meetings and take meeting notes.

2017 Activities / Events	Date(s)	Location(s)	City Personnel	Target Audience	Contact Information (other groups)	Subject Area(s)	Attendance/Distribution	Educational Materials Used	Notes/Other
KONP Home Show	March 11th and 12th, 2017	Port Angeles High School Gymnasium	Lucio Baack, Jonathan Boehme	General public	<a href="mailto:lbaack@cityofpa.us">lbaack@cityofpa.us</a>	IDDE Program, LID Rain Garden Rebate Program, Natural Yard Care	7,000, Directly spoke to over 200 specifically about stormwater.	Promoted the pollution prevention hotline, and rain garden rebate program. Focus on the water quality benefits of a rain garden using a rain garden model with circulating water. Natural Yard care, handed out 250 native trees and highlighted ways to care for yard in a natural way not harmful to environment.	
Library Build a Better World - LID Presentation	29-Jun-17	Port Angeles Library	Jonathan Boehme/ Lucio Baack	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Stormwater awareness, LID, Rain Garden Rebate Program,	11	Focus on the water quality benefits of LID, details on how to design and build a rain garden.	
County Fair	August 17 - 20 2017	Port Angeles	Jonathan Boehme, Lucio Baack Vince McIntyre	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Focusing on pet waste awareness, natural yardcare.	1022 / 681	Handed out 570 Puget Sound Starts Hear Pet waste dispensers, 23 refill roles, 35 spill keychains, 25 we scoop stickers, 28 stormwater tattoos, and discussed the importance of picking up after our pets with each person. Over 1000 people participated in the "Poop Toss" game. Also provided information on how to apply for City rain garden rebates and perform natural yard care.	
Riverfest	29-Sep-17	Sequim	Vince McIntyre	General public	<a href="mailto:Vmcintyr@cityofpa.us">Vmcintyr@cityofpa.us</a>	Focusing on pet waste awareness,	900 Kids	Used the "Poop Toss" game to raise areness of pet waste best management practices.	
LID Facility Tour	28-Oct-17	Port Angeles	Jonathan Boehme	College Students	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Low Impact Development, Stormwater Management Program	15	Tour and discussion of low impact development facilities including Peninsula College rain gardens, 4th Street Project Bioretention and permeable pavement.	
Hamilton School	29-Nov-17	Port Angeles	Lucio Baack, Vince McIntyre	5th grade Port Angeles students	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	focusing on stormwater and pollution prevention.	42	City map of outfalls, spills happen display, pollution prevention, how Green infrastructure works.	
Utility Bill Mailer	October	Port Angeles	Jonathan Boehme	General Public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Rain Gardens, LID Code Update Pollution Prevention Hotline	7,000-10,000	Flier focused on Low Impact Development code updates and the pollution reporting hotline.	
Business Stormwater Education	August through December 2017	Site visits to businesses within the City	Nick Prince	Local businesses within the City		IDDE, Pollution Prevention	Over 40 Businesses	Pollution Prevention and reporting information	Mostly positive response from business owners
Local Cinemas	Months of May, and June	Deer Park and Lincoln Cinemas	Jonathan Boehme	General public	<a href="mailto:jboehme@cityofpa.us">jboehme@cityofpa.us</a>	Pollution Prevention	NA	One minute add highlighting natural lawn care shown before feature films	





Rain garden and pervious concrete at new City pump station.

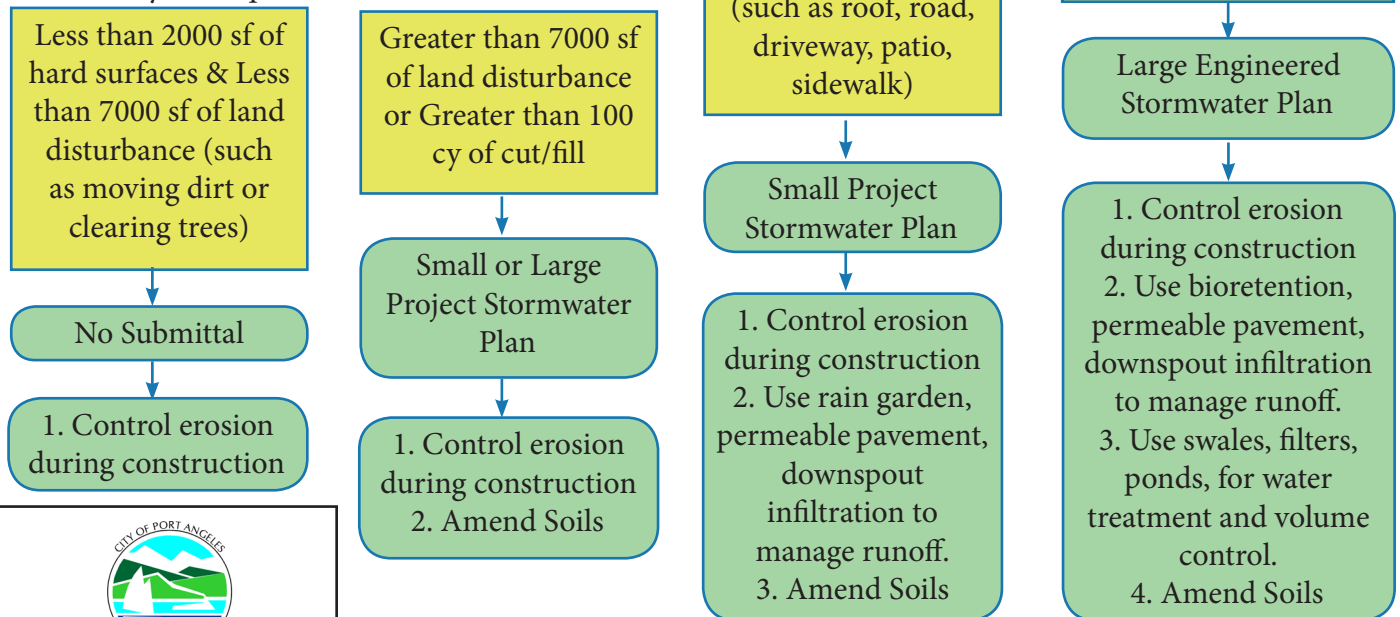
## NEW 2017 STORMWATER REQUIREMENTS

If you've submitted a building permit or public works permit application since January 1, 2017, then you're already aware of the City's new requirements regarding stormwater management. These requirements were adopted as a condition of the City's Phase II Stormwater permit with the Department of Ecology and are designed to address adverse water quality effects occurring downstream of construction projects and to encourage on-site stormwater management through low-impact development (LID).

What do these new requirements mean if you're planning on building, clearing, grading, or placing hard surfaces such as, gravel and asphalt on your property? In most cases you will be asked to consider how your project may impact water quality during and after construction. The size and scope of your project will guide what controls you will need to consider.

### The First Step Is To Determine Your Project's Stormwater Requirements

Find the yellow box that best finishes the sentence **"My project involves..."** and work downward to determine your requirements.



**Contact Information**  
 Website:  
<http://cityofpa.us>  
 Stormwater Hotline:  
**417-4830**  
 Email:  
**Stormwater@cityofpa.us**

The City has developed fillable PDF templates for use on small projects to aid you in meeting the minimum stormwater requirements. These forms can be downloaded from <http://cityofpa.us/> ... Select: Doing Business... Permits.... Forms & Applications. The City is also in the process of recording an instructional video to help guide applicants through the application process. Additionally, a presentation is being scheduled to discuss the subject in greater detail and provide an opportunity for Q&A - so, be on the lookout!

## Stormwater Projects to Improve Water Quality

COMPLETED

### Green Low Impact Development (LID) Alley Project



Last fall the City upgraded two failing alleyways with permeable pavement. Permeable pavement allows stormwater to pass through the paved surface and into the ground. Pollutants are captured and treated on-site and runoff is eliminated. The Front/Georgiana St. Alley between Albert and Eunice received pervious concrete. The 4th/ 5th St. Alley between Washington and Chambers St. received porous asphalt. Construction was completed in December, 2016 and the project was funded in part through a \$461,000 grant from WA Department of Ecology.

*Go check them out and bring a bottle of water to see LID in action!*

IN-PROGRESS

### Quinn Redlin Kinter Memorial Park - Formerly Georgiana Park



The City of Port Angeles Parks Dept. is in the process of upgrading the outdated structure with a new modern play area that is fully ADA accessible. The design used porous asphalt to manage stormwater and eliminate runoff. Lakeside Industries recently finished donating and installing the permeable pavement and the City will construct the play structure through the fall.

## COPA STORMWATER MANAGEMENT PLAN

The City has a stormwater management plan designed to protect our local water bodies.

### LEARN MORE:

To learn more about the Stormwater Management Plan visit:

<http://cityofpa.us/> Click...

LIVING IN.... YOUR HOME...  
STORMWATER

Copies are also available at City Hall.

### ONLINE SURVEY:

An online survey is available on the City website for you to provide input on the plan. Topics include:

What stormwater pollution topics would you like to see discussed in future newsletters or presentations?

What would you like to see incorporated into the plan?

**Spills happen. Help us find them.**

**CALL or CLICK** if you see **oil, paint, suds, or sewage** in ditches, drains or waterways.

Call the **Port Angeles Water Pollution Hotline** at **(360) 417-4745**  
 Click <http://cityofpa.us>  
 If it looks hazardous call 911

**ONLY rain down the drain.**

CITY OF PORT ANGELES



*Daniel Zetterstrom*

# WEST SOUND STORMWATER OUTREACH GROUP

## 2017 SUMMARY OF ACTIVITIES

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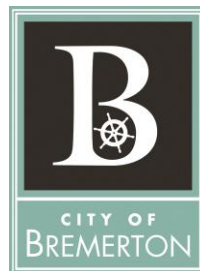
## The WSSOG: Who We Are

*The West Sound Stormwater Outreach Group is a group of jurisdictions working together to improve water quality, meet key requirements of the NPDES Phase II Stormwater Permit, and serve the collective needs of our jurisdictions in promoting good stewardship and preservation of our local waterways.*

MARILYN GUTHRIE  
BAINBRIDGE ISLAND



TERESA SMITH  
BREMERTON



WAYNE MATTHEWS  
GIG HARBOR



CAMMY MILLS  
MICHELLE PERDUE  
KITSAP COUNTY



NIKKI BENNETT  
US NAVY



JONATHAN BOEHME  
PORT ANGELES



ZACK HOLT  
PORT ORCHARD



ANJA HART  
POULSBO



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***Each Permittee shall measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. No later than February 2, 2016, Permittees shall use the resulting measurements to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors. Permittees may meet this requirement individually or as a member of a regional group.***

*NPDES Municipal Stormwater Permit - S5.C.1.c*

# 2017 HIGHLIGHTS

## 2017 Highlights

### OVERVIEW

In 2017, the group focused on maintaining and improving existing programs, rolling out the new Backyard Pet Waste Campaign, and monitoring regional efforts on potential future project targets.

We set the stage for the next round of NPDES permits, providing feedback to Ecology and laying the foundation to add a new behavior and target audience for the next permit cycle.

# PET WASTE IN PUBLIC AREAS

## Pet Waste in Public Areas

### THE MUTT MITT PROGRAM

Members of the WSSOG continue to meet the requirements of S5.C.1.c through the highly successful Mutt Mitt program.

This program focuses on encouraging dog walkers to pick up after their pets when they are in public places such as parks, apartment complexes, or neighborhoods.

Adoption of the target behavior is measured in part through growth of the program. As of the end of 2017, there are a total of 456 pet waste stations distributed throughout the Kitsap Peninsula, Gig Harbor and Port Angeles. It is noteworthy that some communities have adopted the behavior, without the support of the Mutt Mitt



program, purchasing their own pet waste stations and bags. This may be an indicator of a growing social norm related to scooping.

This means that dog walkers throughout the region see similar desirable behavior messaging for adoption as the norm. In 2017, fourteen new Mutt Mitt stations were installed through the Mutt Mitt program.

When asked to report their bag usage, 28% of private station sponsors reported using a total of 132,351 bags, which are purchased with their own funding. Actual bag use is likely much higher since more than 70% of sponsors did not report bag usage. NPDES municipal permittee sponsored stations distributed a total of 1,007,700 bags. Therefore, the total bags distributed

translated to 188.1 tons of dog poop picked up.

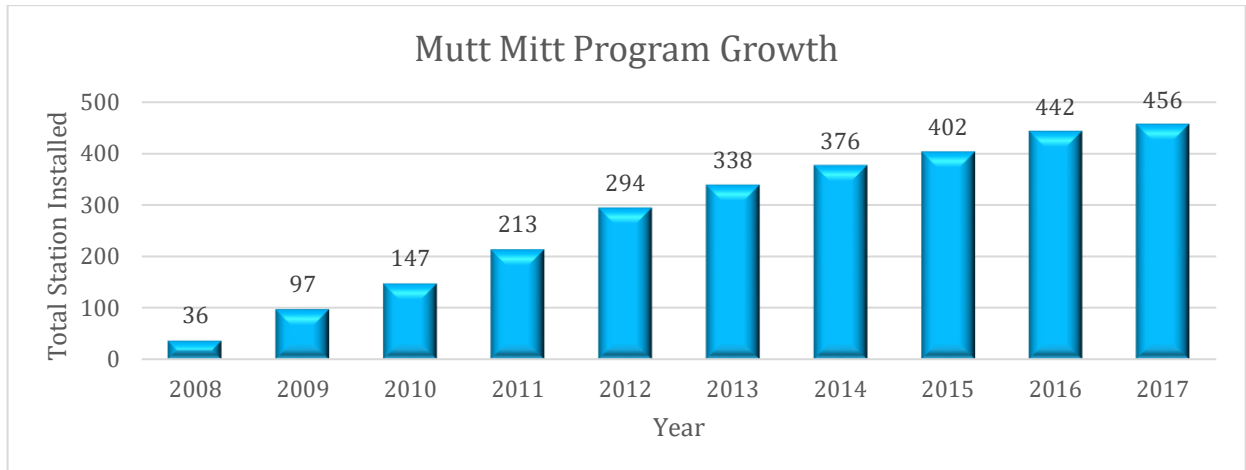
Dog walkers depend upon stations that are reliably stocked with bags to help them adopt this behavior. It is essential that Mutt Mitt branded stations are continuously stocked and in good

Bag total by location

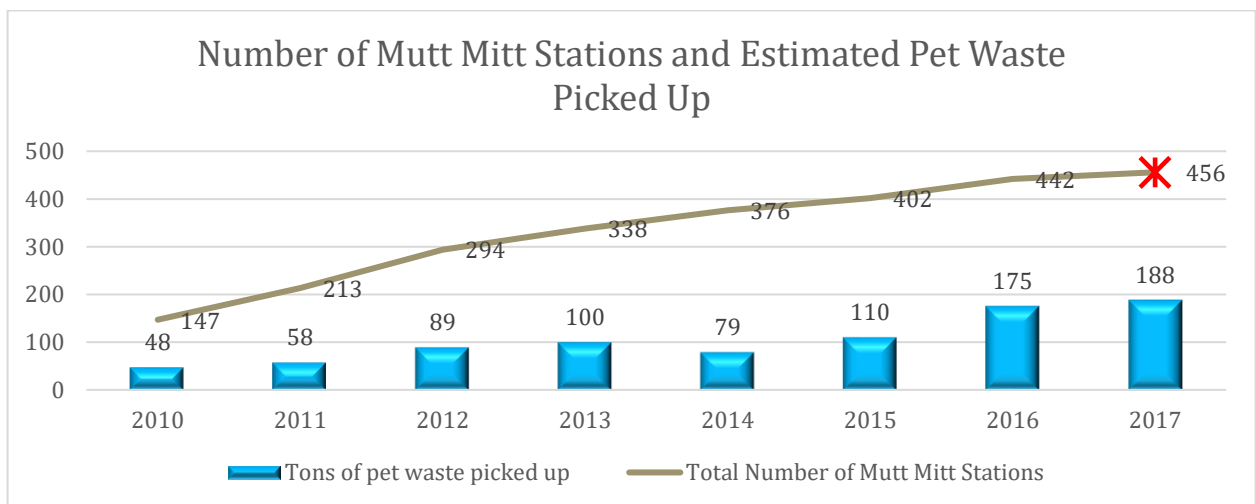
Bainbridge Island	56,000
Bremerton	192,000
Gig Harbor	144,000
Port Angeles	150,000
Port Orchard	28,000
Poulsbo	74,800
Kitsap County	362,900
Private Mutt Mitt Sponsors	132,351
<b>Total</b>	<b>1,140,051</b>

# PET WASTE IN PUBLIC AREAS

working order. Kitsap County conducts inspections of all Mutt Mitt stations located within Bainbridge Island, Bremerton, Port Orchard and Poulsbo on an annual basis and all other stations located within the County on a biannual basis.



In 2017, 79% of all Mutt Mitt stations passed their inspection, meaning that they were stocked with bags. A total of 32 stations failed their inspection. This pass rate is similar to 2016 (80%), but lower than 2015 (87%). Typically, in the past, stations that did not pass inspection were inspected a second time which usually increased the pass rate. However, in 2017 stations were only inspected once.



Each year, all stations within Bainbridge Island, Bremerton, Port Orchard and Poulsbo are inspected. Prior to 2016, all Kitsap stations were inspected annually. Starting in 2016, Kitsap stations were divided roughly in half by location (north and south). Stations in the south end of the county are

# PET WASTE IN PUBLIC AREAS

inspected on odd years and stations in the north end are inspected on even years. In addition, any station that failed the previous year is included for inspection.

## TALKING (AND TOSSING) POOP FOR WATER QUALITY

The popular Poop Toss game continues to be used by the jurisdictions at multiple community events. The humorous nature of the game attracts participants of all ages and makes it easy to start a conversation about a topic people might otherwise have preferred to avoid.



**Derek Kilmer**  
Like This Page · August 18 · 🌐  
Here's photographic proof that I slam dunked the dog poo in the proper container.

**Even our local legislators know how to correctly dispose of pet waste! Rep. Derek Kilmer shows us how it's done in Port Angeles.**

Not only do game participants learn about the correct behavior when they play, they also receive a PSSH-branded clip-on bag dispenser for playing, which gives them the tool they need to implement the behavior and a physical reminder to reinforce the action long after the staff contact.



The game has become such a useful outreach tool that a second game kit was purchased for Port Angeles in 2017.



# ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

## Illicit Discharge Detection and Elimination Program

KEEPING SMALL SPILLS FROM BECOMING BIG PROBLEMS – REGIONAL SPILLS HOTLINE

The Spills Happen campaign, meant to encourage people to report spills, continued to be implemented in 2017. Jurisdictions are currently posting the hotline on their websites and utilizing it on print materials.

### OUTREACH TOOLS

The group also utilized other outreach methods, including:

- 5,000 paint sticks featuring the spills hotline phone number and a BMP message were distributed to locations throughout Kitsap County, Bainbridge Island, Bremerton, Gig Harbor, Port Orchard and Poulsbo. 1,000 more with the same message and Port Angeles' spills hotline number were distributed in that jurisdiction.
- Display of the upright “Spills Happen” banners at events, in billing offices and public spaces
- Display of three high-quality BMP based banners with the “Spills Happen” branding at strategic locations (purchased through the regional PSSH ad buy campaign of 2016)
- Port Angeles promoted its city hotline number by sending out a utility bill mailer to all their utility customers advertising the Spills Happen messaging/branding and their own unique hotline number.
- Bremerton handed out Spills Hotline stickers at Downtown Bremerton Trick or Treating.



New in 2017, the group purchased magnets featuring the Spills Happen graphic and their local hotline number.

These magnets will be distributed via multiple outlets within the jurisdictions, targeting areas like permit counters and events to get them into the hands of citizens.

# ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

## HOTLINE CALLS

A total of 93 calls were received in 2017 by Kitsap1 to the hotline number. In addition, some cities also received several reports directly to their jurisdictions. (Poulsbo – 14, Bremerton – 16, Bainbridge Island – 6, Port Angeles - 10) (See NPDES Permit S5.C.3.c.ii).

## IDDE TRAININGS

Kitsap County continued to use their revised IDDE training and provided these tools (clickers, videos, and presentation) to all WSSOG members for use in their own training. The Cities of Bainbridge Island, Bremerton, and Port Angeles utilized some of these tools for their IDDE trainings.

Kitsap County trained 182 field crew members and Bainbridge Island trained 4 staff members to report spills. Port Angeles provided refresher training to 60 field staff.



In addition to training their internal staff, Port Angeles also gave a stormwater presentation (about the MS4, IDDE, and stormwater management) to the Hamilton Elementary 5<sup>th</sup> Grade class (approximately 55 individuals) using the clickers. The clickers have proved to be a useful tool to improve interaction and gauge understanding.



# BACKYARD PET WASTE

## Backyard Pet Waste

POOP HAS FEET: IF IT'S IN YOUR YARD, IT'S IN YOUR HOUSE

### A NEW TWIST ON AN OLD BEHAVIOR – OR TEACHING AN OLD DOG NEW TRICKS

While there has been much success in encouraging people to pick up after their pets in public areas, getting people to scoop at home is a new challenge with a different audience and barriers. In 2017, a campaign meant to encourage people to pick up after their dog at home was implemented.

### STRATEGY AND MESSAGING

The strategy for this campaign was based on results of a Backyard Pet Waste Campaign conducted by the WSSOG in 2009 and similar programs throughout the Puget Sound region. Target neighborhoods with half acre or smaller lot sizes were identified by each jurisdiction to receive a series of two postcard mailers.

Postcards featured messaging about illnesses that can be contracted from pet waste. The initial postcard included a sticker to be placed on the recipients' trash can. The purpose of the sticker was threefold:

- 1) Remind residents to scoop once a week on garbage day
- 2) Reinforce that the trash was the appropriate place to dispose of pet waste
- 3) Establish a social norm around scooping weekly

Both postcards featured a website where recipients could request a bag dispenser and another sticker.



# BACKYARD PET WASTE

## RESULTS

A total of 12,117 postcards were sent out on two separate occasions. A total of 339 individuals used the web address on the postcard to request a bag dispenser and/or trash can sticker. The overall postcard response rate is 1.4% (a total of 2.8% of targeted households responded to one of the two postcards). In the previous iteration of this campaign, the postcards received a higher response rate for incentives (in the 2009 campaign 3.6% of the pilot area target audience residents requested pens, 3% requested dog bandanas, and 11.4% requested flashlights). It may be possible to achieve a better response rate at a lower cost using social media, as this would allow more specific targeting of dog owning households, as well as the potential of virality in sharing.

## FURTHER EVALUATION

Further evaluation of this campaign will be performed in 2018. People who requested a bag dispenser and/or sticker will be emailed an electronic survey to see if they are using the materials they received. In addition, we will conduct windshield surveys in target neighborhoods to determine how many households have used their trash can sticker.

# PUGET SOUND STARTS HERE

## Puget Sound Starts Here

### AROUND THE WEST SOUND

#### MAY IS PSSH MONTH

The group again celebrated “Puget Sound Starts Here Month”, a regional effort to raise awareness about the harm to Puget Sound from polluted stormwater runoff and simple actions residents can take to reduce their impact. Local implementation of Puget Sound Starts Here (PSSH) Month included a variety of outreach approaches.



#### OFFICIAL RECOGNITION

The Bainbridge Island City Council issued a proclamation declaring May to be Puget Sound Starts Here Month to “encourage all citizens to help protect and clean up Puget Sound and our local waterways for the sake of our environment, and for the benefit of current and future generations.

**(Appendix C)**

#### BRAND OUTREACH

Outreach efforts included the popular distribution of beverage coasters and coffee sleeves to local restaurants and coffee shops. The group had 100% participation in the PSSH campaign in 2017, including distributing pet waste leash dispensers to capitalize on the existing pet waste program.

JURISDICTION	COASTERS (LOCATIONS)	COASTERS (COUNT)	COFFEE SLEEVES (LOCATIONS)	COFFEE SLEEVES (COUNT)	LEASH DISPENSERS (COUNT)	TOTAL IMPRESSIONS
Bainbridge Island					200	200
Bremerton	7	2,500	12	2,100	100	4,700
Gig Harbor	5	1,000	5	1,000	200	2,200
Kitsap County	22	7,500	24	11,875	2,250	21,625
Poulsbo	8	1,600	11	1,500	210	3,310
Port Angeles	1	150	5	1,000	1,300	2,450
Port Orchard	14	5,125	12	4,400	0	9,525
						<b>44,010</b>

## PUGET SOUND STARTS HERE

Based on feedback from participating coffee shops that hot drink sleeves are more widely received in the winter months, Kitsap County, Poulsbo and Port Orchard continued their successful secondary distribution of coffee sleeves in the winter months.

Collectively, these efforts placed a little over 44,000 “Puget Sound Starts Here”-branded items in the hands of countless West Sound residents and visitors.

### ADVERTISING

Three jurisdictions purchased on-screen cinema ads for runs beginning in the month of May, featuring Public Service Announcements (PSAs) about stormwater best management practices.

Ads were typically contracted to run at least two times prior to each feature film on every screen throughout the month, with amount of impressions each month depending on how many ads were in the cycle. Theatergoers could expect to see the ad within six minutes or less before the start of each movie, and if they were there earlier, could view those ads every six minutes in rotation.

These professionally produced 30-second PSAs were produced by the City of Seattle for PSSH, and featured the municipality’s logo at the close (the 1:00 PSA for Port Angeles was professionally produced for the City of Olympia and used courtesy of that jurisdiction).

JURISDICTION	SCREENS	LENGTH	AD BUY	PROJECTED IMPRESSIONS
Gig Harbor	10 screens (Uptown Galaxy Theater)	:30	3 months (one ad per month)	18,000
Port Angeles	8 screens (Deer Park Cinemas)	1:00	2 months	12,000
Poulsbo	10 screens (Poulsbo 10)	:30	4 weeks	15,546

# REGIONAL PARTNERSHIPS FOR A COMPREHENSIVE APPROACH

## Regional Partnerships for a Comprehensive Approach

STORM CONTINUES COORDINATING REGIONAL OUTREACH

Kitsap staff continues to represent the County and cities within STORM as part of the WSSOG's partnership in larger regional efforts. In 2017, Kitsap staff provided input at STORM's quarterly meetings and within the NPDES workgroup, and attended the 2017 STORM Symposium. Significant accomplishments of the STORM group are summarized in their annual report (**included as Appendix A**).

### WORKGROUPS

Kitsap staff worked with several small workgroups under STORM's umbrella in 2017 on issues of regional significance, including NPDES permit feedback, Natural Yard Care, and LID/GSI outreach terminology.

### GROSS GRANTS

Kitsap County applied for and received a GROSS grant addressing LID education for builders and developers, and also submitted a letter of support for a grant addressing Residential LID Maintenance Outreach.

### PSSH CAMPAIGN

The WSSOG group provided input to STORM on PSSH-branded outreach, including discussions on the redesign and update of some of the PSSH collateral and the website. The STORM group continues to shape this regionwide campaign and has strongly advocated for BMPs to remain a visible and accessible part of the campaign.

### DON'T DRIP AND DRIVE

On a regional scale, the WSSOG took part in a campaign created by the STORM Vehicle Leaks Committee designed to encourage our residents to find and fix leaks. The group recruited local automotive shops to participate in offering discounts and other incentives as part of the Don't Drip and Drive campaign during the summer months. This process enlisted 19 auto shops from six jurisdictions and promoted leak prevention and elimination on a region-wide basis.

**Don't Drip & Drive. Fix That Leak!**

**Don't Drip & Drive is back!** This summer, maintain your car's safety and reliability by checking it for leaks. Every drip counts—even a single drop of oil on your driveway can affect the life of your car. Plus, vehicle leaks are bad for our environment.

Go to [www.fixcarleaks.org](http://www.fixcarleaks.org) to find a list of participating mechanics offering free leak checks and up to \$50 off leak repairs through the end of December and be sure to fix that leak!

**Participating Locations:**

- Bainbridge Island Auto Repair Bainbridge Island
- Hockett & Olsen Automotive & Tire Bainbridge Island
- Modern Collision Rebuild & Service Bainbridge Island
- Rolling Bay Automotive Bainbridge Island • L & R Automotive Bremerton
- B&B Auto Repair Bremerton • West Hills Ford Mazda Bremerton
- Gig Harbor Automotive Service Gig Harbor • Glen Cove Repair Gig Harbor
- Mackert Automotive Gig Harbor • Key Center Auto Repair Gig Harbor
- Big O Tires Port Orchard • D&W Automotive Repair Port Orchard
- Grey Chevrolet Port Orchard • Liberty Bay Auto Center Poulsbo
- Local Wrench Belfair • Keyport Auto Repair Keyport
- Benchmark Automotive & Tire Kingston • Silverdale Autoworks Silverdale

**Puget Sound Starts Here.org** | **Funded by a grant from the Department of Ecology** | **DEPARTMENT OF ECOLOGY State of Washington**

# LOOKING AHEAD AT 2018

## Looking Ahead at 2018

DEVELOPING, IMPLEMENTING, EVALUATING, AND IMPROVING

### OVERVIEW

Working within the scope of the new interlocal agreements implemented in 2017, WSSOG members evaluated the Work Plan to guide 2018's activities. (Attached as Appendix B) The focus for the upcoming year will be to review and revise existing programs, and to build on new opportunities raised by regional group efforts.

### PET WASTE AND SPILLS – ONGOING CHALLENGES

The group will examine efficient and effective ways to continue the Mutt Mitt Program and IDDE program, as well as update the Backyard Pet Waste Program Plan based upon the residential intercept surveys. Additionally, we will continue to promote the Spills Hotline through various outreach channels.

### NATURAL YARD CARE – THE NEW BEHAVIOR

We will also begin the process of researching and developing a Natural Yard Care Plan based in part on similar regional pilot campaigns created by other Stormwater Outreach Groups in the North and South Sound, and will explore partnerships with Master Gardeners.

### PSSH, STORM AND BEYOND

On a regional scale, the WSSOG will monitor STORM's continuing efforts to reduce automotive leaks, and will participate in the Don't Drip and Drive campaign if it is reinstated in 2018. This campaign typically entails recruiting local automotive shops to participate in offering discounts and other incentives to encourage residents to find and fix leaks.

The WSSOG will also monitor STORM's evolution of the Puget Sound Starts Here campaign, and will encourage the group to extend the distribution of materials to other times of the year. In May, we will participate in Puget Sound Starts Here Month through outreach to local restaurants and coffee shops. Expanded distribution will take place for November and December in selected jurisdictions, as well as some evaluation of both the coffee sleeve and paint stick distributions.

The group will continue to participate in the Mobile Business Outreach, Natural Yard Care, Pet Waste, and LID/GSI workgroups and apply insights, approaches and materials gained from these workgroups as appropriate.

Appendix A: STORM Annual Report

## About STORM

STORM is the acronym for Stormwater Outreach for Regional Municipalities. We are a coalition of city and county governments working together to improve water quality in our lakes, rivers, streams, and Puget Sound by meeting outreach requirements from the federal Clean Water Act.

**STORM's Vision:** People living and working in our communities take actions that protect water quality within the Puget Sound Basin.

**STORM's Mission:** Work together with regional partners to address polluted runoff by advancing broad-scale behavior change.

If your municipality would like to join STORM, or receive our updates, send your request to Christie Lovelace, STORM Coordinator, [ChristineL@burienwa.gov](mailto:ChristineL@burienwa.gov)

Check out the STORM Resource Reservoir at [pugetsoundstormgroup.org](http://pugetsoundstormgroup.org)

## Collaboration and Training at 7<sup>th</sup> Annual STORM Symposium

STORM's annual Symposium attracted more than 80 STORM members and guests. Attendees received trainings in social media strategy and effective presentations, participated in roundtables on LID maintenance and Business Outreach, heard from a panel on how to smartly use art and engineering to engage residents in stormwater education, and listened to a keynote on integrating equity into the NPDES permit via effective multicultural outreach.

Attendees also signed up for working groups on a variety of topics. Since then, five working groups have formed, promoting regional collaboration on the following BMPs: car leaks, natural yard care, mobile businesses, littering, and pet waste.

Interested in participating in a working group? Contact Christie Lovelace, STORM Coordinator, at [ChristineL@burienwa.gov](mailto:ChristineL@burienwa.gov) for more information!



## Changes to STORM's Steering Committee

2017 saw quite a bit of turnover in STORM Steering Committee membership. Two long-time Steering Committee members, Tiffany O'Dell (Pierce County) and Janet Geer (City of Bothell) stepped down from their positions to pursue new directions in their career paths. Tiffany and Janet played crucial roles in managing regional projects, fostering partnerships, and managing STORM logistics. We are so grateful to them for lending their time and expertise to improve stormwater outreach in the region.

We also had to say goodbye to Kyle Masters, who served as our STORM Coordinator for most of 2017. As our pioneer STORM Coordinator, we will forever appreciate the patience he exercised as we figured out the best way to work together, as well the invaluable support he provided in moving STORM work forward.

On the bright side, the Steering Committee welcomed Katherine Straus as its newest member in November. Katherine is the Public Education and Outreach Coordinator with the City of Federal Way. Having worked in the environmental education field for many years, Katherine is excited to be returning to stormwater, and is looking forward to playing a greater role in regional work as a member of the Steering Committee.

For more information, contact Betsy Adams, City of Kirkland, at [BADams@kirklandwa.gov](mailto:BADams@kirklandwa.gov).

## StormFest!

The City of Burien received a 2018-19 GROSS grant from Ecology on behalf of the StormFest program. Partners include King County, City of SeaTac, City of Des Moines, City of Normandy Park, Environmental Science Center, Enviro-Issues, Futurewise, Port of Seattle, and Highline Public Schools.

StormFest is an outdoor, experiential stormwater education curriculum developed for 6<sup>th</sup> graders. It is presented in a festival format, co-created from the successful Drain Rangers curriculum.

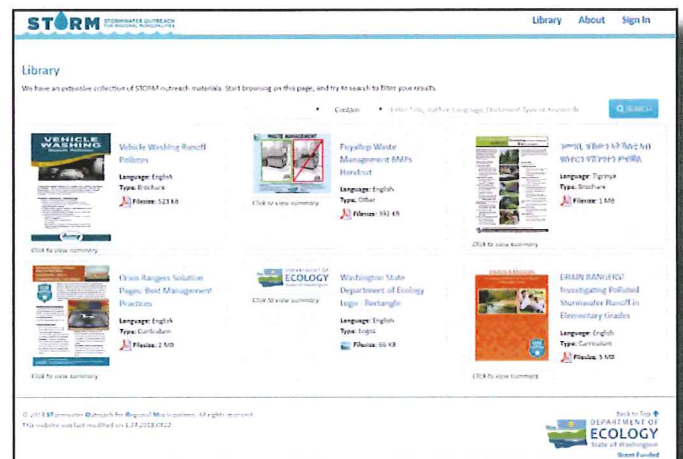
To learn more or get involved, contact Mary Eidmann, City of Burien, at [MaryE@burienwa.gov](mailto:MaryE@burienwa.gov).



## Resource Reservoir Launches & Grows

In 2017 we saw the much anticipated launch of the Resource Reservoir. It is an online library for stormwater education and outreach resources. STORM members can browse and download tools for engaging residents, students, and businesses, as well as upload and share their own materials. A focus group conducted this past year provided rich user experience data that will contribute to a few additional changes in the Reservoir in early 2018. We think you're going to love it, but you should check it out and let us know what you think!

Make an account at <https://www.pugetsoundstormgroup.org> and send your thoughts to [ChristineL@burienwa.gov](mailto:ChristineL@burienwa.gov).



## GROSS Grant Project Success!

STORM wrapped up 2 GROSS grants from Ecology in 2017:

**Don't Drip and Drive, Phase III** ([fixcarleaks.org/](http://fixcarleaks.org/)) was overwhelmingly successful, due in part to the growing recognition and interest in the program, thanks to previous campaigns. New program features included engaging quick-lube shops as promotional partners, adding technical school workshop partners, redesigning the website for Spanish language users, and refining toolkits. The toolkits will be available soon on the Resource Reservoir.

The **Drain Rangers** grant-funded project focused on refinement of the stormwater-focused curriculum developed in 2013. Project goals were to assist formal and informal educators with implementing the curriculum, create additional tools and resources for teachers to use, adapt the curriculum for Eastern Washington jurisdictions, and develop evaluation questions and strategies that can be used to gauge student learning. All materials are posted and available for download at <https://www.pugetsoundstartshere.org/DrainRangers.aspx>.



## STORM Response to Proposed Permit Changes

Ecology released proposed changes to the NPDES Phase I and II Permit requirements in the fall of 2017. The STORM membership was surveyed to gauge the extent to which they agreed with each proposed change and to collect specific feedback to send to Ecology. Themes from comments for each proposed change were highlighted in the body of a report and all comments were listed in an appendix. In mid-December, the STORM Steering Committee met with Ecology's Phase I and II Permit writers to provide the feedback. Central themes from both Phase I and Phase II included requests for clarification in language and reconsideration of timelines.

Find reports of STORM's collective response to proposed Phase I and II Permit changes at <http://pugetsoundstorm.weebly.com/proposed-permit-changes.html>.

## New STORM Coordinator

In early September, we welcomed a new STORM Coordinator, Christie Lovelace, to the team. Christie is a recent graduate from California State University San Marcos, where she completed her Master's degree in social psychology. As a Pacific Northwest native, she is excited to return home and work with a community that is actively applying social marketing strategies to local, critical environmental problems.

Christie can be reached at [ChristineL@burienwa.gov](mailto:ChristineL@burienwa.gov).

## 2017 Training Opportunities

In addition to the Symposium, STORM had multiple training opportunities in 2017. They included *20 Strategies for Keeping Your Audience Awake, Alert and Interactive*, a training on presentation strategies and co-sponsored by ECONet, as well as a social marketing training focused on managers and decision makers, taught by Nancy Lee.

Stay tuned for more training opportunities in 2018!

## Puget Sound Starts Here Month

As part of Puget Sound Starts Here Month, 19 STORM municipalities participated in the Seattle Times Newspapers in Education collaboration titled, *Captain Coho and the SalmonMobile: A Puget Sound Journey*. In the insert, readers follow Captain Coho and her SalmonMobile on a journey to the beach. Along her journey, she makes multiple stops and learns about stormwater pollution. Check out her adventures at <http://goo.gl/uEfCdm>.

The annual Puget Sound Starts Here Mariners game took place on a very sunny Sunday in May against the Chicago White Sox. While turn-out was lower than in previous years, we had a blast! We played poop-toss, spin the trivia wheel, and the real crowd pleaser... text-based stormwater trivia from your seat! It was a huge hit!



## Chinook Book Coupon Apps

Chinook Book incentives were distributed by 13 STORM jurisdictions in 2017. Use of the coupon books ranged from an engagement tool at local fairs to an incentive for responding to online surveys.

A Spanish language Facebook page, *Verde que te quiero verde Puget Sound*, was created for Don't Drip and Drive outreach. Interaction with page visitors resulted in the completion of 79 online surveys and 54 requests for the free Chinook Book app incentive. Survey response represents an engagement rate of 34% of the 234 followers, and 68% of the survey takers requesting the Chinook Book.

Contact Bill Malatinsky, City of Seattle, at [Bill.Malatinsky@seattle.gov](mailto:Bill.Malatinsky@seattle.gov) for more information about Chinook Book. For more information about Don't Drip and Drive Spanish-language outreach, contact Mary Rouborn, King County, at [Mary.Rouborn@kingcounty.gov](mailto:Mary.Rouborn@kingcounty.gov).

## Stormwater Messaging Research

In 2016 and 2017, public agencies and nonprofit organizations worked together to conduct social science research to determine the best terminology and messaging for public comprehension of stormwater and LID/GSI and, based on this research, to create and test outreach materials for a variety of audiences. This project was funded through grants received by Futurewise, on behalf of the group from Boeing, the Nature Conservancy, and the Rose Foundation.

Next steps are to develop a tool kit and promote use of materials by local jurisdiction and nonprofit staff. For more information, contact Betsy Adams, City of Kirkland, at [BADams@kirklandwa.gov](mailto:BADams@kirklandwa.gov).

## Mark Your Calendar for 2018 STORM Meetings!

- February 15, 9:30am - 12:30pm, Edmonds City Hall
- May 3, 9:30am - 12:30pm, Center for Urban Waters (Tacoma)
- September 20, 9:30am - 12:30pm, King Street Center (Seattle)
- November 15, 9:00am - 3:30pm, Brightwater Center (Woodinville) - SYMPOSIUM!

Appendix B: WSSOG 2018 Work Plan

# WSSOG 2018 WORK PLAN

## Sustain successful efforts (Objective 2, Task 2.2)

- Continue Pet Waste Outreach
  - Continue to implement Backyard Pet Waste E&O Plan
  - Continue to implement updated Mutt Mitt E&O Plan
  - Sustain Mutt Mitt Program through an increase in the number of tracked stations
  - Participate in STORM Pet Waste workgroup
- Plan for sustained Hotline Outreach
  - Track IDDE campaign research and development from STORM, participate if appropriate and update our plan as applicable
  - Continue to implement paint stick distribution

## New behavior campaign development (Objective 3 & 4)

- Create a Natural Yard Care Outreach Plan based on audience research or existing regional programs
- Participate in STORM's Natural Yard Care workgroup as appropriate
- Monitor the progress of other jurisdictions' Natural Yard Care campaigns and adapt elements as appropriate
- Participate in STORM's Mobile Business workgroup as appropriate
- Monitor the progress of other jurisdictions' mobile business campaigns and adapt elements as appropriate

## Other opportunities (Objective 7)

- PSSH Month – May. Consider additional fall campaign
- Participate in Don't Drip and Drive campaign as appropriate
- Cinema ads
- School lessons
- Pilot field monitoring programs with High School and Elementary students

## Strengthen coalition and represent WSSOG on regional efforts (Objective 8)

- Capacity building/training as needed
- STORM & PSSH support
- Provide feedback to STORM on the PSSH website

**INTERLOCAL AGREEMENT  
BETWEEN KITSAP COUNTY AND  
THE CITY OF PORT ANGELES  
FOR THE WEST SOUND STORMWATER OUTREACH GROUP**

**I. PREAMBLE**

This Interlocal Agreement (hereafter "AGREEMENT") is by and between Kitsap County (hereafter "COUNTY") whose principal offices are located at 614 Division Street, Port Orchard, Washington 98366 and the City of Port Angeles (hereafter "CITY") whose principal offices are located at 321 East 5<sup>th</sup> Street, Port Angeles, Washington 98362.

**II. RECITALS**

*Whereas*, the Washington State Department of Ecology requires owners or operators of a municipal separate storm sewer system to obtain coverage under a Western Washington NPDES Phase II Municipal Stormwater Permit; and

*Whereas*, mutual benefits will accrue to the parties hereto and the people which each serves in the cooperative implementation of the West Sound Stormwater Outreach Group. The Interlocal Cooperation Act, chapter 39.34 RCW, further authorizes the parties hereto to enter into this AGREEMENT; and

*Whereas*, Permittees are required by Permit Section S5.C.1 to provide stormwater education and outreach programs designed to achieve measurable reductions in behaviors that cause or contribute to adverse stormwater impacts; and

*Whereas*, coordination among Permittees with adjoining or shared geographic areas is encouraged by Washington State Department of Ecology and enhances access to federal, state, and other financial and technical support, and

*Whereas*, West Sound residents share media sources and would benefit from consistent messaging across city and county boundaries; and

*Whereas*, municipal resource efficiency is increased and cost savings are realized through sharing expertise, expenses, and staff time to gain economies of scale and avoid duplication; and

*Whereas*, Kitsap County and the cities of Poulsbo, Bremerton, Port Orchard, Gig Harbor, Bainbridge Island, and Port Angeles desire to continue to work together as the West Sound Stormwater Outreach Group to coordinate joint development and implementation of stormwater education and outreach programs.

NOW THEREFORE, the parties mutually agree as follows:

### III. **AGREEMENT**

- A. The Recitals set forth above are expressly incorporated into the AGREEMENT by this reference.
- B. This AGREEMENT consists of the following documents:
1. Interlocal Agreement
  1. Exhibit A: West Sound Stormwater Outreach Group Scope of Work and Budget
- C. **Purpose:** The purpose of the AGREEMENT is to provide a mechanism through which COUNTY and CITY voluntarily collaborate in the development, implementation, and funding of stormwater education and outreach messages, materials, activities, and program assessment tools for the general public, businesses, and other target audiences as required by the NPDES Phase II Permit.
- D. **Payment and Funding:** CITY will provide COUNTY funds in an amount not to exceed a total of \$11,474 per year, totaling \$34,422 for the years 2017 through 2019. In accordance with Section I below, COUNTY agrees to send invoices to CITY representative for reimbursement of allowable expenses incurred as defined in Exhibit A.
- E. **Scope of Work:** COUNTY and CITY shall perform duties and services as are listed in Exhibit A, attached hereto and incorporated herein by this reference. Said services shall be performed in accordance with the approved Scope of Work and budget specified in Exhibit A, and as provided for in Section I of this AGREEMENT.
- F. **COUNTY and CITY Administrators:**

The "West Sound Stormwater Outreach Group" is a collective of local jurisdictions and is not a separate legal entity. Accordingly, Michelle Perdue, Education & Outreach Coordinator, 614 Division Street, MS-26A, Port Orchard, Washington 98366 shall represent COUNTY in all matters pertaining to the services rendered under this AGREEMENT. All requirements of the CITY pertaining to the services and materials to be rendered under this AGREEMENT shall be coordinated through the COUNTY representative.

Jonathan Boehme, Port Angeles Stormwater Engineer, 321 5<sup>th</sup> Street, Port Angeles, Washington 98362, shall represent the CITY in all matters pertaining to the services and materials to be rendered under this AGREEMENT. All requirements of the COUNTY pertaining to the services or materials to be rendered under this AGREEMENT shall be coordinated through the CITY representative.

Following a change of representative, COUNTY and CITY will inform the other party in writing within ten (10) working days.

G. **Reporting:** By January 31<sup>st</sup> of each year this AGREEMENT is in effect, COUNTY and CITY will jointly report the results of work conducted under this AGREEMENT in a manner that is mutually useful in the fulfillment of NPDES Permit reporting requirements for public education activities, as specified in Permit Section S9.E.2.c.

H. **Responsibilities of the Parties:** It is mutually understood that CITY will provide COUNTY with the following:

Up to \$34,422 over the duration of this AGREEMENT for development of educational materials, professional service fees, partial reimbursement of COUNTY administrative costs, and other expenses related to tasks as described in Exhibit A. CITY will also contribute staff time to attend meetings, provide input, conduct pertinent research, and participate in program development.

It is mutually understood that COUNTY will provide CITY with the following:

COUNTY will provide administrative services and act as financial manager for this AGREEMENT and associated professional service contracts. COUNTY will also contribute staff time to facilitate meetings, provide input, conduct pertinent research, and participate in program development.

I. **Reimbursement:** CITY shall reimburse COUNTY for actual incurred costs upon presentation of a properly executed invoice. Costs shall be charged and funding reimbursed based upon appropriate program elements as defined in Exhibit A. COUNTY may exceed line item amounts within individual program element budgets, but shall not exceed the total budget for each individual program element without written approval of CITY. Reimbursement requests shall not be made to CITY more frequently than once a month. CITY shall reimburse COUNTY within thirty (30) days of receipt of a properly executed COUNTY invoice.

J. **Property:** Title to property purchased by COUNTY, the cost of which COUNTY has been reimbursed as a direct item of cost under this AGREEMENT, shall pass to and vest to COUNTY. Property purchased with funds delivered pursuant to this AGREEMENT may be used only for the performance of this AGREEMENT and shall be purchased in accordance with applicable state law and COUNTY purchasing policies.

K. **Assignment:** COUNTY may assign or subcontract any portion of the services provided within the terms of the AGREEMENT. All terms and conditions of the AGREEMENT shall apply to any approved subcontract or assignment related to this AGREEMENT.

L. **Indemnity:** Both COUNTY and CITY shall accept responsibility for any and all liability arising from acts of its own officers, employees, agents, and contractors to the extent provided by law. Additionally, each party agrees to indemnify, defend, and hold harmless the other party, and its officers, agents, and employees for all claims (including demands, suits, penalties, losses, damages, or costs of any kind whatsoever) including costs, expenses, and reasonable attorney's fees, to the

extent such a claim arises or is caused by the indemnifying party's own negligence or that of its officers, agents, or employees in performance of this AGREEMENT.

Nothing contained in this section of this AGREEMENT shall be construed to create a liability or a right of indemnification in any third party.

This section shall survive the expiration of this AGREEMENT.

- M. **Amendments:** The parties hereby further agree that this AGREEMENT cannot be amended or modified without the written concurrence of both parties.
- N. **Termination:** Either party to this AGREEMENT may elect to terminate this AGREEMENT for any reason by delivering a sixty (60) day written notice of intent to terminate to the other party. In the event of such termination, COUNTY shall be compensated for the actual costs incurred prior to the time of written notification of contract termination.
- O. **Duration:** This AGREEMENT shall commence on the date of execution, and shall remain in effect through December 31, 2019.
- P. **Recording:** Pursuant to RCW 39.34.040, this AGREEMENT shall be filed with the Kitsap County Auditor.
- Q. **Waiver:** A failure by either party to exercise its rights under this agreement shall not preclude that party from subsequent exercise of such rights and shall not constitute a waiver of any other rights under this AGREEMENT unless stated to be such in a writing signed by an authorized representative of the party and attached to the original AGREEMENT.
- R. **Governing Law:** This AGREEMENT shall be governed by and construed in accordance with the laws of the State of Washington.
- S. **Venue:** The venue for any action to enforce or interpret this AGREEMENT shall lie in the Superior Court of Washington for Kitsap County, Washington.
- T. **Multiple Originals:** This AGREEMENT may be executed in multiple copies, each of which shall be deemed an original.
- U. **Severability:** If any provision of this AGREEMENT or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of the AGREEMENT which can be given effect without the invalid provision, if such remainder conforms to the requirements of applicable law and the fundamental purpose of this agreement, and to this end the provisions of this AGREEMENT are declared to be severable.

IN WITNESS WHEREOF, this AGREEMENT was executed by the parties on the dates hereinafter indicated.

DATED this 2 day of DEC, 2016

DATED this 9 day of JAN, 2017.

**CITY OF PORT ANGELES**

**BOARD OF COUNTY COMMISSIONERS  
KITSAP COUNTY, WASHINGTON**



Dan K. McKeen, City Manager



Charlotte Garrido, Chair

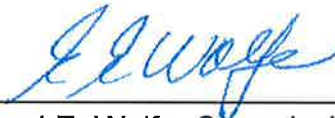
ATTEST:



Robert Gelder, Commissioner



Jennifer Veneklasen  
City Clerk



Edward E. Wolfe, Commissioner

Approved as to Form:

ATTEST:



City Attorney



Dana Daniels, Clerk of the Board



**EXHIBIT A:**  
**WEST SOUND STORMWATER OUTREACH GROUP**  
**Scope of Work & Budget for 2017–2019**

Kitsap County and the Cities of Poulsbo, Bremerton, Port Orchard, and Gig Harbor have been working to jointly develop, implement, and fund NPDES Municipal Stormwater Permit-required outreach via interlocal agreements since 2008. With the additions of Bainbridge Island and Port Angeles in 2012, the group assumed the name of West Sound Stormwater Outreach Group (WSSOG), to represent the regional scope and to align with other similar groups across Puget Sound under the Stormwater Outreach for Regional Municipalities (STORM) umbrella.

**A. GOALS, OBJECTIVES, AND TASKS**

*Goals:*

1. Work cooperatively to help meet the requirements for compliance with NPDES Phase II Municipal Stormwater Permit Section S5.C.1, Public Education and Outreach, through the implementation of “education and outreach program[s] designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities.”<sup>1</sup>
2. Realize cost savings and increase municipal resource efficiency by sharing expertise, expenses, and staff time to gain economies of scale and avoid duplication.
3. Jointly work to help fulfill education and outreach requirements of local Total Maximum Daily Loads (TMDLs), also known as Water Pollution Cleanup Plans.
4. Benefit citizens of the West Sound region by providing consistent outreach and messaging.
5. Gain enhanced access to federal, state, and other financial and technical support through coordination among Permittees with adjoining or shared geographic areas.

*Objectives & Tasks:*

Objective 1     Develop and adhere to an annual work plan for each year of this interlocal agreement.

Task 1.1     Jointly develop a work plan for each year by January 31 of 2017, 2018, and 2019.

Objective 2     Build on existing successful efforts by maintaining elevated awareness levels and environmentally positive behavior trends for one audience and behavior selected during the previous Permit term.

Task 2.1     Review available survey results to determine impact of existing outreach efforts.

Task 2.2     Continue to achieve sustained awareness and practice of proper pet waste management.

- Implement the updated Education & Outreach Plan for Pet Waste in Backyards, including a strategy for sustained awareness for the current Permit term, using adaptive management as necessary.

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<sup>1</sup> Washington State Department of Ecology, *Western Washington Phase II Municipal Stormwater Permit* (2013) p.16.

- Continue to implement the Pet Waste in Public Places campaign, including a strategy for continued awareness and behavior adoption for the current Permit term using adaptive management as necessary, promoting maintenance of the Mutt Mitt Program and supporting growth where indicated.

Objective 3 Select one new behavior and target audience. Review and prioritize the list of NPDES Permit audiences and practices to be addressed by a behavior change campaign. Revise as necessary based on emerging issues, opportunities, and evaluation results.

Task 3.1 Assess practices that are most likely contributing to adverse stormwater impacts based on regional reports, studies, and knowledge of local pollution problems. Consider the scope of the problems as identified by reports, water quality data, and inspection/investigation results.

Task 3.2 Evaluate behaviors targeted for social marketing campaigns using factors such as:

- Attitude and behavior survey data, such as the Puget Sound Partnership's General Opinion Survey and Sound Behavior Index results;
- Applicability of the issue across the West Sound region;
- Availability of existing, effective programs that can be modeled;
- Opportunities to collaborate with others involved in stormwater outreach programs;
- Degree to which behaviors are single, simple, doable, and measurable; and
- Findings from Task 3.1.

Objective 4 Design or adopt a social marketing campaign with built-in evaluation protocols for the highest priority behavior from Objective 3.

Task 4.1 Conduct formative research, which may include:

- Reviewing other program designs, management approaches, and evaluation strategies;
- Adopting a campaign approach that has been thoroughly evaluated and proven successful in a similar community; and/or
- Utilize focus groups or other survey tools to garner in-depth information on attitudes and practices relative to the behavior, and identify barriers and benefits of the target audience adopting the behavior.

Task 4.2 Develop a campaign strategy based on research from Task 4.1 that includes an evaluation plan with specific, measurable, and achievable outcomes.

Objective 5 Implement a social marketing campaign for the highest priority behavior.

Task 5.1 Test the campaign strategy on a small segment of the population, using focus groups and/or pilot studies to refine and reevaluate the strategy.

Task 5.2 Implement the campaign across the community, assessing effectiveness at proper intervals, documenting progress, and changing the campaign strategy as necessary to achieve defined outcomes.

Task 5.3 Continue the program at an appropriate level once measurements indicate increased adoption of the behavior in the target audience.

Objective 6 As resources and consensus of the group are available, implement additional campaigns using a phased approach for each prioritized behavior and associated target audience.

Task 6.1 Pursue grants and other funding opportunities as available and appropriate.

Objective 7 Use adaptive management to refine programs and direct education and outreach resources most effectively.

Task 7.1 Take advantage of mutually beneficial outreach opportunities that fall within the NPDES Permit-required scope of audiences and behaviors, regardless of prioritization ranking.

Task 7.2 Seek opportunities to share among member jurisdictions the existing outreach efforts to audiences not prioritized within the WSSOG activities, such that these efforts are beneficial to all members.

Objective 8 Represent the WSSOG on larger regional stormwater outreach efforts through participation as a contributing member of STORM and the Puget Sound Starts Here (PSSH) campaign development team.

Task 8.1 Help implement the STORM Strategic Plan and annual Work Plan to achieve results of use and benefit to the WSSOG.

Task 8.2 Promote capacity building among STORM and WSSOG members to raise the caliber of collective outreach in the region.

Task 8.3 Support development and implementation of the PSSH awareness campaign in conjunction with on the ground local behavior change programs.

Objective 9 Track and maintain records of education and outreach activities. Publish an annual summary of activities that is suitable for use in NPDES reporting.

## **B. BUDGET**

Table 1 shows the annual budget for years 2017 through 2019. The annual Staff Time budget of \$50,932 is for 0.5 FTE of a Kitsap County Education & Outreach Coordinator's time to administer the Interlocal Agreement and manage outreach programs identified in the annual work plan on behalf of the WSSOG. This funding also includes coordination with STORM, the Puget Sound Starts Here campaign development team, ECO Nets, and all associated travel expenses; as well as administrative duties such as financial tracking and management. The annual staff time budget will be shared by all WSSOG jurisdictions in proportion to their relative population size, as shown in Table 1.

The annual Outreach Base Programs budget of \$80,371 will be used to implement joint programs prioritized by the group and agreed upon for inclusion in the WSSOG annual work plan. This may include activities such as the Mutt Mitt Program, backyard pet waste outreach, reporting hotline promotion, advertising, business outreach, local implementation of the Puget Sound Starts Here campaign, newsletters and literature development, priority behavior change programs, and evaluation/surveys. The WSSOG will make every effort to minimize actual costs by selecting competitive bids for professional services, and by pursuing grants and other funding sources as available and appropriate.

The annual Supplemental Programs Budget was added to accommodate several jurisdictions that expressed a desire for additional outreach support. This allows flexibility for jurisdictions to customize a suite of outreach options to meet the needs of their communities. Rates for elementary classroom lessons were based on County staff time for lesson preparation, teaching time, and travel. Cinema ad rates were based on real charges incurred for similar advertising in 2016. To meet the needs of jurisdictions who utilize biennial budget cycles, year 2017 and years 2018-19 were calculated on separate charts.

Table 1. Annual budget for all program elements - 2017.

Jurisdiction	Population Est 2015 (OFM)	Relative Population	Staff Time	Base Programs Budget	PSSH & Mutt Mitt Programs*	Supplemental Programs Budget	Annual Cost per Jurisdiction
Unincorporated KC	171,940	60.1%	\$30,631	\$41,450			\$72,081
Bremerton	39,410	13.8%	\$7,021	\$11,151	\$1,650	\$0	\$18,171
Bainbridge Island	23,390	8.2%	\$4,167	\$8,139	\$2,500	\$0	\$12,306
Port Angeles	19,140	6.7%	\$3,410	\$6,364	\$1,750	\$1,700 <sup>1</sup>	\$11,474
Port Orchard	13,510	4.7%	\$2,407	\$5,807	\$2,550	\$860 <sup>2</sup>	\$9,074
Poulsbo	9,950	3.5%	\$1,773	\$4,899	\$2,500	\$2,750 <sup>3</sup>	\$9,421
Gig Harbor	8,555	3.0%	\$1,524	\$2,562	\$500	\$3,900 <sup>4</sup>	\$7,986
<b>TOTAL</b>	<b>285,895</b>	<b>100.0%</b>	<b>\$50,932</b>	<b>\$80,371</b>	<b>\$11,450</b>	<b>\$9,210</b>	<b>\$140,513</b>

\*This column is **included** in the total Base Programs Budget, and represents a cap, or 'not to exceed' total for these two items per jurisdiction.

<sup>1</sup> Includes funding for 3 months of cinema ads in Port Angeles.

<sup>2</sup> Includes funding for 4 elementary school classroom lessons at \$215 each in Port Orchard.

<sup>3</sup> Includes funding for 6 elementary school classroom lessons at \$275 each, and 3 weeks of cinema ads in Poulsbo.

<sup>4</sup> Includes funding for 3 months of cinema ads in Gig Harbor.

Table 2. Annual budget for all program elements – 2018 & 2019.

Jurisdiction	Population Est 2015 (OFM)	Relative Population	Staff Time	Base Programs Budget	PSSH & Mutt Mitt Programs*	Supplemental Programs Budget	Annual Cost per Jurisdiction
Unincorporated KC	171,940	60.1%	\$30,631	\$41,450			\$72,081
Bremerton	39,410	13.8%	\$7,021	\$11,151	\$1,650	\$0	\$18,171
Bainbridge Island	23,390	8.2%	\$4,167	\$8,139	\$2,500	\$2,500 <sup>1</sup>	\$14,806
Port Angeles	19,140	6.7%	\$3,410	\$6,364	\$1,750	\$1,700 <sup>2</sup>	\$11,474
Port Orchard	13,510	4.7%	\$2,407	\$5,807	\$2,550	\$0	\$8,214
Poulsbo	9,950	3.5%	\$1,773	\$4,899	\$2,500	\$2,750 <sup>3</sup>	\$9,421
Gig Harbor	8,555	3.0%	\$1,524	\$2,562	\$500	\$3,900 <sup>4</sup>	\$7,986
<b>TOTAL</b>	<b>285,895</b>	<b>100.0%</b>	<b>\$50,932</b>	<b>\$80,371</b>	<b>\$11,450</b>	<b>\$10,850</b>	<b>\$142,153</b>

\*This column is **included** in the total Base Programs Budget, and represents a cap, or 'not to exceed' total for these two items per jurisdiction.

<sup>1</sup> Includes funding for 2 months of cinema ads in Bainbridge Island.

<sup>2</sup> Includes funding for 3 months of cinema ads in Port Angeles.

<sup>3</sup> Includes funding for 6 elementary school classroom lessons at \$275 each, and 3 weeks of cinema ads in Poulsbo.

<sup>4</sup> Includes funding for 3 months of cinema ads in Gig Harbor.

## IDDE EVENT INSPECTION LISTING

Unique Identifier:	Actual Start:	Actual Finish:	How did you learn about the problem?	Threat Determination:	G3: On Average Investigated Within 7 Days:	Pollutant(s) Identified:	Correction/Elimination Method:	Location:	Address:	Comments:
2723	25-Sep-14	18-Jul-17	Outfall Inspection	Yes	Yes No	Human Fecal Bacteria	NA	Peabody 1.2 Outfall Discharge	711 & 719 Lauridsen Blvd.	8-19-14 Stream Keepers sampling results from (3288 CFU/100ml, dry weather), and September 16, 2014 (7680 CFU/100ml, wet weather), at Peabody outfall 1.2c triggered the Cities threshold for Fecal Coliform. Investigation performed through 2015-2016, 12-22-16 Sewer Cleaning & Inspection contractor reported a 6" concrete sewer line which was visibly discharging sewer water into the Lauridsen Blvd Stormwater system. 1-20-17 dye testing confirmed connection. 7-18-17 Cross connection removed as part of CON-2017-35 Lauridsen Blvd. Sewer Relocate.
4366	29-Nov-16	In Process	Staff Referral	No	No Yes	Sediment	Enforcement	Merrill & Ring Log Yard on Airport Road	1339 Airport Road	11/29/16 City staff observed sediment and debris being tracked out of the Merrill & Ring (M&R) Airport Log Yard onto Lauridsen Blvd by loaded log trucks. Sediment and debris was noticeably tracked on Lauridsen Blvd. from the main construction entrance on Airport Rd. to the intersection of Lauridsen Blvd. and L St., approximately 0.75 miles away. Additionally, staff observed sediment and debris being tracked out of M&R Airport Log Yard onto Edgewood Dr. 12/19/16 Due to the ongoing nature of this illicit discharge, a Notice of Violation and Notice to Correct letter was sent to M&R. 1/26/17 In response to the Notice of Violation and Notice to Correct letter M&R discontinued use of the Edgewood Dr. exit, increased the size of their quarry spill construction entrance, and increased the frequency of use of their mechanical street sweeper. As a permanent structural upgrade M&R also increased the area of its paved asphalt entrance.
4367	15-Apr-16	In Process	Staff Referral	No	No Yes	Sediment	Enforcement	Port of PA Log Yard	1345 Marine Drive	4/15/16 City of Port Angeles staff observed sediment and debris being tracked out of the Port of Port Angeles (POPA) Log Yard onto Marine Drive by loaded log trucks. Sediment and debris was noticeably tracked on Marine Drive from the main entrance to the log yard to Cedar Street, approximately 0.8 miles away. Additionally, staff observed a water truck washing the tracked out material off of the roadway and into storm drains along Marine Drive. 4/27/16 Due to the ongoing nature of this illicit discharge, a Notice of Violation and Notice to Correct letter was sent to the Port of Port Angeles. 12/30/16 Continued track out was noted through 2016, due to the continued discharge the city sent a 2nd Notice of Violation and Notice to Correct letter. 6-6-17 Port of Port Angeles submitted plans to reduce track-out and direct truck traffic. Log yard entrance will be relocated to west and exit-only relocated to east. Signs detailing entrance and exit to be installed. Re-paving of exit and entrance aprons. Ecology approved construction exit plates to be installed at log yard exit following completion of the stormwater project improvements. Reduce log yard exit width to be reduced from 50' to 25'. This IDDE remains in progress, until permanent structural BMP project is completed, currently the project is on hold due to archaeological reasons.
4316	26-Jan-17	17-Jan-17	Pollution Hotline	No	No NA	Pet Waste	Education Technical Assistance	Cherry Street Between 4th & 5th Street	Cherry Street Between 4th & 5th Street	1-14-17 City Resident, reported the dog poop along the street off of Cherry street between 4th Street. 1-17-17 Provided resident with a copy of the City's pet waste pamphlet to distribute to dog walkers in the area.
4315	25-Jan-17	25-Jan-17	Pollution Hotline	No	No Yes	NA	NA	Olympic Discovery Trail Bridge crossing Ennis Creek	ODT Bridge over Ennis Creek	1-20-17 Stream Keepers Volunteer was walking on the Discovery Trail at about 10:45, as she crossed Ennis Creek, she noticed what seemed to be a distinctive sewage odor that seemed to be emanating from the creek and to be different than the smell that often emanates from the sewage-treatment plant. In the afternoon of 1/23/17 City staff received notification of the sewage odor and responded to the reported location, but could not detect an odor or a potential source.
2017-1	1-Feb-17	28-Feb-17	National Response Center Call Out	Yes	Yes Yes	Petroleum Products	Add Treatment BMP	Merrill & Ring Log Yard on Airport Road	1339 Airport Road	2-1-17 City resident filed a report that the M&R debarking machinery at the Fairchild Airport property was actively leaking hydraulic fluid. City Staff were contacted by the National Response Center, which requested that City personal investigate the incident. City staff walked the downstream ditch lines and reported seeing some sheen and dark staining but nothing requiring urgent response. 2-3-17 The Port hired Zenovic to collect samples of the runoff leaving the site for testing. 2-13-17 The City evaluated the primary outfall from the property. City staff directed M&R staff to increase their effort to prevent petroleum hydrocarbons from leaving the site by changing out the absorbent pads and booms more frequently. 2-28-18 DOE staff collected TPH samples, results indicated some petroleum contamination, but not above cleanup levels. This was an intermittent discharge of petroleum products, M&R staff implemented operational BMPs to prevent further discharge.
2017-2	23-Feb-17	23-Feb-17	Staff Referral	No	No Yes	NA	NA	North of storm outfall at Tumwater 0.8d	Tumwater Creek River Mile 0.8	2-23-17 Streamkeepers volunteer reported white suds in Tumwater creek, City staff familiar with the location agreed that the origin of the foam is a natural occurrence.
2017-3	7-Mar-17	31-Mar-17	Staff Referral	No	No Yes	Trash	Contractor hired to remove garbage	Intersection of Whites Creek and Ennis Creek	NA	3-7-17 Stormwater Staff discovered 8 homeless camps along the riparian areas of Whites and Ennis Creek. Their locations were marked on a map and provided to CED and Police department. A Contractor was hired to cleanup the camps and haul out garbage, clean up was completed 3-3-17
4379	13-Mar-17	13-Mar-17	Staff Referral	No	No Yes	Soap Detergents	Education Technical Assistance	Tumwater Truck Rt.	313 Tumwater Truck Rt.	3-13-17 City resident was washing the sails for his sail boat in the parking lot of 313 Tumwater Truck Rt. Wash water was noticed by City Staff crossing Tumwater Truck Rt. and was reported to Stormwater Staff. Upon arrival on site, it was determined that wash water did not drain to a stormwater structure or Tumwater Creek. Stormwater education was provided to the City Resident, he agreed to spray his working area off and toward the vegetated swale near his work area. This event was not an illicit discharge.
2017-4	28-Mar-17	28-Mar-17	Pollution Hotline	Yes	Yes Yes	Vehicle Fluids	Add Treatment BMP	Samara Dr. and the intersection of Samara Dr. and O St.	NA	10AM 3-28-17 City Resident reported vehicle fluid spill along Samara Dr and part of O St. 10:30AM Stormwater Staff responded to the spill and installed absorbent material at the downstream CB's. 3PM Stormwater Staff returned to the spill location and cleaned up absorbent material.
4483	5-Apr-17	5-Apr-17	Staff Referral	Yes	Yes Yes	Vehicle Fluids	No Action Needed	Newell Rd	Newell Rd to Fairmont	4-5-17 Waste Connections garbage truck had a transmission leak. Approx. 1 gallon of fluid spilled in a mile long run. No feasible clean up measures could be performed.
2017-5	24-Apr-17	24-Apr-17	Pollution Hotline	No	NA NA	Naturally occurring iron oxide ba	NA	100 yards North of 8 St. Bridge in Tumwater Creek	NA	4-24-17 City Resident reported an orange slim, filaments suspended on water, and surface staining on bank, no odor. Based on the description and location, stormwater staff were able to determine that the orange slim was a naturally occurring iron oxide bacteria which had previously been discovered at the reported location during the 2016 Tumwater Creek walk.
2017-6	12-May-17	12-May-17	Staff Referral	No	No Yes	Sediment	Education Technical Assistance	AM/PM Gas Station 8th Street	807 S. Lincoln	5-12-17 Contractor repairing a broken water line, without adequate downstream inlet protection, City Staff responded to reported spill the same day, instructed contractor to prevented further discharge, Contractor repaired concrete, swept up debris, rain may have caused some sediment to discharge to MS4.
4561	22-May-17	23-May-17	Pollution Hotline	No	No Yes	Pool Water	Education Technical Assistance	West 4th Street.	1030 W. 4th Street	5-22-17 The City was notified of someone discharging their pool water to MS4. Stormwater Operations located the site and made initial contact with the home owner. Engineering staff arrived 2:30pm same day, homeowner had already transferred discharge hose to a sanitary sewer cleanup based on recommendations made by operations. Chlorine was no longer present in the pool water, since the water was from 6+ months ago. The homeowner was instructed to discharge pool water to sanitary sewer from now on.
4569	26-May-17	26-May-17	Staff Referral	No	No Yes	NA	No Action Needed	1358 Campbell Ave. - Right of way Catch Basin	1358 Campbell Ave	5-26-17 City Staff reported possible cross connection between sanitary and stormwater. Later that afternoon City staff Sampled for pH, ammonia. Results indicated sewage/gray water, strong smell. City staff reviewed the GIS and determined that the CB was connected to a sanitary sewer main, which was the source of the odor.
2017-7	12-Jun-17	7-Sep-17	Staff Referral	No	No No	NA	NA	1300 Block of O St.	1315 O St.	6-12-17 City Staff reported potential Illicit discharge of sediment and landscape debris which were being swept out into the parking strip of O St. The concern being that if not properly disposed of the material would discharge to stormwater during the next rain event. Reporting email was not forwarded to relevant City Staff until 9-7-17. Upon receiving the report City staff visited the home in question, the resident happened to be home. City Staff described the incident that occurred in June to the Home owner, who explained that the material was properly disposed of in their trash and yard waste receptacles, all material shown in the initial email reporting was properly disposed of, this was not an illicit discharge.
2017-8	15-Jun-17	16-Jun-17	Staff Referral	No	No Yes	Rusty Water	NA	Albert Street	120 Albert St.	6-15-17 City Resident reported an "oily, messy substance" exiting a pipe onto Albert Street, Stormwater staff responded to the notification the following day. They observed a rust colored deposit coming from the curb discharge pipe, no hydrocarbons or petroleum were observed, and the discharge originated on private property. The issue was forwarded to source control specialist to investigate the source of the discharge.

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2017-9	10-Jul-17	26-Jul-17	Staff Referral	No	No Yes	Fecal Coliform	NA	Marine Dr. near E St. ROW	Marine Dr.	7-10-17 City Staff reported excessive water flowing down the gutter line on the South side of Marine Drive across from the boat haven. Later that afternoon City staff responded to the reported location, and traced the excessive flow to saturated area adjacent to the road. The road side ditch adjacent to the road was full of water, however no other locations next to the road appeared to be saturated. There was concern that the source of the excessive water could potentially be a 12" AC Sanitary Sewer main which happened to be below the saturated area. In order to confirm the possibility of leaking or broken sewer main City staff collected fecal coliform sample at the location, in addition to dye testing the line. (7/10) Samples resulted in an estimated 920 CFU/100ml which raised concern, and dye was not detected. The location was sampled again on (7/12) in addition to locations up and down stream in the road side ditch, results were inconclusive. (7/17) City Staff collected Human Fecal Quantification samples which were tested for the presence or absence of human fecal coliform by Source Molecular Corporation, the Sample resulted in a non detect. Based on the test results, City staff concluded that the fecal coliform present in the flow was naturally occurring and did not originate from the Cities sanitary sewer. City operations staff performed some maintenance activities on the road side drainage ditch, to restore conveyance capacity, which appeared to reduce the quantity of water flowing along the Marine Dr. gutter. This was not an illicit discharge.
2017-10	26-Jul-17	42947	Pollution Hotline	Yes	Yes Yes	Fecal Coliform	Education Technical Assistance	Peabody Creek Trailer Park	127 Lincoln Street	7-26-17 City Staff received a pollution hotline report of a possible sewer leak origination from Trailer 9 at the Peabody Creek RV park. 10AM (7/26) City Staff visited the reported location, noted a wet stain under trailer 9, a pile of maggots under the sewer lateral connection to the trailer and a strong sewer odor. City Staff spoke to the trailer park manager, the manager reported that leak was detected approx. 4 days ago, the leak was fixed (7/25) using a 24 hr. cure time epoxy. Manager reported that the leak location was cleaned with bleach and location pressure washed into sanitary cleanout. Manager explained that wet stain under trailer was from a dripping potable water line connection at trailer 9, which would be addressed. A letter was then sent to the property owner notifying them that an illicit discharge investigation had been performed and findings reported to the department of ecology. 7-28-17 Clallam County Environmental Health visited the location as a follow up site visit. They reported that the leak had been visibly patched, no visible signs of sewage on the ground and no sewage odor. This was single event discharge of sewage to the ground, in the vicinity of Peabody Creek, it is unknown if any pollutants discharged to surface waters.
2017-11	26-Jul-17	26-Aug-17	Pollution Hotline	No	No Yes	Irrigation Water Leak & Sedimer	Education Technical Assistance	Jack in the Box	902 E Front St.	7-26-17 City Residents reported that an Irrigation line at the corner of Front and Race St. was actively leaking in to a Catch Basin at the corner of the intersection. City Staff responded to the location, and confirmed the leak. A notice to correct was sent to Jack in the Box Management staff. The leak was repaired within 30 days of the leak being reported, unknown date.
2017-12	8-Sep-17	8-Sep-17	Staff Referral	Yes	Yes Yes	Vehicle Fluids	Add Treatment BMP	Valley Creek Estuary Park	NA	9-8-17 PAPD reported a single vehicle crash, which resulted in an over turned vehicle in Valley Creek Estuary. Stormwater Staff responded to the site at 8:20AM, by that time oil absorbent pads had been placed around a transformer fluid spill, which had been caused by the vehicle crash. Transformer oil lose was estimated at less than a gallon. The vehicle was removed from estuary at 7:30AM, City Staff deployed oil absorbent booms and pads and about 4-5 cubic feet of contaminated soil was removed 3PM City Staff complete contaminated soil removal. An oil sheen remained after soil removal, the remaining spill was not recoverable.
2017-20	20-Sep-17	22-Sep-17	Staff Referral	No	No Yes	Wood Debris	Education Technical Assistance	Lauridsen Blvd. near Fairchild Airport Rd. Intersection	NA	9-20-17 During the City's Annual Catch Basin Screening program, Stormwater operations staff noted excessive wood debris in several of the catch basins along Lauridsen Blvd. east of Airport Rd. The Port of Port Angeles and M&R were informed of the issue via email. 9-22-17 M&R took prompt action to respond to the report, wood debris was removed from the gutter, catch basin grates and sumps, and centerline of road.
2017-21	29-Sep-17	6-Oct-17	Pollution Hotline	No	No Yes	NA	NA	Civic Field	307 S Race St.	9-29-17 Pollution hotline report indicated that parks department staff were seen cleaning painting equipment and disposing of paint over a catch basin. 10-6-17 Spill notice received by stormwater staff, a review of the GIS system revealed that the catch basin structure in question is connected to sanitary sewer. Parks department staff were contacted, apparently this is standard practice, the paints are all water based, and the catch basin is the only location they perform this activity.
2017-22	5-Oct-17	18-Oct-17	Pollution Hotline	No	No Yes	Cooking Oil and Grease	Education Technical Assistance	Behind Kokopelli Grill	201 E Front St.	10-5-17 Pollution hotline reported that greasy water was flowing across the parking lot behind Kokopelli grill, 10-6-17 Stormwater Staff responded to the site and determine that a very small quantity of cooking oil had run across the parking lot as a result of improper floor mat cleaning. 10-9-17 Report was forwarded to Pollution Prevention Specialist, who performed a follow up business inspection. The inspection revealed that the grease recycle bin was not being maintained properly. Stormwater education was provided to management staff, floor mats will be cleaned upstream of a grease interceptor, and grease recycle bin will be properly maintained. 10-18-17 Follow-up revealed that actions had been taken to address the deficiencies found in the previous inspection. The grease recycle bin was well cleaned, recommended oil sock downstream of grease bin had been installed.
2017-23	28-Nov-17	30-Nov-17	Pollution Hotline	No	No Yes	NA	No Action Needed	Campbell Ave	1339 Campbell Ave.	11-28-17 Pollution hotline reported that water was discharging out of the end of the trench that a contractor had excavated for a sewer tap. The reporter believes this discharge is sanitary sewage. City water staff determined that the discharge was not from a broken water line. 11:20AM Fecal coliform water quality samples were collected, results indicated zero presence of fecal coliform. City staff concluded that the newly installed trench had created a new avenue of travel for ground water. Not an illicit discharge.
2017-24	28-Nov-17	28-Nov-17	Follow-up inspection	No	No Yes	Wet Concrete	Education Technical Assistance	Campbell Ave	1340 Campbell Ave.	11-28-17 During a follow-up inspection of a possible IDDE at 1339 Campbell Ave. City Stormwater staff noticed a pile of dried up concrete in the flow line of a drainage swale, adjacent to a newly poured concrete driveway. The concrete had already hardened, there was no possible way to recover or contain the pollutants that had already been discharged to the MS4. The contractor was contacted by phone and educated on acceptable stormwater pollution prevention practices. City Ordinance and associated fines for violating stormwater standards were discussed.
2017-25	29-Nov-17	43068	Pollution Hotline	No	No Yes	Unknown	Add Treatment BMP	E. 3 <sup>rd</sup> / S. Lincoln Street Alleyway, adjacent/behind the credit union	NA	11-29-17 City resident reported an oily brown liquid that was dumped in the 2nd/3rd St. Alley near the credit union. Stormwater staff reported to the spill location, the liquid was not oil based, and was contained to potholes in the alley. City Staff returned with a vactor truck and removed the liquid.
2017-26	29-Dec-17	29-Jan-18	Erosion and Sediment Control Inspection	No	No Yes	Sediment		DelHur Industrial Site Development @ Critchfield Rd.	NA	12-13-17 (C+G Permit 16-18) Erosion and Sediment Control Inspection at Critchfield Industrial Site revealed several stormwater deficiencies. 12-13-17 Notice of Noncompliance Letter sent to DelHur Industries. In response to the letter, DelHur industries implemented additional BMPs e.g. erosion control matting, erosion control blankets, straw wattles, in addition to moving the monitoring site 500' east of its previous location, taking advantage of the a vegetative swale on an adjacent property to provide treatment. 1-29-18 Follow-up inspection, site determined to be in compliance, turbidity at sample point 12NTU.
2017-27	12-Dec-17	13-Dec-17	Pollution Hotline	No	No Yes	Vehicle Fluids	Education Technical Assistance	W. 5th St. (owner of vehicle), Truck Parked on south side of str 217 W. 5th St.		12-12-17 Pollution hotline reported oil leaking from old diesel truck that is always parked in road, and has been occurring for several years. 11AM 12-12-17 City Staff Performed a site visit, truck not present, owner at work (according to neighbor). 4:30PM 12/13/2017 Made contact with owner. Explained to the owner of the vehicle that a leaking truck had been reported to the pollution hotline, and that any leaking vehicle fluids from the truck would eventually end up in the City MS4. Provided stormwater education. He explained that he would likely not be able to repair the truck to prevent leaking diesel, however he agreed to park the leaking truck in his back yard, which does not drain to MS4.
2017-28	19-Dec-17	20-Dec-17	Staff Referral	Yes	Yes Yes	Sediment	Add BMP	Port Angeles Landfill	3501 W 18th St.	12-19-17 In the early morning, an estimated 100,000 gallons of stormwater runoff overtopped a stormwater storage swale at the Port Angeles Landfill and caused an estimate 150-300 CY of bluff material to erode down the bluff on to the shoreline north of the Port Angeles Landfill. Solid Waste staff periodically pump the content of the swale into the Landfill's stormwater conveyance system. Due to a staffing oversight on the morning of 12/19/2017, no Solid Waste personnel were present to operate the pump, resulting in an Illicit Discharge of turbid stormwater over the bluff. 10AM 12-19-17 City staff noticed that the storage swale was flooded and actively discharging turbid stormwater over the bluff. He immediately turned on the pump began pumping stormwater out of the storage swale, into the Landfill Stormwater conveyance system. 10:45AM the discharge was terminated. 12-20-17 City Staff built a hay bale berm to prevent additional stormwater from reaching the eroded area. 11AM City Staff put into service a float operated 6" diameter discharge pump, with high level floats set to prevent stormwater from bypassing the hay bale berm.

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2017-29	19-Dec-17	20-Dec-17	Erosion and Sediment Control Inspection	Yes	Yes	Yes	Sediment	Add / Improve BMP	Mt. Angeles View Project, Eunice St. Discharge Point	2313 Eunice St.	12-19-17 (WAR305600) Erosion and Sediment Control Inspection of Mt. Angeles View Development revealed several deficiencies. Equipment was not utilizing the construction entrance properly, bare soils were not stabilized, a silt fence around a stormwater inlet had failed and was discharging to a stormwater catch basin. Turbid discharge in excess of 1000NTU measured at the sites point of compliance. Contractor was contacted by City staff, informed of the ERTS violation, and instructed to take steps to reduce their turbid water discharge to below 25NTU. 12-20-17 Follow-up inspection revealed reduced Turbid discharge values (55NTU), contractor took steps to address the deficient BMPs.
2017-30	29-Dec-17	In Process	Erosion and Sediment Control Inspection	Yes	Yes	Yes	Sediment	Add / Improve BMP	Mt. Angeles View Project, Eunice St. Discharge Point	2313 Eunice St.	12-29-17 (WAR305600) Erosion and Sediment Control Inspection of Mt. Angeles View Development revealed several deficiencies. Concrete pumper truck was observed on unstabilized ground, Sinkhole found next to storm drain manhole, catch basin without silt sock, new unstabilized area near recently removed house, clogged and submerged catch basin on the corner of Whidby and Eunice. Contractor informed of ERTS violation, instructed to add/improve BMPs, Contractor implemented a method vegetated filtration which substantially reduced turbidity value at point of compliance.
2017-31	29-Dec-17	In Process	Building Inspection	No	No	Yes	Sediment	Education Technical Assistance	Hoch Construction Park Ave. Project	1134 E. Park Ave.	12-29-17 (BP 17-1196) Building Inspection revealed deficiencies in the projects onsite stormwater BMPs, resulting in the site being in violation of the City standards. City staff contacted the contractor by phone and followed up by email. Contractor was notified that the site was discharging turbid stormwater which exceeded the 25NTU permit threshold (164NTU). Stormwater education was provided to the Contractor, Contractor instructed to take measures to eliminate the discharge off of the property, stabilize the site to minimize mobilization of sediment off site, or filter runoff using approved BMPs, and to update the SWPPP.
2017-32	29-Dec-17	11-Jan-18	Erosion and Sediment Control Inspection	No	No	Yes	Sediment	Education Technical Assistance	Green Crow Campbell Ave PRD Phase 2A	Campbell Ave	12-29-17 (BP 17-04) Building Inspection revealed deficiencies in the projects onsite stormwater BMPs, resulting in turbid discharges at the site's point of compliance (166NTU). Contractor was in the process of resolving the issue, with plans to install a filter pond. 1-11-18 Discharge point plugged, and onsite stormwater rerouted through rapid sand filter and discharged to grassy swale. 1-11-18 Turbidity sampling resulted in 9.5 NTU value, IDDE issue resolved.
4255	5-Jan-17	5-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	15' east of the main, valve at the SW corner of 8th & Ennis St.	1366 E 8t St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4258	5-Jan-17	5-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	390' east of the 2" valve at Front and Jones.	1227 E Front St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4261	6-Jan-17	6-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	15' west of valve.	406 S Laurel	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4262	6-Jan-17	6-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	3' east of 2" valve in blacktop on Vine street.	430 Orcas Ave.	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4263	7-Jan-17	7-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	135' west of the valve at Peabody St.	330 E Vashon Ave	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4264	7-Jan-17	7-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	3' east of the valve at Vine street.	435 E 7th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4265	7-Jan-17	7-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	12' west of valve.	806 S E St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4266	8-Jan-17	8-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	108' west of the valve at Cherry St.	311 Columbus Ave	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4268	9-Jan-17	9-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	1 foot east of water tap to this address	1318 W 4th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4269	9-Jan-17	9-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	17' east of valve at the NW corner.	1022 S Peabody St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4270	9-Jan-17	9-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	150' north of valve at 5th street in alley.	417 S A St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4280	11-Jan-17	11-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	72' east of the valve at Albert St.	607 E 4th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4281	11-Jan-17	11-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	25' west of the valve at the NE corner.	237 W 3rd St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4290	12-Jan-17	12-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	24' east of valve at Lincoln St.	919 S Lincoln St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4295	14-Jan-17	14-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	8' east of valve.	512 S Penn	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4296	15-Jan-17	15-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	68' west of valve at Oak St.	204 W 4th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4297	16-Jan-17	16-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	22' west of valve at the NE corner of 5th and Laurel St.	101 E 5th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4298	17-Jan-17	17-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	24' west of valve.	522 S A St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4299	17-Jan-17	17-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	56' east of valve at G St.	1335 W 10th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4301	20-Jan-17	20-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	450' east of the valve at Peabody St.	436 Vashon Ave	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4302	20-Jan-17	20-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	244' east of valve at Francis St.	818 E 5th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4303	21-Jan-17	21-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	280' east of valve at Peabody St.	424 E 12th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4304	21-Jan-17	21-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	14' west of 2" valve.	603 S E St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4305	21-Jan-17	21-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	28' east of valve at L St.	1740 W 8th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4310	23-Jan-17	23-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	Next to valve.	704 East 4th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4311	24-Jan-17	24-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	18' west of valve.	239 W 5th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4313	24-Jan-17	24-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	90' from the valve at Francis St.	506 S Francis St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4314	24-Jan-17	24-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	1' east of valve.	417 S A St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4318	26-Jan-17	26-Jan-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	6' west of 8" valve 3' north of tee on 2" Cl.	536 E 11th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4330	3-Feb-17	3-Feb-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	70' west of valve under retaining wall.	1237 W 19th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4331	5-Feb-17	5-Feb-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	190' west of the valve at Oak St.	222 W 10th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4332	8-Feb-17	9-Feb-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	233' east of PRV vault.	1212 Craig Ave	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4340	13-Feb-17	13-Feb-17	Staff Referral	No	No	NA	Sediment	Water Main Repair	27' west of 2" valve at G St.	918 S G St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.

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4341	13-Feb-17	13-Feb-17	Staff Referral	No	No NA	Sediment	Water Main Repair	SW corner of 8th and M St. 8' north of M/H, and 3.5' deep.	1903 Westview Dr	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4372	5-Mar-17	5-Mar-17	Staff Referral	No	No NA	Sediment	Water Main Repair	110' east of valve at L St.	1732 W 15th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4373	6-Mar-17	6-Mar-17	Staff Referral	No	No NA	Sediment	Water Main Repair	10' north of fire hydrant.	138 W 4th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4495	10-Apr-17	11-Apr-17	Staff Referral	No	No NA	Sediment	Water Main Repair	20' west of valve.	104 Whidby Ave.	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4496	10-Apr-17	11-Apr-17	Staff Referral	No	No NA	Sediment	Water Main Repair	245' west of valve.	332 Whidby Ave	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4547	8-May-17	8-May-17	Staff Referral	No	No NA	Sediment	Water Main Repair	NE corner of 17th and C street. 5 feet west of valve.	1601 S C St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4554	15-May-17	15-May-17	Staff Referral	No	No NA	Sediment	Water Main Repair	20' west of the 2" valve.	2140 W 6th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4562	23-May-17	23-May-17	Staff Referral	No	No NA	Sediment	Water Main Repair	67' west of the valve at Pine St.	504 W 5th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4583	11-Jun-17	11-Jun-17	Staff Referral	No	No NA	Sediment	Water Main Repair	570' west of 2" valve that feeds the 4" PVC main.	408 Scribner Rd	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4601	23-Jun-17	23-Jun-17	Staff Referral	No	No NA	Sediment	Water Main Repair	190' west of valve at O street.	2427 W 16th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4609	7-Jul-17	7-Jul-17	Staff Referral	No	No NA	Sediment	Water Main Repair	103' west of the valve at 4th and Peabody.	321 E 5th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4616	14-Jul-17	14-Jul-17	Staff Referral	No	No NA	Sediment	Water Main Repair	3' east of valve at Francis St.	803 E 2nd St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4618	17-Jul-17	17-Jul-17	Staff Referral	No	No NA	Sediment	Water Main Repair	170' west of main valve.	1120 Water St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4654	31-Jul-17	31-Jul-17	Staff Referral	No	No NA	Sediment	Water Main Repair	South side of street.	836 E 2nd St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4663	8-Aug-17	8-Aug-17	Staff Referral	No	No NA	Sediment	Water Main Repair	85' west of valve at Francis St.	735 E 6th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4664	9-Aug-17	9-Aug-17	Staff Referral	No	No NA	Sediment	Water Main Repair	Blow off at end of 2" PVC main.	3515 Canyonedge Dr	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4734	20-Oct-17	21-Oct-17	Staff Referral	No	No NA	Sediment	Water Main Repair	SW corner of Lincoln St. and Whidby Ave.	2504 S Lincoln St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4819	18-Nov-17	18-Nov-17	Staff Referral	No	No NA	Sediment	Water Main Repair	40' south of main valve at the northwest property corner.	3607 Canyon edge	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4835	30-Nov-17	30-Nov-17	Staff Referral	No	No NA	Sediment	Water Main Repair	NE corner of 5th and Oak St. 4' west of 2" valve.	411 S Oak St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4846	5-Dec-17	5-Dec-17	Staff Referral	No	No NA	Sediment	Water Main Repair	35' west of valve at Chase and Orcas street.	2310 S Chase St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4857	11-Dec-17	11-Dec-17	Staff Referral	No	No NA	Sediment	Water Main Repair	185' west of the valve at Laurel St.	118 W 7th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4889	23-Dec-17	23-Dec-17	Staff Referral	No	No NA	Sediment	Water Main Repair	155' west of the valve at H street.	1516 W 7th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4899	27-Dec-17	27-Dec-17	Staff Referral	No	No NA	Sediment	Water Main Repair	180' west of valve at B street.	915 W 17th St	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
4907	28-Dec-17	28-Dec-17	Staff Referral	No	No NA	Sediment	Water Main Repair	204' east of the valve at B street.	821 W 10th	Water main break resulting in discharge of municipal water and sediment to MS4. Once notified, City water operations staff quickly responded to the issue, isolated the damaged water main to prevent further discharge, and made repairs.
677009	4-Nov-17	6-Nov-17	Staff Referral	Yes	Yes Yes	Sewage	Removed Blockage	14th / 15th Alley between B & C Street.	914 W 14th	Sewer spill occurred on 11/4/2017, sewage discharged from a manhole in the 14th/15th Street Alley because of a blockage in the downstream sanitary sewer line. Sanitary sewage flowed down the alley to a stormwater Catch Basin which discharges into Peabody Creek. The blockage was removed, and sanitary flows returned to normal.
<b>Total # of Events: 92</b>		<b># of Reports on Pollution Hotline: 12</b>		<b>Total # of G3: 10</b>						

City of Port Angeles | Private Stormwater Annual Inspections - 2017

Count	Development Title	Inspection Due Date	Inspection Date(s)	Initials	Maintenance Plan? Yes or No	Number of Structural BMPs Inspected?	Private Facility Submitted Check List Complete? Yes or No	Deficiencies found? Yes or No	Enforcement	Enforcement Resolution	Site Address	Contact Person responsible for maintenance	Contact Information	Notes:
1	Maloney Heights	Aug-17			Yes	13					Between N and O and 16th and 18th Streets			
	Habitat for Humanity	Aug-17	8/25/2017	VM	Yes	7	No	Yes	email	Partially Complete. Remediation plan and approved timeline in progress.	Off 16th St.	Wayne Richards (360) 477-9550	<a href="mailto:construction@habitatclallam.org">construction@habitatclallam.org</a>	1 lot under construction
	Serenity House	Aug-17	9/5/2017	VM	Yes	6	No	Yes	email	Partially Complete. Remediation plan and approved timeline in progress.	Off 18th St.	Kevin Harkins	<a href="mailto:kevin.j.harkins@serenityhouseclallam.org">kevin.j.harkins@serenityhouseclallam.org</a>	Site fully established, Yearly Inspections
2	Port of Port Angeles - ACTI Site	Oct-17	10/10/2017	VM	Yes	36	Yes	Yes	Email	Partially Complete. Remediation plan and approved timeline in progress.	2200 W 18th ST	Jesse Waknitz	<a href="mailto:jessew@portofpa.com">jessew@portofpa.com</a>	Site stabilized, no new construction. Yearly inspections
3	Family Medicine	Aug-17	9/6/2017	VM	Yes	12	Yes	No	NA	NA	240 E Front St	Stan Garlick	<a href="mailto:garlick@olympen.com">garlick@olympen.com</a> Cell Phone: 360-460-9481	Site fully established, Yearly Inspections
4	Peninsula College Parking Lot and Soccer Fields	Dec-17	12/13/2017	VM	Yes	Parking 28 Soccer 9	Yes	Yes	Email	Resolved 12/27/2017	1502 E Lauridsen Blvd	David Wagener	<a href="mailto:dwegener@pencol.edu">dwegener@pencol.edu</a>	Site fully established, Yearly Inspections
5	Peninsula College Allied Health Building	Dec-17	12/13/2017	VM	Yes	10	Yes	Yes	Email	Resolved 12/27/2017	1503 E Lauridsen Blvd	David Wegener	<a href="mailto:dwegener@pencol.edu">dwegener@pencol.edu</a>	Site fully established, Yearly Inspections
6	Pendley Estates	Oct-17	10/17/2017	VM	Yes	15	No	No	NA	NA	Southside of West 14th Street, across from Samara Drive	Peninsula Housing Authority	Kay Kassinger kkassinger@hacc-housing.org 360-452-7631 ext. *821 Phone: 360-417-7235	Site fully established, Yearly Inspections
7	Olympic Medical Center Parking Lots Columbia St, Medical Expansion	Sep-17	9/19/2017	VM	Yes	10	Yes	No	NA	NA	Columbia St and Caroline St	Rockie Lee	<a href="mailto:rlee@olympicmedical.org">rlee@olympicmedical.org</a> Phone: 360-417-7235	Site fully established, Yearly Inspections
8	Olympic Medical Center -Medical Office Building, 3 parking lots	Apr-18, Oct-18	NA		Yes	25					907 Georgiana St.	Rockie Lee	<a href="mailto:rlee@olympicmedical.org">rlee@olympicmedical.org</a> Phone: 360-417-7235	6 Month Inspection Interval Final'd 10/25/2017
9	Around Again (POPA)	Jul-17	7/6/2017	VM	Yes	3	No	No	NA	NA	2604 W. 18th St.	POPA - Jesse Waknitz	<a href="mailto:jessew@portofpa.com">jessew@portofpa.com</a>	Site fully established, Yearly Inspections
10	Blackball Ferry Terminal West Pier Replacement	Jul-17	7/19/2017	VM	No	6	No	Yes	Email	Resolved 10/27/2017	101 Railroad Ave.	Rian Anderson	<a href="mailto:randerson@cohoferry.com">randerson@cohoferry.com</a> (360) 461-7386	Site fully established, Yearly Inspections
11	Peninsula Behavioral Health 2016 Parking Lot	Aug-17	11/29/2017	VM	Yes	12	No	Yes	Email	Remediation plan and approved timeline in progress.	118 E. 8th St.	Wes Zimmer	<a href="mailto:wesz@peninsulabehavioral.org">wesz@peninsulabehavioral.org</a>	Site fully established, Yearly Inspections
12	North Olympic Library System	Dec-17	11/30/2017	VM	Yes	2	Yes	No	NA	NA	401 Orcus Ave	Brian Phillips	<a href="mailto:bphillips@nols.org">bphillips@nols.org</a>	Site fully established, Yearly Inspections
13	1001 E Front Street- Fors Parking Lot	Apr-17	4/5/2017	VM	Yes	1	No	No	NA	NA	1001 E Front St	Donald and Casi Fors Fors	(360) 457-6116	Site fully established, Yearly Inspections
14	Clallam County Courthouse Raingarden Retrofit	Dec-17	12/15/2017	VM	Yes	10	Yes	Yes	Email	Partially Complete. Remediation plan and approved timeline in progress.	223 E. 4th St.	Joel Winborn	<a href="mailto:jwinborn@co.clallam.wa.us">jwinborn@co.clallam.wa.us</a>	Site fully established, Yearly Inspections
15	McDonalds	May-17	5/24/2017	VM & RV	Yes	12	No	Yes	Yes	Resolved. Filters replaced 8/25.	1706 E. Front St.	Scott Pearson	<a href="mailto:scott@peninsulamcdonalds.com">scott@peninsulamcdonalds.com</a>	Site fully established, Yearly Inspections
Year end Stats:		Scheduled 15	Achieved 15				Passed 1st time 6/15	Deficient Sites 9/15	Resolved 3/9	In-progress 6/9	Compliant sites 15/15			
		100%					40%	60%	33%	67%	100%			

An S4F1 notification was made to Department of Ecology on January 4, 2011. Sampling activities for bacteria continue through an Inter Local Agreement with Streamkeepers of Clallam County. Sampling for fecal coliform is conducted monthly in Peabody and Tumwater Creeks. A larger sampling of sites in Port Angeles is conducted quarterly for both dry and wet weather conditions. Sample results are analyzed monthly and compared against the City IDDE Response Policy. This work has resulted in the identification (2016) and disconnection (2017) of a broken subsurface side sewer line leaking into a Storm main which was discharging into Peabody Creek. Attached is the 2017 sampling plan.

# City of Port Angeles project: Streamkeepers Grab-Sample Plan for 2017

Semi Annual Samples - Aim for 1 dry weather and 1 wet weather sample in each semi annual window (preferably on consecutive days), for a total of 8 samples at each location	Samples per event	Lab cost per event	Lab cost per year
Tumwater 0.0			
Tumwater 0.0 rep			
Tumwater 0.1			
Tumwater 0.1b (storm pipe)			
Tumwater 0.1a (u/s of storm pipe)			
Tumwater 0.8			
Tumwater 0.8D			
Tumwater 0.8E			
Tumwater 1.5			
Tumwater 4.4			
Valley 0.0 (when possible)			
Valley 0.4			
Valley 0.4 rep			
Valley 1.4			
Peabody 0.0 (when possible)			
Peabody 0.2			
Peabody 0.2 rep			
Peabody 0.2A			
Peabody 0.2B			
Peabody 0.4b (u/s of trailers)			
Peabody 0.4			
Peabody 0.4A			
Peabody 0.9			
Peabody 1.2			
Peabody 1.2A			
Peabody 1.4			
Peabody 2.9			
	27	702	
<b>Semi- Annual Marine Samples - same as above, fecal + entero</b>			
PA Harbor @Hollywood west			
PA Harbor @Hollywood central			
PA Harbor @Hollywood east			
PA Harbor @Peabody mouth			
PA Harbor @Peabody mouth rep			
	5	305	
<b>SUBTOTAL:</b>		1007	4028

**Non-Semi Annual Samples - Aim for 5 dry weather and 5 wet weather samples in non-semi-annual months, for a total of 10 samples at each location**

Peabody 0.0 (when possible)			
Peabody 0.2			
Peabody 0.2 rep			
Peabody 0.2A			
Peabody 0.2B			
Peabody 0.4b (u/s of trailers)			
Peabody 0.4			
Peabody 0.4A			
Peabody 0.9			
Peabody 1.2			
Peabody 1.2A			
Peabody 1.4			
Tumwater 0.0			
Tumwater 0.0 rep			
Tumwater 0.8			
Tumwater 0.8D			
Tumwater 0.8E			
Tumwater 1.5			
<b>SUBTOTAL:</b>	18	468	4680
<b>TOTAL:</b>			<b>8708</b>

**Selected Water-Quality Parameters From: 1/1/17 To: 12/31/17**

**Project: City of Port Angeles**

**Watershed: All**

SITE		Air	Water	DO	Specific (25°C)					Fecal	Entero-			
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
PA Harbor @ Peabody			PA Harbor @ Peabody mouth											
35492	5/15/2017	14:46		10						0.14	51	208		
39723	10/19/2017	10:02		10						0.33	245	52		
39879	11/13/2017	8:10		8						0.91	27	279		
39947	12/5/2017	8:01		8							3	10	U	
PA Harbor @Hollywood central			PA Harbor @Hollywood Beach central											
39725	10/19/2017	10:33		10						0.31	4	20		
39881	11/13/2017	8:30		8						0.91	32	85		
39949	12/5/2017	7:48		9							2	10	U	
PA Harbor @Hollywood east			PA Harbor @Hollywood Beach east end by Red Lion rooms											
39726	10/19/2017	10:28		10						0.31	2	73		
39882	11/13/2017	8:20		8						0.91	348	1616	J	
39950	12/5/2017	7:45		9							2	10	U	
PA Harbor @Hollywood west			PA Harbor @Hollywood Beach west end by City Pier											
39724	10/19/2017	10:38		10						0.31	6	98		
39880	11/13/2017	8:35		8						0.91	42	20		
39948	12/5/2017	7:51		9							2	10	U	

Multiple readings for a given Visit are averaged; if multiple methods were used, results are reported only for the most reliable method & QA compliance.

3/19/2018

If Storm\_Resample batches were taken during the Visit due to increasing flows, those subsequent results are not reported here and will have to be retrieved by a query.

Values are rounded to the number of decimals deemed appropriate for the method and reported as recorded, even if below listed reporting or detection limits (available on request).

DO Conc Correction: After 8/1/2008, Streamkeepers' YSI-85 protocol corrects in-field DO readings for on-site barometric pressure

\*\* in DO Concentration column means that corrected data cannot be reported because water temperature > 30C, salinity > 1.0, or either of these values or pressure is missing.

QUALIFIERS: EST = Field QA procedures not completely followed and/or documented, but program managers believe the data to be reasonably representative.

J-variants = Lab or project QC officer considers the result to be an estimate. N = analyte present but no reportable result. Unacceptable date (REJ) are not reported here.

G = Actual value likely greater than reported value, due to number too numerous to count by lab, or confluent, overlapping colonies; L = Actual value likely lower than reported.

U = Value is below the reporting limit; FD = stream was dry; FS = water present in stream but stagnant.

SITE			Air	Water	DO	Specific (25°C)		Turbidity		Precip24	Fecal	Entero-	Flow	Stage
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	(NTU)	type	(in)	Coliform	cocci	(cfs)
			(°C)	(°C)		(mg/L)	(uS)	(pss)				(Colonies/100ml)		
Peabody 0.0				Peabody @ mouth										
29523	1/31/2017	11:52		4								4		
35294	2/23/2017													
35380	3/27/2017	10:30		7								2		
35407	4/24/2017	10:15		9								58		
35491	5/15/2017	11:20		10						0.09				
35493	5/15/2017	14:40		11						0.14	752	J		
35594	6/8/2017	9:20		12						0.02	64			
35692	7/26/2017	13:53		17							206			
36444	8/30/2017	9:35		15							100			
36510	9/20/2017	10:10		11.5						0.02	1328	G		
39694	10/17/2017	8:55		12						0.02	160	J		
39722	10/19/2017	9:51		10.7		10.8		0.1	7	ProDSS	0.33	372		
39878	11/13/2017	8:02		8						0.91	112			
39946	12/5/2017	8:47		6							2	U		
Peabody 0.0a				Peabody LB outfall pipe @ mouth										
35522	5/15/2017	11:08		11							0.08			
39711	10/17/2017	9:00		10							0.02	276	J	
Peabody 0.0b				Peabody RB outfall pipe @mouth										
35523	5/15/2017	11:09		13							0.08			
39712	10/17/2017	9:00		10							0.02	84		

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3/19/2018

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SITE			Air	Water	DO	Specific (25°C)				Fecal	Entero-			
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU) type	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.2	Peabody @ 2nd St, above final culvert													
29524	1/31/2017	11:31		4							3			0.6
35295	2/23/2017	13:02		4							83			0.76
35381	3/27/2017	10:55		7							2	U		0.67
35408	4/24/2017	13:03		10							289			0.57
35490	5/15/2017	15:00		10						0.14	568	G		0.74
35516	5/15/2017	10:27		9						0.05	9			0.54
35595	6/8/2017	9:40		12						0.02	53			0.44
35606	6/8/2017	13:14		12						0.08	84			0.46
35693	7/26/2017	9:45		14							240			0.4
36445	8/30/2017	12:45		17							60			0.38
36511	9/20/2017	10:28		12						0.02	499	G		0.39
39697	10/17/2017	9:15		11						0.02	599	J		1
39698	10/17/2017	9:23												1.02
39699	10/17/2017	9:50												1.16
39700	10/17/2017	12:36												0.56
39721	10/19/2017	8:30								0.36				0.66
39761	10/19/2017	14:37		12.1		10.5		0	EST 32.5	ProDSS	0.24	499		0.91
39770	10/19/2017	15:21								0.23				0.77
39869	11/13/2017	13:03		8						0.87	80	J		1.1
39876	11/13/2017	13:32								0.87				1.08
39877	11/13/2017	7:53								0.91				1.18
39970	12/5/2017	8:14		5							2			0.69
40044	12/29/2017	16:50												1.38

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3/19/2018

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU) type	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.2a			Peabody input - storm pipe d/s of RV park office											
29525	1/31/2017	11:39		11							2	U		
35296	2/23/2017	13:06		10							2			
35382	3/27/2017	11:15		13							2	U		
35409	4/24/2017	13:17		12							2			
35517	5/15/2017	10:43		13						0.05	12			
35597	6/8/2017	9:58		13						0.02	2	U		
35694	7/26/2017	9:56		15							342			
36446	8/30/2017	12:56		15							24			
36512	9/20/2017	10:39		13.5						0.02	154			
39702	10/17/2017	9:30		11						0.02	592	G		
39764	10/19/2017	14:53		13						0.24	272			
39870	11/13/2017	13:16		10						0.87	2160	J		
39971	12/5/2017	8:21		10							2	U		

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SITE			Air	Water	DO	Specific (25°C)				Fecal	Entero-			
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.2b			Peabody u/s of storm pipe d/s of RV Park office											
29526	1/31/2017	11:41		4							2			
35297	2/23/2017	13:08		4							82			
35383	3/27/2017	11:16		7							2	U		
35410	4/24/2017	13:20		10							378			
35518	5/15/2017	10:42		9						0.05	10			
35598	6/8/2017	10:01		12						0.02	100			
35695	7/26/2017	9:56		15							148			
36447	8/30/2017	12:53		17							44			
36513	9/20/2017	10:32		12						0.02	514	G		
39703	10/17/2017	9:35		10						0.02	576	G		
39765	10/19/2017	14:48		12.1	7.6	10.5		0	EST	30	ProDSS	514		
39871	11/13/2017	13:20		8						0.87	138			
39972	12/5/2017	8:20		5							4			
Peabody 0.2d			Peabody storm pipe from gas station u/s of final culvert on LB											
39713	10/17/2017	9:20		11						0.02	88			
Peabody 0.2e			Peabody storm pipe (black) u/s of final culvert on RB											
39875	11/13/2017	13:12		10						0.87	6			

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SITE			Air	Water	DO	Specific (25°C)					Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.4				Peabody @u/s end of Peabody St culvert										
29528	1/31/2017	10:58		4							12			
35299	2/23/2017	10:30		4							16			
35385	3/27/2017	11:45		7							2	U		
35412	4/24/2017	13:48		10							2	U		
35521	5/15/2017	11:35		9						0.09	357			
35600	6/8/2017	10:15		13						0.02	4			
35697	7/26/2017	10:06		14							84			
36450	8/30/2017	13:14		16							52			
36515	9/20/2017	10:56		15.5						0.02	880	G		
39705	10/17/2017	12:44		11						0.04	490			
39769	10/19/2017	15:09		11.8	7.6	10.5		0	EST	24	ProDSS	360		
39874	11/13/2017	12:25		8						0.87	126			
39975	12/5/2017	8:32		4							2	U		

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.4a				Peabody input - storm pipe inside culvert @ Peabody St.										
29529	1/31/2017			8							2			
35300	2/23/2017	10:40		6							204			
35386	3/27/2017	11:30		8							16			
35413	4/24/2017	13:50		10							842	G		
35520	5/15/2017	11:30		13						0.09				
35601	6/8/2017	10:29		12						0.02	96			
35698	7/26/2017	10:11		14							2			
36449	8/30/2017	13:10		14							14			
36516	9/20/2017	10:55		11						0.02	26			
39706	10/17/2017	12:42		12						0.04	850			
39768	10/19/2017	15:13		13						0.23	706			
39873	11/13/2017	12:26		10						0.87	376			
39974	12/5/2017	8:37		10							8			

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.4b			Peabody ~80' d/s of Peabody St. culvert											
29527	1/31/2017	11:13		4							2			
35298	2/23/2017	13:13		4							52			
35384	3/27/2017	11:26		7							2	U		
35411	4/24/2017	13:28		10							2			
35519	5/15/2017	10:53		9						0.06	8			
35599	6/8/2017	10:11		12						0.02	86			
35696	7/26/2017	10:02		14							104			
36448	8/30/2017	13:07		16							50			
36514	9/20/2017	10:48		11.8						0.02	234			
39704	10/17/2017	9:40		11						0.03	860			
39767	10/19/2017	15:03		12	7.6	10.6		0	EST	27	ProDSS	486		
39872	11/13/2017	13:27		8						0.87	164	J		
39973	12/5/2017	8:30		6							2			

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 0.9				Peabody u/s of 8 St.										
29530	1/31/2017	14:13		4							2			
35301	2/23/2017	10:55		4							46			
35387	3/27/2017	11:45		7							2	U		
35414	4/24/2017	12:50		9							4			
35515	5/15/2017	12:36		10						0.1	664	G		
35602	6/8/2017	10:41		12						0.02	56			
35699	7/26/2017	10:31		14							80			
36451	8/30/2017	11:55		16							36			
36517	9/20/2017	11:21		11						0.02	72			
39707	10/17/2017	13:02		11						0.04	284	J		
39760	10/19/2017	15:46		11.3	7.9	10.6		0.1	EST	13	ProDSS	460		
39868	11/13/2017	12:20		8						0.87	58	J		
39969	12/5/2017	12:26		6							6			

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 1.2			Peabody u/s of storm pipe outfall @ Lauridsen Blvd											
29531	1/31/2017	13:58		3							2	U		
35302	2/23/2017	11:40		4							72			
35388	3/27/2017	12:11		7							2			
35415	4/24/2017	12:27		8							2	U		
35513	5/15/2017	11:57		10						0.09	706			
35604	6/8/2017	11:01		11						0.02	2			
35700	7/26/2017	10:52		14							48			
36452	8/30/2017	12:25		15							42			
36518	9/20/2017	11:47		10.2						0.02	4			
39708	10/17/2017	11:30		10						0.04	436			
39758	10/19/2017	15:34								0.22	256			
39866	11/13/2017	12:08		8						0.87	70			
39967	12/5/2017	12:35		6							6			

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 1.2c			Peabody storm flume d/s of Lauridsen Blvd installed 2014											
29532	1/31/2017	14:00		8							2			
35303	2/23/2017	11:44		5							80			
35389	3/27/2017	12:46		9							2			
35416	4/24/2017	12:32		10							124			
35514	5/15/2017	11:59		13						0.09	1800	J		
35603	6/8/2017	11:02		12						0.02	428	J		
35701	7/26/2017	10:54		14							138			
36453	8/30/2017	12:19		14							872	JG		
36519	9/20/2017	11:42		15.2						0.02	1600	G		
39709	10/17/2017	11:35		12						0.04	960	G		
39759	10/19/2017	15:30		13						0.22	1096	G		
39867	11/13/2017	12:09		10						0.87	228			
39968	12/5/2017	12:38		10							4			

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Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Peabody 1.4				Peabody @ ONP Visitor Ctr										
29533	1/31/2017	13:39		3							2	U		
35304	2/23/2017	11:13		4							2			
35390	3/27/2017	12:17		6							2			
35417	4/24/2017	12:05		8							2	U		
35512	5/15/2017	12:17		8						0.1	8			
35605	6/8/2017	11:33		11						0.02	20			
35702	7/26/2017	11:25		13							2	U		
36454	8/30/2017	11:09		14							6			
36520	9/20/2017	12:08		10.5						0.02	2	U		
39710	10/17/2017	11:10		10						0.04	108			
39757	10/19/2017	14:26		9.9	7.9	11		0.1	EST	10	ProDSS	44		
39865	11/13/2017	11:46		8						0.92	78	G		
39966	12/5/2017	11:39		5							8			
Peabody 2.9				Peabody 10' u/s of Coyote Run Ln										
39756	10/19/2017	13:47		8.9		11		0.1	EST	8	ProDSS	46		
39864	11/13/2017	11:32		7						0.92	2			
39965	12/5/2017	11:22		5							4			

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Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Tumwater 0.0				Tumwater d/s of Marine Dr										
29517	1/31/2017	12:07		3							2	U		
35289	2/23/2017	12:48		4							5			
35375	3/27/2017	13:40		8							3			
35402	4/24/2017	10:38		8							18			
35497	5/15/2017	13:49		8						0.12	172	G		
35589	6/8/2017	13:00		12						0.08	19			
35687	7/26/2017	13:35		16							39			
36439	8/30/2017	9:48		15							46			
36521	9/20/2017	9:49		10.3						0.02	57			
39714	10/17/2017	8:30		11						0.02	368	J		
39729	10/19/2017	11:17		9.7	8	11		0.1	9	ProDSS	263			
39885	11/13/2017	8:55		8						0.91	178			
39953	12/5/2017	9:16		5							2	U		
Tumwater 0.1				Tumwater u/s of Marine Dr, d/s of LB stormwater drain input										
35498	5/15/2017	14:00		9						0.13	576	G		
39730	10/19/2017	11:33	through											
39886	11/13/2017	9:08		8						0.91	200			
39954	12/5/2017	9:25		5							2			
Tumwater 0.1a				Tumwater @ 3rd St. u/s of LB storm drain input										
35500	5/15/2017	14:08		9						0.13	528	J		
39732	10/19/2017	11:38		9.6	8	11		0.1	9	ProDSS	198			
39889	11/13/2017	9:20		8						0.91	176	G		
39956	12/5/2017	9:28		6							2			

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SITE			Air	Water	DO	Specific (25°C)			Fecal	Entero-			Flow	Stage
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	(cfs)	
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)			
Tumwater 0.1b				Tumwater LB storm drain input @ 3rd St.										
35499	5/15/2017	14:05		13						0.13	854	G		
39731	10/19/2017	11:43		13						0.29	298	J		
39887	11/13/2017	9:15		9						0.91	102	G		
39955	12/5/2017	9:27		8							130			
Tumwater 0.8				Tumwater nr. 11 St., d/s of storm outflow channel										
29518	1/31/2017	12:32		4							2	U		
35290	2/23/2017	12:28		4							4			
35376	3/27/2017	13:21		8							2	U		
35403	4/24/2017	11:01		8							2	U		
35501	5/15/2017	13:27		10						0.11	600	J		
35590	6/8/2017	12:30		11						0.05	8			
35688	7/26/2017	13:25		14							32			
36440	8/30/2017	10:27		14							14			
36522	9/20/2017	9:27		9.5						0.01	20			
39715	10/17/2017	7:50		11						0.02	200	J		
39733	10/19/2017	12:00		11.6		10.7		0.1	55	ProDSS	0.28	334	J	
39888	11/13/2017	9:52		8						0.91	210			
39957	12/5/2017	9:45		5							4			
Tumwater 0.8c				Tumwater input - pool below storm pipe @ 11 St.										
36526	9/20/2017	9:15		12						0.01	30			

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Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Tumwater 0.8d				Tumwater input - storm outfall pipe into Tumwater @ 11 St.										
29520	1/31/2017	12:25		6							2	U		
35291	2/23/2017	12:25		4							6			
35377	3/27/2017	13:25		8							10			
35404	4/24/2017	11:08		10							2	U		
35502	5/15/2017	13:32		13						0.12	1096	J		
35591	6/8/2017	12:37		12						0.05	4			
35689	7/26/2017	13:05		13							6			
36441	8/30/2017	10:20		14							8			
36523	9/20/2017	9:05		11						0.01	20			
39716	10/17/2017	8:00		12						0.02	480	G		
39734	10/19/2017	12:06		12						0.28	308	J		
39890	11/13/2017	9:56		10						0.91	416			
39958	12/5/2017	9:40		7							2			

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-		
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
Tumwater 0.8e				Tumwater u/s of 11 St. storm outfall										
29521	1/31/2017	12:48		4							2			
35292	2/23/2017	12:24		4							2	U		
35378	3/27/2017	13:29		8							2			
35405	4/24/2017	11:11		8							4			
35503	5/15/2017	13:35		8						0.12	20			
35592	6/8/2017	12:44		12						0.05	4			
35690	7/26/2017	13:09		14							50			
36442	8/30/2017	10:17		14							18			
36524	9/20/2017	9:20		10						0.01	2	U		
39717	10/17/2017	7:55		9						0.02	44			
39735	10/19/2017	12:12		9.4		11.1		0.1	9	ProDSS	0.28	158		
39891	11/13/2017	10:02		7						0.91	236			
39959	12/5/2017	9:56		5							2	U		

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SITE			Air	Water	DO		Specific (25°C)				Fecal	Entero-	Flow	Stage
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	(cfs)	
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)			
Tumwater 1.5			Tumwater d/s of runoff ditch from SW side of Hwy 101											
29522	1/31/2017	13:06		4							4			
35293	2/23/2017	12:00		4							4			
35379	3/27/2017	13:02		8							2			
35406	4/24/2017	11:35		8							2			
35508	5/15/2017	13:12		8						0.11	230			
35593	6/8/2017	12:07		11						0.03	2			
35691	7/26/2017	12:05		13							4			
36443	8/30/2017	10:43		14							20			
36525	9/20/2017	8:45		9						0.01	2			
39718	10/17/2017	7:30		10						0.02	72			
39748	10/19/2017	12:38		9.6	8.1	11		0.1	27	ProDSS	198	G		
39859	11/13/2017	10:35		8						0.93	210			
39960	12/5/2017	10:22		5							2	U		
Tumwater 1.5a			Tumwater u/s of runoff ditch from SW side of Hwy 101											
35510	5/15/2017	13:10		8						0.11	98			
39752	10/19/2017	12:48		9.2	8.1	11		0.1	6	ProDSS	194			
39861	11/13/2017	10:28		7						0.92	250			
39962	12/5/2017	10:18		5							2			
Tumwater 1.5b			Runoff ditch to Tumwater Cr. from SW side of Hwy 101											
35509	5/15/2017	13:05		10						0.11	202	G		
39751	10/19/2017	12:43		11						0.28	232	J		
39860	11/13/2017	10:18		8						0.92	176			
39961	12/5/2017	10:13		5							4			

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SITE			Air	Water	DO	Specific (25°C)			Fecal	Entero-			Flow	Stage
Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	(cfs)	
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)			
Tumwater 4.4														
Tumwater u/s of 3142 Black Diamond Rd														
39755	10/19/2017	13:10		8.8		11.1		0.1	6	ProDSS	0.27	4		
39863	11/13/2017	11:00		6							0.92	14		
39964	12/5/2017	10:47		6								2		
Valley 0.0														
Valley @ estuary pedestrian bridge														
35494	5/15/2017	14:19		9							0.14	331	G	
39719	10/17/2017	8:46		11							0.02	400	J	
39727	10/19/2017	11:04		9.6	7.8	11.1		0.1	7	ProDSS	0.3	138		
39883	11/13/2017	8:44		8							0.91	134		
39951	12/5/2017	8:58		5								6		
Valley 0.4														
Valley @ 6th St, u/s of final culvert 220ft														
35495	5/15/2017	14:28		8							0.14	40		
39728	10/19/2017	10:51		9.4		11		0.1	7	ProDSS	0.3	106		
39884	11/13/2017	9:35		8							0.91	95		
39952	12/5/2017	9:06		5								2	U	
Valley 1.4														
Valley ~600' u/s of Hwy 101 where trail nears stream														
35511	5/15/2017	12:52		8							0.1	46		
39753	10/19/2017	13:25		9.6	8	11		0.1	EST	9	ProDSS	0.26	68	
39862	11/13/2017	11:10		8							0.92	76		
39963	12/5/2017	11:03		5								2	U	
WS-KCLM														
Weather Station - PA - Fairchild International Airport														
39976	12/3/2017	0:00									0.01			

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Visit_ID	Date	Start Time	Temp	Temp	pH	Concentration	Conductivity	Salinity	Turbidity	Precip24	Coliform	cocci	Flow	Stage
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU)	(in)	(Colonies/100ml)		(cfs)	
WS-KWAPORTA82				Weather station above Port Angeles HS										
39825	10/18/2017	6:00	through	23:00	:	precip = 2.3 in.;	Qualifier: None							
39826	10/18/2017	23:00	through	10/19/2017	9:53	:	precip = 0.05 in.;	Qualifier: None						
39827	10/19/2017	9:53	through	12:55	:	precip = 0.29 in.;	Qualifier: None							
39828	10/19/2017	12:55	through	16:20	:	precip = 0 in.;	Qualifier: None							

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