



Annual Report

Number	Permit Section	Question
1	S5.A	<p>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.6.</p> <p>Not Applicable</p>
2	S5.A	<p>Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)</p> <p>SWMP Plan for 2020_Final_2_03302020165924</p>
3	S5.A	<p>Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.</p> <p>Yes</p>
4	S5.A.5.b	<p>Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)</p> <p>Yes</p>
4a	S5.A.5.b	<p>Attach a written description of internal coordination mechanisms. (S5.A.5.b).</p> <p>Appendix A_Inter-dept. coordin_4a_03302020165924</p>
15	S5.C.1.c	<p>Continue to design and implement local development-related codes, rules, standards, or other enforceable documents to minimize impervious surfaces, native vegetation loss, and stormwater runoff, where feasible? See S5.C.1.c.i. (Required annually)</p> <p>Yes</p>
16	S5.C.1.c	<p>From the assessment described in S5.C.1.c.i(a), did you identify any administrative or regulatory barriers to implementation of LID Principles or LID BMPs? (Required annually)</p> <p>No</p>
20	S5.C.2	<p>Did you choose to adopt one or more elements of a regional program? (S5.C.2)</p> <p>Yes</p>
20a	S5.C.2	<p>If yes, list the elements, and the regional program.</p> <p>West Sound Stormwater Outreach Group (WSSOG) - Build general awareness, effect behavior change via: movie theater advertisements, poop toss game, PSSH handouts, etc.</p>
21	S5.C.2	<p>Attach a description of general awareness efforts conducted, including your target audiences and subject areas, per S5.C.2.a.i.</p> <p>2019 WSSOG Activities Report_21_03302020170634</p>

Number	Permit Section	Question
22	S5.C.2	Conducted an evaluation of the effectiveness of the ongoing behavior change program and documented recommendations as outlined in S.5.C.2.a.ii(b). (Required no later than July 1, 2020) Not Applicable
26	S5.C.2	Promoted stewardship opportunities (or partnered with others) to encourage resident participation in activities such as those described in S5.C.2.a.iii. Yes
26a	S5.C.2	Attach a list of stewardship opportunities provided. 2017-2021 Streamkeepers Agreem_26a_03302020170807
27	S5.C.3.	Describe in Comments field the opportunities created for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and updates of the Permittee's SWMP and the SMAP. (S5.C.3.a) The stormwater informational webpage on the City's website contains a direct link to the updated SWMP Plan along with a link to a digital form where public input on the SWMP is encouraged. In addition, City staff are available to the public for direct communication regarding stormwater, as described in the SWMP Plan.
28	S5.C.3.	Posted the updated SWMP Plan and latest annual report on your website no later than May 31. (S5.C.3.b) Yes
28a	S5.C.3.	List the website address in Comments field. https://www.cityofpa.us/255/Stormwater-Utility
29	S5.C.4.	Maintained a map of the MS4 including the requirements listed in S5.C.4.a.i-vii? Yes
30	S5.C.4.	Started mapping outfall size and material in accordance with S5.C.4.b.i? (Required no later than January 1, 2020) Yes
30a	S5.C.4.	Attach a spreadsheet that lists the known outfalls' size and material(s). COPA Stormwater Outfalls_map_G_30a_03302020171933
31	S5.C.4.	Completed mapping connections to private storm sewers in accordance with S5.C.4.b.ii? (Required no later than August 1, 2023) No
32	S5.C.4.	Developed an electronic format for map, with fully described mapping standards in accordance with S5.C.4.c? (Required no later than August 1, 2021) Yes

Number	Permit Section	Question
33	S5.C.5	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. Describe actions in Comments field. (S5.C.5.b) Yes
34	S5.C.5	Implemented an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges as described in S5.C.5.c. Yes
35	S5.C.5	Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.5.d.i. Yes
35a	S5.C.5	Cite field screening methodology in Comments field. The City's screening methodology consists of: business inspections, stream and creek walks, and stormwater infrastructure inspections. Results of the field inspections are used to select monitoring nodes. Primary indicator testing is performed at monitoring locations. If thresholds are exceeded, the area upstream from the monitoring site is flagged for further investigation. See the "2019 Screening Summary and Map Update.pdf" attachment for more details.
36	S5.C.5	Percentage of MS4 coverage area screened in the reporting year per S5.C.5.d.i. (Required to screen 12% on average each year.) 13
36a	S5.C.5	Cite field screening techniques used to determine percent of MS4 screened. The City was divided up into eight (8) roughly equal screening basins by the number of catch basins within the right of way. Each year, one basin is selected and screened using the methodology described above. See the "2019 Screening Summary and Map Update.pdf" attachment for more details and a map of the screening basins.
37	S5.C.5	Percentage of total MS4 screened from permit effective date through the end of the reporting year. (S5.C.5.d.i.) 83
38	S5.C.5	Describe how you publicized a hotline telephone number for public reporting of spills and other illicit discharges in the Comments field. (S5.C.5.d.ii) Posted on the City website (https://www.cityofpa.us/262/Reporting-Spills), advertised at public outreach events, and listed on handout materials.
39	S5.C.5	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.5.d.iii. Yes
40	S5.C.5	Implemented an ongoing program to characterize, trace, and eliminate illicit discharges into the MS4 per S5.C.5.e. Yes

Number	Permit Section	Question
41	S5.C.5	Municipal illicit discharge detection staff are trained to conduct illicit discharge detection and elimination activities as described in S5.C.5.f. Yes
42	S5.C.5	Attach a report with data describing the actions taken to characterize, trace, and eliminate each illicit discharge reported to, or investigated by, the Permittee as described in S5.C.5.g. The submittal must include all of the applicable information and must follow the instructions, timelines, and format described in Appendix 12. 2019 IDDE Inspection Listing S_42_03302020174843
43	S5.C.6.	Implemented an ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites per the requirements of S5.C.6.b.i-iii. Yes
44	S5.C.6.	Revised ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites per the requirements of S5.C.6.b.i-iii. (Required no later than June 30, 2022) Not Applicable
45	S5.C.6.	Number of adjustments granted to the minimum requirements in Appendix 1. (S5.C.6.b.i. and Section 5 of Appendix 1) 0
46	S5.C.6.	Number of exceptions/variances granted to the minimum requirements in Appendix 1. (S5.C.6.b.i., and Section 6 of Appendix 1) 0
47	S5.C.6.	Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.6.b.i. (S5.C.6.c.i) Yes
47a	S5.C.6.	Number of site plans reviewed during the reporting period. 128
48	S5.C.6.	Inspected, prior to clearing and construction, permitted development sites per S5.C.6.c.ii, 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? Yes
49	S5.C.6.	Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls per S5.C.6.c.iii. Yes
49a	S5.C.6.	Number of construction sites inspected per S5.C.6.c.iii. 47

Number	Permit Section	Question
49b	S5.C.6.	Inspected stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every 6 months per S5.C.6.c.iv? Yes
50	S5.C.6.	Inspected all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.6.c.v) Yes
51	S5.C.6.	Verified a maintenance plan is completed and responsibility for maintenance is assigned for projects prior to final approval and occupancy being granted. (S5.C.6.c.v) Yes
52	S5.C.6.	Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects). (S5.C.6.c.ii-iv)(S5.C.7.c.viii) 11
53	S5.C.6.	Achieved at least 80% of scheduled construction-related inspections. (S5.C.6.c.vi) Yes
54	S5.C.6.	Made Ecology's Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity available to representatives of proposed new development and redevelopment? (S5.C.6.d) Yes
55	S5.C.6.	All staff whose primary job duties are 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.6.e) Yes
56	S5.C.7.	Implemented maintenance standards that are as protective, or more protective, of facility function than those specified in the Stormwater Management Manual for Western Washington or a Phase I program approved by Ecology per S5.C.7.a? Yes
57	S5.C.7.	Updated maintenance standards specified in Stormwater Management Manual for Western Washington per S5.C.7.a? (Required no later than June 30, 2022) No
58	S5.C.7.	Applied a maintenance standard for a facility or facilities which do not have maintenance standards specified in the Stormwater Management Manual for Western Washington? If so, note in the Comments field what kinds of facilities are covered by this alternative standard. (S5.C.7.a) No
59	S5.C.7.	Verified that maintenance was performed per the schedule in S5.C.7.a.ii when an inspection identified an exceedance of the maintenance standard. Yes

Number	Permit Section	Question
59a	S5.C.7.	Attach documentation of maintenance time frame exceedances that were beyond the Permittee's control. Not Applicable
60	S5.C.7.	Implemented an ordinance or other enforceable mechanisms to verify long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities regulated by the permittee per (S5.C.7.b.i (a))? Yes
61	S5.C.7.	Annually inspected stormwater treatment and flow control BMPs/facilities regulated by the Permittee per S5.C.7.b.i(b) Yes
61a	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.b.i (b) Not Applicable
62	S5.C.7.	Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.7.b.ii) Yes
63	S5.C.7.	Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i) Yes
63a	S5.C.7.	Number of known municipally owned or operated stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i) 193
63b	S5.C.7.	Number of facilities inspected during the reporting period. 193
63c	S5.C.7.	Number of facilities for which maintenance was performed during the reporting period. 119
64	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.c.i. Not Applicable
65	S5.C.7.	Conducted spot checks and inspections (if necessary) of potentially damaged stormwater facilities after major storms as per S5.C.7.c.ii. Not Applicable
66	S5.C.7.	Inspected municipally owned or operated catch basins and inlets every two years or used an alternative approach? Cleaned as needed? (S.5.C.7.c.iii) Yes

Number	Permit Section	Question
66a	S5.C.7.	Number of known catch basins? 2681
66b	S5.C.7.	Number of catch basins inspected during the reporting period? 2251
66c	S5.C.7.	Number of catch basins cleaned during the reporting period? 2066
67	S5.C.7.	Attach documentation of alternative catch basin cleaning approach, if used. (S5.C.7.c.iii. (a)-(c)) Not Applicable
68	S5.C.7.	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.7.d) Yes
69	S5.C.7.	Documented 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.7.d – Required by December 31, 2022) Not Applicable
70	S5.C.7.	Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.7.e)
71	S5.C.7.	Implemented a Stormwater Pollution Prevention Plan (SWPPP) 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.7.f) Yes
72	S5.C.7.	Updated, if needed, SWPPPs according to S5.C.7.f no later than December 31, 2022. Not Applicable
73	S5.C.8	Adopted ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities per S.5.C.8.b.i. (Required by August 1, 2022) Not Applicable
74	S5.C.8	Established an inventory per S5.C.8.b.ii. (Required by August 1, 2022.) Not Applicable
75	S5.C.8	Implemented an inspection program S5.C.8.b.iii (Required by January 1, 2023). Not Applicable

Number	Permit Section	Question
76	S5.C.8	Implemented a progressive enforcement policy per S5.C.8.b.iv (Required by January 1, 2023). Not Applicable
77	S5.C.8	Attach a summary of actions taken to implement the source control program per S5.C.8.b.iii and S5.C.8.b.iv. Not Applicable
78	S5.C.8	Attach a list of inspections, per S5.C.8.b.iii, organized by the business category, noting the amount of times each business was inspected, and if enforcement actions were taken. Not Applicable
79	S5.C.8	Implemented an ongoing source control training program per S5.C.8.b.v? Not Applicable
80	S7	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A) Not Applicable
81	S7	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
82	S8	Submitted payment for cost-sharing for Stormwater Action Monitoring (SAM) status and trends monitoring no later than December 1, 2019 (S8.A.1); and no later than August 15 of each subsequent year? (S8.A.2.a.) Yes
83	S8	Notified Ecology by December 1, 2019 which option you selected: S8.A.2.a, or S8.A.2.b. Yes
84	S8	Submitted payment for cost-sharing for SAM effectiveness and source identification studies no later than December 1, 2019 (S8.B.1); and no later than August 15 of each subsequent year (S8.B.2.a or S8.B.2.c)? Yes
85	S8	Notified Ecology by December 1, 2019 which option you selected: S8.B.2.a, or S8.B.2.b? Yes
86	S8	If conducting stormwater discharge monitoring in accordance with S8.C.1, submitted a QAPP to Ecology no later than February 1, 2020? (S8.C.1.b and Appendix 9) Not Applicable
88	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

Number	Permit Section	Question
89	G3	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A. Yes
90	Compliance with standards	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
91	Compliance with standards	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a. Not Applicable
92	Compliance with standards	Attach a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d) Not Applicable
93	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
94	G20	Number of non-compliance notifications (G20) provided in reporting year. List permit conditions described in non-compliance notification(s) in Comments field. Not Applicable

Attachments:

View Files Attached to Submission

	DocDescr	DocName	DocExt	DocID	SubID	AppName
View	WAR045028_26a_03302020170807	2017-2021 Streamkeepers Agreem_26a_03302020170807	.pdf	923287	1715492	wqwebportal
View	2019 Construction Tracking.pdf	2019 Construction Tracking	.pdf	923297	1715492	wqwebportal
View	2019 IDDE General Awareness Staff Training.pdf	2019 IDDE General Awareness Staff Training	.pdf	923312	1715492	wqwebportal
View	WAR045028_42_03302020174843	2019 IDDE Inspection Listing S_42_03302020174843	.pdf	923294	1715492	wqwebportal
View	2019 Public Outreach Tracking.pdf	2019 Public Outreach Tracking	.pdf	923309	1715492	wqwebportal
View	2019 Screening Summary and Map Update.pdf	2019 Screening Summary and Map Update	.pdf	923295	1715492	wqwebportal
View	2019 SW Facilities Annual Inspections and Maintenance Performed with Work Order number reference.pdf	2019 SW Facilities Annual Inspections and Maintena	.pdf	923299	1715492	wqwebportal
View	WAR045028_21_03302020170634	2019 WSSOG Activities Report_21_03302020170634	.pdf	923285	1715492	wqwebportal
View	WAR045028_4a_03302020165924	Appendix A_Inter-dept. coordin_4a_03302020165924	.pdf	923282	1715492	wqwebportal
View	CESCL Certs_City Staff_Active 2018-2021.pdf	CESCL Certs_City Staff_Active 2018-2021	.pdf	923313	1715492	wqwebportal
View	WAR045028_30a_03302020171933	COPA Stormwater Outfalls_map_G_30a_03302020171933	.pdf	923291	1715492	wqwebportal
View	IDDE Training Slides_5.22.2019.pdf	IDDE Training Slides_5.22.2019	.pdf	923314	1715492	wqwebportal
View	Jan 24th Pres_Fliers.pdf	Jan 24th Pres_Fliers	.pdf	923310	1715492	wqwebportal
View	Permitted SW Facilities_2019 O&M Inspection Documentation Tracking List.pdf	Permitted SW Facilities_2019 O and M Inspection D	.pdf	923298	1715492	wqwebportal
View	Pollution Prevention Assistance_1719 report.pdf	Pollution Prevention Assistance_1719 report	.pdf	923301	1715492	wqwebportal
View	Port Angeles Watershed.pdf	Port Angeles Watershed	.pdf	923307	1715492	wqwebportal
View	PPA Partnership_IDDE Stormwater Education Tracking.pdf	PPA Partnership_IDDE Stormwater Education Tracking	.pdf	923300	1715492	wqwebportal
	Static Slides_Jan. 24th Presentation.pdf	Static Slides_Jan. 24th Presentation	.pdf	923311	1715492	wqwebportal

View						
View	Stormwater Utility map.pdf	Stormwater Utility map	.pdf	923308	1715492	wqwebportal
View	WAR045028_2_03302020165924	SWMP Plan for 2020_Final_2_03302020165924	.pdf	923281	1715492	wqwebportal
View	Water Quality Monitoring_StreamKeepers2019.pdf	Water Quality Monitoring_StreamKeepers2019	.pdf	923306	1715492	wqwebportal

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This is a copy of the City's Stormwater Management Program (SWMP) Plan. It defines what the City plans to do to reduce adverse stormwater runoff impacts on downstream receiving waterbodies.

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

Please let us know if you have any comments, ideas, or concerns! You can provide feedback directly to City Hall 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.

City of Port Angeles

Stormwater Management Program Plan

Revised: March 30, 2020



As required by the

Western Washington Phase II Municipal Stormwater Permit
State of Washington – Department of Ecology

Permit Number: WAR045028
Permit Cycle: 2019-2024

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- Appendix A: Public Outreach Plan Activity Matrix
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- 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 issued by the State of Washington's Department of Ecology (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 was renewed on August 1, 2013 for a five-year term (2013-2018), however, Ecology extended the permit an additional year into 2019. On August 1, 2019, Ecology updated and renewed the permit for another five-year term (2019-2024). The Permit authorizes the City to discharge from the municipal separate storm sewer system (MS4) to surface waters and ground waters of the state.

A Stormwater Management Program (SWMP) was developed by the City to meet the specific requirements of Special Condition S5 of the Permit: "Stormwater Management Program for Cities, Towns, and Counties." The SWMP Plan is a written set of planned actions and activities designed to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality.

The organization of the City's SWMP reflects the eight core components required by Special Condition S5 under the active Permit; the corresponding permit sections are provided in parentheses:

1. Stormwater Planning (S5.C.1)
2. Public Education and Outreach (S5.C.2)
3. Public Involvement and Participation (S5.C.3)
4. MS4 Mapping and Documentation (S5.C.4)
5. Illicit Discharge Detection and Elimination (S5.C.5)
6. Controlling Runoff from New Development, Redevelopment, and Construction Sites (S5.C.6)
7. Operation and Maintenance (S5.C.7)
8. Source Control Program for Existing Development (S5.C.8)

The City's SWMP Plan is updated and submitted to the Department of Ecology annually, as required. A digital copy of the SWMP Plan is available on the City's stormwater web page. Updates to the Plan for each calendar year are posted by March 31st, as required by the Permit

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. A annual report of actual activities performed is submitted annually to Ecology.

The public is encouraged to participate in the ongoing development and improvement of the SWMP. To provide input, contact the Department of Public Works and Utilities with questions, comments, or suggestions at:

Address: 321 East Fifth St, Port Angeles, WA 98362

Phone: (360) 417-4830 (Stormwater Hotline)
(360) 417-4745 (Illicit Discharge Hotline) ***Report a Spill***
(360) 417-4701 (City Stormwater Engineer)

Email: illicitdischarge@cityofpa.us

Website: <http://www.cityofpa.us> CLICK >> [Business... Stormwater Management Program](#).

Digital Copy: SELECT >> [Stormwater Management Program planning document \(PDF\)](#).

Web Form: SELECT >> [Stormwater Plan Survey](#)

1) STORMWATER PLANNING

The City is in the process of creating a Stormwater Planning Program designed to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters. During the current permit cycle, this program will be developed and implemented within the allowable timeframes to meet the requirements of the new 2019-2024 Permit.

a) STORMWATER PLANNING TEAM

Within the City, inter-departmental communication and coordination regarding stormwater management (i.e. code changes, permit compliance, low-impact development standards, illicit discharges, pollution prevention, education and outreach, permitting, tracking, permit compliance, etc.) has been well-established, as documented by the City's Inter-Departmental Coordination Mechanism Policy included in Appendix A. This Stormwater Permit Coordination Group (SWPCG) is being expanded upon to include a committee dedicated to inform and assist in the development, progress, and influence the Stormwater Planning Program. A written purpose statement is currently being developed and the City's Stormwater Planning Committee is scheduled to be convened by August 1st, 2020.

b) LONG-RANGE PLAN COORDINATION REPORT

During this permit Cycle, the City will be monitoring, evaluating, and describing in a report to Ecology how stormwater management needs and protection/improvement of receiving water health are (or are not) informing the planning update processes and influencing policies and implementation strategies.

The report shall describe the water quality and watershed protection policies, strategies, codes, and other measures intended to protect and improve local receiving water health through planning, or taking into account stormwater management needs or limitations.

Included in the City's 2020 annual report to Ecology (due on or before March 31, 2021), the City will respond to the series of Stormwater Planning Annual Report questions to describe how anticipated stormwater impacts on water quality were

addressed, if at all, during the 2013-2019 permit term in updates to the Comprehensive Plan (or equivalent) and in other locally initiated or state-mandated, long-range land use plans that are used to accommodate growth or transportation.

These same questions will be applied to the current permit cycle and used to generate a Long-range Plan Coordination Report to Ecology, due January 1st, 2023.

c) LID CODE-RELATED REQUIREMENTS

The City will continue to require Low-impact Development (LID) Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents, as needed. The intent being to make LID the preferred and commonly-used approach to site development. The local development-related codes, rules, standards, or other enforceable documents will be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, where feasible.

i) LID BARRIER ASSESSMENT

Annually, the City will assess and document any newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs since local codes were updated in accordance with Ecology's 2013 Permit, and the measures developed to address the barriers. If applicable, the assessment will describe mechanisms adopted to encourage or require implementation of LID principles or LID BMPs.

d) STORMWATER MANAGEMENT ACTION PLANNING (SMAP)

During this permit cycle, the City will develop a comprehensive stormwater planning approach that is focused on addressing impacts from the cumulative development in a watershed rather than on single site or subdivision impact. The purpose of this effort to determine:

- How the City can most strategically address existing stormwater problems, and
- How the City can meet future population and density targets while also protecting and improving conditions in receiving water.

The resulting SMAP will strategically identify approaches to accommodate future growth and development while preventing water quality degradation and/or improving conditions in receiving waters harmed by past development.

i) RECEIVING WATER ASSESSMENT

In order to develop and implement a strategic plan of action, the City will first identify receiving waters that are most likely to receive a benefit. To achieve this, the City will document and assess existing information related to our local receiving waters.

A tabulated watershed inventory that includes a brief description of the relative conditions of the receiving waters and the contributing areas will be consolidated,

per permit requirements, and submitted to Ecology by March 31st, 2022. The submittal will include a map of the delineated basins that references back to the watershed inventory table and identifies which receiving waters have a relatively low stormwater management influence and will not be included in the next step; prioritization.

ii) RECEIVING WATER PRIORITIZATION

Informed by the assessment of receiving water conditions, and other local and regional information, the City will develop and implement a prioritization method and process to determine which receiving waters will receive the most benefit from implementation of stormwater facility retrofits, tailored implementation of SWMP actions, and other land/development management actions. The retrofits and actions shall be designed to:

- Conserve, protect, or restore receiving waters through stormwater and land management strategies that act as water quality management tools,
- reduce pollutant loading, and 3) address hydrologic impacts from existing development as well as planned for and expected future buildout conditions.

This prioritized and ranked list of receiving waters will be documented no later than June 30, 2022, along with the process used to identify high priority receiving waters. Additionally, the ranking process will include the identification of high priority catchment area(s) for focus of the Stormwater Management Action Plan (SMAP).

iii) SMAP DEVELOPMENT

In this step, the City will develop an SMAP for at least one high-priority catchment area that will:

- Identify specific stormwater management actions to protect water quality in the selected receiving water, and
- Determine an appropriate schedule and budget source(s) for implementing the activities and projects identified.

As required by the Permit, this SMAP will be developed by March 31st, 2023 and will include the following:

1. A description of the stormwater facility retrofits needed for the area, including the BMP types and preferred locations.
2. Land management/development strategies and/or actions identified for water quality management.
3. Targeted, enhanced, or customized implementation of stormwater management actions related to permit sections within section S5 of the Permit, including:
 - a. IDDE field screening,
 - b. Prioritization of Source Control inspections,
 - c. O&M inspections or enhanced maintenance, or

d. Public Education and Outreach behavior change programs.

Identified actions will support other specifically identified stormwater management strategies and actions for the basin overall, or for the catchment area in particular.

4. If applicable, identification of changes needed to local long-range plans, to address SMAP priorities.
5. A proposed implementation schedule and budget sources for:
 - a. Short-term actions (accomplished within 6 years)
 - b. Long-term actions (accomplished within 7-20 years)
6. A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

2) PUBLIC EDUCATION AND OUTREACH

The City’s public education and outreach program has been developed consistent with the original Permit goal: “to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.” The program’s foundational goals are to:

- build general awareness within the community about methods to address and reduce impacts from stormwater runoff,
- effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts,
- create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.

The City is a member of the West Sound Stormwater Outreach Group (WSSOG); a regional group facilitated by Kitsap County that consolidates resources, knowledge, and experience in an effort to achieve a robust, engaging, and consistent education and outreach program. Regionally developed strategies and materials are tailored to meet the City’s needs and implemented locally.

a) GENERAL AWARENESS

At a minimum, the City will annually select one target audience from the list below and implement an education and outreach program designed to provide general awareness regarding stormwater issues and solutions. The content of the program will be relevant to the target audience selected and will be implemented on an ongoing or strategic schedule. The target audiences included in the permit and relevant subject areas to be covered are detailed below.

General Public or Businesses

Including overburdened communities, or school age children and including home-based or mobile businesses, respectively.

Subject areas:

- General impacts of stormwater on surface waters, including impacts from impervious surfaces.
- Low impact development (LID) principles and LID BMPs.

Land Development Professionals

Engineers, contractors, developers, or land use planners.

Subject areas:

- Technical standards for stormwater site and erosion control plans.
- LID principles and LID BMPs.
- Stormwater treatment and flow control BMPs/facilities

The following is a list of means and methods the City may employ in their annual targeted education and outreach program:

- **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>> Departments...Public Works & Utilities...Divisions...Stormwater Utility). 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.
- **Presentations / Meetings:** Annually, the City may hold public meetings to discuss the stormwater management program plan, stormwater management requirements, permitting, stormwater templates, ordinances, LID, etc. In these meetings we may 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 local interest groups such as Streamkeepers, EcoNet, and the North Peninsula Builders Association.
- **Informational handouts:** Take-home fliers and brochures and will be made available to the public 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 new brochures and other informational materials are developed, electronic copies will be made available through the City’s stormwater webpage.
- **Media advertisements:** The City may periodically place stormwater-related information in the local newspaper (Peninsula Daily News), on paid cable and satellite, and at local movie theatres. 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 media advertisements may be made available through the City’s stormwater webpage.

- **Utility bill mailers:** One month of the year, typically October, educational mailers will be sent out with the monthly utility bills, thereby reaching 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 2020 utility bill mailer may feature topics such as: LID code update, BMPs, dog waste, car washing, and natural yard care.
- **Local event participation:** 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. Typical 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.

A matrix has been prepared to show planned activities for the current year and their relationship to the target audiences. This matrix is attached as Appendix B to this document. Updates of actual education and outreach activities performed will be provided with the Annual Report for the year.

In addition to the means and methods listed above (whose primary purpose is to provide stormwater education and meet permit requirements), throughout a typical year, the City also indirectly provides education outreach, such as:

- **Pollution prevention site visits:** The City receives grant funding through the State Department of Ecology to support a Pollution Prevention Specialist position. This person schedules 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. Under the current permit cycle, Source Control is now a permit condition and starting in Jan. 2023, this program will become an active component to the City’s overall stormwater management program. See Section 8 for more details.
- **Illicit discharge information for the general public:** General information regarding illicit discharges to stormwater is provided to the public in an ongoing manner under the City’s IDDE program. Information includes 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). See Section 5 for more details.

- **Direct mail:** Mailers designed to address specific stormwater education goals or stormwater ordinance updates may be sent directly to a specific target audience or City wide (i.e. car washes, golf courses, LID code changes, etc.). The audience will be selected based on classification in directories such as telephone books, web searches, or utility information.
- **BMP and LID incentives programs:** the City will continue to implement a stormwater rebate program that will offer financial incentives 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 City's Stormwater webpage.
- **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.
- **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.

b) BEHAVIOR CHANGE

At a minimum, the City will annually select one target audience and one Best Management Practice (BMP) from the list below and implement an education and outreach program designed to effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.

Target Audiences

Residents, landscapers, property managers/owners, developers, school age children, or businesses (including home-based or mobile businesses).

Best Management Practices (BMPs):

- Use and storage of: pesticides, fertilizers, and/or other household chemicals.
- Use and storage of: automotive chemicals, hazardous cleaning supplies, carwash soaps, and/or other hazardous materials.
- Prevention of illicit discharges.
- Yard care techniques protective of water quality.
- Carpet cleaning.
- Repair and maintenance BMPs for: vehicles, equipment, and/or home/buildings.
- Pet waste management and disposal.

- LID Principles and LID BMPs.
- Stormwater facility maintenance, including LID facilities.
- Dumpster and trash compactor maintenance.
- Litter and debris prevention.
- Sediment and erosion control.
- (Audience specific) Source control BMPs (refer to S5.C.8).
- (Audience specific) Locally-important, municipal stormwater-related subject area.

As required by the permit, behavior change effectiveness studies will be performed at the time intervals specified. The City anticipates continuing to meet behavior change and program evaluation requirements in collaboration with the regional West Sound Stormwater Outreach Group (WSSOG), facilitated by Kitsap County. The City's inter-local Agreement with Kitsap County was re-signed at the beginning of the year through Dec. 2022.

Tailoring of the program to meet the City's needs may be necessary to ensure the content is applicable to Port Angeles. Results from the effectiveness study will be used to optimize the strategy and schedule of our existing education and outreach program. Social marketing practices and methods will be incorporated, and a program evaluation plan will be developed and implemented to monitor ongoing performance. Progress reports regarding the program evaluation results and improvements will be submitted to Ecology at specified intervals.

c) STEWARDSHIP

Empowering and encouraging local citizens to take ownership in their community is known to have long-term positive impacts that can be felt for generations to come. The permit requires the City provide and advertise stewardship opportunities and/or partner with existing organizations (including nonpermittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and education activities. To meet this permit requirement, the City intends to continue its partnership with *Streamkeepers of Clallam County*; a citizen-based watershed monitoring program that provides volunteer opportunities and project assistance in the effort to protect and restore the local watersheds in Clallam County. However, new ideas for new partnerships and ways to support local stewardship opportunities are always welcome and can be submitted to the City's Stormwater Engineer.

d) 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, where applicable:

- 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.

3) 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 City seeks public involvement and participation in developing and managing stormwater within the community. The permit describes ongoing opportunities for participation may be provided through advisory councils, public hearings, watershed committees, developing rate-structures, or other similar activities. Ways to engage and include overburdened communities, as defined in the permit, will be considered when providing a means for involvement. Currently, common ways the public have opportunities for participation are:

- 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 page (<http://www.cityofpa.us> CLICK >> Departments.... Public Works & Utilities.... Divisions.... Stormwater Utility) includes an updated copy of the SWMP, encourages public involvement, elicits feedback, 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 are notified, as required, and will have a chance to comment during the hearings.

- Engineering counter handout: The SWMP is available at Cty Hall in the Public Works and Utilities (PW&U) reception area.
- Stormwater workshops: The City stormwater engineer may hold public information sessions on the stormwater management program to local professionals, the public, and stakeholder groups such as Streamkeepers, EcoNet, and North Peninsula Builders Association.

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 Ecology, the SWMP, and other submittals required by the Permit are made available to the public on the City’s stormwater webpage. The documents are 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.

4) MS4 MAPPING AND DOCUMENTATION

Accountability of a municipality’s existing and developing stormwater network is necessary to build upon the past, maintain what’s existing, and plan for the future. In the late 90’s and early 2000’s, the City began collecting field stormwater infrastructure data and recording it electronically using data management and spatial mapping software. Today, the City’s inventoried and mapped stormwater system consists of approximately:

- 65 miles of stormwater conveyance
- 2,600 catch basins
- 170 outfalls
- 190 treatment and flow control facilities

Maintaining accountability and updating the mapping system is an ongoing collaborative effort that relies heavily on communication and established information processing pathways.

a) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) 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 storm drain manholes, catchbasins, outfalls, pipes, ditches, culverts, detention ponds, treatment facilities, 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 2019.

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 as part of the program's ongoing refinement process. During the course of normal business, Stormwater Operations staff are in the process of collecting and recording more detailed information specifically regarding outfalls such as material type, diameter, condition, etc.

ii) NEW CONNECTIONS TO THE MS4

The City continuously updates the stormwater GIS with all new connections or infrastructure permitted or otherwise 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 four west side retention basins which provide an unmeasured level of infiltration: Lincoln Park Pond, Big Boy Pond, M & 10th St. Wetland, and the 10th and N St. Quarry). All of these areas have overflow structures that allow stormwater 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.

b) AVAILABILITY OF INFORMATION

The City's stormwater mapping with associated infrastructure information is available to anyone at anytime on the City's website or via the following web address:

<https://pawa.maps.arcgis.com/apps/webappviewer/index.html?id=e58c0d47915c44cf833174513da11086>

Additionally, City staff are available by appointment to provide assistance with navigating the GIS mapping database and in providing more-detailed project specific information, if available.

Upon request, and to the extent appropriate, the City is able provide mapping information to federally recognized Indian Tribes, municipalities, and other Permittees, however, depending on the extent of the request, the City may recover reasonable costs associated with fulfilling these mapping information requests.

Upon request, the City can provide available stormwater maps to Ecology. The City can provide the required mapping information in electronic format that meets or

exceeds Ecology's GIS mapping standards, with the exception of metadata, which the City does not have available in electronic format at this time.

5) ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

An illicit discharge is any direct or indirect discharge into the City's stormwater system that is not comprised entirely of stormwater, with some exceptions explicitly described in the Phase II permit and reiterated in municipal code. This section of the stormwater management program is designed to prevent, detect, characterize, trace, and eliminate illicit discharges to the City's municipal separate storm sewer system (MS4).

a) IDDE POLICY AND PROCEDURES

In 2010, the City developed a written IDDE Response Policy and Procedure Manual for the Department of Public Works and Utilities. This manual details the City's standard operating procedures for reporting, responding, and correcting or removing illicit connections, spills, or other illicit discharges, whether suspected or confirmed. The most recent comprehensive update to the policy occurred in Dec. 2014, however, a re-evaluation and update is planned during the current permit cycle to ensure the City's policy is consistent with current techniques, methods, and standards. A copy of this policy is included as **Appendix B** to this document. In compliance with the Permit, implementation of this Policy will continue through the 2019-2024 permit cycle. Each element is discussed in the following sections.

b) IDDE EDUCATION

The City will primarily utilize its established Education and Outreach Program, as described in Section 2, to proactively disseminate information about illicit discharges, associated hazards, and improper disposal of waste. Additional education opportunities are taken under the City's Source Control Program (Section 8) and, reactively, during IDDE investigations.

c) ILLICIT DISCHARGE ORDINANCE

The City developed a comprehensive stormwater ordinance including an illicit discharge provision for the MS4 (PAMC 13.63). The ordinance was written to satisfy the criteria listed in the original Permit, including: illegal discharges, allowable discharges, categories of discharge identified as significant sources of pollution to waters of the State, escalating enforcement procedures, and enforcement strategies. The ordinance was passed by the City Council on June 16th, 2009. Additional permit driven updates to the stormwater code were enacted on December 20th, 2016.

d) ILLICIT DISCHARGE DETECTION

Within the City's IDDE program, mechanisms for the detection and identification of non-stormwater discharges and illicit connections have been established and are being implemented.

i) FIELD SCREENING AND POTENTIAL SOURCES

The City's established field screening methodology is described in full detail in the City's IDDE Response Policy, attached in [Appendix B](#), and in the City's IDDE screening strategy that is updated annually and submitted to Ecology as part of the annual report.

Prioritization of receiving waterbodies was completed on February 12, 2010. Prioritization is based on the Department of Ecology's 303d list, as well as the significance of the waterbody for potential salmon recovery.

303(d) listed waterbodies

- 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

Starting in 2014, the City was broken up into 8 annual screening basins based on equal distribution of stormwater infrastructure. This enabled the City to begin annually screening, on average, 12.5% of its MS4 system for illicit connections and discharges. When a basin contains or borders a creek, a field assessment of the creek from its outfall to the basin limit is performed as part of the screening program. Field assessments of the Peabody, Tumwater, Valley, Mill, Dry, White, and Ennis Creeks have been completed at least once within City limits. 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". To date, 83% of the City's MS4 has been screened for illicit discharges and connections.

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.

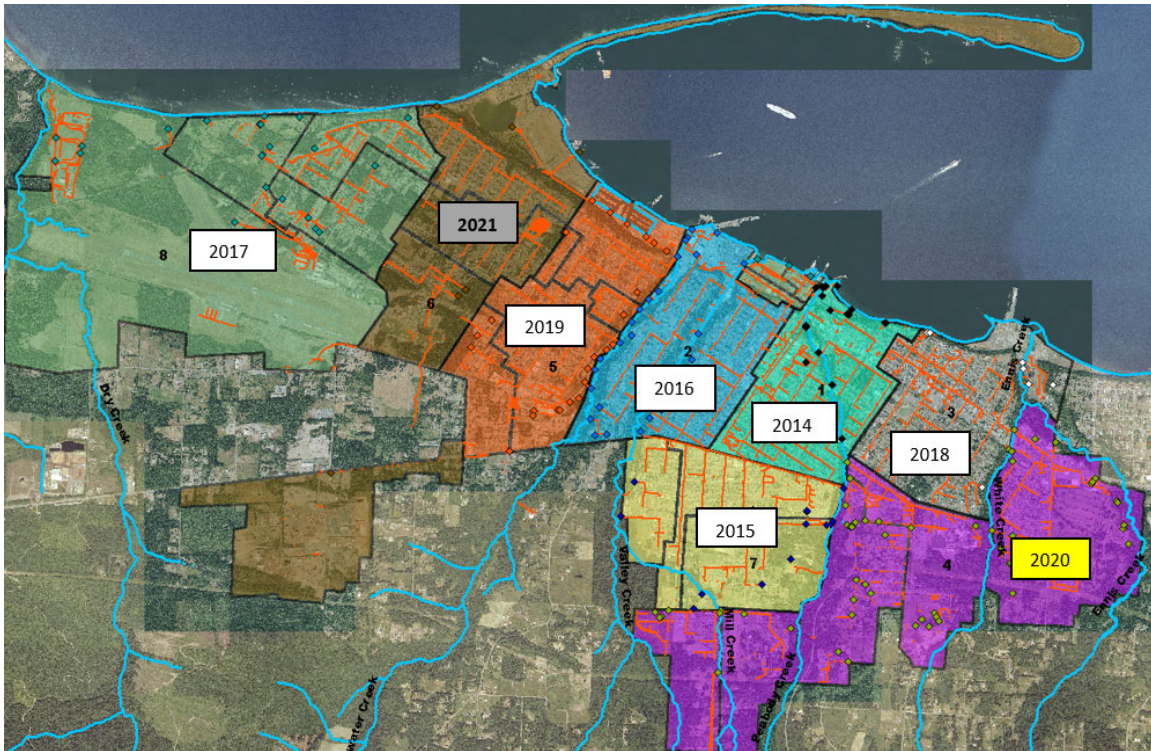


Figure 1. IDDE Screening Strategy: Screening basin boundary map and schedule.

ii) HOTLINE FOR PUBLIC REPORTING OF DISCHARGES AND SPILLS

The City’s Illicit Discharge Hotline (360-417-4745) is available for public reporting of discharges and spills. Outside of traditional working hours, this number is forwarded to the Public Works On-Call number for after-hours response. The hotline number will be published with all stormwater information and is available on the City’s stormwater website. 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. Direct reporting via email is also available: illicitdischarge@cityofpa.us. Both the hotline and email are forwarded directly to City staff to ensure a timely response.

iii) IDDE STAFF TRAINING

Municipal staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, improper disposal, and illicit connections are specifically trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques, or requirements. The City documents and maintain records of training provided and staff trained. Refresher training for City field staff is performed annually.

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 are provided on-going annual IDDE

trainings. This training is intended to educate staff members in the basics of the City's policy, IDDE identification, and the proper procedures for reporting to response teams.

e) *ILLICIT DISCHARGE RESPONSE*

Following IDDE detection or notification, the City's response plan includes characterization, threat assessment, source tracing, discharge elimination or disconnection, spill clean-up, and reporting.

i) NATURE OF DISCHARGE

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.

ii) SOURCE TRACING

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. An inter-local agreement with Streamkeepers of Clallam County facilitates ongoing sampling of priority areas identified in the contaminate survey alongside routine sampling of Tumwater and Valley Creeks.

iii) DISCHARGE ELIMINATION

Once identified, sources of illicit discharges and illicit connections will be eliminated using all allowable means made available by municipal code. If necessary, escalating enforcement and legal actions will be used if discharge elimination/disconnection cannot be achieved voluntarily and within allowable frames.

iv) PERMIT COMPLIANCE TIMEFRAMES

Regarding IDDE response, Permit compliance is achieved by meeting the following timelines:

- Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.
- Investigate (or refer to the appropriate agency with the authority to act) within 7 days, on average, any complaints, reports, or monitoring information that indicates a potential illicit discharge.
- Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.
- Upon confirmation of an illicit connection, use the compliance strategy in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.

f) RECORDKEEPING

The City will track the following information, as required by the 2019-2024 Permit:

1. Jurisdiction name and permit number
2. Date incident discovered or reported to you
3. Date of beginning your response
4. Date of end of your response
5. How was the incident discovered or reported to you?
6. Discharge to MS4?
7. Incident Location
8. Pollutants Identified
9. Source or Cause
10. Source tracing approach(es) used
11. Correction/elimination methods used
12. Field notes, explanations, and/or other comments

More details regarding the information tracked is described in Appendix 12 of the Permit.

In years past, reporting of illicit discharges were tracked using the form developed by the Center for Watershed Protection and incorporated into the City's IDDE Policy. To include all the recently required information listed above, the existing form may need to be updated or the City will begin using Ecology's WQWebIDDE form. 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 to Ecology.

6) CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

The City has developed and will continue to implement and enforce a program to reduce pollutants in stormwater runoff from new development and redevelopment construction projects, in accordance with Appendix 1 of the Permit. The program will apply to both private and public development, including transportation projects.

a) STORMWATER ORDINANCE REGULATING DEVELOPMENT

The City developed and adopted an ordinance that addresses runoff from new development, redevelopment, and construction site activities at sites 2,000 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. For more details, review Port Angeles Municipal Code, Section 13.63.

In conjunction with the Stormwater Ordinance, the City has developed and implemented a permitting program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. The program is being applied to development or re-development projects with greater than or equal to 7,000 sq. feet of land disturbance or projects that install 2,000 sq. feet of new or replaced hard surface. The program applies to both private and public development, including transportation projects. 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, USSG).

i) MINIMUM REQUIREMENTS, TECHNICAL THRESHOLDS, AND DEFINITIONS

The minimum requirements, technical thresholds, and definitions in Appendix 1 of the permit have been in-effect in Port Angeles since 2009. As required by the previous Permit, the lowered stormwater management thresholds were adopted and enforced January 1st, 2017.

To ensure the City's program satisfies the State's requirements under Chapter 90.48 RCW regarding water quality protection and reducing discharge of pollutants, the City utilizes Ecology's Stormwater Management Manual for Western Washington (SWMMWW) for:

- Site planning requirements
- BMP selection criteria
- BMP design criteria
- BMP infeasibility criteria
- LID competing needs criteria
- BMP limitations

The City has utilized the SWMMWW since 2009 to meet these permit requirements.

ii) **LEGAL AUTHORITY TO INSPECT PRIVATE FACILITIES**

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

ii) **LID REQUIRED**

As of December 31, 2016 the City updated its development codes to require LID where feasible, as determined by the SWMMWW criteria.

iii) **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.

b) PERMITTING

The City has developed a permitting process with plan review, inspection, and enforcement capability as described herein. The permitting process is applied to both private and public projects that consist of greater than or equal to 7,000 sq. feet of land disturbance or projects that install 2,000 sq. feet of new or replaced hard surface. Permitting 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 (USSG), 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 Ecology and the City.

ii) **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.

iii) **NOTICE OF INTENT**

When applicable and during permitting, the City directs applicants also triggering Ecology's Construction Stormwater General Permit (CSWGP) and Industrial Stormwater General Permit (ISWGP) thresholds to submit a Notice of Intent (NOI) with Ecology. 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. In

instances where a development project is covered by both local and State permits, the City continues to enforce local ordinances.

c) INSPECTIONS

Construction related inspections required by the City's Phase II Permit include pre-construction, during construction, and post construction site visits, where applicable. Follow-up inspections may be warranted if a project does not meet minimum standards or is in violation of their permit requirements. Additionally, the City may perform inspections of treatment or flow control facilities during installation and connection to the City's MS4.

i) PRE-CONSTRUCTION INSPECTIONS

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 are inspected by qualified personnel prior to permitting and before commencement of land disturbing activities.

ii) DURING CONSTRUCTION INSPECTIONS

Qualified City staff inspect all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Escalation of enforcement is described in Ordinance and is implemented when necessary.

The City inspects new residential developments at least once every six-months for maintenance needs and compliance with development standards, until 90% of the lots are constructed or when construction has stopped and the site is fully stabilized.

iii) POST-CONSTRUCTION INSPECTIONS

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 agreement and plan is completed for all treatment and flow control facilities and that responsibility for maintenance is clearly assigned. Enforcement is used as necessary.

iv) INSPECTION COMPLIANCE

The City maintains permit compliance by the presence and records of an established inspection program designed to inspect all sites and achieving at least 80% of scheduled inspections.

v) 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.

d) **STAFF TRAINING**

Staff whose primary job duties are 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. Follow-up training is provided as needed to address changes in procedures, techniques or staffing. The City documents and maintains records of the training provided and the staff trained.

e) **RECORDKEEPING**

The City keeps and maintains permitting records as required by Ecology's permit and State laws. This includes inspection reports, warning letters, notices of violations, and other enforcement actions. Records of maintenance inspections and maintenance activities are also maintained.

7) OPERATIONS AND MAINTENANCE

The City has developed and implemented a program to regulate and conduct maintenance activities to prevent or reduce stormwater impacts. The program elements are described below.

a) **MAINTENANCE STANDARDS**

The City has adopted Ecology's Stormwater Management Manual for Western Washington (SWMMWW), including maintenance standards. The City uses Ecology's maintenance standards to determine if and when maintenance is required. It is important to note that the maintenance standard is not a measure of the facility's required condition at all times between inspections and an exceedance of the maintenance standard between inspections and/or maintenance is not a permit violation

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

- Within 1 year for typical maintenance facilities, except catch basins.
- Within 6 months for catch basins
- 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) PERMITTED STORMWATER FACILITIES

The City has developed and implemented a program to verify adequate long-term operation and maintenance of privately-owned stormwater facilities and BMPs that are regulated pursuant to the City's permitting process.

i) OPERATIONS AND MAINTENANCE ORDINANCE

The City developed and enacted a comprehensive stormwater ordinance which requires projects installing treatment or detention facilities to record an O&M agreement and manual that clearly identifies the party responsible for ongoing inspection and maintenance, details maintenance standards per Ecology's SWMMWW, and acknowledges the City's annual inspection requirements and enforcement procedures.

ii) MAINTENANCE STANDARDS

The City has adopted Ecology's Stormwater Management Manual for Western Washington (SWMMWW).

iii) ANNUAL INSPECTIONS

The City performs annual inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4 and were permitted by the Permittee according including those permitted in accordance with requirements adopted pursuant to the 2007-2019 Ecology municipal stormwater permits, unless there are maintenance records to justify a different frequency.

Reduction of the inspection frequency will be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the City may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with Permit requirements.

iv) COMPLIANCE & RECORDKEEPING

Permit compliance is determined by the presence and records of an established inspection program designed to inspect all facilities, and achieving at least 80% of required inspections.

The City maintains records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities are also maintained.

c) CITY OWNED STORMWATER FACILITIES

The City has developed and implemented a program to inspect and maintain all municipally owned and operated stormwater facilities to ensure functionality and prevent or reduce stormwater impacts.

In addition to Ecology's permit requirements, 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.

i) TREATMENT AND FLOW CONTROL INSPECTIONS

The City performs annual inspections of all municipally owned or operated permanent stormwater treatment and flow control facilities. The City will take appropriate maintenance actions in accordance with Ecology's maintenance standards described in the SWMMWW.

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

ii) SPOT CHECKS

The City performs "spot checks" of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major storm events (greater than 24-hour storm event with a 10-year or greater recurrence interval). 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.

iii) CATCH BASIN INSPECTIONS

On a two-year interval, the City inspects all catch basins and inlets owned and/or operated by the City. Catch basins and inlets are cleaned based on inspection results and in accordance with Ecology's SWMMWW maintenance standards. Decant water is disposed of in accordance with Appendix 6 of the Permit – *Street Waste Disposal*.

iv) COMPLIANCE

Compliance is determined by the presence of an established inspection program achieving at least 95% of permit required inspections.

d) STORMWATER IMPACT REDUCTION FROM PUBLIC LANDS

The City has implemented practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, and road maintenance activities under the City's functional control.

The City is in the process of developing a method for documenting these practices, policies, and procedures.

Lands owned or maintained by a municipality typically include, but are not limited to: streets, parking lots, roads, highways, buildings, parks, open space, road rights-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities.

The following activities have been addressed:

- Pipe cleaning
- Cleaning of culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning
- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control
- Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts
- Sediment and erosion control
- Landscape maintenance and vegetation disposal
- Trash and pet waste management
- Building exterior cleaning and maintenance

e) 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 and training records include dates, activities or course descriptions, and names and positions of staff in attendance.

f) 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 has SWPPPs for all facilities required.

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

Facility Name	Facility Use	Document	Status
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”	Updated February 2016
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 July 2018
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 Table 2 below for a listing of individual stormwater or other related permits.

Table 2: Existing Individual Stormwater and Stormwater-Related Permits

Facility Name	Type of Permit	Permit Number
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 discharge into the MS4.

g) RECORDKEEPING

The City maintains records of inspections, maintenance, and repair activities performed in accordance with this section of the SWMP.

8) SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT

The City is in the process of developing a Source Control Program that is designed to prevent and reduce pollutants in runoff from areas that discharge to the City’s MS4, as required by the 2019-2024 Permit. While this is a new permit requirement, the City has had an established pollution prevention presence in the community that can be built upon.

Since 2012, the City of Port Angeles has been a member of the Pollution Prevention Assistance (PPA) Partnership, formerly called Local Source Control, which is a grant funded program designed to help small businesses reduce and manage potential wastes to protect water, soil, and air quality. Under Washington State’s Hazardous Waste and Toxics Reduction Program, Ecology is able to fund local jurisdictions on a biennium basis to provide free, one-on-one technical assistance to small businesses regarding waste management, pollution prevention, and stormwater-related issues.

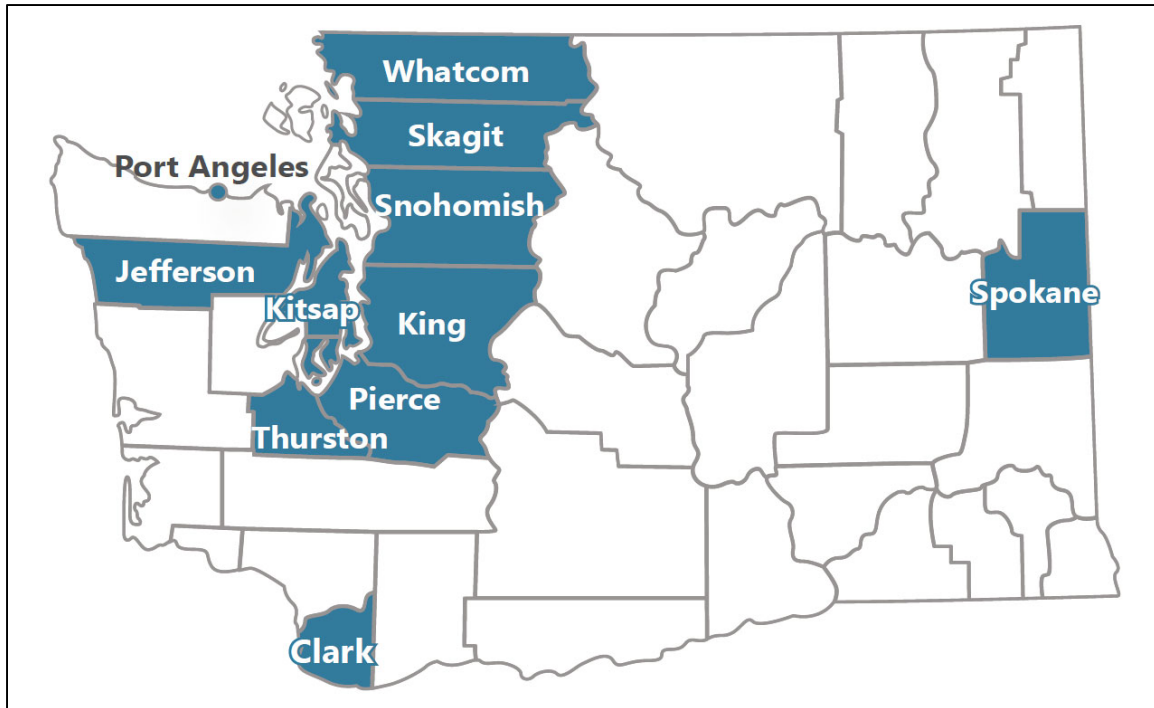


Figure 2. Pollution Prevention Assistance partners for 2017-2019 biennium.

a) PROGRAM GOALS

With the intent to prevent and reduce pollutants in runoff from areas that discharge into the City’s MS4, the Source Control Program will include:

1. Application of operational source control BMPs, and if necessary, structural source control BMPs or treatment BMPs/facilities, or both, to pollution generating sources associated with existing land uses and activities.
2. Inspections of pollutant generating sources at publicly and privately owned institutional, commercial, and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4.
3. Application and enforcement of local ordinances at sites, identified pursuant to the Permit, including sites with discharges authorized by a separate NPDES permit.
4. Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.

b) PROGRAM COMPONENTS AND MILESTONES

The program’s minimum performance measures, as defined by the Permit, are:

i) ORDINANCE TO APPLY BMPs

The City will adopt and make effective an ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities. These ordinances will be adopted no later than August 1, 2022,

The City will use the source control BMPs in the SWMMWW, or a Phase I Program approved by Ecology. In cases where the manual(s) lack guidance for a specific source of pollutants, the City will work with the owner/operator to implement or adapt BMPs based on the best professional judgement of the City.

Applicable operational source control BMPs will be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, will be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the City and is used as determined necessary by the City, in accordance the Permit.

ii) INVENTORY OF SITES

The City will establish an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. This inventory will be compiled by August 1, 2022 and will include:

1. Businesses and/or sites identified based on the presence of activities that are pollutant generating.
2. Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.

iii) INSPECTION PROGRAM

The City will develop an inspection program for sites identified in the inventory. The inspection program will be implemented by January 1st, 2023, and will entail the following components:

1. All identified sites with a business address will be provided information about activities that may generate pollutants and the source control requirements applicable to those activities. This information will be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time or spread out over the permit term to allow for tailoring and distribution of the information during site inspections.
2. The City will annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The

City may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.

3. The City will inspect 100% of sites identified through credible complaints.
4. The City may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.

iv) PROGRESSIVE ENFORCEMENT POLICY

By January 1st, 2023, the City will implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period, as specified below:

1. If the City determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the City will take appropriate follow-up action(s), which may include phone calls, reminder letters, emails, or follow-up inspections.
2. When the City determines that a site has failed to adequately implement BMPs after a follow-up inspection(s), the City will take enforcement action as established through authority in its municipal codes or ordinances, or through the judicial system.
3. The City will maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring sites into compliance. The City will also maintain records of sites that are not inspected because the property owner denies entry.
4. The City may refer non-emergency violations of local ordinances to Ecology, provided, the City also makes a documented effort of progressive enforcement. At a minimum, the City's enforcement effort will include documentation of inspections and warning letters or notices of violation.

c) STAFF TRAINING

The City will train staff who are responsible for implementing the source control program to conduct these activities. The ongoing training program will cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. The City will document and maintain records of the training provided and the staff trained.

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 (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 2020. \$17.01 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 2021 to seek public input.

DOCUMENTS REFERENCED

“City of Port Angeles Maintenance Facility SWPPP” City of Port Angeles, 2016

“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, July 2018

“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, Effective August 1, 2019.

“Stormwater Management Manual for Western Washington” Washington State Department of Ecology 2019

“City of Port Angeles Municipal Code Title 13.63, Stormwater Ordinance” last modified in December 2016

“City of Port Angeles Urban Service Standards and Guidelines” last modified in 2017

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

**SWMP APPENDIX A : INTER-DEPARTMENTAL COORDINATION
MECHANISM POLICY**

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.

**SWMP APPENDIX B : PUBLIC OUTREACH PLAN ACTIVITY
MATRIX**

2020 Planned Activities / Events	Location(s)	City Personnel	Target Audience	Contact Information (other groups)	Subject Area(s)
KONP Home Show (March)	High School Gymnasium, Port Angeles	Lucio Baack, Vince McIntyre	General public	vmcintyre@cityofpa.us	IDDE Program, LID Rain Garden Rebate Program, Natural Yard Care
Clallam County Fair (August)	Fairgrounds, Port Angeles	Vince McIntyre, Lucio Baack, Joey Bradley	General public	vmcintyre@cityofpa.us	Focusing on pet waste awareness, natural yardcare.
Utility Bill Mailer (October)	NA	Vince McIntyre	General Public	vmcintyre@cityofpa.us	LID, Pollution Prevention Hotline
Pollution Prevention Assistance Partnership (Ongoing)	Site visits within the City	Rachel Bowen	Local Businesses	rbowen@cityofpa.us	IDDE, Pollution Prevention, Source Control
Local Cinemas (May)	Deer Park Theatre, Port Angeles	Vince McIntyre	General public	vmcintyre@cityofpa.us	Pollution Prevention
Internet Adverts (April)	Port Angeles	Vince McIntyre	Landscapers/ Contractors	vmcintyre@cityofpa.us	Pollution Prevention
Natural Yard Care: Behavior Change Analysis via WSSOG (April)	Kitsap Co.	Joey Bradley	Landscapers, Home Gardeners	Jbradley@cityofpa.us	Natural Yard Care

**SWMP APPENDIX C : ILLICIT DISCHARGE DETECTION AND
ELIMINATION (IDDE) RESPONSE POLICY**



PUBLIC WORKS & UTILITIES DEPARTMENT POLICY AND PROCEDURES

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
--	--------------

- b. Illicit discharges can also be reported by email using the following address:

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:

TOPIC	TARGET AUDIENCE
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.

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

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

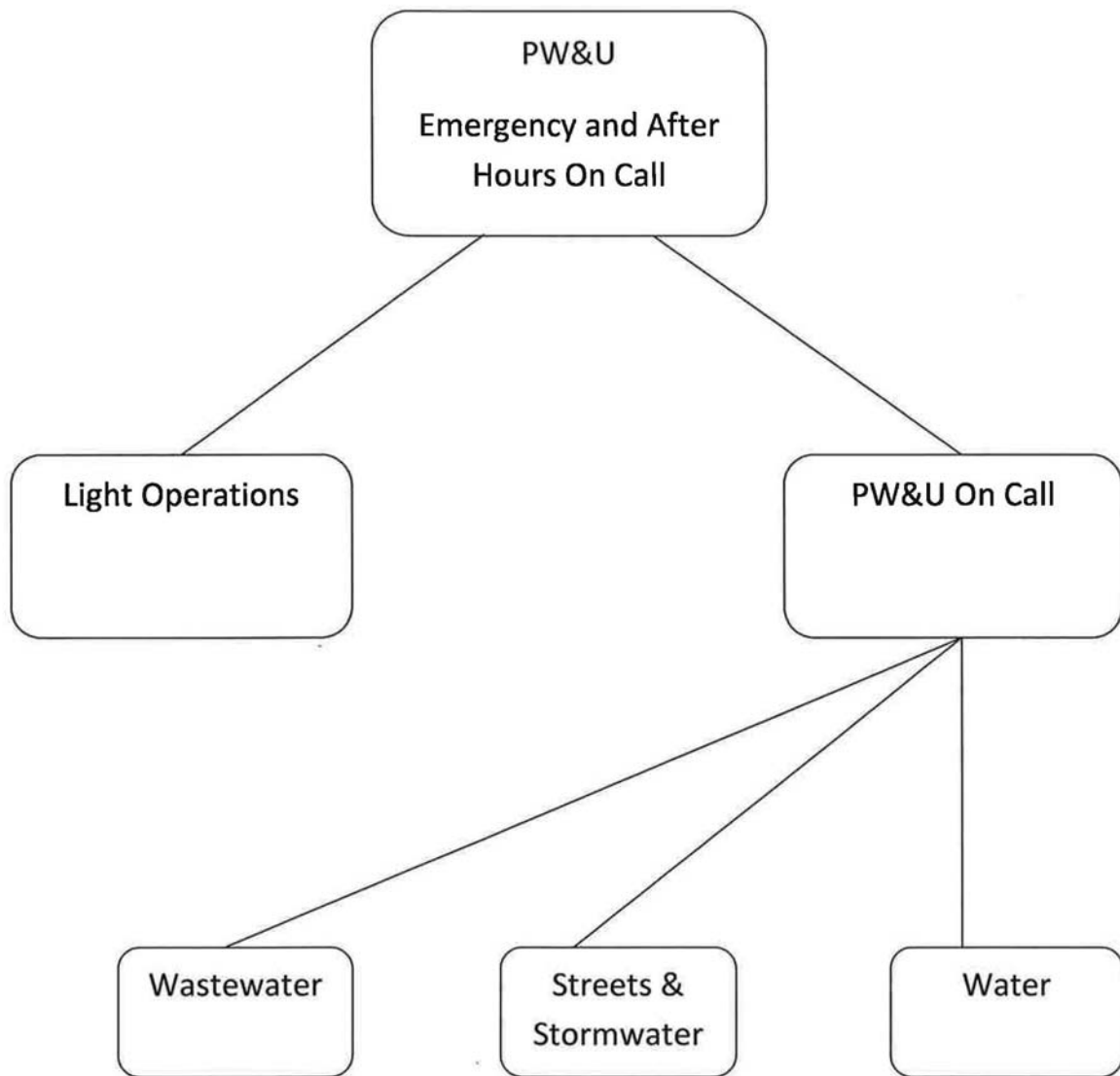
FOR POLLUTION INCIDENTS

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.

City of Port Angeles	Contact Person	Phone Nos.
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

Agency	Contact Person	Phone Nos.
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: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <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	(applicable when collecting samples)				
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
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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










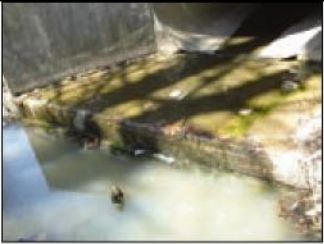



 <p>Color: Brown; Severity: 2 Turbidity Severity: 2</p>	 <p>Color: Blue-green; Severity: 3 Turbidity Severity: 2</p>	 <p>Highly Turbid Discharge Color: Brown; Severity: 3 Turbidity Severity: 3</p>
 <p>Sewage Discharge Color: 3 Turbidity: 3</p>	 <p>Paint Color: White; Severity: 3 Turbidity: 3</p>	 <p>Industrial 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.

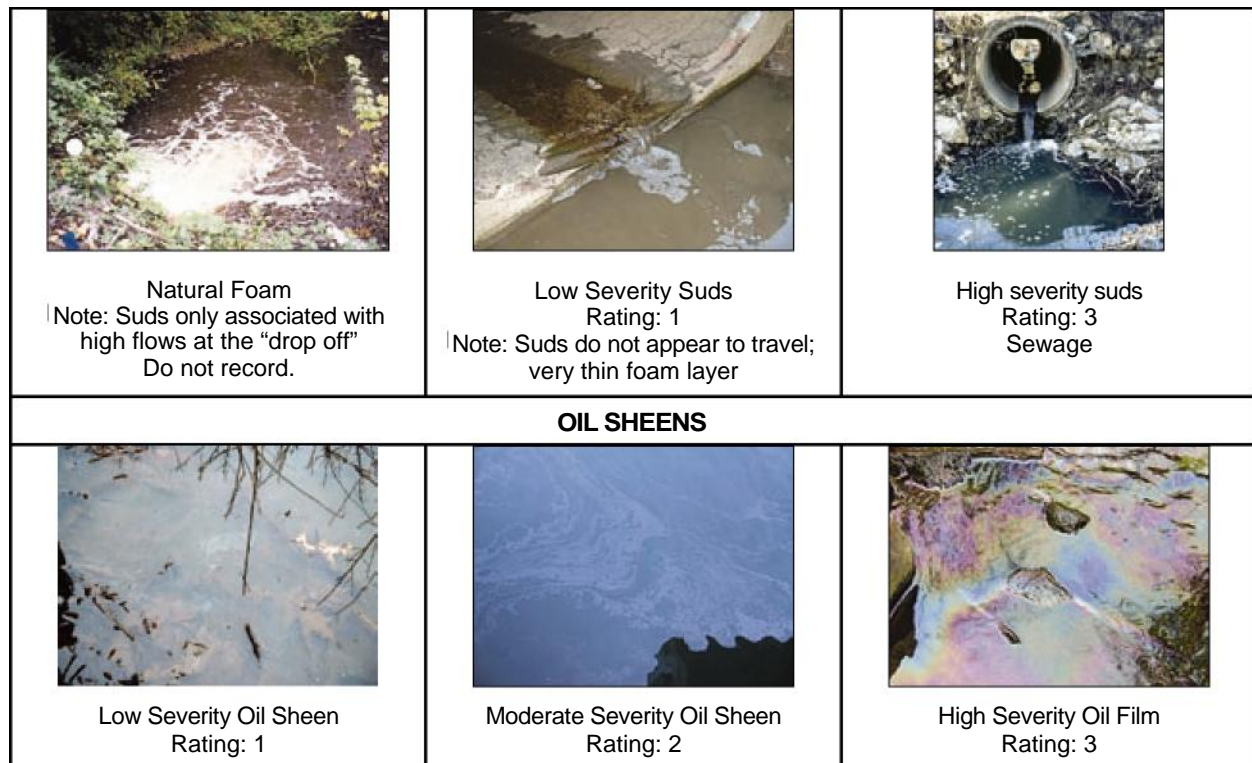


Figure 8.4.5: Determining the Severity of Floatables

SUDS



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>

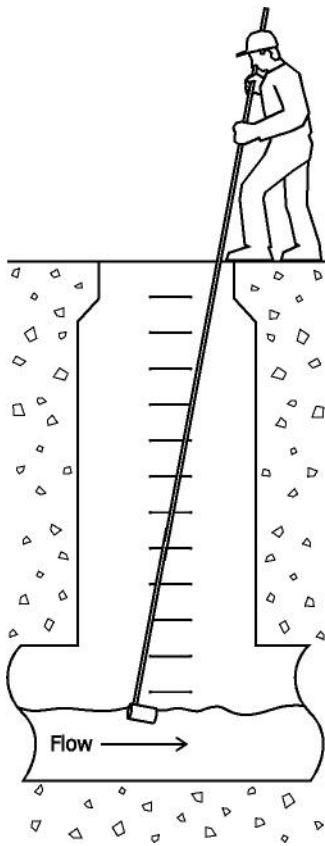
Figure 8.4.8

Typical Findings at Both Flowing and Non-Flowing Outfalls

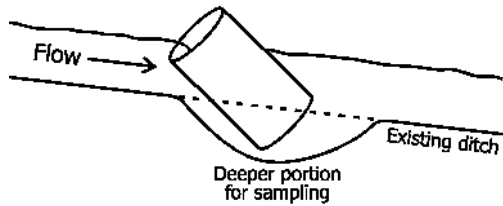
Appendix 8.5 – Stormwater Sampling Checklist

General Sampling Techniques

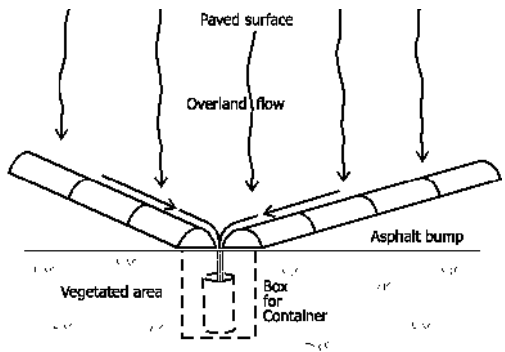
- If possible, notify the wastewater lab ahead of an illicit discharge investigation, a stream survey or a priority outfall survey so they will be aware that timely testing may be required.
- Collect two sample bottles for each sample site from the lab. Lab note: for fecal coliform samples: Bacteria 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.



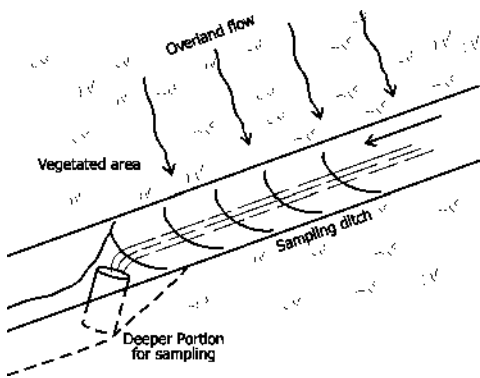
When sampling from a manhole, use a pole to safely sample from above ground. Avoid touching the sides of the manhole or pipes with the bottle to prevent contamination. Place the opening of the bottle upstream so that the flow enters the bottle directly.



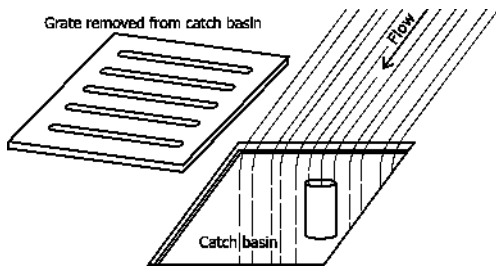
Deepening an existing ditch can allow samples to be collected directly into bottles in some cases. Be careful not to stir up solids from the sides or bottom of the ditch



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.



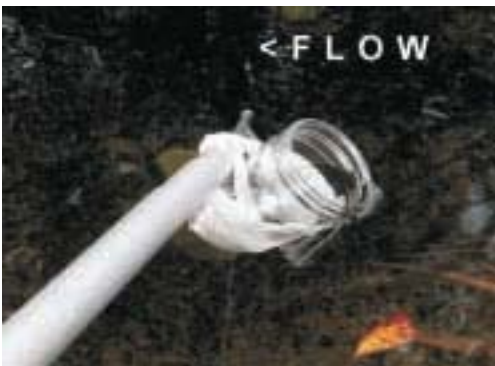
If the water is too shallow to sample with the bottle upright on the pole, try taping it on sideways, but tilted up slightly.



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

 IDDE INCIDENT CLOSURE FORM		
Initial investigation date: Cityworks WO#:	Title:	Investigators:
<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

2019 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 15th & 16th	Port Angeles High School Gymnasium	Lucio Baack, Vince McIntyre, Joey Bradley	General public, Developers, Landscapers	vmcintyr@cityofpa.us	IDDE Program, LID Rain Garden Rebate Program, Natural Yard Care	7,000, Directly spoke to over 100 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 240 native trees and highlighted ways to care for yard in a natural way not harmful to environment.	
Clallam County Fair	August 15th - 18th	Clallam County Fairgrounds	Diana Bagewell, Lucio Baack, Vince McIntyre, Joey Bradley, Rachel Bowen	General public	vmcintyr@cityofpa.us	Focusing on pet waste awareness, natural yardcare.	Directly spoke to over 1060 specifically about pet waste and stormwater.	Handed out Puget Sound Starts Hear Pet waste dispensers, refill roles, spill keychains, we scoop stickers, 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.	
Stormwater Management 101	January 24th	City Hall	Vince McIntyre	Local Developers, Contractors, Owner-builders, Plan Preparers	vmcintyr@cityofpa.us	Stormwater Regulation, Permitting, Onsite Stormwater Management, LID	28 in attendance, Professionally recorded and displayed on City's website: https://cityofpa.us/900/Permit-Center	Slides, Stormwater Templates, SWMMWW, USSG, Phase II Permit	
Stormwater Management 101: Revised	June 12th	City Hall	Vince McIntyre	Planning Commission	vmcintyr@cityofpa.us	Stormwater Regulation, Permitting, Onsite Stormwater Management, LID	Planning Commision, City Staff, Open to Public - attendance not taken	Slides, Stormwater Templates, SWMMWW, USSG, Phase II Permit	
Business Stormwater Education	May - June	Site visits to businesses within the City	Rachel Bowen	Local businesses within the City	rbowen@cityofpa.us	IDDE, Pollution Prevention	35 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	jboehme@cityofpa.us	Pollution Prevention	12,000 Impressions	One minute add highlighting natural lawn care shown before feature films	

**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 5th 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
 2. 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 \$12,209 per year, totaling \$36,627 for the years 2020 through 2022. 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, Stormwater Monitoring & Outreach Manager, 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.

Joey Bradley, Engineering Technician, 321 East 5th 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 31st 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 \$36,627 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, 2022.
- 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 6th day of November, 2019

CITY OF PORT ANGELES



Nathan West, City Manager

DATED this 13 day of January, 2020

BOARD OF COUNTY COMMISSIONERS
KITSAP COUNTY, WASHINGTON



CHARLOTTE GARRIDO, Chair

ATTEST:



City Clerk

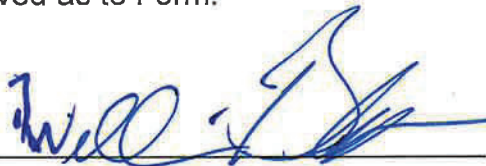


ROBERT GELDER, Commissioner



EDWARD E. WOLFE, Commissioner

Approved as to Form:



City Attorney

ATTEST:



Dana Daniels, Clerk of the Board



EXHIBIT A:
WEST SOUND STORMWATER OUTREACH GROUP
Scope of Work & Budget for 2020–2022

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:
 - Build general awareness about methods to address and reduce impacts from stormwater runoff;
 - Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts;and, when possible,
 - Create stewardship opportunities that encourage community engagement in addressing the impacts from stormwater runoff.”¹
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 2020, 2021, and 2022.

¹ Washington State Department of Ecology, *Western Washington Phase II Municipal Stormwater Permit* (2019) p.14.

Objective 2 Build on existing successful efforts by maintaining elevated awareness levels and environmentally positive behavior trends for one target audience and behavior selected during the previous Permit term (pet owners/proper disposal of pet waste).

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.

- 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.
- Encourage home scooping through distribution of the “We Scoop” stickers at select events. When appropriate, run ads that encourage scooping at home.

Objective 3 Design a social marketing campaign with built-in evaluation protocols for one new target audience and behavior (DIY homeowners with kids or pets/using safer yard care products).

Task 3.1 Develop a campaign strategy based on previously performed or locally available and applicable research that includes an evaluation plan with specific, measurable, and achievable outcomes. Revise as necessary based on emerging issues, opportunities, and evaluation results.

Objective 4 Implement the social marketing campaign designed in Objective 3.

Task 4.1 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 4.2 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 4.3 Continue the program at an appropriate level once measurements indicate increased adoption of the behavior in the target audience.

Objective 5 Use adaptive management to refine programs and direct education and outreach resources most effectively.

Task 5.1 Take advantage of mutually beneficial outreach opportunities that fall within the NPDES Permit-required scope of audiences and behaviors, regardless of prioritization ranking.

Task 5.2 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.

Task 5.3 Pursue grants and other funding opportunities as available and appropriate.

Objective 6 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 6.1 Help implement the STORM Strategic Plan and annual Work Plan to achieve results of use and benefit to the WSSOG.

Task 6.2 Promote capacity building among STORM and WSSOG members to raise the caliber of collective outreach in the region.

Task 6.3 Support development and implementation of the PSSH awareness campaign in conjunction with on the ground local behavior change programs.

Task 6.4 Participate in regional work groups on targeted behaviors (e.g.: Pet Waste, Natural Yard Care, Mobile Businesses, etc.)

Objective 7 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 2020 through 2022. The annual Staff Time budget of \$56,198 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 \$82,599 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 implementation of the Mutt Mitt Program, backyard pet waste outreach, natural yard care outreach, reporting hotline promotion, advertising, local implementation of the Puget Sound Starts Here campaign, outreach collateral development and production, other priority behavior change programs, evaluation/surveys/focus groups/studies, and/or professional services to achieve any of these activities or tasks. 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 2019. To meet the needs of jurisdictions who utilize biennial budget cycles, year 2020 and years 2021-22 were calculated on separate charts.

Table 1. Annual budget for all program elements - 2020.

Jurisdiction	Population Est. 2019 (OFM)	Relative Population	Staff Time Budget	Base Programs Budget			Suppl. Programs Budget	Annual Cost per Jurisdiction
				Programs	PSSH & Mutt Mitt	BPB Total		
Unincorp. KC	177,930	59.2%	\$33,277	\$41,626	TBD	\$41,626	\$0	\$74,903
Bremerton	42,080	14.0%	\$7,870	\$9,845	\$2,500	\$12,345	\$0	\$20,214
Bainbridge Island	24,520	8.2%	\$4,586	\$5,736	\$2,500	\$8,236	\$0	\$12,822
Port Angeles	19,620	6.5%	\$3,669	\$4,590	\$1,750	\$6,340	\$2,200 ¹	\$12,209
Port Orchard	14,390	4.8%	\$2,691	\$3,367	\$2,550	\$5,917	\$860 ²	\$9,468
Poulsbo	11,180	3.7%	\$2,091	\$2,616	\$1,965	\$4,581	\$2,750 ³	\$9,421
Gig Harbor	10,770	3.6%	\$2,014	\$2,520	\$500	\$3,020	\$3,900 ⁴	\$8,934
TOTAL	300,490	100.0%	\$56,198	\$70,299	\$11,765	\$82,064	\$9,710	\$147,971

PSSH & Mutt Mitt column represents a budget guideline for these two items per jurisdiction.

¹ Includes funding for 3 months of cinema ads in Port Angeles.

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

³ Includes funding for 6 elementary school classroom lessons at \$275 each, and cinema ads in Poulsbo.

⁴ Includes funding for 3 months of cinema ads in Gig Harbor.

Table 2. Annual budget for all program elements – 2021 & 2022.

Jurisdiction	Population Est. 2019 (OFM)	Relative Population	Staff Time Budget	Base Programs Budget			Suppl. Programs Budget	Annual Cost per Jurisdiction
				Programs	PSSH & Mutt Mitt	BPB Total		
Unincorp. KC	177,930	59.2%	\$33,277	\$41,626	TBD	\$41,626	\$0	\$74,903
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Port Orchard	14,390	4.8%	\$2,691	\$3,367	\$2,550	\$5,917	\$860 ²	\$9,468
Poulsbo	11,180	3.7%	\$2,091	\$2,616	\$2,500	\$5,116	\$2,750 ³	\$9,956
Gig Harbor	10,770	3.6%	\$2,014	\$2,520	\$500	\$3,020	\$3,900 ⁴	\$8,934
TOTAL	300,490	100.0%	\$56,198	\$70,299	\$12,300	\$82,599	\$9,710	\$148,506

PSSH & Mutt Mitt column represents a budget guideline for these two items per jurisdiction.

¹ Includes funding for 3 months of cinema ads in Port Angeles.

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WEST SOUND STORMWATER OUTREACH GROUP

2019 SUMMARY OF ACTIVITIES

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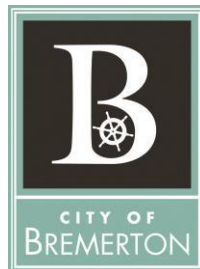
The WSSOG: Who We Are

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.

STELLA COLLIER
BAINBRIDGE ISLAND



TERESA SMITH
BREMERTON



WAYNE MATTHEWS
BRIENN ELLIS
GIG HARBOR



CAMMY MILLS
MICHELLE PERDUE
KYM PLEGER
KITSAP COUNTY



NIKKI BENNETT
JUDY JIANG
NICOLE IUTZI
US NAVY



JONATHAN BOEHME
LUCIO BAACK
JOEY BRADLEY
PORT ANGELES



ZACK HOLT
PORT ORCHARD



ANJA HART
POULSBO



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Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration...includes Permittees developing a consistent message, determining best methods for communicating the message...and creating strategies to effect behavior change. If a Permittee chooses to adopt...a regional program, the Permittee should participate in the regional group and shall implement the adopted element(s) of the regional program in the local jurisdiction.

NPDES Municipal Stormwater Permit - S5.C.2

***Cover Photo – Bainbridge Island human Orca mural
Stella Collier, City of Bainbridge Island***

2019 HIGHLIGHTS

2019 Highlights

OVERVIEW

In 2019, the group focused on maintaining and improving existing programs, preparing to embark on a new priority behavior to meet the new permit behavior change requirements, and monitoring regional efforts on potential future project targets.

The bulk of the group's work in 2019 revolved around the second year of a three-year contract with a consultant, C+C to select a new behavior and target audience and develop a social marketing campaign. This new campaign, centered around natural lawn care, will pilot in 2020.

This has been a year of transition for staff at several WSSOG jurisdictions. As a result, the person representing those jurisdictions at WSSOG meetings has changed. Wayne Matthews, with City of Gig Harbor, was replaced by Brienn Ellis. Jonathan Boehme, with City of Port Angeles, was replaced by Lucio Baack, and Lucio Baack was replaced by Joey Bradley. Nikki Bennett, with the US Navy, was replaced by Judy Jiang and Nicole Iutzi. Michelle Perdue, with Kitsap County, was replaced by Kym Pleger.

PET WASTE – CHANGING BEHAVIORS

Pet Waste in Public Areas

THE MUTT MITT PROGRAM

Members of the WSSOG continue to meet the requirements of **SS.C.2.a.ii** 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 2019, there are a total of 537 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.

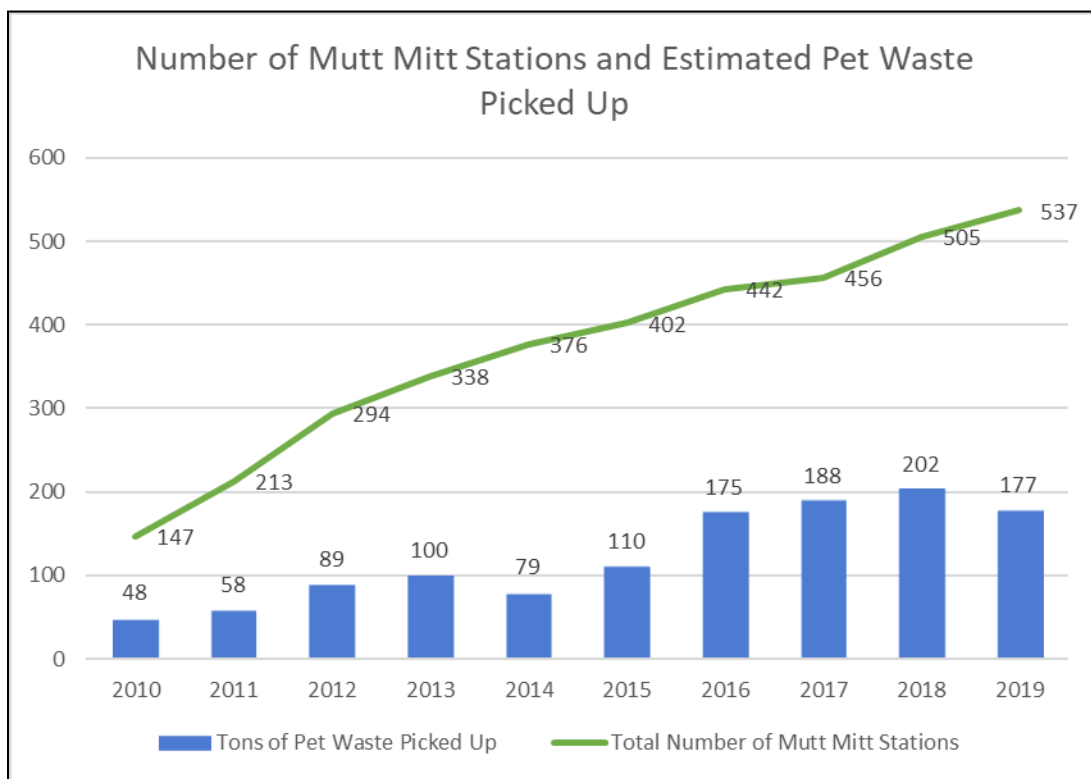
This means that dog walkers throughout the region see similar desirable behavior messaging for adoption as the norm. In 2019, 32 new Mutt Mitt stations were installed through the Mutt Mitt program.

When asked to report their bag usage, 43% of private station sponsors responded, reporting a total of 118,760 bags, which are purchased with their own funding. Actual bag use is likely higher since the majority of sponsors did not report bag usage. NPDES municipal permittee sponsored stations distributed a total of 956,900 bags. Therefore, the total number of bags distributed was 1,075,660, the equivalent of 177 tons of dog poop picked up.

Bag total by location	
Bainbridge Island	10,300
Bremerton	170,000
Gig Harbor	144,000
Port Angeles	158,000
Port Orchard	36,000
Poulsbo	83,000
Kitsap County	355,600
Private Mutt Mitt Sponsors	118,760
Total	1,075,660

PET WASTE – CHANGING BEHAVIORS

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 working order. Kitsap County typically 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. However, due to tracking inspections in a new system (Cartegraph) an effort was made to inspect all stations in 2019. A total of 402 inspections were completed in 2019.



In 2019, 81% of all Mutt Mitt stations passed their inspection, meaning that they were stocked with bags. This pass rate is lower than what was seen in 2018 (87%) but similar to 2017 (79%) and 2016 (80%).

PET WASTE – CHANGING BEHAVIORS

TALKING (AND TOSSING) POOP FOR WATER QUALITY



The popular Poop Toss game continues to be used by the jurisdictions at community events like the Harbor Hounds Festival in Gig Harbor, the Clallam County Fair booth (sponsored by Port Angeles), WagFest and Kids' Day (sponsored by Kitsap County), and Petwalk (sponsored by Poulsbo and Kitsap County). 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.



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.



This game helped jurisdictions reach and engage nearly 2,000 citizens on proper pet waste pick up and disposal.

PET WASTE – CHANGING BEHAVIORS

Pet Waste at Home

BACKYARD PET WASTE CAMPAIGN

In 2018, the WSSOG piloted an effort to encourage people to pick up their dog’s waste at home. This effort promoted the use of a sticker placed on outdoor garbage cans at home to help set a social norm for scooping. The pilot effort used a postcard to promote the use of the sticker and importance of home scooping.

Following the pilot, the group evaluated the campaign and ultimately decided not to move forward with this target audience and BMP. The group continued distributing the remaining stickers at pet-related events and at the front counter of some jurisdictions’ offices.



Sticker front



Sticker back

Messaging about the importance of scooping at home was also featured in Everyday Kitsap, a publication distributed to all residents of Kitsap County and cities within Kitsap, reaching nearly 125,000 households.

PET WASTE – CHANGING BEHAVIORS

Because the evaluation of this campaign led the group to the determination not to pursue additional efforts with this BMP and target audience, the decision was made to select a new behavior and target audience per ***S5.C.2.a.ii.(c)3***. The group will continue maintaining and promoting the Mutt Mitt program and adding new growth as appropriate but will focus their behavior change efforts on the new BMP for the next few years.

ILLCIT DISCHARGE DETECTION AND ELIMINATION

Regional Spills Hotline Outreach

KEEPING SMALL SPILLS FROM BECOMING BIG PROBLEMS

The group continued to promote the Spills Happen campaign, meant to encourage people to report spills. Jurisdictions are currently posting their hotline on their websites as well as utilizing it on print materials.

OUTREACH TOOLS

The group also utilized other outreach methods, including:

- Over 4,800 paint sticks featuring the spills hotline phone number and a BMP message were distributed to locations throughout Kitsap County, Bainbridge Island, Bremerton, Port Orchard and Poulsbo. 1,000 more with the same message and Port Angeles' spills hotline number were distributed in that jurisdiction, as well as 800 with the same message and Gig Harbor's spills hotline number in that jurisdiction.
- Display of the upright "Spills Happen" banners at events, in billing offices and public spaces.
- Display of BMP-based banners with the "Spills Happen" branding at strategic locations.
- Bremerton promoted the hotline number on displays at community events such as Salmon Tours and Aqua Fair at Jarstad Park, among others. They also featured the Spills Happen branding on their sweeper trucks.
- Bainbridge Island distributed materials with the Spills Happen branding at their counter.
- Port Angeles promoted their hotline at their Home and Lifestyle Show.
- Over 300 magnets with the Spills Happen branding were distributed by Gig Harbor, Port Angeles and Poulsbo.



HOTLINE CALLS

A total of 84 calls were received in 2019 by Kitsap1 to the hotline number, and 6 were reported through the See/Click/Fix app (rolled out in late 2018 and available in Kitsap County and Kitsap County jurisdictions). In addition, some cities also received several reports directly to their jurisdictions. (Poulsbo – 2, Bremerton – 31, Port Orchard – 39, Port Angeles - 14) **(S5.C.3.d.ii)**.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

TRAININGS

Jurisdictions provided trainings to their field staff on how to recognize, respond to and report spills (*S5.C.5.d.iii*).

- Bainbridge Island – 3 staff trainings
- Bremerton – 1 staff training using Excal Visual’s “Storm Watch” video for municipal employees
- Gig Harbor – 1 staff training including a Spills Guidance presentation from the Dept. of Ecology, who gave a demo of their Spills Response Truck
- Port Angeles – 6 staff trainings, including 1 IDDE/Spill Response joint training for City and Clallam County municipal workers; 1 Public Works staff annual IDDE refresher course; and 4 IDDE trainings for new employees.
- Port Orchard – 1 annual staff training
- Poulsbo – 1 staff training for new employees
- Kitsap County – 5 staff trainings for three different departments

PUGET SOUND STARTS HERE

Puget Sound Starts Here

AROUND THE WEST SOUND

MAY IS PSSH MONTH

Puget Sound Starts Here (PSSH) is a regional effort to raise awareness about the harm to Puget Sound from polluted stormwater runoff as well as simple actions residents can take to reduce their impact. (*S5.C.2.a.i*). Local implementation of PSSH included a variety of outreach approaches, including the promotion of “Puget Sound Starts Here Month” in May.



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 2019, including distributing pet waste leash dispensers to capitalize on the existing pet waste program.

JURISDICTION	COASTERS	COFFEE SLEEVES	LEASH DISPENSERS	TOTE BAGS	CARABINERS	TOTAL IMPRESSIONS
Bainbridge Island	1,500		50	300		1,850
Bremerton	2,000		200		30	2,230
Gig Harbor	200	150	50		40	440
Kitsap County	4,000	10,000	1,650			15,650
Poulsbo	800	3,100	66		38	4,004
Port Angeles	1,000	1,325	586			2,911
Port Orchard						
						27,085

Based on feedback from participating coffee shops that hot drink sleeves are better received in the winter months, several jurisdictions continued their successful secondary distribution of coffee sleeves in the winter months.

Collectively, these efforts placed over 27,000 “Puget Sound Starts Here”-branded items in the hands of West Sound residents and visitors.

Jurisdictions also used the PSSH branding in other creative ways. Port Angeles utilized the *PSSH - Drains to Streams* messaging on curb markers installed around the City, as well as using the PSSH branding on posters, fliers and handouts at the Public Works front counter.

PUGET SOUND STARTS HERE

ADVERTISING

Theater Ads

Several jurisdictions continued their practice of running on-screen cinema ads featuring PSAs about stormwater best management practices.

Contracts typically included that an ad 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.

The professionally produced 30-second PSAs used by Gig Harbor 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

The Natural Lawn Care ad for Port Angeles was also embedded on their City website; and the Comcast regional ads for Poulsbo were posted on Poulsbo's website and Facebook page.

PUBLIC PARTICIPATION

Getting People Involved

CREATIVE WAYS TO ENGAGE THE PUBLIC

Jurisdictions found creative ways to maximize partnership opportunities and engage with the public while promoting existing campaigns or programs.

- Bainbridge Island joined community members forming a human mural of an orca at Waterfront Beach Park as part of the Boater's Fair, underscoring the connection between clean water and the life that depends upon it (see cover photo).
- Gig Harbor partnered with the Pierce Conservation District to put on the Children's Water Festival; as well as the Rain Barrel Workshop, which distributed 15 new rain barrels into the community.
- Gig Harbor also provided watershed education at the Donkey Creek Chum Festival to over 900 people.
- Gig Harbor partnered with the Tacoma Pierce County Health Department to bring Natural Yard Care information to the public during a series of annual workshops.
- Kitsap County partnered with the Keyport Improvement Club and local artists to hold a Storm Drain Art event in downtown Keyport, installing artwork around 5 drains to make the connection between storm drains and Puget Sound.
- Stewardship opportunities in Poulsbo were provided by the City of Poulsbo Tree Board volunteers and the Fish Park Steering Committee. The Tree Board provided several activities, including tree education classes and neighborhood walks, tree planting events at stream corridors, and participation in the Poulsbo Fish Park Salmon Tours.
- Poulsbo's Fish Park Steering Committee hosts monthly stewardship activities at the 40-acre urban nature park surrounding the Dogfish Creek estuary. Other additional opportunities occur throughout the year, including activities such as riparian and upland



PUBLIC PARTICIPATION

plant/landscape mitigation, installation, and maintenance. Volunteer stewards include individual citizens as well as staff and volunteers from churches, businesses, Western Washington University, North Kitsap schools, service organizations, and agencies (Noxious Weed Board, Kitsap Conservation District, United Way Day of Caring). 388 volunteers documented 1053 hours of work in 2019.

MAXIMIZING OUR REACH

Regional Partnerships for a Comprehensive Approach

STORM CONTINUES COORDINATING REGIONAL OUTREACH

Kitsap staff continues to represent the County and WSSOG cities as partners in the larger regional efforts of STORM. In 2019, Kitsap staff provided input at STORM's quarterly meetings, within the NPDES workgroup, and at the 2018 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 2019 on issues of regional significance, including Natural Yard Care and Pet Waste, as well as the PSSH Committee.

STORM STEERING COMMITTEE

Kitsap County continues to represent the County and the WSSOG partnership as a working member of the STORM steering committee. This committee meets twice a month on tasks that guide the regional STORM group. Notable projects by the committee in 2019 included providing feedback on the Stormwater Work Group's SAM Effectiveness Studies for Education & Outreach, working on short- and long-term funding for the STORM Coordinator position, planning and facilitating the Symposium, and coordinating the regional Comcast advertising campaign.

LOOKING AHEAD AT 2020

On The Radar

MOVING INTO HIGH GEAR – DEVELOPING AND IMPLEMENTING

OVERVIEW

Working within the scope of the group's interlocal agreements, WSSOG members evaluated the Work Plan to guide 2020's activities. (Attached as Appendix B) The primary focus for the upcoming year will be to work with C+C on piloting and implementing a social marketing campaign to address the new Natural Lawn Care behavior. Additional tasks will include maintaining the existing Mutt Mitt, Spills Happen and PSSH programs, and potentially taking advantage of 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.

We will continue to promote the Spills Hotline through various outreach channels. Additionally, the See/Click/Fix reporting app, which adds enhanced reporting capability for Kitsap jurisdictions, will be marketed as an efficient way for citizens to make, view and track spills reports.

LAUNCHING A NEW CAMPAIGN

Building on the successful work between the group and their consultant, C+C in 2018-19 to select a new behavior and priority audience, 2020 will herald the implementation of a complete social marketing plan. Tasks will include the launch of a pilot campaign, and the development of an evaluation plan. These tasks represent the final phase of a three-phase project to choose, build, and launch a social marketing campaign to address nutrients in stormwater runoff. This project will continue into 2021, where the pilot will be evaluated and next steps for the campaign will be determined.

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. 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 continue to promote local awareness. In May, the group will participate in Puget Sound Starts Here Month through outreach to local restaurants and coffee shops. Expanded distribution will continue to take place in winter in selected jurisdictions, as well as some potential evaluation

LOOKING AHEAD AT 2020

of these distribution methods.

Kitsap County will continue to represent the WSSOG group as a STORM Steering Committee and PSSH Committee member. We will continue to participate in the Mobile Business Outreach, Natural Yard Care, and Pet Waste workgroups and apply insights, approaches and materials gained from these workgroups as appropriate.

APPENDIX A: STORM ANNUAL REPORT

Appendix A: STORM Annual Report



2019 STORM Annual Report

BIG Collaboration

The Business Inspection Group's (BIG) purpose is to foster a culture of collaboration and communication where jurisdictions can learn from each other how to improve the development and implementation of business inspection source control programs. BIG's goals include the following:

- Increase knowledge of source control programs.
- Increase consistency in inspections, education and outreach, inventory development, enforcement, and messaging in regional programs.
- Increase collaboration between jurisdictions.
- Increase public awareness of storm water pollution prevention.
- Decrease illicit discharges and storm water pollution.
- Decrease overlapping inspections.

In 2019 BIG conducted a survey to gain knowledge of existing Phase I business inspection programs across the region and compiled the results into a report that provides comprehensive program information, examples of best practices and lessons learned addressing various elements of a business inspection program. You can find the report on the Washington Stormwater Center website.

Moving forward BIG will continue to collaborate on inspection best practices, multilingual outreach materials, data management and collection methods, inventory development, code development and changes as well as other aspects of source control.

For more information contact Susan McCleary at smccleary@ci.olympia.wa.us.

STORM Strategizes for Long Term Funding

For years, STORM has pieced together a variety of funding sources to "keep the lights on" in the organization. STORM has been funded through a combination of grants from Washington State Department of Ecology, other government agency grants, and by generous jurisdictions within the network.



However, as STORM matures to support Permittees with increasing education and outreach responsibilities, it requires a consistent funding structure. Funding a robust network with grants alone is time-consuming and does not provide predictable, stable funding. Additionally, grants that provide funding for operational costs, rather than programmatic work, are rare.

The Long Term Funding work group has been meeting monthly since the summer, moving through the deliberate and thoughtful process of developing a funding structure. We started with a stakeholder identification exercise and are now working to interview key stakeholders. We want to be sure to understand

folks' relationship to and understanding of STORM, as well as get their input regarding the value of STORM and their perspective on funding the network.

Interested in joining the Long-Term Funding work group or learning more? Contact Betsy Adams at badams@kirklandwa.gov.

Mark Your Calendar for 2020 STORM Meetings!

- February 27, 9:30am - 2:00pm, Edmonds City Hall
- May 14, 9:30am - 12:30pm, Center for Urban Waters (Tacoma)
- September 10, 9:30am - 12:30pm, King Street Center (Seattle)
- November 19, 9:00am - 3:30pm, Brightwater Center (Woodinville) - SYMPOSIUM!

About STORM

STORM stands 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 Katherine Straus, Steering Committee Member, katherine.straus@cityoffederalway.com

Check out the STORM Resource Reservoir at pugetsoundstormgroup.org

STORM Collective Response Influences 2019 - 2024 NPDES Permit

In late 2017 the Department of Ecology published the first revision of the NPDES Phase I and II permits, which included nine proposed changes in the Public Education and Outreach section. The STORM Steering Committee conducted two surveys of the STORM membership and shared a collective response to the 2019-2024 Formal Draft Phase I and Phase II Permits. Additionally, concerns and suggestions for the E&O requirements were discussed in quarterly meetings, in dedicated conference calls, and with permit writers at the STORM 2018 Symposium.

The STORM Collective Response Phase I and Phase II Reports highlighted opinions shared by multiple Permittees, and included a complete listing of individual comments in its appendices. Nearly all formal comments from the STORM Collective Response reports were incorporated into the Phase I and Phase II 2019-2024 NPDES Permit.

Copies of the reports are located on the STORM Resource Reservoir.



Annual STORM Symposium Connects and Inspires

This year's Annual Symposium took place in Federal Way, a change from years past. Historically the Symposium has taken place at the Brightwater Education Center, but after feedback from STORM members looking for a more central location, the steering committee decided to hold it further south.

Attendees were treated to engaging presentations on everything from working with overburdened communities, to microplastics in Puget Sound, to a Business Inspection Group panel discussion.

STORM members also frequently ask for more time to network with their peers. To help meet that need, we ended the symposium with our first ever "Share Fair." Attendees enjoyed a potluck dessert while circulating around the room and learning from other STORM members about their exciting and varied stormwater education programs. Thank you to all who attended, presented and shared!

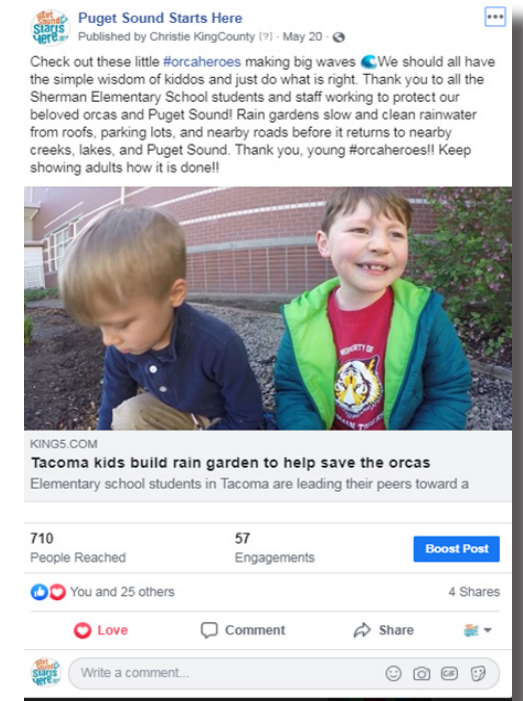


Orca Health Starts Here Month Recap

Each May, STORM celebrates Puget Sound Starts Here Month as a way to connect, inform, and empower our communities to use simple actions to help Puget Sound and the animals that live there. To emphasize the need to protect Puget Sound and the southern resident orcas, the theme this May was Orca Health Starts Here.

We asked people to recognize, thank, and honor #OrcaHeroes who are working to prevent stormwater pollution by posting their story with a picture on Facebook including the hashtag #OrcaHero and tagging @PugetSoundStartsHere. From picking up pet waste to building a rain garden, we wanted to hear about it!

During the #OrcaHero campaign, we had 10 different individuals and organizations recognize #OrcaHeroes for a total of 38 posts. It was great seeing how individuals across the region are committed to the health of Puget Sound and our orca whales!



Welcome Cameron Coronado, Our Newest Steering Committee Member!

Cameron works for the City of Lynnwood doing their environmental and surface water education and outreach. Cameron joined the STORM steering committee in September 2019.

He has experience working with various federal, state, and local agencies as well as tribes and non-profits. Cameron is a firm believer that small actions add up to have big effects and we can all do our part to leave this world a better place!



Annual Membership Survey Highlights



STORM builds our capacity to produce cost-efficient and effective education and outreach programs and messaging. Almost 3/4's of member jurisdictions participated in the 2019 STORM Annual Survey and reported which resources they used most frequently:

- 81% attended regional meetings
- 79% used Puget Sound Starts Here branded materials
- 56% participated in an E&O related work group
- 46% attended STORM-sponsored trainings

Strengthening STORM - NEP Grants

In 2019 STORM was awarded a \$222,000 National Estuary Program grant, awarded through Ecology, to support our collaborative efforts on stormwater outreach.

This grant supports the STORM Coordinator, the annual symposiums, professional development opportunities, and working with the ECO Net. It also provides funding for STORM work groups focused on prioritizing best management practices and pollutants for regional social marketing campaigns and investigating a long-term funding structure for STORM.

STORM will also receive another \$300,000 grant for the Puget Sound Starts Here regional awareness campaign! Want to get involved in planning the next big thing? #Orcasneedyou! Contact Mary Rabourn at Mary.Rabourn@kingcounty.gov.



Focus on Professional Development

In 2019 STORM was able to offer members a record number of free and highly subsidized professional development opportunities. Thank you to our presenters and to King County for their financial support!

- Social Marketing Workshop with Nancy Lee
- Stakeholder Engagement with Sarah Brace, VEDA Environmental
- Cohesive Teams and Decision-Making with Lauri Valenta, The Athena Group
- Plain Language with Elizabeth Whaley and Amy Mackay
- How to Explain Science, Share Data and Build Trust with Cathy Angell
- 15 Strategies for Keeping Your Audience Awake, Alert, and Interactive with Cathy Angell
- Municon Social Marketing Training and Panel



APPENDIX B: WSSOG 2020 WORK PLAN

Appendix B: WSSOG 2020 Work Plan

WSSOG 2020 WORK PLAN

Objectives from Exhibit "A" -
West Sound Stormwater Outreach Group Scope of Work & Budget for 2020-2022

Sustain successful efforts (Objective 2, Task 2.2)

- Continue Pet Waste outreach
 - Distribution of Backyard Pet Waste stickers
 - Consider outreach to vets on Backyard Pet Waste
 - Continue to implement updated Mutt Mitt E&O Plan
 - Sustain Mutt Mitt Program through an increase in the number of tracked stations
 - Participate in the regional STORM Pet Waste workgroup as appropriate
- Continue to implement Hotline outreach opportunities, including but not limited to:
 - Distribution of paint sticks
 - Promotion of the See Click Fix application
 - Advertise via a variety of channels as appropriate: digital, print or other media

New behavior campaign development (Objective 3, 4 and 5)

- Continue Natural Yard Care campaign development
 - Participate with consultant in the implementation of a pilot campaign to address the selected target behavior and audience. Pilot to include 2-5 retail events in partnership with the WSU Master Gardeners in spring 2020; including outreach, staffing, and a product discount (coupon)
 - Participate with consultant to draft an evaluation plan with specific, measurable and achievable outcomes
 - Participate with consultant on reporting out on pilot campaign as appropriate
- Monitor the progress of other jurisdictions' behavior change campaigns and adapt elements as appropriate

Other opportunities (Objective 6) – including optional activities with participation varying by jurisdiction

- Continue to participate in *Puget Sound Starts Here* outreach
 - Promote PSSH Month in May

- Distribute PSSH-branded merchandise, including but not limited to coffee sleeves, coasters and pet waste bag holders
 - Explore evaluation of PSSH outreach
- Provide lessons for school aged children
- Advertise via a variety of channels as appropriate: digital, print or other media
- Pilot field monitoring programs with High School and Elementary students
- Consider partnerships on stewardship opportunities as appropriate

Strengthen coalition and represent WSSOG on regional efforts (Objective 6 and 7)

- Participate on the STORM Strategic Planning Committee and PSSH Committee
- Participate in STORM's regional Natural Yard Care and Mobile Business workgroups as appropriate
- Provide STORM and PSSH support and attend Quarterly meetings
- Promote capacity building as needed
- Provide annual summary of activities and report out on programs as appropriate

Calling All
Local
Contractors!
Developers!
Architects!
and Plan
Preparers!



FREE

Stormwater Training!

January 24th, 2019

1:00 pm – 4:30 pm

Training Location: [Port Angeles City Hall Council Chambers](#)

If you will be involved in constructing or re-developing any average-sized building (± 2000 sq. ft.) within the Port Angeles City limits in the next few years, then there are a few important things you should know before submitting your permit application – primarily, don't forget about the stormwater!

As reflected in the 2017 ordinance update, the City has embraced using low-impact development (LID) practices to manage stormwater runoff and now requires that it be addressed at the time of permit application. LID reduces adverse downstream impacts by allowing stormwater runoff to infiltrate directly into the ground or to be filtered onsite through vegetation. **To help local builders incorporate LID into their projects appropriately, the City has developed a series of small-project templates to simplify the application process.**

On January 24th at 1:00 pm, City staff will be giving a free training in the City Hall Council Chambers on how to efficiently use these small-project stormwater templates. The presentation will work through the City's templates using the most common scenario of building a single family home on a standard City lot. The training is expected to be 3 hours in length with some additional time at the end for Q&A.

Space is limited so we're encouraging all attendees to reserve their seat in advance. To RSVP, or to request more information about the presentation, please send an email to vmcintyr@cityofpa.us or call (360) 417-4701.



City of Port Angeles
321 East Fifth Street
Port Angeles, WA 98362





Stormwater Training!

January 24th, 2019

1:00 pm – 4:30 pm



Training Location: Port Angeles City Hall Council Chambers

Are you preparing to build your dream home?!...

or, for that matter, involved in constructing any standard-sized building within the Port Angeles City limits in the next few years? If so, there are a few important things you should know before submitting your permit application – primarily, don't forget about the stormwater!

As reflected in the 2017 ordinance update, the City has embraced using low-impact development (LID) practices to manage stormwater runoff and now requires that it be addressed at the time of permit application. LID reduces adverse downstream impacts by allowing stormwater runoff to infiltrate directly into the ground or to be filtered onsite through vegetation. **To help local builders incorporate LID into their projects appropriately, the City has developed a series of small-project templates to simplify the application process.**

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City of Port Angeles
321 East Fifth Street
Port Angeles, WA 98362




Stormwater Management 101



Utilizing the City's Templates for Small New Construction and Re-construction Projects

Presenter: **Vince McIntyre, M.S., E.I.T.**

Jan. 24th, 2019



1

Logistics

- Sign-in Sheet
- Hand-outs
- Being Recorded
- Duration: Approx. 3 hours
- Q&A

- Bathrooms
- Breaks
- Emergency Exit
- Food & Drink

2

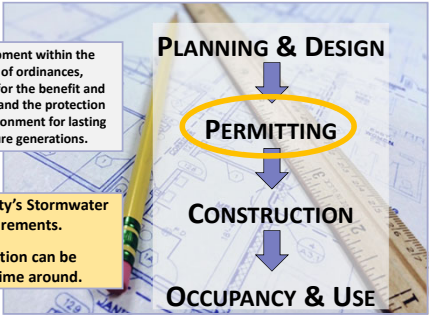
Introduction

My Goal:

To encourage local development within the City's establish framework of ordinances, standards, and guidelines for the benefit and protection of all residents and the protection of our shared natural environment for lasting enjoyment and use by future generations.

Presentation Goals:





- How to meet the City's Stormwater Management Requirements.
- Ensure your application can be approved the first time around.







3

Introduction

Planning/Building Department, Permits Counter




 Kevin Bagwell Planning Tech.	 Pat Bartholick Dev. Services Specialist	 Ben Braudrick Assistant Planner	 Jim Lierly Building Inspector
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Public Works & Utilities, Engineering Services

 Joey Bradley Engineering Tech. I	 Roger Vess Assist. Civil Eng. I	 Vince McIntyre Civil/Utility Eng. I	 Eric Walrath Eng. Projects Supervisor
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Introduction

 1969 Cuyahoga River Fire Polluted from decades of industrial waste. Cleveland, OH.	 1970s Hardeman County, TN 200-acre pesticide waste dump contaminated drinking water.	 1970s Love Canal School and subdivision built on chemical waste disposal site.
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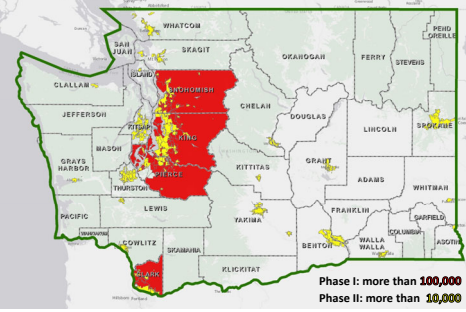


5

Introduction

Washington State Phase I and Phase II Permittees

Source: WA Dept. of Ecology
Description: Municipal Stormwater Permit Areas (MSWPA) of Washington State, incorporating 2013 updates to combined incorporated City boundaries and unincorporated Urban Growth Areas (UGA) as defined by the Growth Management Act.



Phase 1 ■

Phase 2 ■

Phase I: more than **100,000**

Phase II: more than **10,000**

6

Introduction | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

Western Washington Phase II Municipal Stormwater Permit

Approved by the Board of the State of Washington Department of Ecology on January 19, 2017.

SS.C.4. Controlling Runoff from New Development, Redevelopment and Construction Sites

- Each Permittee shall implement and enforce a program to reduce pollutants in stormwater runoff.
- The program shall apply to private and public development.
- Program must be included in and enforceable by City Ordinance. L.I.D. must be adopted into municipal Code.
- The Program must, at a minimum, meet the requirements and thresholds described in the S.W.M.M.W.W.
- The thresholds shall apply to all applications submitted on or after Jan. 1st, 2017.

7

Introduction | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

2012 Stormwater Management Manual for Western Washington

Amended in December 2014

2012 Stormwater Management Manual for Western Washington (SWMMWW), Amended 2014.

9 Minimum Requirements

- Preparation of stormwater site plans.
- Construction Stormwater Pollution Prevention Plan (SWPPP).
- Source Control of pollution.
- Preservation of Natural Drainage Systems and Outfalls.
- Onsite Stormwater Management
- Runoff Treatment
- Flow Control
- Wetlands Protection
- Operation and Maintenance

ALL PROJECTS (pink arrow pointing to item 2)
LARGE (yellow arrow pointing to item 5)

8

Introduction | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

Flow Charts
SWMMWW: Vol. 1, Ch. 2

SMALL PROJECT (MR #1-5)

Land Disturbance: $\geq 7,000 \text{ ft}^2$
 HARD Surface: $\geq 2,000 \text{ ft}^2 < 5,000 \text{ ft}^2$

LARGE PROJECT (MR #1-9)

Land Conversion: $\geq \frac{1}{4}$ acre veg.-lawn/l.s.
 ≥ 2.5 acres native-pasture
 HARD Surface: $\geq 5,000 \text{ ft}^2$

9

Introduction | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

SMALL PROJECT Templates | Worksheets & Factsheets

10

Introduction | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

SMALL PROJECT Templates | Worksheets & Factsheets

- 10 Min. BREAK -

11

Example: SFR | BP^{SW} | A1 | A2 | B1 | B2 | C | D | E1 | E2

"We'd like to Build a House"

- Site (1400 Block of W. 10th St.)
 - Pre-platted City Lot
 - (50' x 140') 7,000 sq. ft.
 - Existing Condition: Grass
 - Existing Slope: $\pm 3\%$ to the NW
 - Utilities are stubbed-out to the Property Line
- Typical Single Family Residence (SFR)
 - House: 1,200 sq. ft.
 - Garage: 800 sq. ft.
 - Driveway: 600 sq. ft.
 - Walkway: 70 sq. ft.
 - Patio: 240 sq. ft.
 - Yard: Grass & minimal landscaping

Start Considering Stormwater!

12

Example: SFR

MR #1-5

- Site Plans - ~~Narrative~~ Plans
- SWPPP Narrative Plans
- Source Control
- Preserve Drainage & Outfalls
- Onsite SW Management

Minimum Requirement # 1: Preparation of Stormwater Site Plan

The purpose of this minimum requirement (MR) is to convey all relevant information about the proposed project to the City for review to ensure the project is in compliance with current City and State stormwater management conditions.

MR #1: NARRATIVE (a bulleted list is acceptable)

"Describe what is Significant & Insignificant about your project."

- SFR on standard City Lot.
- Average slope is $\pm 3\%$ to the Northwest
- Existing Condition is patchy grass and minimal landscaping
- Driveway access will be of 10' \times 24' (ROW Const. Permit)
- No stormwater run-off.
- Project limits defined by the property line (E&W) and the street and alley (N&S). East and west property line established by neighbor's fencing.
- Max excavation depth = 24" = 89 CY of material moved.
- USDA Soil Type - Clallam-Hoyopus, "TYPE B" soils

MR #1.B: STORMWATER SITE PLAN (Worksheet A2 or equivalent)

My STORMWATER SITE PLAN is attached to my application packet!

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Example: SFR

MR #1

- Minimum A SWPPP document the life of:
- Plans
- Source Control
- Preserve Drainage Outfalls
- Onsite SW Manager

Minimum Requirement # 3: Source Control of Pollution (not construction related)

The intent of source control is to prevent stormwater from coming in contact with pollutants. Source control BMPs can be operational or structural in nature. A non-land disposal area, an area of structural source control BMP. Wash your vehicle on the lawn rather than in the street is an operational BMP. This MR is generally not applicable to Single Family Residential (SFR). However, work on residential projects from existing developments should be considered during the design phase of every project. Specifications on operational source control BMPs that are applicable to various commercial and industrial use facilities can be found in Title 19 of the 2012 Stormwater Management Manual for Western Washington (SWMWW). A pdf copy of the Stormwater user on Downstream from the City's website under Stormwater Policy - Stormwater Resources in the Stormwater Code is later referenced.

Check one of the following boxes that best represents your project with regards to MR #3:

My project is a Single Family Residence (SFR) and after consulting operational and structural measures to prevent stormwater from coming in contact with pollutants, I have:

- determined this MR to not be applicable. made appropriate adjustments to my project.
- My project is not a SFR and after reviewing Title 19 of the SWMWW, I have determined that this MR is not applicable because of the following reason:
- My project is not a SFR and after reviewing Title 19 of the SWMWW, I have determined that the following source control BMPs are applicable to my project and shall be incorporated into the project design and operation.

Small Project Stormwater Report

4. Preservation of Natural Drainage Systems

Preserve the natural drainage system by retaining and protecting existing drainage channels and riparian areas. Do not fill, alter, or obstruct any drainage channel or riparian area. Do not place any structures, materials, or debris in any drainage channel or riparian area. Do not place any structures, materials, or debris in any drainage channel or riparian area. Do not place any structures, materials, or debris in any drainage channel or riparian area.

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Example: SFR

MR #1-5

- Site Plans - ~~Narrative~~ Plans
- SWPPP Narrative Plans
- Source Control
- Preserve Drainage & Outfalls
- Onsite SW Management

Minimum Requirement # 2: Construction Stormwater Management

APPLICANT agrees to install and maintain the following construction stormwater management measures to prevent sediment and other pollutants from entering any water body or stream. These measures shall be installed and maintained until the project is completed and the site is stabilized.

Minimum Requirement # 3: Source Control of Pollution (not construction related)

The intent of source control is to prevent stormwater from coming in contact with pollutants. Source control BMPs can be operational or structural in nature. A non-land disposal area, an area of structural source control BMP. Wash your vehicle on the lawn rather than in the street is an operational BMP. This MR is generally not applicable to Single Family Residential (SFR). However, work on residential projects from existing developments should be considered during the design phase of every project. Specifications on operational source control BMPs that are applicable to various commercial and industrial use facilities can be found in Title 19 of the 2012 Stormwater Management Manual for Western Washington (SWMWW). A pdf copy of the Stormwater user on Downstream from the City's website under Stormwater Policy - Stormwater Resources in the Stormwater Code is later referenced.

Check one of the following boxes that best describes your project:

- The proposed project site does not currently have any roof drains, seasonal, or continuous concentrated water running across any part of the property and the proposed improvements to the site will not create new concentrated flow paths. There are no discharge locations on the new discharge locations being proposed as a result of negotiating through MR #4 requirements. Measures have been taken to dissipate the discharge energy at the outfall, and the runoff will be discharged into a pre-existing stormwater conveyance system (ie. ditch, curb, low storm pipe, etc.)
- The proposed project site has existing concentrated flow drainage systems and outfalls. (NOTE: These drains must be geographically shown on the Site Plan, WORKSHEET A2 or equivalent, to include: type, slope, dimensions, channel lining, direction of flow, surface, etc.) Select below how it will be addressed:
 - This project will not alter the existing drainage system in any way. If the existing outfall(s) show signs of erosion and/or scour, energy dissipation measures will be installed or improved upon. Construction activity of any kind will not occur within a least 50% of the edge of the channelized flow. BMP C020: BUFFER ZONES will be implemented during the life of the project to provide riparian shading or other destruction techniques.
 - The existing concentrated drainage system traversing the property will be increased as part of this project, as described in the space below and shown on the site plans. While impacted, the natural drainage system and discharge location has been maintained to the maximum extent practical. If applicable, engineering calculations are provided that show the altered drainage design can accommodate the existing flows and the added runoff contributed by the project.

NOTE: Projects that change the existing land cover to the extent that concentrated flow is generated where no previous network existed is considered a "Large Project" and these "Small Project" templates are not applicable for use.

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Example: SFR

MR #1-5

- Site Plans - ~~Narrative~~ Plans
- SWPPP Narrative Plans
- Source Control
- Preserve Drainage & Outfalls
- Onsite SW Management

Minimum Requirement # 3: On-site Stormwater Management

The City requires all new development projects to include stormwater management measures to prevent sediment and other pollutants from entering any water body or stream. These measures shall be installed and maintained until the project is completed and the site is stabilized.

Check one of the following boxes that best describes your project:

- My project is located in a drainage basin that drains to a creek. Proceed to Page 7 to use LIST #1.
- My project is located in a drainage basin that drains to salt water. Proceed to Page 7 to use LIST #3.

Weblink: <https://www.cityofga.us/DocumentCenter/View/6393/Stormwater-Discharge-Map>

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Example: SFR

MR #1-5

- Site Plans - ~~Narrative~~ Plans
- SWPPP Narrative Plans
- Source Control
- Preserve Drainage & Outfalls
- Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

INSTRUCTIONS: Check One Feasible Option for Each Category Below:

Category A: Lawn and Landscape Areas

- My project does not have disturbed soils not covered by pervious surfaces.
- BMP TS.13: Post-Construction Soil Quality and Depth. Disturbed soils shall be amended, see WORKSHEET D.

Category B: Roofs

- My project does not have roof areas.
- 1. BMP TS.30A: Downspout Full Infiltration
- 2. BMP TS.30B: Perforated Stack-Out Connection
- 3. BMP TS.30C: Downspout Dispersion System
- 4. Each BMP above is infeasible, see WORKSHEET C.

Category C: Other Hard Surfaces

- My project does not have Other Hard Surface areas.
- 1. BMP TS.11: Sheet Flow Dispersion
- 2. BMP TS.12: Concentrated Flow Dispersion
- 3. Each item above is infeasible, see WORKSHEET C.

IMPORTANT NOTE: BMPs TS.12 and TS.14 require onsite soil information for sizing or infeasibility. Select: 1) A USDA Custom Soil Report from: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/oh/soils/> 2) WORKSHEET E1 or E2

USDA Soil TYPE = B

Measured Infiltration Rate = 1.5 in/hr

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Example: SFR

MR #1-5

- Site Plans - ~~Narrative~~ Plans
- SWPPP Narrative Plans
- Source Control
- Preserve Drainage & Outfalls
- Onsite SW Management

Post-Construction Soil Management

Benefits of Healthy Soils

5 Step Implementation Process

Step 1 - Assess and protect native vegetation and soil

Step 2 - Loosen compacted subsoil, if needed

Step 3 - Retain soils that are disturbed during construction

Step 4 - Add much to planting beds

Step 5 - Preserve natural soils between existing and new structures

Option 1: 12" compact (18" loose) for turf areas, 3 inches for planting beds

Option 2: 2" mulch and 12" loose soil (18" total) for turf areas, 3 inches for planting beds

Option 3: 2" mulch and 12" loose soil (18" total) for turf areas, 3 inches for planting beds

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Example: SFR

MR #1-5

1. Site Plans
~~Narrative~~
 Plans

2. SWPPP
 Narrative
 Plans

3. Source
~~Control~~

4. Preserve
~~Drainage &~~
~~Outfalls~~

5. Onsite SW
 Management

Ex: $Rate = \frac{12'' - 10''}{15 \text{ min.}} \times \frac{1 \text{ hr.}}{60 \text{ min.}} = \frac{2''}{0.25 \text{ hr.}} = 8 \frac{\text{in.}}{\text{hr.}}$

10. Testing period

INfiltration Test #1 Results
 Table 1 (15-min)

Time (15 min)	Depth of Water (inches)	Infiltration Rate (in/hr)
t = 0	12	
15	10	8
30	8.25	7
45	7.00	5
60	6.00	4
75	5.50	2
90	5.00	2
Average		4.67

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Example: SFR

MR #1-5

1. Site Plans
~~Narrative~~
 Plans

2. SWPPP
 Narrative
 Plans

3. Source
~~Control~~

4. SURFACE OBSERVATION:
 11. Dig a hole to the depth of 1-foot below proposed facility and approximately 5-feet from the proposed infiltrating water is expected to move into the underlying soil.
 12. Record total depth of hole from surrounding ground surface. **3 feet**
 13. While digging the hole, did you:
 a) Hit hard part (i.e. hardened soil that is like concrete)? No Yes
 b) Encounter standing water or seepage in the hole? No Yes
 14. If you answered "yes" to both (13a) and (13b), infiltration is not feasible for this site. **Test is finished.**

INfiltration Test #1 Results
 Table 1 (15-min)

Time (15 min)	Depth of Water (inches)	Infiltration Rate (in/hr)
t = 0	12	
15	10	8
30	8.25	7
45	7.00	5
60	6.00	4
75	5.50	2
90	5.00	2
Average		4.67

32

Example: SFR

MR #1-5

1. Site Plans
~~Narrative~~
 Plans

2. SWPPP
 Narrative
 Plans

3. Source
~~Control~~

4. Preserve
~~Drainage &~~
~~Outfalls~~

5. Onsite SW
 Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

INSTRUCTIONS: Check One Feasible Option for Each Category Below:

Category A: Lawn and Landscape Areas

Category B: Roofs

Category C: Other Hard Surfaces

Total Land Disturbance = 7,000 sq. ft.
 Total Hard Surfaces = 2,910 sq. ft.
 Results (incl. unexcavated): 2,000 sq. ft.
 Other Hard Surfaces = 910 sq. ft.

Measured infiltration Rate = 4.67 in/hr

33

Example: SFR

INfiltration FACILITY (TRENCH/DRYWELL)

MR #5 BMPs: SW

TRENCH SIZING

PREDOMINANT/COMPOSITE USDA HYDROLOGIC SOIL GROUP: TYPE B - 12.5 LINEAR FEET OF TRENCH

TRENCH LENGTH STANDARDS ARE PER 1000 SQ. FT. OF CONTRIBUTING ROOF AREA

USDA REPORT ACCOMPANIED BY FIELD INFILTRATION TEST (WORKSHEET 3)

INFILT. RATE (in/hr)	TRENCH	INFILT. RATE (in/hr)	TRENCH
13.0	20 LF	0.75 - 1.4	125 LF
4.67	1.5 - 6.0	0.3 - 0.74	190 LF

MINIMUM DESIGN STANDARDS AND NOTES:

1. OVERFLOW COLLECTION PIPE SHALL BE SEPARATED FROM THE DISTRIBUTION PIPE AND SET AT OR ABOVE THE ELEVATION OF THE PIPE.
2. GEOTEXTILE SHALL BE NON-WOVEN, LOW SURVIVABILITY, CLASS C PER MSD 870 (S-33-21) TABLES 1 AND 2.
3. SCOUR PROTECTIVE TO A MIN. 100% OF 4" BEFORE LEAVING TRENCH WITH FINISH PAVED AND FILLING WITH WASHED SPOKEL.
4. INDIVIDUAL TRENCH LENGTHS SHALL NOT EXCEED 100 FT.
5. MINIMUM SPACING BETWEEN TRENCH CONTIGUES SHALL BE 5 FEET.
6. CHECK WORKSHEET 4 FOR FULL LIST OF "INFEASIBILITY" CRITERIA.
7. SEE THE DOE MANUAL, VOLUME 3, SECTION 3.1.1 FOR ADDITIONAL INFORMATION.

DRYWELLS REQUIRE HIGH INFILTRATIVE SOILS AND ALWAYS REQUIRE SUPPORTING DOCUMENTATION BEYOND THE USDA SOIL REPORT (I.E. A SOILS REPORT BY A QUALIFIED PROFESSIONAL, A FIELD INFILTRATION TEST, OR OTHER). SIZING: (6-15 in./hr = 0.3 cY/1000 SQ FT) (0.3 in./hr = 0.3 cY/1000 SQ FT)

DRYWELLS MUST BE AT LEAST 48 INCHES IN DIAMETER AND MUST BE SPACED AT LEAST 10 FT APART.

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Example: SFR

INfiltration FACILITY (TRENCH/DRYWELL)

MR #1-5

1. Site Plans
~~Narrative~~
 Plans

2. SWPPP
 Narrative
 Plans

3. Source
~~Control~~

4. Preserve
~~Drainage &~~
~~Outfalls~~

5. Onsite SW
 Management

MR #5 BMPs: SW

Profile View

Cross Section

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Example: SFR

MR #1-5

1. Site Plans
~~Narrative~~
 Plans

2. SWPPP
 Narrative
 Plans

3. Source
~~Control~~

4. Preserve
~~Drainage &~~
~~Outfalls~~

5. Onsite SW
 Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

Min. Trench Length = $2,000 \text{ ft}^2 \times \frac{75 \text{ L.F.}}{1,000 \text{ ft}^2} = 150 \text{ L.F.}$

30 ft.

30 ft.

House 1,200 ft²

Garage 800 ft²

Walkway

Driveway

L.S.

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Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

Min. Trench Length = $2,000 \text{ ft}^2 \times \frac{75 \text{ L.F.}}{1,000 \text{ ft}^2} = 150 \text{ L.F.}$

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Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

INSTRUCTIONS: Check One Feasible Option for Each Category Below:

Category A: Lawn and Landscaping Areas

Category B: Roofs

Category C: Other Hard Surfaces

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Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

Infeasibility Criteria

Roofs

Full Dispersal

39

Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

BREAK

ALMOST THERE

10 Minutes

40

Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

Small Project Construction SWPPP

Stormwater Pollution Prevention Plan (SWPPP) Checklist

Applicant Information

Basic Project Information

41

Example: SFR

MR #1-5

1. Site Plans - Narrative - Plans
2. SWPPP Narrative Plans
3. Source Control
4. Preserve Drainage & Outfalls
5. Onsite SW Management

MR #5 BMPs: SWMMWW Vol. V, Ch. 5

Small Project Construction SWPPP

Stormwater Pollution Prevention Plan (SWPPP) Checklist

Applicant Information

Basic Project Information

PROJECT DESCRIPTION: (Is Inferred List is acceptable)

- Construct a SFR on standard City Lot.
- Average slope is $\pm 3\%$ to the Northwest - essentially flat.
- Land disturbance will be phased to minimize risk.
- Existing grass will be retained to the maximum extent possible until the final phase of the project where it will be replaced with new topsoil and seed.
- Construction entrance/exit will be primarily off of 10th St.
- No off-site stormwater run-on.
- No existing channelized flow onsite, nor proposed.
- Max excavation depth = 24" = 89 CY of material moved.
- USDA Soil Type = Clallam-Hoyups, "TYPE B" Soils
- Stockpiles to be covered with plastic.

42

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

43

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

Element 1: Preserve Vegetation / Mark Clearing Limits

Element 2: Construction Access

44

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

Element 2: Construction Access

Element 3: Preserve Vegetation / Mark Clearing Limits

Along 10" St. curb.

45

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

Element 3: Control Run Water

Element 4: Sediment Control

46

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

Element 5: Stabilize Soils

47

Example: SFR

BP5W A1 A2 B1 B2 C D E1 E2

MR #1-5

Small Project Construction SWPPP

1. Site Plans

2. SWPPP Narrative Plans

3. Source Control

4. Preserve Drainage & Outfalls

5. Onsite SW-Management

Factsheet C: <https://www.ciyo.gov.us>

Element 5: Stabilize Soils

48

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 5: Small Project Construction SWPPP

Element 5: Stabilize Soils

Construction is essential to building and paving lots, however, when it comes to leveling soils, they must be used with care and consideration. Steep slopes that are left exposed to the weather can erode.

Element 6: Protect Slopes

Construction on steep slopes is not permitted unless the contractor is responsible for stabilizing the slope. These slopes must be stabilized and protected from erosion. The purpose of the erosion prevention plan is to prevent erosion of the soil and to protect the slopes from erosion.

49

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 5: Small Project Construction SWPPP

Element 7: Protect Storm Drains

A storm drain is a pipe or ditch that carries surface runoff water from a roof, parking lot, driveway, or other paved area to a water body or to a storm drain system. Storm drains are used to collect and transport stormwater.

Element 8: Stabilize Channels and Outfalls

Stabilization of channels and outfalls is essential to many projects. It is important to stabilize channels and outfalls to prevent erosion and to protect the water quality. Stabilization can be achieved by using various techniques such as riprap, concrete, or vegetation.

50

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 7: Protect Storm Drains

A storm drain is a pipe or ditch that carries surface runoff water from a roof, parking lot, driveway, or other paved area to a water body or to a storm drain system. Storm drains are used to collect and transport stormwater.

51

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 7: Protect Storm Drains

A storm drain is a pipe or ditch that carries surface runoff water from a roof, parking lot, driveway, or other paved area to a water body or to a storm drain system. Storm drains are used to collect and transport stormwater.

52

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 7: Protect Storm Drains

A storm drain is a pipe or ditch that carries surface runoff water from a roof, parking lot, driveway, or other paved area to a water body or to a storm drain system. Storm drains are used to collect and transport stormwater.

53

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans - ~~Narrative~~ - ~~Plans~~

2. SWPPP Narrative Plans

3. Source - ~~Control~~

4. Preserve - ~~Drainage & Outfalls~~

5. Onsite SW - ~~Management~~

Factsheet C: <https://www.cityofpas.org>

Element 8: Control Pollutants

Construction activities can generate pollutants that can affect the water quality. It is important to control pollutants to protect the water quality. This can be achieved by using various techniques such as sediment control, erosion control, and pollution prevention.

54

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans ~~Narrative Plans~~

2. SWPPP ~~Narrative Plans~~

3. ~~Source Control~~

4. ~~Preserve Drainage & Outfalls~~

5. ~~Onsite SW Management~~

Factsheet C: <https://www.ciyofoia.us/>

Small Project Construction SWPPP

Element 10: Control Pollution

Element 11: Maintain Best Management Practices (BMPs)

Element 12: Manage the Project

Check the boxes below that best describe how this Element applies to your project and the applicable BMP(s) that will be used. Remember to show the location, spacing, and dimensions of any selected BMPs on your site plan.

I have evaluated my project with this element in mind and have determined that the following De-watering BMP(s) are applicable. Specific checks for each BMP attached have been distributed from the City website and are attached to this SWPPP for contractor, sub-contractor, and inspector reference.

Check the BMP(s) you will use:

BMP C231: Storm Bars BMP C232: Negative Filtration Other Technique: _____

I have evaluated my project with this element in mind and have determined it to be not applicable because:

Other / Comments: _____

55

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans ~~Narrative Plans~~

2. SWPPP ~~Narrative Plans~~

3. ~~Source Control~~

4. ~~Preserve Drainage & Outfalls~~

5. ~~Onsite SW Management~~

Factsheet C: <https://www.ciyofoia.us/>

Small Project Construction SWPPP

Element 11: Maintain Best Management Practices (BMPs)

Element 12: Manage the Project

Check the boxes below that best describe how this Element applies to your project and the applicable BMP(s) that will be used. Remember to show the location, spacing, and dimensions of any selected BMPs on your site plan.

I have evaluated my project with this element in mind and understand that it is my responsibility to:

- Perform weekly inspections for seepage, erosion, excessive dusting of the site and all stormwater BMPs.
- Maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continual performance of their intended function in accordance with BMP specifications.
- Remove all temporary erosion and sediment control BMPs within 90 days after achieving final site stabilization or after the temporary BMPs are no longer needed. Note: Installation of stormwater BMPs are subject to the City's stormwater management standards. The goal of stormwater management is to prevent or minimize runoff and erosion. The goal of stormwater management is to prevent or minimize runoff and erosion. The goal of stormwater management is to prevent or minimize runoff and erosion.

Check the BMP(s) you will use:

BMP C230: Materials On Hand BMP C236: CESCL

56

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans ~~Narrative Plans~~

2. SWPPP ~~Narrative Plans~~

3. ~~Source Control~~

4. ~~Preserve Drainage & Outfalls~~

5. ~~Onsite SW Management~~

Factsheet C: <https://www.ciyofoia.us/>

Small Project Construction SWPPP

Element 11: Maintain Best Management Practices (BMPs)

Element 12: Manage the Project

Check the boxes below that best describe how this Element applies to your project and the applicable BMP(s) that will be used. Remember to show the location, spacing, and dimensions of any selected BMPs on your site plan.

I have evaluated my project with this element in mind and understand that it is my responsibility to:

- Mark Clearing Limits
- Install Stabilized Construction Entrance
- Install protection for existing drainage systems and permanent drain inlets
- Establish staging areas for storage and handling of materials and BMPs
- Install sediment control BMPs
- Grade and install stabilization measures for disturbed areas
- Maintain BMPs until site stabilization, at which time they may be removed

Phase development to the maximum degree practicable and take into account seasonal work limits.

Maintain an updated Construction SWPPP. Any proactive or responsive changes made in the field should be annotated on the site plan, within a reasonable time frame.

Manage soil disturbance boundaries and allowable on-site traffic and parking. Construction and sub-contractors should be apprised of areas within your project that are identified to be left undisturbed. Accidental disturbance or compaction will require soil amendment and stabilization.

I will employ the following additional (unless specifically identified by the City BMP(s)) as part of my risk management plan to be prepared for unanticipated conditions.

Check the BMP(s) you will use:

BMP C233: Material On Hand BMP C234: CESCL BMP C235: Scheduling

57

Example: SFR

BP^{SW} A1 A2 B1 B2 C D E1 E2

MR #1-5

1. Site Plans ~~Narrative Plans~~

2. SWPPP ~~Narrative Plans~~

3. ~~Source Control~~

4. ~~Preserve Drainage & Outfalls~~

5. ~~Onsite SW Management~~

Factsheet C: <https://www.ciyofoia.us/>

Small Project Construction SWPPP

Element 13: Protect Low Impact Development (LID) BMPs

Check the boxes below that best describe how this Element applies to your project and the applicable BMP(s) that will be used. Remember to show the location, spacing, and dimensions of any selected BMPs on your site plan.

I have evaluated my project with this element in mind and understand that it is my responsibility to:

- Protect all Bioswallow and Rain Garden BMPs from sedimentation and compaction. Should they be compromised at any point during the project, it is my responsibility to restore the BMP(s) to their fully functioning condition.
- Protect completed lawn and landscaped areas from compaction due to construction equipment.
- Control erosion and avoid eroding sediment from surrounding land onto other permeable surfaces. Mulch construction equipment will not be allowed on lawn, mulch or pavement. Mulch runoff will not be checked or allowed onto permeable surfaces. Permeable fields with sediments or no longer passing an initial infiltration test must be cleared and remediated to an acceptable infiltration ability.
- Use of heavy equipment of existing soils under LID facilities that have been excavated to fill grade and have been certified to retain the infiltration rate of the soils.

I will use the following selected BMP(s) to protect present or on-site LID BMP(s) from compaction and/or sedimentation:

Check the BMP(s) you will use:

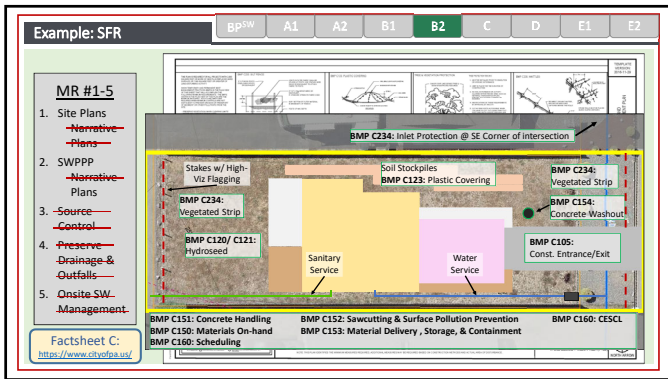
BMP C237: Buffer Zone BMP C238: High Visibility Fence BMP C239: Interceptor Dike and Swale

BMP C241: Grass Liner Channel BMP C242: Check Dams BMP C243: Vegetated SW Dike

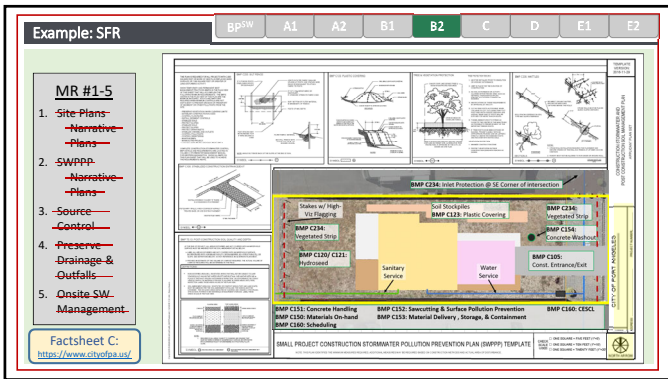
BMP C244: Brush Barrier BMP C245: SW Filter BMP C246: Vegetated

Other: Stakes and High-Viz Flagging/Tape, if necessary

58



59



60

Example: SFR

BP^{SW} A1 A2 B1 **B2** C D E1 E2

MR #1-5

1. Site-Plans - ~~Narrative-Plans~~
2. SWPPP - ~~Narrative-Plans~~
3. Source - ~~Control~~
4. Preserve - ~~Drainage & Outfalls~~
5. Onsite SW-Management

Factsheet C: <http://www.ciufda.us/>

PUBLIC WORKS INSPECTIONS

Pre-Construction Erosion and Sediment Control Inspection

The contractor is required to request a pre-construction erosion and sediment control inspection. Scheduling should be as follows:

1. Mark off perimeter and undisturbed areas with visible flagging.
2. Install Construction Entrance
3. Install temporary erosion and sediment controls
4. Install Inlet Protections
5. Obtain and store Materials on Hand (BMP C150)
6. Dig Foundation
7. Protect stockpiles and un-worked exposed soils
8. Identify location and method of managing concrete washout (does not need to be installed), if applicable
9. Call for inspection. (360) 417-4831

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Conclusion

BP^{SW} A1 A2 B1 B2 C D E1 E2

Final Thoughts

- This was a "typical" example. The process is the same with harder ones.
 - Do not wait till the end to consider SW
 - Discharge to a Creek
 - Permeable Pavement & Rain Gardens
 - Proprietary & innovative designs require an engineer
- LID Rebate Program: Soil Amendments, Rain Gardens, Perm. Pavements
- Use the Factsheet A
- Be realistic with your land disturbance
- Make sure your numbers match
- If you get stuck, give me a call
- This is a plan. Plans Change. Communicate.

Small Project Stormwater Report

Minimum Requirement #3: On-site Stormwater Management (continued)

BEST PRACTICES

1. The plan shall be based on the site's characteristics and the project's goals and objectives.

2. The plan shall be based on the site's characteristics and the project's goals and objectives.

3. The plan shall be based on the site's characteristics and the project's goals and objectives.

4. The plan shall be based on the site's characteristics and the project's goals and objectives.

5. The plan shall be based on the site's characteristics and the project's goals and objectives.

6. The plan shall be based on the site's characteristics and the project's goals and objectives.

7. The plan shall be based on the site's characteristics and the project's goals and objectives.

8. The plan shall be based on the site's characteristics and the project's goals and objectives.

9. The plan shall be based on the site's characteristics and the project's goals and objectives.

10. The plan shall be based on the site's characteristics and the project's goals and objectives.

62

Conclusion

BP^{SW} A1 A2 B1 B2 C D E1 E2

Q & A

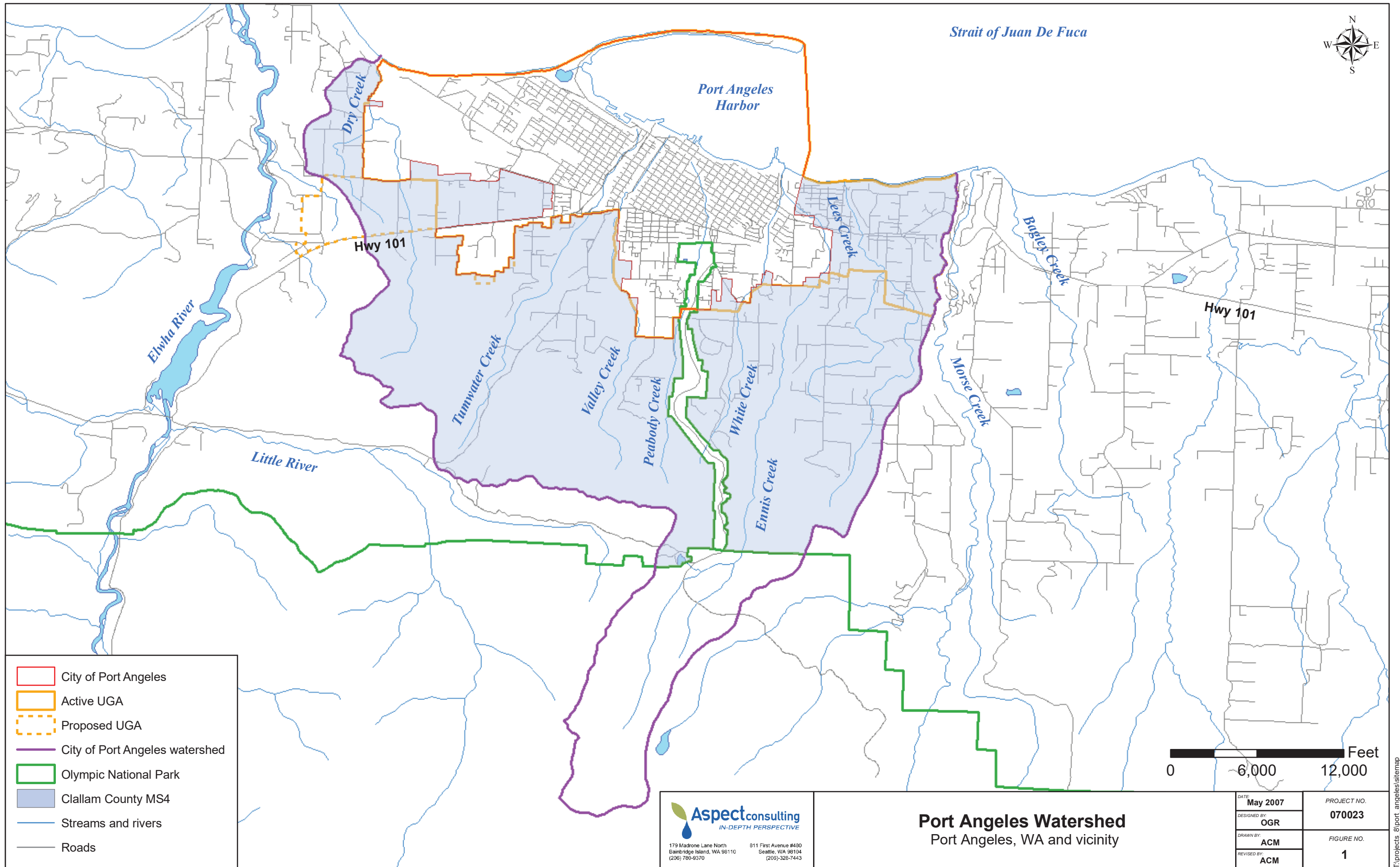
Thank you!

PORT ANGELES
 CIVIL ENGINEERS & ARCHITECTS, P.C.
 201 East Fifth Street, P.O. Box 1100
 Port Angeles, WA 98580-0117

Vince McIntyre, EIT
 Civil Engineer I
 Phone: 360-417-4701
 Email: vince@portangeles.com

Fax: 360-417-4709
 TTY: 360-417-4666

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- City of Port Angeles
- Active UGA
- Proposed UGA
- City of Port Angeles watershed
- Olympic National Park
- Clallam County MS4
- Streams and rivers
- Roads

Aspect consulting
IN-DEPTH PERSPECTIVE

179 Madrone Lane North
Bainbridge Island, WA 98110
(206) 760-6370

811 First Avenue #430
Seattle, WA 98104
(206) 326-7443

Port Angeles Watershed
Port Angeles, WA and vicinity

DATE	May 2007	PROJECT NO.	070023
DESIGNED BY	OGR	DRAWN BY	ACM
REVISED BY	ACM	FIGURE NO.	1

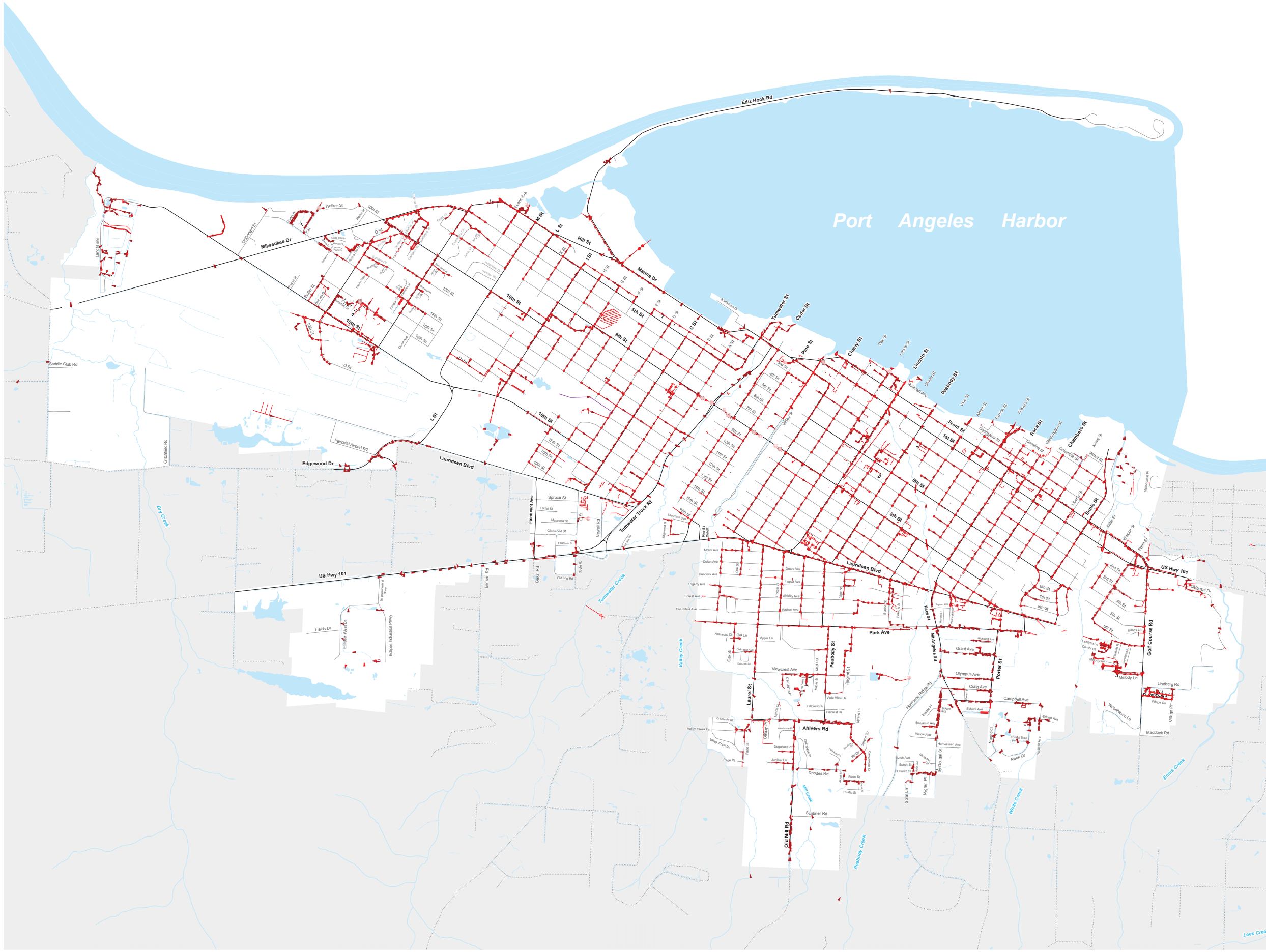
T:\projects_8\port_angeles\stemap



825
Feet

Vertical Datum = NAVD 88
Horizontal Datum = NAD 83/91

Storm Water Map



- Map legend**
- Ditches and drainage
 - River and creek
 - Ponds and marshes
 - Saltwater
 - City arterial
 - City side street
 - County road
 - County jurisdiction

- Storm utility legend**
- Chamber
- <all other values>
 - DAquaswirl
 - DDiversionChamber
 - DDryWell
 - DEnergyDissipator
 - DFilterChamber
 - DVortech
 - DWetWell
 - SystemValve
 - ControlValve
 - Manhole
 - Ponds
 - LateralLine
 - DOther active mains
 - DDitches
 - DOverflow
 - DInterceptor
 - DMain
 - DCulvert
 - DInlineStorage
 - DCollector
 - DOutfall
 - PressurizedMain

This map is not intended for use as a legal description. Locations of features are approximate only. Topographic map features are +/- feet of actual locations. This mapmaking is produced by the City of Port Angeles for its own use and purposes. Any other use of this mapmaking shall not be the responsibility of the City.
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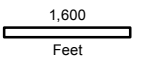
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AssetID	LegacyID	Jurisdiction	Administration	Status	SubType	Diameter	Material
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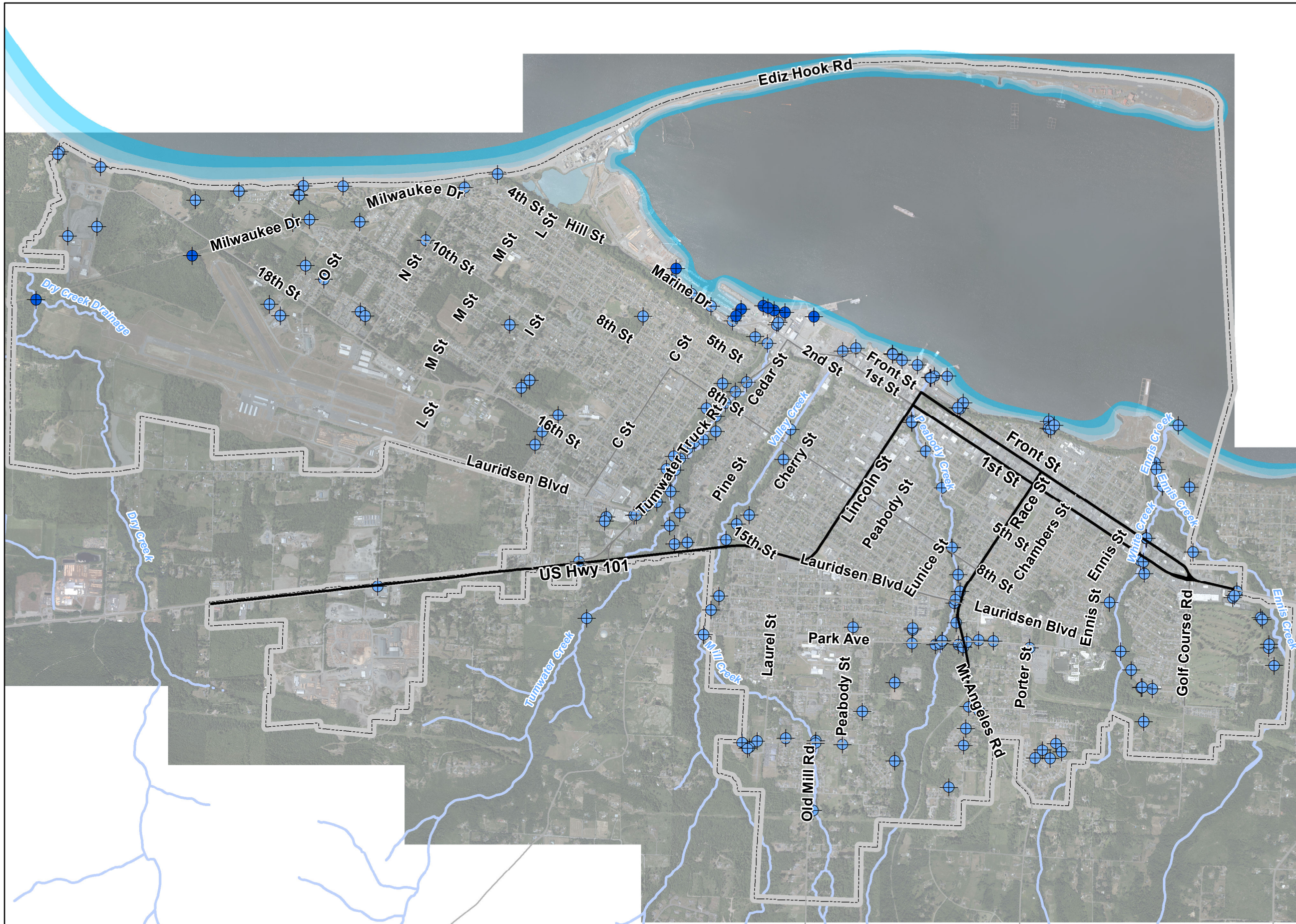


Outfall Discharge Map








Vertical Datum = NAVD 88
Horizontal Datum = NAD 83/91

Printed: 3/12/2020



Legend

-  COPA Outfall
-  POPA Outfall
-  City boundary
-  Creek
-  River

This map is not intended for use as a legal description. Locations of features are approximate only. Topographic/Map features are +/- 3 feet of actual locations. This map/drawing is produced by the city of Port Angeles for its own use and purposes. Any other use of this map/drawing shall not be the responsibility of the City.



IDDE Screening Strategy:

For the City to comply with its NPDES phase II permit, which dictates that all permittees shall complete field screening for at least 40% of the MS4 system no later than December 31, 2017. The City of Port Angeles elected to screen on average 12% of its MS4 system beginning in 2014. Screening basins were divided up by number of catch basins within the right of way; the summation of catch basins in the first five screening areas resulted in 83% of the cities total catch basins, meeting the 40% minimum screening goal set for phase II NPDES permittee.

In order to use the cities resources as efficiently as possible a mix of residential and commercial zoning in each year's screening area was preferred; to take advantage of an existing business inspection program. The City's Pollution Prevention Specialist inspects businesses within the screening basin boundary for potential illicit connections or discharges, and provides education to the business owners and staff on pollution prevention. Streams and creeks within the yearly screening area are inspected for the purpose of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. All catch basins within the screening area are inspected for odor, color, and floatables that are indicative of illicit discharges. Results of the catch basin inspection and in office basin investigation are used to select monitoring nodes, typically manholes. During dry weather primary indicator testing is performed at these manhole locations, and at the basins primary outfalls. If Primary indicator thresholds are exceeded, the area upstream from the monitoring site is flagged for further investigation; if no indicators are found then areas of the screening basin can quickly be eliminated from further screening. When a discharge has been detected and traced back to a specific branch of the MS4 network, methods such as die testing, smoke testing, or video inspections are employed to trace the discharge to its source.

2019 – Field Screening A St. Basin, Basin 5:

An office basin investigation of basin 5 was performed in order to determine the most effective way to screen the area. Basin 5 is primarily a residential drainage basin, with some commercial zoning along C Street, the shoreline/boat haven, and in the southern portion of the basin near Highway 101. The southern portion of the drainage basin is primarily a ditch-based stormwater conveyance system, Stormwater Operations staff drove/walked portions of system in search of potential illicit discharges. All Stormwater catch basins within basin 5 were inspected for visual and olfactory indicators, suspected illicit discharges were then flagged for further investigation. A creek walk was not performed during this annual basin screening, since Tumwater Creek was screened during the 2016 basin screening. The central portion of the basin is serviced by two primary stormwater networks draining to Tumwater creek, their outfalls were inspected, and priority manhole sampling was performed during dry weather. Outfalls along the shoreline were inspected and sampled for primary indicators. The western portion of the basin is serviced by two small stormwater networks draining to the vegetated areas of Lincoln and Shane Park, outfall inspections were performed, in addition of priority manhole sampling. The Pollution

Prevention Specialist increased focus on business inspections in the C street commercial corridor, and shoreline area of Basin 5.

Year Inspected:	Basin #:	Description:	Catch Basins (%):
2014	1	Urbanized Peabody Basin	15
2015	7	Lauridsen Blvd. Basin	9
2016	2	Tumwater/Valley Basin	12
2017	8	West/Airport Basin	19
2018	3	Francis/Ennis Basin	15
2019	5	A St. Basin	13
Total:			83

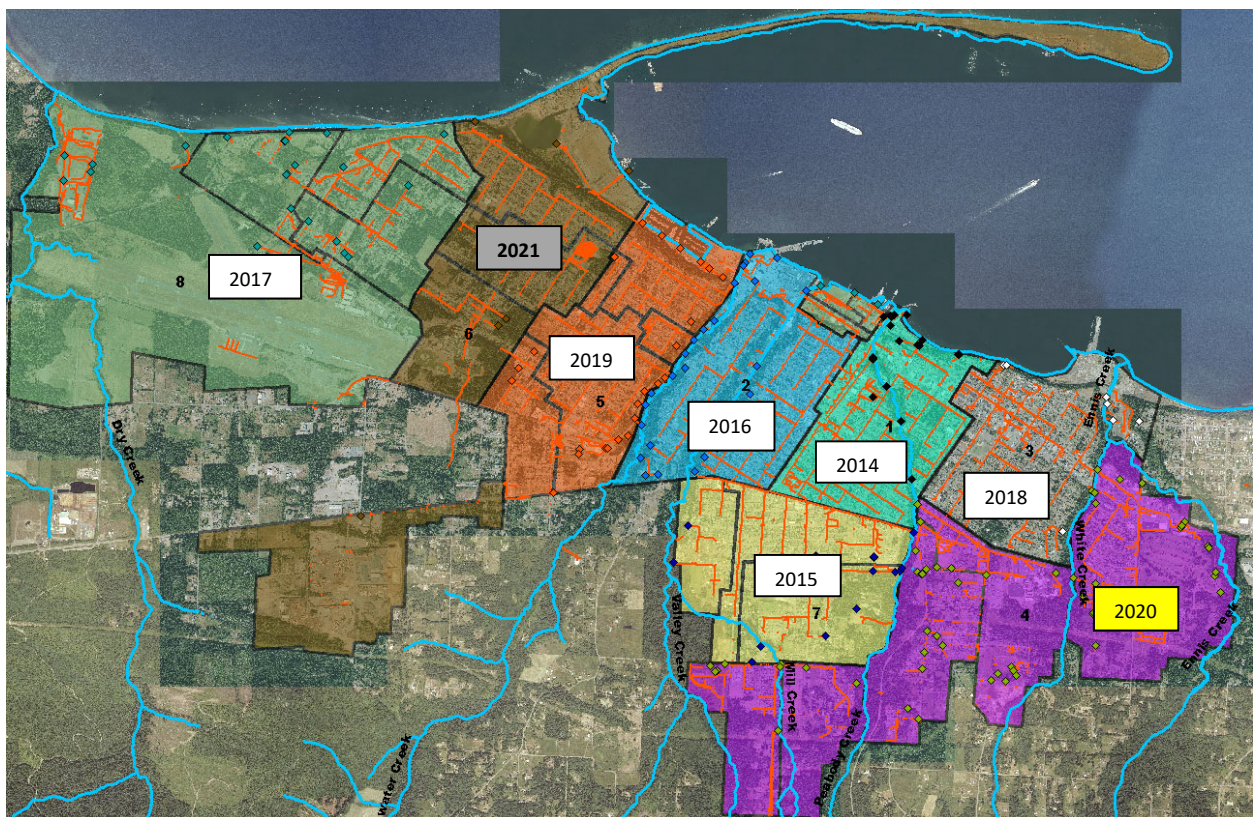


Figure 1 Basin Boundaries

Priority Manhole Inspection	
Manhole	Location Description
411	Intersection of 9th & Laurel St. Sample from Laurel St. Main
581	Intersection of 9th & Oak St. Sample from Oak St Main
221	Intersection of 9th & Cherry St. Sample from Cherry St Main
537	Intersection of 8th & Laurel St. Sample from 8th St Main
459	Intersection of 3rd & Laurel St. Sample from South & North Laurel St Main
457	Intersection of 3rd & Oak St. Sample from South & North Oak St Main

735	Intersection of 3rd & Cherry St. Sample from South Cherry & West 3rd Main
519	Intersection of 9th & Pine St. Sample from Pine St Main
711	Intersection of 9th and Cedar St. Sample from Cedar St Main
720	Intersection of 3rd and Pine St. Sample from flow in Manhole
740	Manhole Mid way up Cedar St Hill, Sample from flow in Manhole

Basin #5 Outfall Inspections	
Outfall:	Location Description:
22	Outfall to Tumwater Creek, below Tumwater Street bridge.
103	Outfall to Tumwater Creek (energy dissipator), below 8th Street bridge.
14	Outfall to Harbor, western most outfall to boat haven
13	Outfall to Harbor, D St. ROW
83	Outfall to Harbor, C St. ROW
10	Outfall to Harbor, eastern most outfall to boat haven
11	Outfall to Shane Park, North East corner in vegetated area
88	North East Corner of Lincoln Park, near parks Facility
86	In Lincoln Park Vegetation, aligned with 16-17th St alley

Basin #5 Priority Manhole Sampling	
Manhole:	Location Description:
389	5th and A St.
710	8th and A St. manhole before detention structure
705	11th and A St
535	15th and A St.
455	6th and B St.
394	12th and B St.
262	12th and C St.
392	11th and D St.
263	13th and D St.
243	7th and E St.

2019 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:
5928	12/14/2019	12/14/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	67' west of the 2" valve at Lincoln St. in the parking lot.	402 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.
5872	12/6/2019	12/6/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	30' south of the 2" main valve at 3744 Hill Circle.	3744 Hill Cir	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.
5869	12/4/2019	12/4/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	150' south of driveway, 50' east of road.	103 Round Tree 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.
5867	12/4/2019	12/4/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	South side of street.	804 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.
5763	11/4/2019	11/4/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	50' west of main valve at Woolcott St.	1604 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.
5734	10/8/2019	10/8/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	30' west of the Golf Course Rd. PRV.	1120 Golf Course 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.
5716	9/3/2019	9/3/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	10 ft north of hydrant.	302 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.
5661	7/18/2019	7/18/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	NE corner of intersection.	801 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.
5633	6/25/2019	6/25/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	4' east of fire hydrant.	1803 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.
5619	5/31/2019	5/31/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	125' west of the valve at K street.	1629 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.
5601	5/7/2019	5/7/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	The south end of this line is located 20 ft from the manhole and 37 ft from the blow off.	516 Blue Water View	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.
5592	4/25/2019	4/25/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	14' south of hydrant.	118 S Washington 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.
5575	4/1/2019	4/1/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	5' south of the 2" valve in the intersection.	410 E Ahlvers 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.
5567	3/21/2019	3/21/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	10' north of the valve at the SW corner of 12th and Vine St.	1206 S Vine 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.
5562	3/15/2019	3/15/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	2" Valve at the NW corner of 14th and Dutch Dr.	1316 Dutch 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.
5560	3/13/2019	3/13/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	100' west of the valve at A street.	808 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.
5548	2/27/2019	2/27/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	28' east of the 2" valve on the NW corner of intersection.	1205 W 18th 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.
5547	2/27/2019	2/27/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	36' west of the valve at Albert St.	903 Albert 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.
5546	2/26/2019	2/26/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	25' south of water service.	609 S Ennis 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.
5524	2/19/2019	2/19/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	60' west of the valve at Peabody.	336 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.
5523	2/19/2019	2/19/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	6' north of main valve.	1021 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.
5522	2/19/2019	2/19/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	Main valve at the SW corner of 12th & O street in driveway.	1204 O 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.
5466	1/25/2019	1/25/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	337 west of valve at F street.	1326 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.
5465	1/25/2019	1/25/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	230 west of valve at C street.	1016 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.
5464	1/25/2019	1/25/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	Approximately 40' east of Whites Creek on hillside. The work site was north of the referenced address.	1450 Campbell 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.
5459	1/22/2019	1/22/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	154' west of main valve at 10th & F St.	1316 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.
5456	1/11/2019	1/11/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	18' west of the 2" valve on the SE corner of 5th and K street.	1638 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.
5450	1/2/2019	1/2/2019	Staff Referral	No	No	Yes	Sediment	Water Main Repair	212' west of the valve at Vine St.	418 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.
112019	1/1/2019	1/2/2019	Pollution Hotline	Yes	Yes	Yes	Sanitary Sewer Overflow	Site Clean up	SW corner of 7th St. & B St.	904 W 7th St	1/2/2019 City Resident notified City staff of a sanitary sewer overflow near 7th & B St intersection. Sanitary Sewer operation staff promptly responded to the spill location. Within an hour of reporting, the discharge was terminated. Receiving stormwater system catch basin and main were cleaned.
352019	3/5/2019	4/10/2019	Streamkeepers	No	No	Yes	Fecal Coliform	NA	Valley Creek Estuary, Near pedestrian bridge	331 W 1st St	2/20/2019 Sample Collected by Streamkeepers, 3/5/2019 City notified of sampling results. 3/6/2019 & 4/10/2019 City Staff performed follow up sampling in upstream stormwater basins draining to Valley Creek Estuary. Sampling results couldn't be replicated, no source found.
4122019	4/12/2019	4/15/2019	Pollution Hotline	No	No	Yes	NA	NA	NW corner Goodwill parking lot	603 S Lincoln St	4/15/2019 Resident reported a discharge from a mobile home in the Goodwill Parking lot. Upon arrival on site, no active discharge was found, and no sign of part Discharge. If a spill occurred, the discharge did not reach the MS4.
642019	6/4/2019	6/11/2019	Staff Referral	Yes	Yes	Yes	Sanitary Sewer Overflow	Site Clean up	Peabody Creek RV Park	127 S Lincoln St	6/4/2019 Trailer Park Resident indicated that there was a recent sewer overflow from a trailer park private sewer connection. Trailer Park Manager indicated that the overflow was recent, less than two days old. Overflow was due to a crushed private Sanitary Sewer lateral. 6/4/2019 Contractor pumped out the sewer system, and cleaned up the area around the spill. 6/11/2019 Contractor repaired crushed sanitary sewer lateral.
732019	7/3/2019	7/8/2019	Pollution Hotline	No	No	Yes	Paint	Education Technical Assistance	Toga's Parking Lot	122 W Lauridsen Blvd.	6/3/2019 Resident reported painting contractor cleaning paint gun into City Catch Basin. Painting Contractor and Business Owner were notified of the Illicit Discharge policy and provided with stormwater education.
812019	8/1/2019	8/5/2019	Staff Referral	No	No	Yes	Cooking Oil and Grease	Education Technical Assistance	Downtown Alley behind Next Door Gastropub	113 W 1st St	8/1/2019 City staff reported messy grease bin in the Alley behind Next Door Gastropub, issue forwarded to Pollution Prevention Specialist. 8/5/2019 Business Manager provided with Stormwater education and directed to clean area around grease bin.

9122019	9/12/2019	9/12/2019	Staff Referral	Yes	Yes	Yes	Sediment	Education Technical Assistance	Neeley Construction site William Shore Memorial Pool	225 E 5th St	9/12/2019 City Stormwater inspector notified Neeley Construction of apparent deficiencies in their sediment and erosion control measures. With rain in the forecast they were advised to correct those deficiencies. Neeley Construction did not take appropriate action to protect stockpiles and slopes, resulting in a turbid discharge to the City MS4. Stormwater education was provided and marked up corrections were made to the construction sites SWPPP.
9202019	9/20/2019	9/26/2019	Pollution Hotline	Yes	Yes	Yes	Sanitary Sewer Overflow	Education Technical Assistance	Residential Property Sewer Service	136 E 12th St	9/20/2019 City Staff were informed of a possible blocked residential sewer service lateral by the contractor hired to inspect the residential sewer. City staff responded to the site, noticed vibrant vegetative growth in the vicinity of the damaged lateral. Following fecal coliform sample collection from a down stream Catchbasin, City staff confirmed that the blocked sewer lateral discharge had reached the City MS4. 9/26/2019 Contractor completed repair of damaged sewer lateral.
9302019	9/30/2019	9/30/2019	Pollution Hotline	Yes	Yes	Yes	Sanitary Sewer Overflow	Site Clean up	Intersection of 12th and Lincoln Street	1206 S Lincoln Street	9/30/2019 Resident notified the City of a potential Sanitary Sewer Overflow from a Manhole at the intersection of 12th and Lincoln Street. Operations staff responded to the spill, cleared the sewer blockage, and cleaned up the spill location.
12122019	12/12/2019	12/12/2019	Staff Referral	Yes	Yes	Yes	Sanitary Sewer Overflow	Site Clean up	Intersection of 4th and Lincoln Street	403 S Lincoln St	12/12/2019 City Staff reported that a sanitary sewer bypass pipe leaked during the course of emergency sewer repair work, resulting in a discharge to the road way surface. Contractors took prompt action to repair the leak, and clean up the roadway surface.
12172019	12/17/2019	12/17/2019	Staff Referral	No	No	Yes	Transformer FR3 Oil	Site Clean up	North of Pump Station 4 on Marine Drive	314 W Marine Dr.	12/17/2019 The Port Angeles Police Department reported that a 25kva mounted transformer was hit by a moving vehicle, the transformer landed on the sidewalk and start leaking oil. Approximately 15 gal of FR3 oil spilled to the ground, no discharge to the road or adjacent estuary. City operations staff placed absorbant pads and granuales, completed clean up effort the afternoon of the event.
12312019	12/31/2019	NA	Staff Referral	No	No	Yes	Gray water	Education Technical Assistance	1119 W. 9th SL - in the alleyway.	1119 W. 9th St.	12/30/2019 City Staff reported a mobile home discharging gray water to ground in the alley. 12/20/2020 City staff provided stormwater education, resident was instructed to discontinue use of the RV and to disconnect the water service, event is on going as City staff periodically inspect for complinece with City directive.
190814	3/9/2019	3/9/2019	Pollution Hotline	Yes	Yes	Yes	Sanitary Sewer Overflow	Site Clean up	SW Coner 12th and Pine St.	1212 S Pine St.	3/9/2019 City Police Department reported sewage flowing into a stormdrain on the corner of 12th & Pine St. City staff responded to the site, and confirmed the presence of an active discharge. Operations staff took prompt action to clear the sewer blockage. The roadway, gutter, and receiving catch basin were cleaned. Sewage level in the catch basin had not reached the discharge pipe, no sewage discharged any further into the stormwater system.
Total # of Events: 41		40 # of Reports on		6		Total # of G3:		6			
Eliminated during reporting period.		Pollution Hotline:									



2019 Stormwater Development Review Tracking Sheet

Count	Public or Private?	Permit Type	Permit # or Project #	Address, Area, or Parcel Number	Project Name	MR Triggered	Plan Review Date(s)	Initials	Appendix 7 (Risk / Site Visit Date)	Initials	Pre-Con ESC Insp. Date(s)	Initials	Const. Started?	During Construction ESC Insp. Date(s)	Initials	Current ESC Status	Final Completion Inspection Date	Initials	Number of Structural BMPs Inspected	Maintenance Agreement Recorded?	As-buits recieved?	Inspection Notes:	
EX.	Private	BP	18-001	123 W. Fake St. or Edgewood Rd. btwn Dry Creek & Airport Rds. or 0700063520	Lake Angeles Parking Lot Improvements	MR 1-5	1/1/2018 1/29/2018	JD JD	Low / NA	JD	2/4/2018 2/5/2018	JD JD	Yes	2019: 2/6, 2/19, 3/1	JD	In Compliance	4/1/2018	JD	4	NA	NA	Concrete washout in ditchline (2/19). Appendix 8.1 filed. Education provided to sub-contractor and contractor - JD	
1	Private	C&G	19-237	830 W. Lauridsen Blvd.	Clallam Transit Concrete Pad Repair	MR 1-5	1/7/2019 2/1/2019	VM	High / 1.31.2019	VM, JTB	5/22/2019	RV, JTB	Yes	2019: 10/2, 12/3	VM	In Compliance	on-going					Ongoing - making repairs to flow control structure. Follow-up Spring 2020.	
2	Private	BP	18-1701	923 W. 16th St.	Taylor/Ralston Spec. SFR	MR 1-5	1/25/2019 2/13/2019	VM	Low / NA	VM	2/20/2019	RV	Yes	2019: 2/20, 8/5	JLL, RV	In Compliance	8/8/2019	RV, JTB	1	NA	NA		
3	Private	BP	19-35	623 Vashon Ave.	Viewterra Modular	MR 1-5	1/25/2019 2/1/2019	VM	Low / NA	VM	3/20/2019	RV	Yes	2019: 6/17	RV	In Compliance	9/5/2019	RV	1	NA	NA	Flow Spiliter installed	
4	Private	BP	18-1865	1203 Campbell Ave.	NIVENS, 6 Duplexes	MR 1-9	2/7/2019 2/25/2019 4/11/2019	VM	High / 1.24.2019	VM, JTB	8/9/2019	RV	Yes	2019: 12/13, 12/20	VM, RV	In Compliance	on-going						
5	Private	BP	19-138	304 E Park St	PAHS ADA Parking Lot Redevelopment	MR 1-9	2/5/2019 / /	VM	NA				No	** Project withdrawn	VM	In Compliance	NA						*Permit not issued
6	Private	PRE DEV	19-07	South Oak Street	South Oak Short Subdivision	TBD	2/6/2019	VM	NA	VM			** See C&G 19-663, 2901 S. Oak St.	VM	In Compliance	NA							
7	Private	BP	19-217	2003 W 5th St	GRANT SFR	MR 1-5	2/22/2019	VM	Low / NA	VM			No	** Project BP withdrawn	JTB	In Compliance	NA						Permit Pulled by Applicant.
8	Private	BP	19-231	1308 Georgiana St.	MORRISON Manufactured Home	MR 1-5	3/1/2019 3/13/2019	VM, JTB	High / 2.20.2019	VM, JTB	4/3/2019	RV	Yes	2019: 7/16	RV, JTB	In Compliance	10/18/2019	RV	1	NA	NA	Construction limits fence left in place to keep people off grass	
9	Private	C&G	19-246	3314 Wabash Ave.	McNEELEY Clearing for Future Dev.	MR 1-5	3/14/2019	JTB	High / 3.28.2019	JTB	4/12/2019	JTB	Yes	2019: 6/7, 6/18	RV, JTB	In Compliance	8/14/2019	RV	4	NA	NA	Perimeter, erosion, const limits, left in place for future construction	
10	Private	BP	19-0367	2602 W 18th St.	POPA	MR 1-5	4/3/2019	JTB	Low / NA	JTB	4/3/2019	JTB	No		VM	In Compliance	Not Started						
11	Private	BP	19-0335	917 Madeline st	ELLIOT SFR	MR 1-5	3/25/2019	JTB	Low / NA	JTB	4/10/2019	JTB	Yes	2019: 5/1,	RV, JTB	In Compliance	7/22/2019	RV, JTB					
12	Private	BP	19-429	1423 Rook Dr	GREENCROW SFR	MR 1-5	3/27/2019	JTB	Low / NA	JTB	7/10/2019	JTB	Yes	2019: 9/20, 12/13, 12/19	RV, JTB	In Compliance	12/24/2019	RV					
13	Private	BP	19-356	826 Boathaven Dr	POPA flexible cover	MR 1-5	3/29/2019	JTB	Low / NA	JTB			* No call for Pre-const. Insp.	Yes		In Compliance	12/10/2019	RV			NA	No pre-const or during inspection called in	
14	Private	BP	19-473	823 Renee Ln	McKnight	MR 1-5	4/9/2019	JTB	Low / NA	JTB	4/19/2019	RV, JTB	Yes	2019: 12/3,	VM	Not In Compliance	on-going						
15	Private	BP	19-0334	1522 W 15th St	VIEWTERRA MODULAR	MR 1-5	4/16/2019	JTB	Low / NA	JTB	5/30/2019, 8/12/19	JTB, RV	Yes	11/12/2019	JTB	In Compliance	11/15/2019	RV					
16	Private	BP	18-1168	From: 205 E. 5th St. To: 223 E 8th St	Horizon House Relocation Project	MR 1-5	8/21/2018 5/1/2019	VM	Low / NA	VM	4/16/2019	VM	Yes	2019: 10/23, 12/13	RV, VM	In Compliance	1/28/2020	RV					
17	Private	BP	19-382	2301 S. Francis Street	Boys & Girls Club	MR 1-9	4/29/2019 6/2/2019 7/12/2019	VM	High / 4.29.2019	VM			* No call for Pre-const. Insp.	Yes	2019: 12/18	VM	In Compliance	on-going					
18	Private	BP	19-418	225 E. 5th Street	William Shore Memorial Pool Expansion	MR 1-9	4/16/2019 5/30/2019 6/28/2019 7/18/2019	VM	High / 4.16.2020	VM	8/2/2019	VM, RV	Yes	2019: 8/2, 9/12, 9/13, 10/23, 11/4 2020: 1/6, 3/11	VM, RV	In Compliance	on-going					ERTS on 9/12 (#693093)	
19	Private	C&G	19-538	102 N. Cedar St.	Platypus Marine, Travel Lift Access Improve.	MR 1-9	5/6/2019 5/8/2019	VM	Low / NA	VM			No			In Compliance	Not Started						
20	Private	BP	19-0561	1518 W 15th St	Viewterra Manufactured Home	MR 1-5	5/8/2019	JTB	Low / NA	JTB	6/20/2019	JTB, RV	Yes	2019: 11/12,	JTB	In Compliance	11/14/2019	RV					
21	Private	BP	19-0585	1901 W 18th St	Michael Romero	MR 1-5	5/22/2019	JTB	Low / NA	JTB			* No call for Pre-const. Insp.	Yes	2019: 12/3	VM	In Compliance	on-going					Minor TESC issues communicated w/ contractor in the field.
22	Private	BP	19-0822	1840 W 4th St	Kevin Rodman Manufactured Home	MR 1-5	6/17/2019	JTB	Low / NA	JTB			No	2019: 12/3	VM	In Compliance	Not started						
23	Private	BP	19-0570	3810 Page St	CES Properties / Jarod Kortman	MR 1-5	7/5/2019	JTB	Low / NA	JTB	9/13/2019	JTB, RV	Yes	2019: 12/30	VM	In Compliance	on-going						Minor TESC issues communicated w/ contractor in the field.
24	Private	C&G	19-0663	2901 S Oak St	Stump Removal & Grading / Hagueewood	MR 1-5	6/18/2019	JTB	Low / NA	JTB	7/17/2019	JTB, RV	Yes	2019: 7/23, 12/30	RV	In Compliance	1/22/2020	RV					No Flagging required, Lot is fenced.
25	Private	BP	19-0959	601 Del Guzzi Dr	Anderson Homes / SFR	MR 1-5	7/16/2019	JTB	High / 6.25.2019	JTB			No	** Project withdrawn	VM	In Compliance	NA						
26	Private	C&G	19-1097	415 E Front St	Rem. & Repl. Parking lot/Lakeside Ind.	MR 1-5	7/29/2019	JTB	Low / NA	JTB			* No call for Pre-const. Insp.	Yes	2019: 12/30	VM	In Compliance	1/24/2020	RV				
27	Private	BP	19-1040	1427 Rook Dr	Green Crow SFR	MR 1-5	7/30/2019	JTB	Low / NA	JTB	8/26/2019	JTB, RV	Yes	2019: 12/13, 12/19	VM	In Compliance	12/24/2019	RV					
28	Private	BP	19-1046	PN: 063000079250, 200 Blk. W. Front St.	Port Angeles Waterfront Center (PAWC), Phase 1	MR 1-9	8/23/2019 10/15/2019	VM VM	High / 10.15.2019	VM	1/6/2020	VPM	Yes	2019: 11/18 2020: 1/6, 2/11	RV, VM	In Compliance	on-going						
29	Private	BP	19-1114	1315 W 10th St	Wilke SFR	MR 1-5	8/1/2019	JTB	Low / NA	JTB	12/3/2019	VM	Yes	2020: 2/10	JTB, VM	Not In Compliance	on-going						Minor TESC issues communicated w/ contractor in the field.
30	Private	BP	19-1118	1420 Rook Dr.	Green Crow SFR	MR 1-5	8/5/2019	JTB	Low / NA	JTB	8/26/2019	JTB, RV	Yes	2019: 9/20, 2020: 2/26, Contractor to re-sched. Final	RV, JTB	In Compliance	3/12/2020	RV					
31	Private	BP	19-1188	1103 O St.	Ace Michaels	MR 1-5	8/13/2019	JTB	Low / NA	JTB	9/25/2019	JTB	Yes	2019: 12/3	VM	In Compliance	on-going						
32	Private	BP	19-1210	1934 W 8th St	Botero/Maven Ind. SFR	MR 1-5	8/15/2019	JTB	Low / NA	JTB	10/1/2019, 10/2/2019	JTB, RV	Yes	2019: 11/27, 12/3	RV, VM	In Compliance	on-going						11/27: Perforated Stub-out rough-in
33	Private	BP	19-1279	1424 Rook Dr	Green Crow SFR	MR 1-5	9/3/2019	JTB	Low / NA	JTB	9/27/2019	JTB	Yes	2019: 12/13, 12/19	VM	In Compliance	on-going						
34	Private	BP	19-0819	111 E Front St	Elwha LEKT Demo	MR 1-9	6/13/2019	VM	High / 1.31.2019	JTB	9/17/2019	JTB, RV	Yes	2019: 9/26, 10/1, 10/22, 10/23, 10/25, 12/30	RV, JTB, VM	In Compliance	on-going						
35	Private	BP	19-0820	107 E Front St	Elwha LEKT Demo	MR 1-9	6/13/2019	VM	High / 1.31.2019	JTB	9/17/2019	JTB, RV	Yes	2019: 9/26, 10/1, 10/22, 10/23, 10/25, 12/30	RV, JTB, VM	In Compliance	on-going						
36	Private	BP	19-0821	217 N Laurel St	Elwha LEKT Demo	MR 1-9	6/13/2019	VM	High / 1.31.2019	JTB	9/17/2019	JTB, RV	Yes	2019: 9/26, 10/1, 10/22, 10/23, 10/25, 12/30	RV, JTB, VM	In Compliance	on-going						
37	Private	BP	19-1231	101 E Front St	Elwha LEKT Demo	MR 1-9	9/4/2019	VM	High / 1.31.2019	JTB	9/17/2019	JTB, RV	Yes	2019: 9/26, 10/1, 10/22, 10/23, 10/25, 12/30	RV, JTB, VM	In Compliance	on-going						
38	Private	BP	19-1335	1429 Rook Dr	Green Crow SFR	MR 1-5	9/4/2019	JTB	Low / NA	JTB	10/30/2019	JTB, RV	Yes	2019: 12/13, 12/19	VM	In Compliance	3/12/2020	RV					



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EX.	Private	BP	18-001	123 W. Fake St. or Edgewood Rd. btwn Dry Creek & Airport Rds. or 07000063520	Lake Angeles Parking Lot Improvements	MR 1-5	1/1/2018 1/29/2018	JD JD	Low / NA	JD	2/4/2018 2/5/2018	JD JD	Yes	2019: 2/6, 2/19, 3/1	JD	In Compliance	4/1/2018	JD	4	NA	NA	Concrete washout in ditchline (2/19). Appendix 8.1 filed. Education provided to sub-contractor and contractor - JD
39	Private	BP	19-1309	1507 W. 15th St	Wyatt Davidson	MR 1-5	9/4/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/30	VM	In Compliance	on-going					
40	Private	BP	19-1534	1426 Rook Dr	Green Crow SFR	MR 1-5	10/15/2019	JTB	Low / NA	JTB	10/30/2019	JTB,RV	Yes	2019: 12/13, 12/19	VM	In Compliance	on-going					
41	Private	BP	19-1604	411 E 9th St	Joe Croteau	MR 1-5	10/23/2019	JTB	Low / NA	JTB	12/11/2019	RV	Yes	2019: 12/13	VM	In Compliance	on-going					
42	Private	BP	19-1561	1734 W 11th st	Penninsula Housing Authority	MR 1-5	10/23/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB / VM	In Compliance	on-going					
43	Private	BP	19-1560	1738 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
44	Private	BP	19-1577	1638 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB			No		VM	In Compliance	Not Started					
45	Private	BP	19-1562	1722 W 11th St	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
46	Private	BP	19-1576	1718 W 11th St	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
47	Private	BP	19-1563	1726 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
48	Private	BP	19-1575	1730 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
49	Private	BP	19-1564	1634 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB			No		JTB/VM	In Compliance	Not Started					
50	Private	BP	19-1579	1714 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
51	Private	BP	19-1578	1710 W 11th st	Penninsula Housing Authority	MR 1-5	10/24/2019	JTB	High / 10/28/2019	JTB	* No call for Pre-const. Insp.		Yes	2019: 12/3, 12/16, 12/19, 12/20, 12/30, 12/31, 2020: 1/3, 2/10,	JTB/VM	In Compliance	on-going					
52	Private	BP	19-1644	1428 Rook Dr	Green Crow SFR	MR 1-5	10/31/2019	JTB	Low / NA	JTB	2/11/2020	RV	Yes		RV	In Compliance	on-going					
53	Private	BP	19-1587	1608 W 11th St.	Taylor/Ralston Spec. SFR	MR 1-5	11/6/2019	JTB	High / 10.16.2019	JTB	11/12/2019	JTB	Yes	2019: 10/2, 10/16, 11/12, 12/3 2020: 2/21/20	JTB, RV, VM	In Compliance	on-going					
54	Private	BP	19-0500	1105 E 1st St.	Tonkin/Taco Time	MR 1-5	11/12/2019	JTB	Low / NA	JTB	11/13/2019	JTB	Yes	2019: 12/10	RV	In Compliance						
55	Private	BP	19-1667	812 Joshua St.	ELLIOT SFR	MR 1-5	11/19/2019	JTB	Low / NA	JTB	12/5/2019	RV	Yes	2019: 12/3, 12/19, 2020: 1/21	JTB, RV	In Compliance	3/9/2020	JTB				
56	Private	BP	19-1708	3314 Wabash Ave.	Sums Construction/Mcneely	MR 1-5	12/4/2019	JTB	Low / NA	JTB			No	2019: 12/13	VM	In Compliance	Not Started					
57	Private	BP	19-1726	1404 1/2 W 15th St.	Alpha Builders	MR 1-5	12/10/2019	JTB	High / 12.16.2019	JTB			No	2019: 12/30	VM	In Compliance	Not Started					
MR #2 ONLY PROJECTS																						
1	Private	TUP	18-84	321 E. 5th St.	Use area at City Hall for Pool Project	MR 2 ONLY	1/7/2019	VM	Low / NA	VM												
2	Private	COND. USE	18-81	520 W. 10th St.	Luxton ARU	MR 2 ONLY	1/7/2019	VM	Low / NA	VM												
3	Private	SSD	18-82	939 Caroline St.	OMC Air Handling Unit	MR 2 ONLY	1/15/2019	VM	Low / NA	VM												
4	Private	BP	19-68	117 E 8th St	Shumway Interior Remodel	MR 2 ONLY	1/16/2019	VM	Low / NA	VM												
5	Private	BP	19-74	601 E Park Ave	Cramer Remodel for B&B	MR 2 ONLY	1/16/2019	VM	Low / NA	VM												
6	Private	BP	18-1947	202 N Cedar St	POPA Replace Structural Piles	MR 2 ONLY	1/16/2019	VM	Low / NA	VM												
7	Private	BLA	18-86	615 Milwaukee Dr.	BARSZCZ BLA	MR 2 ONLY	1/22/2019	VM	Low / NA	VM												
8	Private	BP	18-1248	304 E. Park Ave.	PAHS Greenhouse	MR 2 ONLY	2/7/2019	VM	Low / NA	VM												
9	Private	BP	19-92	1126 Highland Ave.	Manufactured Shed Installation	MR 2 ONLY	2/7/2019	VM	Low / NA	VM												
10	Private	BP	19-140	2313 Francis St	House Move	MR 2 ONLY	2/5/2019	VM	Low / NA	VM												
11	Private	BP	19-146	2314 Francis St	House Move	MR 2 ONLY	2/5/2019	VM	Low / NA	VM												
12	Private	BP	19-118	1805 E St	MONKEY Shed	MR 2 ONLY	2/5/2019	VM	Low / NA	VM												
13	Private	BP	19-119	115 W. Front St.	OPPELT Bar Interior Remodel	MR 2 ONLY	2/5/2019	VM	Low / NA	VM												
14	Private	BP	19-106	224 E. 1st St.	JOHNSON Interior Remodel	MR 2 ONLY	2/13/2019	VM	Low / NA	VM												
15	Private	BP	19-191	1943 W. Lauridsen Blvd.	DELIKAT BMX fence improvements	MR 2 ONLY	2/13/2019	VM	Low / NA	VM												
16	Private	BLA	18-83	1221 Dutch Dr.	JOHNSON BLA	MR 2 ONLY	2/13/2019	VM	Low / NA	VM												
17	Private	BP	18-1671	1500 Ediz Hook Rd	OPRA Rowing Building Move	MR 2 ONLY	2/14/2019	VM	Low / NA	VM												
18	Private	BP	19-180	1209 Georgiana St	Catastini Demo House	MR 2 ONLY	2/22/2019	VM	Low / NA	VM												
19	Private	BLA	19-16	225 E. 5th St.	William Shore Pool Combine 3 Lots	MR 2 ONLY	3/7/2019	VM	Low / NA	VM												
20	Private	BP	19-235	808 W. 4th St.	DEESE Garage and BLA	MR 2 ONLY	3/7/2019	VM	Low / NA	VM												
21	Private	BP	19-0329	1707 C St.	KELLY MCMULLAN/DOT New Storage build.	MR 2 ONLY	3/20/2019	JTB	Low / NA	JTB												
22	Private	BP	19-0340	1415 E 5th st.	JASON TROPLE New Deck Construction	MR 2 ONLY	3/26/2019	JTB	Low / NA	JTB												
23	Private	BP	19-0379	411 E 9th st	Crotueau	MR 2 ONLY	3/27/2019	JTB	Low / NA	JTB												
24	Private	BP	19-0380	537 W 4th st	Descala	MR 2 ONLY	4/3/2019	JTB	Low / NA	JTB												
25	Private	BP	19-0477	1303 W 5th St	Gilbert Hall	MR 2 ONLY	4/9/2019	JTB	Low / NA	JTB												
26	Private	BP	19-0500	1105 E 1st St	Taco Bell Remodel	MR 2 ONLY	4/16/2019	JTB	Low / NA	JTB				See MR 1-5 above								
27	Private	BP	19-0504	131 E 1st st	AT&T Tower Upgrades	MR 2 ONLY	4/16/2019	JTB	Low / NA	JTB												
28	Private	BP	19-0535	1135 E Front St	Interior Re-model and Exterior Landscaping	MR 2 ONLY	4/17/2019	JTB	Low / NA	JTB												
29	Private	BP	19-0548	802 I St	New foundation and Enclosed Porch	MR 2 ONLY	4/17/2019	JTB	Low / NA	JTB												
30	Private	BP	19-0540	114 W 14th St	Porch Repair / Replacement	MR 2 ONLY	4/17/2019	JTB	Low / NA	JTB												
31	Private	BP	19-0543	520 W 10th St	SFR	MR 2 ONLY	4/17/2019	JTB	Low / NA	JTB												
32	Private	BP	19-0547	1115 D St	Deck	MR 2 ONLY	5/10/2019	JTB	Low / NA	JTB												
33	Private	BP	19-0610	1005 S Eunice st	Deck Addition	MR 2 ONLY	5/11/2019	JTB	Low / NA	JTB												



2019 Stormwater Development Review Tracking Sheet

Count	Public or Private?	Permit Type	Permit # or Project #	Address, Area, or Parcel Number	Project Name	MR Triggered	Plan Review Date(s)	Initials	Appendix 7 (Risk / Site Visit Date)	Initials	Pre-Con ESC Insp. Date(s)	Initials	Const. Started?	During Construction ESC Insp. Date(s)	Initials	Current ESC Status	Final Completion Inspection Date	Initials	Number of Structural BMPs Inspected	Maintenance Agreement Recorded?	As-buits recieved?	Inspection Notes:
EX.	Private	BP	18-001	123 W. Fake St. or Edgewood Rd. btwn Dry Creek & Airport Rds. or 07000063520	Lake Angeles Parking Lot Improvements	MR 1-5	1/1/2018 1/29/2018	JD JD	Low / NA	JD	2/4/2018 2/5/2018	JD JD	Yes	2019: 2/6, 2/19, 3/1	JD	In Compliance	4/1/2018	JD	4	NA	NA	Concrete washout in ditchline (2/19). Appendix 8.1 filed. Education provided to sub-contractor and contractor - JD
34	Private	C&G	19-0590	2901 S Cherry St	Tree Removal	MR 2 ONLY	5/13/2019	JTB	Low / NA	JTB												
35	Private	BP	19-0674	215 N Francis St	Demo House	MR 2 ONLY	5/15/2019	JTB	Low / NA	JTB												
36	Private	BP	19-0616	122 E Front St	Commercial Remodel	MR 2 ONLY	5/15/2019	JTB	Low / NA	JTB												
37	Private	BP	19-0719	505 E 11th St	Deck Addition	MR 2 ONLY	5/29/2019	JTB	Low / NA	JTB												
38	Private	BP	19-0600	515 E 6th St	2nd dwelling Unit	MR 2 ONLY	5/29/2019	JTB	Low / NA	JTB												
39	Private	BP	19-0731	382 Lower Elwha Rd	Manufactured Home	MR 2 ONLY	6/4/2019	JTB	Low / NA	JTB												
40	Private	BP	19-0750	1128 W 11th St	Remove and replace existing deck	MR 2 ONLY	6/6/2019	JTB	Low / NA	JTB												
41	Private	BP	19-0773	138 Forest Ave	Garage Addition	MR 2 ONLY	6/6/2019	JTB	Low / NA	JTB												
42	Private	BP	19-0858	406 S Laurel St	Diesel Generator on Concrete Pad	MR 2 ONLY	6/10/2019	JTB	Low / NA	JTB												
43	Private	BP	18-1754	1303 E 8th St	Cell Tour Addition	MR 2 ONLY	6/12/2019	JTB	Low / NA	JTB												
44	Private	C&G	19-0590	2901 S Cherry St	Tree Removal Only near ESA	MR 2 ONLY	6/13/2019	JTB	Low / NA	JTB												
45	Private	C&G	19-0832	1142 E Park Ave	Street & Sidewalk Improvements	MR 2 ONLY	6/18/2019	JTB	Low / NA	JTB												
46	Private	BP	19-0855	1628 Maloney Ct	Habitat for Humanity	MR 2 ONLY	6/17/2019	JTB	Low / NA	JTB												
47	Private	BP	19-0942	1122 E Front St	Commercial Addition	MR 2 ONLY	6/25/2019	JTB	Low / NA	JTB												
48	Private	BP	19-0882	128 E Railroad Ave	Commercial Remodel	MR 2 ONLY	7/8/2019	JTB	Low / NA	JTB												
49	Private	BP	19-0619	424 E 2nd St	Commercial Addition	MR 2 ONLY	7/2/2019	JTB	Low / NA	JTB												
50	Private	BP	19-0999	1630 W 11th St	SFR	MR 2 ONLY	7/29/2019	JTB	Low / NA	JTB												
51	Private	BP	19-0987	1122 W 9th St	Front Porch/Deck	MR 2 ONLY	7/31/2019	JTB	Low / NA	JTB												
52	Private	BP	19-0891	1122 Highland Ave	Pole Barn	MR 2 ONLY	8/2/2019	JTB	Low / NA	JTB												
53	Private	BP	19-1023	118 E Vashon Ave	SFR	MR 2 ONLY	8/2/2019	JTB	Low / NA	JTB												
54	Private	BP	19-1018	436 Ahlvers rd	covered porch	MR 2 ONLY	8/2/2019	JTB	Low / NA	JTB												
55	Private	BP	19-1139	1811 W 12th St	Cut & Fill Undeveloped Lot	MR 2 ONLY	8/6/2019	JTB	Low / NA	JTB												
56	Private	BP	19-1107	312 Wolcott St	Residential Addition	MR 2 ONLY	8/15/2019	JTB	Low / NA	JTB												
57	Private	BP	19-1258	3717 Park Knoll Dr	Convert SFR to Duplex	MR 2 ONLY	8/30/2019	JTB	Low / NA	JTB												
58	Private	BP	19-1257	1109 W 5th St	Detached Garage	MR 2 ONLY	8/30/2019	JTB	Low / NA	JTB												
59	Private	BP	19-1265	1930 W Hwy 101	Demo all structures on property	MR 2 ONLY	9/3/2019	JTB	Low / NA	JTB												
60	Private	BP	19-1333	1809 W 12th St	Build Retaining Wall	MR 2 ONLY	9/3/2019	JTB	Low / NA	JTB												
61	Private	BP	19-1297	1936 W 7th St	ARU	MR 2 ONLY	9/3/2019	JTB	Low / NA	JTB												
62	Private	BP	19-1403	1203 E 7th St	Enclose Deck	MR 2 ONLY	9/24/2019	JTB	Low / NA	JTB												
63	Private	BP	19-1459	808 Golf Course Rd	Carpot	MR 2 ONLY	9/24/2019	JTB	Low / NA	JTB												
64	Private	BP	19-1428	1221 Dutch Dr.	ARU	MR 2 ONLY	9/26/2019	JTB	Low / NA	JTB												
65	Private	BP	19-1586	919 W 16th St	Covered Porch/Interior Remodel	MR 2 ONLY	10/31/2019	JTB	Low / NA	JTB												
66	Private	BP	19-1648	2332 W 12th St	Detached Garage	MR 2 ONLY	10/31/2019	JTB	Low / NA	JTB												
67	Private	BP	19-1704	808 W 4th St.	Covered Patio	MR 2 ONLY	11/6/2019	JTB	Low / NA	JTB												
68	Private	BP	19-1717	718 E 3rd St.	ADA Ramp	MR 2 ONLY	11/6/2019	JTB	Low / NA	JTB												
69	Private	BP	19-1281	601 East 1st St.	Oil Plume Remediation	MR 2 ONLY	8/21/2019	JTB	Low / NA	JTB	11/18/2019	JTB, RV	YES	11/21/2019	JTB, RV							
70	Private	BP	19-1868	John Christianson/Ruiz	430 Lopez Ave	MR 2 ONLY	12/5/2019	JTB	Low / NA	JTB												
71	Private	BP	19-1920	Van Atta/Tatum	Remove Attached Garage, 2-story Addition	MR 2 ONLY	12/16/2019	JTB	Low / NA	JTB												

2019 End of Year Statistics Phase II Municiple SW Permit, WAR045028			
Category	Count	Percent	SS.C.6
Total plans reviewed for SW Review	128	100%	c.i.
Appendix 7 inspections	16	100%	c.ii.
Pre-Const. Insp. (# of sites)	47	-	-
Pre-Const. Insp. (# of insp.)	34	72%	-
During Const. Insp. (# of total sites)	48	-	c.iii.
During Const. Insp. (# of sites insp.)	47	98%	c.iii.
During Const. Insp. (total # of insp.)	68	-	-
Enforcement (# of insp.)	11	100%	-
Final Inspections Total	17	-	c.v.
Final Inspections Performed	16	94%	c.v.
Projects on-going	36	-	-
Total SW Inspections Performed	134	-	-
Total Inspections Required	92	-	-
Of Req'd, Total Inspections Achieved	90	98%	c.vi.

*In compliance with Permit by achieving at least 80% of required inspections

City of Port Angeles | Private Stormwater Annual Inspections - 2019

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-19	-		Yes	13					Between N and O and 16th and 18th Streets			
	Habitat for Humanity	Aug-19	9/11/2019	VM	Yes	7	No	No	NA	NA	Off 16th St.	Colleen Robinson	Colleen@habitatclallam.org	2 lots under construction
	Serenity House	Aug-19	12/6/2019	VM	Yes	6	No	No	NA	NA	2321 W. 18th St.	Habitat For Humanity Donny Tyler	donny.tyler@serenityhouseclallam.org (360) 215-0476	Site fully established, Yearly Inspections
2	Port of Port Angeles - ACTI Site	Oct-19	12/4/2019	VM	Yes	36	Yes	Yes	Email 12/10/2019	Yes	2200 W 18th ST	Jesse Waknitz	jessew@portofpa.com	Site stabilized, no new construction. Yearly inspections
3	Family Medicine	Aug-19	8/13/2019	VM	Yes	12	Yes	No	NA	NA	240 E Front St	Stan Garlick	garlick@olypen.com	Site fully established, Yearly Inspections
4	Peninsula College Parking Lot and Soccer Fields	Dec-19	12/10/2019	VM	Yes	Parking 28 Soccer 9	No	Yes	Email 12/10/2019	Ongoing. Within allowable timeframe	1502 E Lauridsen Blvd	Rick Croot / Kevin Size	360-460-1373 RCroot@pencol.edu	Site fully established, Yearly Inspections
5	Peninsula College Allied Health Building	Dec-19	12/10/2019	VM	Yes	10	No	No	NA	NA	1503 E Lauridsen Blvd	Rick Croot / Kevin Size	360-460-1373 RCroot@pencol.edu	Site fully established, Yearly Inspections
6	Pendley Estates	Oct-19	12/3/2019	VM	Yes	15	No	Yes	Email 12/5/2019	No. Forwarded to Legal Dept.	Southside of West 14th Street, across from Samara Drive	Peninsula Housing Authority	aourourke@peninsulapha.org 360	Site fully established, Yearly Inspections
7	Olympic Medical Center Parking Lots Columbia St, Medical Expansion	Sep-19	12/30/2019	VM	Yes	10	No	No	NA	NA	Columbia St and Caroline St	Rockie Lee	Phone: 360-417-7235 rlee@olympicmedical.org	Site fully established, Yearly Inspections
8	Olympic Medical Center -Medical Office Building, 3 parking lots	Oct-19	12/30/2019	VM	Yes	25	No	No	NA	NA	907 Georgiana St.	Rockie Lee	rlee@olympicmedical.org	Site fully established, Yearly Inspections
9	Around Again (POPA)	Jul-19	8/2/2019	VM	Yes	3	No	No	NA	NOTE: No Use. Revised Insp. Schedule for 2020 and beyond	2604 W. 18th St.	POPA - Jesse Waknitz	jessew@portofpa.com	Site fully established, Yearly Inspections
10	Blackball Ferry Terminal West Pier Replacement	Jul-19	8/6/2019	VM	No	6	No	No	NA	NA	101 Railroad Ave.	Rian Anderson	randerson@cohoferry.com	Site fully established, Yearly Inspections
11	Peninsula Behavioral Health 2016 Parking Lot	Aug-19	12/20/2019	VM	Yes	12	Yes	No	NA	NA	118 E. 8th St.	Wes Zimmer	(360) 461-7386 wesz@peninsulabehavioral.org	Site fully established, Yearly Inspections
12	North Olympic Library System	Dec-19	12/13/2019	VM	Yes	2	Yes	No	NA	NA	401 Orcus Ave	Brian Phillips	bphillips@nols.org	Site fully established, Yearly Inspections
13	1001 E Front Street- Fors Parking Lot	Apr-19	4/18/2019	VM	Yes	1	No	No	NA	NA	1001 E Front St	Fors Financial Consulting Joe Fors	joe@forsfinancialconsulting.com	Site fully established, Yearly Inspections
14	Clallam County Courthouse Raingarden Retrofit	Dec-19	12/12/2019	VM	Yes	10	Yes	No	NA	Note: Ongoing issue with P. Pave. Working to remove from maint. Req. as built incorrectly - runon.	223 E. 4th St.	Joel Winborn	jwinborn@co.clallam.wa.us	Site fully established, Yearly Inspections
15	McDonalds	May-19	3/29/2019 12/18/2019	VM	Yes	12	No	Yes	Phone call to Doug.	BayFilter still not functioning. BaySaver rep. to provide new filter. Doug to hire contractors to troubleshoot and repair.	1706 E. Front St.	Doug Fenwick Director of Operations Peninsula McDonald's Rest.	doug@peninsulamcdonalds.com 271-8582	360- NOTE: Never met initial insp. Req.
16	Green Crow, Campell Ave. PRD Phase 2A	Dec-19	Jun-2020 12/19/2019	VM	Yes	17	No	No	NA	NA	Rook Drive	Bruce Emery	bruce@greencrow.com 360-417-3669	6 Month Inspection Interval Final'd 6/28/2018
17	POPA - Marine Terminal SW Treatment Facility & Marine Trades Area Wash-down Facility	Apr-19	Oct-19 4/26/2019 12/16/2019	VM	Yes	12	No	No	NA	NA	615 Marine Drive	Jesse Waknitz	jessew@portofpa.com	6 Month Inspection Interval Final'd 10/25/2018
18	Collegiate Housing International (CHI)	Dec-19	June 2020 12/18/2019	VM	Yes	16	No	Yes	In-person meeting, email	Ongoing (Failed Filterra unit and Skimmer issues)	1134 E. Park Ave	Joel Crosby Curtis Brackett	crosbycommercial@gmail.com (415) 662-0750	6 Month Inspection Interval Final'd 6/12/2019
19	Cook-Ainscough SFR	Jan-2020	July-2020		Yes	5					844 Willow Ave.	Kerri Cook	(360) 333-5042 upriversoul@hotmail.com	6 Month Inspection Interval Final'd 7/26/2019
20	Critchfield Industrial Site	Ongoing Construction												
21	Mt Angeles View Phase 1	Ongoing Construction												
22	Boys and Girls Club	Ongoing Construction												
23	William Shore Pool Expansion	Ongoing Construction												
24	Opera House	Ongoing Construction												
25	LEKT Downtown Hotel	Ongoing Construction												
Year end Stats:		Scheduled	Achieved				Passed 1st time	Deficient Sites	Resolved	In-progress	Compliant sites			
		21	21				16/21	5/21	1/5	4/5	17/19			
		100%					76%	24%	20%	80%	89%			

Stormwater Facilities- 2019	Asset ID #	Date of Inspection(s)	Cityworks WO#	Maint. Required?	Date(s) of Maintenance	Cityworks WO#(s)
2019						
Bioretention Cells (77)						
5th and H, NW Corner	928, 929, 930	1/17/2019	5516	yes	3/1/19 thru 11/20/19	5817
5th and H, NE Corner	921, 922	1/17/2019	5516	yes	3/1/19 thru 11/20/19	5817
5th and H, SE Corner	923, 924	1/17/2019	5516	yes	3/1/19 thru 11/20/19	5817
5th and H, SW Corner	925, 926, 927	1/17/2019	5516	yes	3/1/19 thru 11/20/19	5817
5th and K, NW Corner	897, 898	1/17/2019	5517	yes	3/1/19 thru 11/20/19	5817
5th and K, NE Corner	904	1/17/2019	5517	yes	3/1/19 thru 11/20/19	5817
5th and K, SE Corner	901, 902, 903	1/17/2019	5517	yes	3/1/19 thru 11/20/19	5817
5th and K, SW Corner	899, 900	1/17/2019	5517	yes	3/1/19 thru 11/20/19	5817
5th and L, NW Corner	889	1/17/2019	5518	yes	3/1/19 thru 11/20/19	5817
5th and L, NE Corner	896, 895	1/17/2019	5518	yes	3/1/19 thru 11/20/19	5817
5th and L, SE Corner	892, 893, 894	1/17/2019	5518	yes	3/1/19 thru 11/20/19	5817
5th and L, SW Corner	890, 891	1/17/2019	5518	yes	3/1/19 thru 11/20/19	5817
6th and H, NW Corner	936, 937, 938	1/17/2019	5521	yes	3/1/19 thru 11/20/19	5818
6th and H, NE Corner	931, 932	1/17/2019	5521	yes	3/1/19 thru 11/20/19	5818
6th and H, SE Corner	933	1/17/2019	5521	yes	3/1/19 thru 11/20/19	5818
6th and H, SW Corner	934, 935	1/17/2019	5521	yes	3/1/19 thru 11/20/19	5818
6th and K, NW Corner	910, 911	1/17/2019	5525	yes	3/1/19 thru 11/20/19	5818
6th and K, NE Corner	905, 906	1/17/2019	5525	yes	3/1/19 thru 11/20/19	5818
6th and K, SE Corner	907, 908	1/17/2019	5525	yes	3/1/19 thru 11/20/19	5818
6th and K, SW Corner	909	1/17/2019	5525	yes	3/1/19 thru 11/20/19	5818
6th and M, NE Corner	883, 884	1/17/2019	5526	yes	3/1/19 thru 11/20/19	5818
6th and M, SW Corner	887	1/17/2019	5526	yes	3/1/19 thru 11/20/19	5818
6th and M, SE Corner	885, 886	1/17/2019	5526	yes	3/1/19 thru 11/20/19	5818
6th and M, NW Corner	888	1/17/2019	5526	yes	3/1/19 thru 11/20/19	5818
7th and H, NW Corner	943, 944	1/17/2019	5527	yes	3/1/19 thru 11/20/19	5818
7th and H, NE Corner	939, 940	1/17/2019	5527	yes	3/1/19 thru 11/20/19	5818
7th and H, SE Corner	941	1/17/2019	5527	yes	3/1/19 thru 11/20/19	5818
7th and H, SW Corner	942	1/17/2019	5527	yes	3/1/19 thru 11/20/19	5818
7th and K, NW Corner	912	1/17/2019	5528	yes	3/1/19 thru 11/20/19	5818
7th and K, NE Corner	919, 920	1/17/2019	5528	yes	3/1/19 thru 11/20/19	5818
7th and K, SE Corner	915, 917, 918	1/17/2019	5528	yes	3/1/19 thru 11/20/19	5818
7th and K, SW Corner	913, 914	1/17/2019	5528	yes	3/1/19 thru 11/20/19	5818
Waterfront Park Phase #2 near Oak St. (west cell)	5707	1/28/2019	5529	yes	3/1/19 thru 11/20/19	5826
Waterfront Park Phase #2 near Oak St. (east cell)	5708	1/28/2019	5530	yes	3/1/19 thru 11/20/19	5826
Railroad Ave., furthest west	70	1/17/2019	5531	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 2nd from the west	71	1/17/2019	5532	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 3rd from the west	72	1/17/2019	5533	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 4th from the west	73	1/17/2019	5535	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 5th from the west	74	1/17/2019	5536	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 6th from the west	75	1/17/2019	5537	yes	3/1/19 thru 11/20/19	5827
Railroad Ave., 7th from the west	76	1/17/2019	5538	yes	3/1/19 thru 11/20/19	5827
Oak St., furthest north and west	77	1/17/2019	5539	yes	3/1/19 thru 11/20/19	5827
Oak St., furthest north and east	78	1/17/2019	5540	yes	3/1/19 thru 11/20/19	5827
Oak St., furthest south and west	79	1/17/2019	5541	yes	3/1/19 thru 11/20/19	5827
Oak St., furthest south and east	80	1/17/2019	5542	yes	3/1/19 thru 11/20/19	5827
Pump Station #4	3298, 3301, 3302	6/11/2019	5815	yes	3/1/19 thru 11/20/19	5815
Catch Basins REBUILT (8)						
	17541	3/27/2019	5807			
	16282	5/3/2019	5807			
	17540	5/14/2019	5807			
	17192	6/17/2019	5807			
	17413	7/10/2019	5807			
	15729	7/10/2019	5807			
	16835	10/8/2019	5807			
	17468	10/31/2019	5807			
CAVFS (7)						
C St. Ext.	6759	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6760	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6761	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6762	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6763	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6764	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
C St. Ext.	6751	6/5/2019	5801	yes	3/4/19 thru 10/31/19	5802
ConTech Filters (5)						
8th and A St.	20	1/25/2019	5498	no		
8th and Cedar	17	1/25/2019	5499	no		

** Several hours were spent at this intersection's bioretention cells weeding, adding medium fir bark dust, planting additional plants, removing garbage, water trees, trimming vegetation, power sweeping and blowing the permeable sidewalks, and blowing the curblines.

8th and Pine	15	1/28/2019	5500	no
8th and Cherry	13	1/28/2019	5501	no
16th and Maloney	26	1/25/2019	5497	no

Culvert Annual Inspection- walk thru with engineering dep. rep.

Whites Creek	721, 2673, 2847, 4344	7/30/2019	5835	no
6th and Valley	337, 338	7/30/2019	5669	no
Marine Dr. and Tumwater St.	4340	7/30/2019	5836	no
Peabody RV Park to Harbor	4346, 3380, 4345, 4025	7/30/2019	5837	no
5th and Peabody	1909	7/30/2019	5838	no
3rd and Peabody	1911	7/30/2019	5839	no
8th and Francis	1930, 1910	7/30/2019	5841	no
Park St. at dip just west of Race St.	910	7/30/2019	5840	no

Detention Pipes (Dgravity or Dinline Storage) & Flow Control (33)

	pipe#/flow control#	Date of Inspection(s)	Cityworks WO#	Maint. Required?
8th and A	6136/18409	8/6/2019	5842	no
8th and Cedar	6130/na	8/6/2019	5843	no
8th and Cherry	6116/na	8/6/2019	5844	no
8th and Pine	6124/na	8/6/2019	5845	no
O St. on W. side, just S. of 10th (adjacent to house # 1002)	266/18223	5/22/2019	5846	no
O St. on W. side, S. of 10th (south of #266)	267/18223	5/22/2019	5846	no
Heritage Ct. (~100' west of Heritage Ct on priv. prop.)	1987/846	5/22/2019	5847	no
14th on S. side, just E. of N St.	1363/504	5/29/2019	5848	no
14th on S. side, just W. of Aurora Ct.	1064/17937	5/29/2019	5849	no
Aurora Ct on W. side	299/17937	5/29/2019	5850	no
Aurora Ct on E. side	300/17937	5/29/2019	5850	no
15th on N. side, between H St. and I St.	4528/18062	5/29/2019	5851	no
16th on N. side, bordering W. side of house #2239	1058/17905	5/29/2019	5852	no
16th on N. side, bordering S. side of house #2239	1057/17905	5/29/2019	5852	no
16th on N. side across from Maloney Ct.	6343/18482	5/29/2019	5853	no
16th on N. side across from Maloney Ct.	6342/18482	5/29/2019	5853	no
16th on N. side across from Maloney Ct.	6341/18482	5/29/2019	5853	no
Lauridsen Blvd Bridge	15205/25898	5/29/2019	5854	no
Cathleen St. on westside, just S. of 10th St.	4660/18093	5/29/2019	5855	no
Cathleen St. on eastside, just S. of 10th St.	2803/18093	5/29/2019	5855	no
Jeri Lynn St., near Joshua	1067/818	5/28/2019	5856	no
Milwaukee Dr. (between 10th and Renee Ln.)	2099/18041	5/28/2019	5857	no
Milwaukee Dr. (between Renee and Joshua)	46/18041	5/28/2019	5858	no
Pendley Ct	6804/18704	5/28/2019	5859	no
Pendley Ct	6805/18704	5/28/2019	5859	no
Pendley Ct	6806/18704	5/28/2019	5859	no
Rolling Hills Ct.	303/16728	5/22/2019	5860	no
Rolling Hills Dr., W. side	304/16728	5/22/2019	5860	no
Rolling Hills Dr., E. side	247/16728	5/22/2019	5860	no
Eckard on N. side, just west of Porter	1942/na	5/22/2019	5864	no
Eckard on S. side, just west of Porter	1943/na	5/22/2019	5864	no
Porter on E. side, just S. of Campbell	115/18082	5/22/2019	5864	no
Juniper Ln, N. side from 201 to 217	224/18111	5/22/2019	5865	no

EcoStorm Block Media Filter (2)

Eco Storm Plus (Front and Valley)	25	3/15/2019	5764	YES, on going as COPA Engineering arranging an outside contractor to do specialized, seasonal, and costly work		
*Inspection and cleaning needed after 6" of rain	25	9/26/2019	5798	yes	11/6/2019	5799
Eco Storm Plus (old PS#4)	2433	3/15/2019	5769	yes	3/15/2019	5770
*Inspection and cleaning needed after 6" of rain	2433	10/22/2019	5758	yes	10/15/2019	5759

Energy Dissapators (Ddischargepoint- 'Storm Vortech, ... misc.)

Under the 8th St Bridge over Valley St.	14 (west)	11/18/2019	5808	no
Under the 8th St Bridge over Valley St.	16 (east)	11/18/2019	5808	no
Under the 8th St Bridge over Tumwater Truck Rt.	19 (west)	11/18/2019	5808	no
Under the 8th St Bridge over Tumwater Truck Rt.	18 (east)	11/18/2019	5808	no
Bottom of ravine at Cemetary	100	11/18/2019	5809	no
Under Lauridsen Blvd. Bridge	3418	11/18/2019	5810	no
Crown Park Aquaswirl	21	11/18/2019	5812	no
10th and N (NW corner)	200	11/18/2019	5825	no

Filterra Units (2x's per year INSPECT) (17)

Lauridsen Blvd Bridge - 817 E Blvd	1234	1/7/2019 and 9/26/19	5475 and 5777	yes	3/1/19 thru 10/31/19	5828
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10th and Race St.(north)	1235	1/7/2019 and 9/26/19	5476 and 5778	yes	3/1/19 thru 10/31/19	5828
10th and Race St.(south)	1236	1/7/2019 and 9/26/19	5477 and 5785	yes	3/1/19 thru 10/31/19	5828
SW Corner of 6th and Francis	840	1/7/2019 and 9/26/19	5478 and 5786	yes	3/1/19 thru 10/31/19	5828
SW Corner of 4th and Francis	838	1/7/2019 and 9/26/19	5479 and 5789	yes	3/1/19 thru 10/31/19	5828
NE Corner of 4th and Francis	837	1/7/2019 and 9/26/19	5480 and 5787	yes	3/1/19 thru 10/31/19	5828
NW Corner of 4th and Francis	839	1/7/2019 and 9/26/19	5481 and 5788	yes	3/1/19 thru 10/31/19	5828
SW corner of 2nd and Francis	836	1/7/2019 and 9/26/19	5482 and 5790	yes	3/1/19 thru 10/31/19	5828
NE Corner of 4th and Albert	835	1/7/2019 and 9/26/19	5483 and 5791	yes	3/1/19 thru 10/31/19	5828
SW Corner of 3rd and Albert	833	1/7/2019 and 9/26/19	5474 and 5792	yes	3/1/19 thru 10/31/19	5828
SE Corner of 2nd and Albert	834	1/7/2019 and 9/26/19	5484 and 5793	yes	3/1/19 thru 10/31/19	5828
10th and M (new install spring 2019)	6434	9/26/2019	5771	yes	6/1/2019 thru 10/31/19	5829
10th and Westview Dr. (new install spring 2019)	6038	9/26/2019	5772	yes	6/1/2019 thru 10/31/19	5829
10th and Seamount Dr. (south side)(new install spring 2019)	6037	9/26/2019	5773	yes	6/1/2019 thru 10/31/19	5829
10th and Seamount Dr. (north side)(new install spring 2019)	6036	9/26/2019	5774	yes	6/1/2019 thru 10/31/19	5829
10th and N St. (south side)(new install spring 2019)	6034	9/26/2019	5775	yes	6/1/2019 thru 10/31/19	5829
10th and N St. (north side)(new install spring 2019)	6035	9/26/2019	5776	yes	6/1/2019 thru 10/31/19	5829

Permeable Surfaces (45)

5th and H St. (sidewalks)	1309, 1310, 1311, 1312	1/22/2019 and 7/29/2019	5502	no		
5th and K St. (sidewalks)	1700, 1701, 1702	1/10/2019 and 7/29/2019	5503	yes	6/10/2019	5831
5th and L St. (sidewalks)	1703, 1704, 1705	1/22/2019 and 7/29/2019	5504	no		
6th and H St. (sidewalks)	1313, 1314, 1315	1/10/2019 and 7/29/2019	5505	no		
6th and K St. (sidewalks)	1697, 1698, 1699	1/10/2019 and 7/29/2019	5506	yes	6/10/2019	5832
6th and M St. (sidewalks)	1706, 1707, 1708	1/10/2019 and 7/29/2019	5507	yes	6/10/2019	5833
7th and H St. (sidewalks)	1316, 1317	1/22/2019 and 7/29/2019	5508	no		
7th and K St. (sidewalks)	1318, 1319, 1320	1/10/2019 and 7/29/2019	5509	no		

Solar Lane	2097	1/10/2019 and 7/29/2019	5510	yes	Contacted specialized permeable surface street cleaning contractor who is booked out until December 2019 / January 2020	
18th St. sidewalk, west of N ST.	5704	1/22/2019 and 7/29/2019	5511	yes	Contacted specialized permeable surface street cleaning contractor who is booked out until December 2019 / January 2020	
Dunker Dr. sidewalk on west side of road	5697-5702	1/22/2019 and 7/29/2019	5512	no		
1st and Race St.	1299, 1300, 1301, 1302	1/30/2019 and 7/29/2019	5513	no		
1st and Race St.	1304, 1305, 1306, 1307	1/30/2019 and 7/29/2019	5513	no		
1st and Race St.	1308	1/30/2019 and 7/29/2019	5513	no		
Race St. between 1st and 2nd St.	1297, 1298	1/30/2019 and 7/29/2019	5513	no		
4/5 Alley Chambers-Washington	2897	1/10/2019 and 7/29/2019	5514	no	once a month by vacuum sweeper	
Front-Georgiana, Francis-Eunice	2898	1/10/2019 and 7/29/2019	5515	no	once a month by vacuum sweeper	

Ponds and bioswales (4)

Airport Corners - East of Access Rd	51	1/28/2019	5493	yes	3/4/19 thru 10/31/19	5760
Airport Corners - West of Access Rd - South Pond	50	1/28/2019	5492	yes	3/4/19 thru 10/31/19	5760
Airport Corners - West of Access Rd - North Pond	481	1/28/2019	5491	yes	3/4/19 thru 10/31/19	5760
Red Lion Motel - East of Parking Area	18	8/14/2019	5761	yes	8/21/19 thru on going	5762
101 Bioswale - West of Eclipse Parkway, North Side	881	3/5/2018	5048	yes	5/9/2018	5441

we are not maintaining as of 2019

Pump Stations

Stevens School Pumpstation	2	11/19/2019	5830	no		
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Swirl Concentrator (3)

Crown Park Aquaswirl	9	1/24/2019	5494	no		
1100 Walker St. Vortech (by Contech)	22	1/24/2019	5495	no		
Blackball Ferry Vortech (by Contech)	12	1/24/2019	5496	yes	8/29/2019	

Catch Basins:	MAINTENANCE GRID	# Inspected	Inspect WO#	# Cleaned	Clean WO#	NOTES:
	5	1	5874	1	5873	
	7	1	5876	1	5877	
	16	18	5878	15	5879	(2) could not be located, (1) under construction
	17	11	5880	11	5881	
	18	35	5882	35	5883	
	19	177	5884	152	5885	(2) sewer lids, (5) landscape plaza yard drains, (18) could not locate
	20	66	5886	57	5889	(7) could not locate, (1) offline, (1) inside Marine Science building
	21	115	5890	114	5891	(1) could not locate
	22	74	5892	72	5894	(2) could not locate
	23	45	5893	40	5895	(3) detention pipe lids, (2) not needing cleaning
	24	51	5896	46	5897	(5) detention pipe lids not cb's
	25	76	5898	66	5899	(2) could not locate, (8) Bioretention cell overflows not needing cleaning
	26	123	5900	65	5901	(1) could not locate, (2) manholes not cb's, (55) bioretention cell overflow beehives not needing cleaning
	27	102	5902	97	5903	(5)inside Shane Park, yard drains, not accessible, parks departments responsibility

28	113	5904	109	5907	(2) could not locate, (2) vaults, not cb's
29	111	5908	107	5909	(4) vaults, not cb's
30	116	5910	114	5911	(1) could not locate, (1) police department's parking lot
31	100	5912	100	5913	
32	63	5914	63	5915	
34	4	5916	2	5917	(2) no access in the cemetery's yard
35	77	5918	60	5919	(12) could not locate, (5) detention pipe covers not cb's
36	27	5920	24	5921	(3) could not locate
37	58	5922	54	5923	(1) could not locate, (1) manholes not cb's, (2) not needing cleaning
38	88	5924	88	5925	
39	92	5926	89	5930	(1) could not locate, (2) in COPA Light Ops transformer storage yard
40	69	5929	63	5931	(6) could not locate
41	36	5932	36	5933	
44	14	5934	12	5935	(2) could not locate
46	1	5936	1	5937	
47	13	5936	12	5937	(1) could not locate
51	12	5936	10	5937	(2) vaults in ponds at Airport corners not needing cleaning at this time
52	4	5938	4	5939	
54	5	5938	5	5939	
55	9	5938	9	5939	
57	56	5940	56	5941	
58	82	5942	77	5943	(5) could not locate
59	35	5944	34	5945	(1) could not locate
60	27	5946	26	5947	(1) could not locate
61	16	5948	16	5949	
62	45	5948	45	5949	
63	10	5948	7	5949	(1) overflow inside reservoir not a cb, (2) National Park Visitor Center
64	1	5950	1	5951	
65	24	5950	24	5951	
66	1	5950	1	5951	
67	21	5950	19	5951	(2) Detention pipe covers
68	11	5950	11	5951	
90	14	5952	14	5953	
91	1	5952	1	5953	
TOTALS:	2251		2066		

Lincoln Park Ponds to Big Boy Pond to Stevens Pump Station to CB	
Lincoln Park Pond concrete draw box (Dinlet)	83
Manhole in backyard of 1606 W. 15th	259
Manhole on 15th in front of 1606	123
Manhole at 15th and I St. in the intersection	260
Manhole at 14th and I St. in the intersection	671
Culvert in 14th St. wetland easement, behind 1509 W. 14th	4484
Catchbasin in 14th St. wetland easement, behind 1509 W. 14th	18239
Manhole in 14th St. wetland easement, SE 60' of 1501 W. 14th	620
Culvert with outlet into Big Boys Pond from MH 620	1378
Overflow (intake) from Big Boys Pond to Stevens Pump Station (PS)	7
Pump Stations	
Stevens School Pump Station	2
Catchbasin on D St. near 13th that receives water from Stevens PS	17328

Storm Event Inlet and Flood Prevention Inspection	1/9/2019 to 12/23/19	5035 (parent)	yes	1/9/2019 to 12/23/19
10 Year Storm Event (if occurs)	na	na	no	

2019 Stormwater Treatment and Flow Control Facilities - TOTAL AMOUNT: based on individual asset #'s	
###	
Biofiltration Cells	77
CAVFS	7
ConTech Filters Chambers	5
Detention Pipes (DGravity)	33
Eco Storm Plus Block Media Filter Chambers	2
Filterra Units	17

Permeable Surfaces		45
Ponds and bioswales		4
Swirl Concentrator		3
	SUMATION	193



POLLUTION PREVENTION ASSISTANCE PARTNERSHIP

2017–2019 BIENNIUM REPORT



FEBRUARY 2020
ECOLOGY PUBLICATION 20-04-005



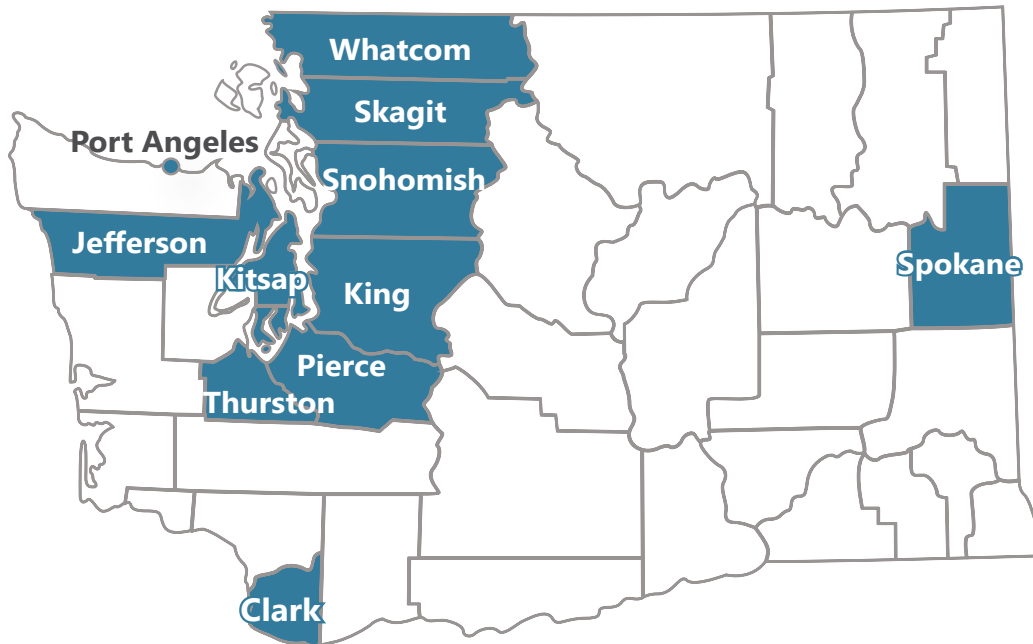


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MAP OF PPA PARTNERS



During the 2017–2019 biennium, the partnership consisted of **42 specialists from 21 jurisdictions**. PPA partners were located in three critical areas: **Puget Sound, the Columbia River Basin, and the Spokane River Basin.**

PARTNER JURISDICTIONS

Clallam County

City of Port Angeles

Clark County

Clark County Department of Public Works
Clark County Public Health

Jefferson County

Jefferson County Public Health

King County

City of Bothell
City of Issaquah
City of Kirkland
City of Redmond
City of Shoreline
King County Water and Land
Seattle Public Utilities

Kitsap County

Kitsap Public Health District

Pierce County

City of Puyallup
City of Sumner
Tacoma-Pierce County Health Department

Skagit County

Skagit County Department of Public Health

Snohomish County

Snohomish Health District

Spokane County

Spokane Regional Health District

Thurston County

Thurston County Public Health

Whatcom County

City of Bellingham
Whatcom County Health Department

WHO TO CONTACT

For more information about the Pollution Prevention Assistance Partnership, contact the coordinator:

PPA COORDINATOR

Elaine Snouwaert
Elaine.Snouwaert@ecy.wa.gov
Phone: 509-329-3503

To contact your local pollution prevention specialist, please visit our webpage to find the correct contact for your county:

www.ecology.wa.gov/ppa

If you are located in an area without a local partner, please contact:

WEST OF THE CASCADE CREST

Marietta Sharp
Marietta.Sharp@ecy.wa.gov
Phone: 425-649-7271

EAST OF THE CASCADE CREST

Andy Maher
Andy.Maher@ecy.wa.gov
Phone: 509-329-3612



MEET THE PARTNERSHIP

In 2007, the Washington State Legislature allocated funding to establish the Local Source Control Partnership, a program to help small businesses reduce and manage potential wastes to protect water, soil, and air quality.

Local Source Control was rebranded as Pollution Prevention Assistance (PPA) in 2016. This new name was part of an effort to emphasize the benefits of the program to the public and businesses.

The partnership uses a unique team approach involving local, regional, and state staff with the expertise to solve pollution problems through source control.

Through interagency agreements with the Department of Ecology, local jurisdictions get funding to provide free, one-on-one technical assistance to small businesses. Specialists in these jurisdictions show businesses how to manage their wastes properly and help diagnose and fix stormwater-related issues. Specialists can also offer businesses help with complicated regulatory issues.

SINCE THE PROGRAM BEGAN IN 2008:



More than
35,000
completed visits



More than
38,000
issues found



95%
issues resolved

The Pollution Prevention Assistance (PPA) partnership is comprised of local governments including cities, counties, and health districts.

PPA: A technical assistance program that helps small businesses prevent pollution.

The problem: Small businesses typically have limited access to expertise on stormwater management or hazardous waste handling and disposal. Hands-on assistance and regulatory advice can be hard to come by.

The solution: PPA specialists in participating jurisdictions offer free, on-site technical assistance to help small businesses identify and resolve possible causes of pollution. This assistance and regulatory advice reduces health risks for employees and prevents polluted runoff from harming Washington's rivers and streams, as well as Puget Sound.

Thanks to Pollution Prevention Assistance, businesses:

- Adopt safer material handling and storage practices.
- Manage interior and exterior drainage systems to reduce impacts to stormwater.
- Plan for spill prevention and preparedness.
- Use fewer toxics in their processes or replace toxic chemicals with safer alternatives.

WHAT IS PPA?



COMMON INDUSTRIES SERVED

Specialists can **serve most industries**. During the 2017–2019 biennium, the most common industries served were:

- Restaurants, cafes, and bars.
- Vehicle repair and maintenance facilities.
- Apartment complexes.
- Commercial and personal laundry services.
- Motor vehicle and parts dealers.
- Nail salons.
- Medical clinics.
- Landscaping companies.
- Mobile businesses (like dog washers or carpet cleaners).

ISSUES SPECIALISTS CAN ADDRESS

Specialists conduct on-site visits to address possible causes of pollution.

Specialists look closely at business practices, offer solutions to practices that could pollute the environment, and suggest alternatives to the hazardous materials that businesses use, store, and dispose of every day.

Recommendations often contribute to a safer environment and can save money.

Their goal is to help businesses make changes to limit or eliminate potential pollution and reduce impacts to state waters. Specialists encounter many different types of wastes and sometimes draw on Ecology and other agency staff for their expertise in dealing with those wastes.

Partner jurisdictions attempt to resolve pollution problems locally. In some cases, specialists refer the business to Ecology or another regulatory program for additional assistance.

“ *We build relationships through one-on-one technical guidance. This support can improve business operations, provide a safer workplace, and decrease the potential to pollute.* ”

—City of
Kirkland



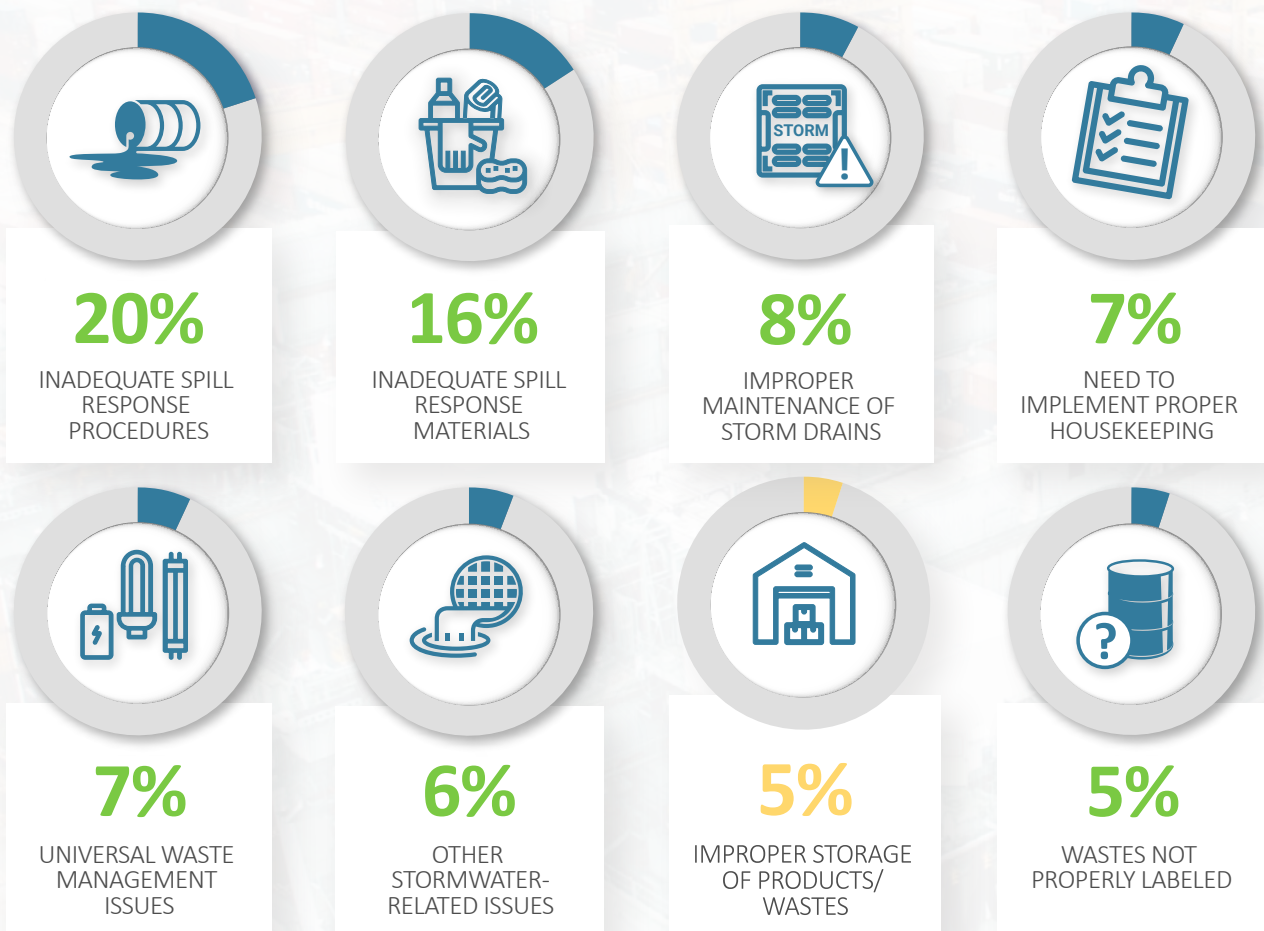
ISSUES AND RESOLUTION

In the 2017–2019 biennium, PPA specialists made 7,602 visits to small businesses. Businesses with complex or high-priority issues received one or more follow-up visits from specialists. Specialists found a total of 4,661 issues. By the end of the biennium, they helped resolve 85 percent (3,963) of the issues.

The eight most common issues that specialists found during visits make up about 74 percent of all issues.

Ten potential issues on the specialist's checklist are considered high priority because, if left unresolved, they directly impact human or environmental health. Fortunately, only one high-priority issue (improper storage of products/wastes) was among the eight most common issues found. In total, the most common high-priority issues found represented 20 percent of all issues found during business visits this biennium.

THE MOST COMMON ISSUES FOUND



2017–2019 BIENNIUM VISIT SUMMARY



Visits performed: 7,602



Issues found: 4,661



Issues resolved: 3,963

85%

THE MOST COMMON HIGH PRIORITY ISSUES FOUND



5%

IMPROPER STORAGE
OF PRODUCTS/
WASTES



4%

WASTES NOT
PROPERLY
DISPOSED OF



4%

IMPROPERLY
STORED
DANGEROUS WASTE



4%

DISCHARGE OF PROCESS
WASTEWATERS TO
STORM DRAINS



3%

IMPROPERLY STORED
CONTAINERIZED
MATERIALS



SPILL KITS AND SECONDARY CONTAINMENT

Partners also help businesses with best management practices to avoid and respond to spills.

During the 2017–2019 biennium, partner jurisdictions distributed over 600 spill kits to businesses. Once the businesses complete a spill response plan, specialists review the plan with the business and set up a date and time to drop off the spills kit. The partnership also purchased supplies including 165 waste drum covers, 75 drum funnels with lids, and 108 secondary containment pallets to assist businesses in reducing the likelihood of a spill.

TRAINING FOR PPA SPECIALISTS

Specialists must be aware of the regulatory requirements for handling many types of wastes and processes while also understanding best management practices that apply to a wide range of businesses.

To support new and veteran PPA specialists, Ecology provides regular trainings.

“ I have visited businesses multiple years after our initial visit that continue to practice and train new employees on the best management practices we shared with them.

—City of Port Angeles

”

Semiannual in-person trainings give specialists a chance to learn about best management practices and regulatory updates. Ecology also facilitates eight webinars per year. These webinars keep specialists up to date on changing regulations and introduce them to new topics. Partner jurisdictions or other agencies will often give presentations during the webinars, which allow for a wide array of learning topics and points of view.

With the help of experienced specialists from partner jurisdictions, Ecology trains new specialists annually. All specialists have access to Ecology staff expertise, leading to a broad system of information exchange and an enhanced level of assistance to businesses. Additionally, all specialists have access to all other specialists from around the state. This allows for collaboration across the partnership between new and experienced specialists. No specialists are on their own; we are one big team!

“ This partnership has helped me become a more knowledgeable inspector and provide the best technical assistance and education to the citizens in my jurisdiction. ”

—King County

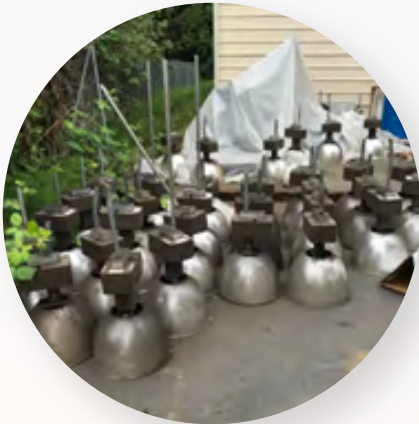


PARTNER SUCCESS STORIES



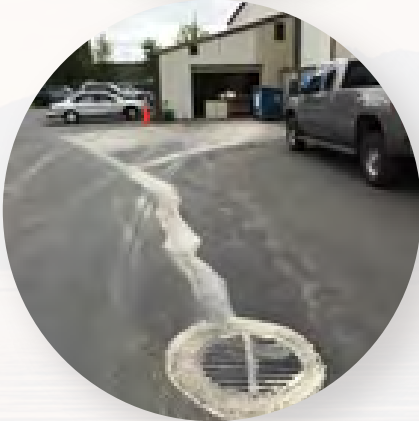
CLARK COUNTY PUBLIC WORKS

Specialists from Clark County Public Works visited a local metal fabrication business that had recently expanded to a new location. The new location had several waste management and stormwater issues left by the previous tenants.



Some of the issues included:

- Light ballasts stored outside.
- A leaking compressor shed.
- Twenty-four drums of unknown waste stored outside (two of which ended up being designated as dangerous waste).



The new business also generated their own waste issues after the move. Stormwater and pollutants flowed from the facility straight into a nearby storm drain. Our specialists explained that they needed a General Industrial Stormwater Permit.



The visit by the Clark County Public Works specialists led to:

- The proper recycling of lighting ballasts and lamps.
- The removal and replacement of the leaking compressor shed.
- The designation of all 24 drums of waste.
- The proper facility permitting as recommended by the specialists.

Since only two of the twenty-four drums were designated as dangerous waste, the business was able to resolve all issues while still maintaining their small quantity generator status.

KING COUNTY WATER AND LAND RESOURCES

King County specialists visited a marina with a boat washing area. This marina captures water from boat washing in a drain and vault system that leads to aboveground tanks. Once the tanks fill up, the facility ships the wash water off site.



During King County's visit to the facility, specialists observed some wash water entering a nearby stormwater drain that was not connected to the contained washing area. That drain led directly into Puget Sound.



Specialists directed the marina to stop discharging wash water into the storm drain immediately and come up with a permanent solution. As a temporary solution, the facility added sand bags next to the storm drain to divert wash water away from the drain.



As a permanent solution, the facility installed a concrete berm around three sides of the storm drain. The facility also stenciled several storm drain labels next to the drain to educate people that only rain can go down the drain.

SPOKANE REGIONAL HEALTH DISTRICT

In the last biennium, specialists from the Spokane Regional Health District focused on multi-family housing complexes in Spokane County. Specialists provided handouts and brochures to property managers about how to manage their waste.

Specialists educated property managers and maintenance staff about where to find resources online. Specialists were also able to spend time educating staff on good housekeeping practices for their maintenance and storage areas.

Storage areas often had poor housekeeping practices that resulted in limited aisle space and tripping hazards. Another common issue was chemical storage. Incompatible chemicals were stored on the same shelf, increasing the risk of reaction.

After the specialists' visits, maintenance staff successfully removed tripping hazards and chemical risks from their storage areas.



TACOMA-PIERCE COUNTY HEALTH

During a high school visit, Tacoma-Pierce County Health Department specialists observed several issues:

- No spill response kits.
- Scrap steel stored outside without cover.
- Open 30-gallon liquid chlorine and muriatic acid drums.
- A lack of knowledge on where floor and pool drains discharge.

With specialists' help, the facility addressed all issues by:

- Assembling spill kits and placing them in the custodial closets of each building along with a spill plan.
- Obtaining covered scrap metal bins for the shop building.
- Replacing 30-gallon chlorine drums with easier to handle and maintain 15-gallon drums.
- Replacing muriatic acid with CO2 for pH control.
- Confirming all drainpipes in the pool building connect to sewer.



WHATCOM COUNTY HEALTH

Whatcom County specialists visited a Ferndale business specializing in prefabricated home construction.

Over many years, the facility accumulated several containers of old and unused paint. Whatcom County Health Department informed the business about the hazards of storing old paint on site.



They also recommended the Whatcom County Disposal of Toxics facility as a local option for proper paint disposal. Over the next few months, the business organized, sorted, and labeled all of its old paint containers.



Then they brought the old and unused paint to the Whatcom County Disposal of Toxics facility in batches; eventually, they disposed of all of their old and unused paint this way. Whatcom County specialists then did a follow-up visit to the facility to ensure that the paint was disposed of properly.





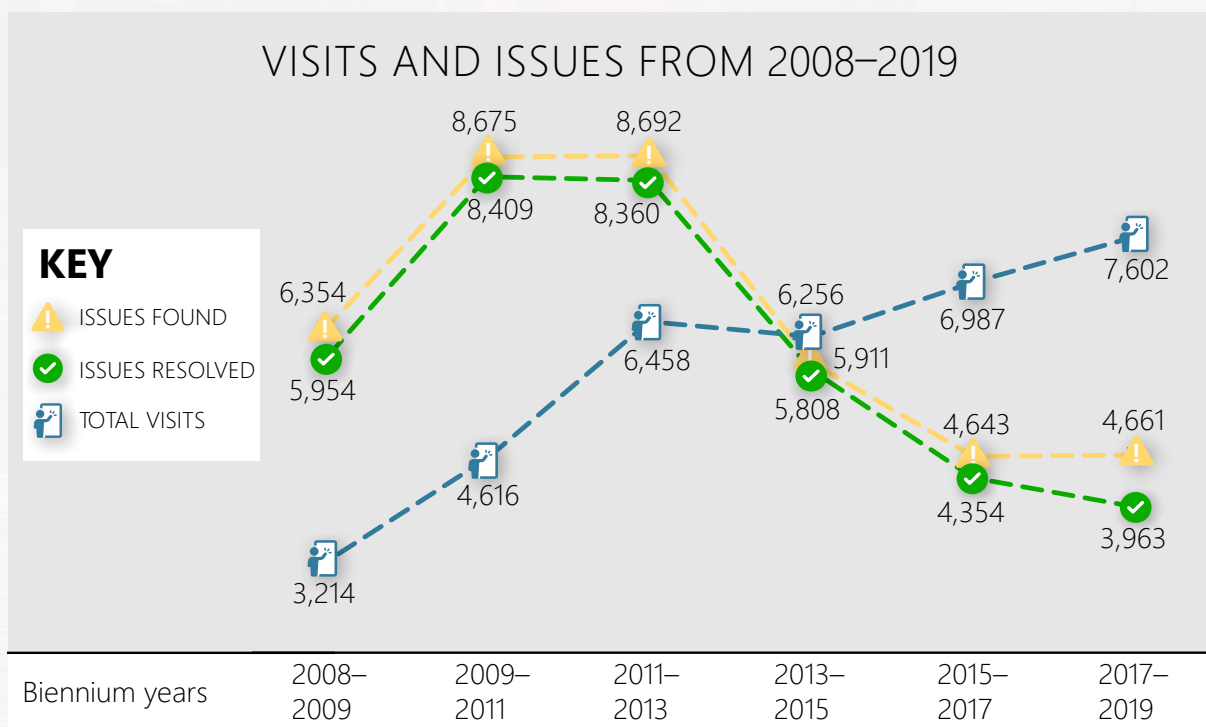
LOOKING FORWARD

PROGRAM HISTORY

Since its inception in 2007, the Pollution Prevention Assistance partnership continues to grow. The number of local jurisdictions in the partnership has increased from 13 to 21, and the number of business visits completed steadily increases each biennium.

During the first several years, the number of issues found by our local partners climbed since many of the businesses had never had this type of assistance with managing their waste or implementing environmental protections. On return visits, partners typically found a decrease in the number of issues, which is reflected by an overall decrease in the number of issues found in the last several biennia. The significant decrease in the number of issues demonstrates the success of these visits and shows that our face-to-face educational approach leads businesses to adopt lasting changes.

Funding for the partnership increased two times over the last 12 years: once in 2013 and again in 2015. In the 2013–2015 biennium, federal funding from the Environmental Protection Agency’s (EPA) National Estuary Program allowed us to significantly increase the number of contracted partners in the Puget Sound region. Thanks to new legislative funding for the 2015–2017 biennium, we added local partners in Clark County. Our funding from EPA ended in 2019, creating a need for increased state funding to sustain the partnership into the future.

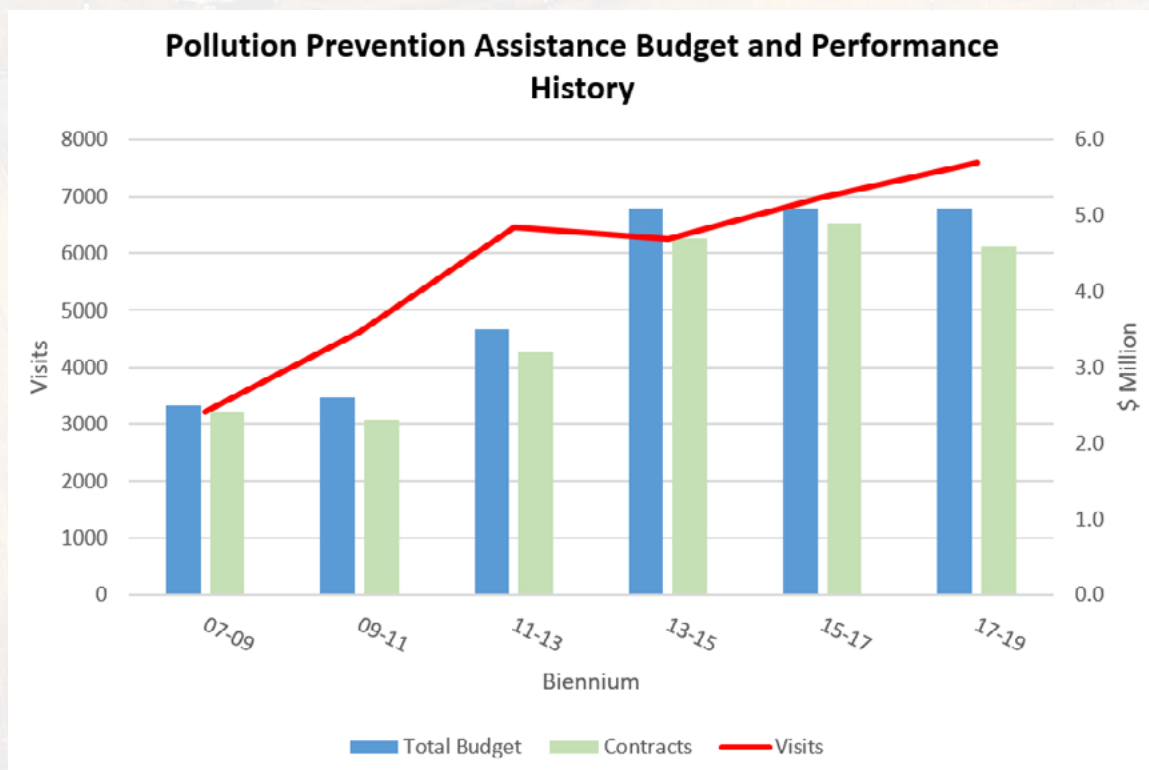


PROGRAM FUTURE

For the 2019–2021 biennium, new legislative funding will launch Ecology’s Product Replacement Program. This program seeks to remove the worst chemicals (identified by the Legislature or detailed in Ecology Chemical Action Plans) from products and technologies used in commerce. The program will help businesses with the cost of removing the chemical(s) and help them implement safer alternatives (when possible). **The PPA partnership will be instrumental in implementing this program. We will work directly with businesses interested in switching to new processes or technologies.**

We want the partnership to continue growing so that more Washington businesses have access to free technical assistance. **During our 2019–2021 request for applications, four new jurisdictions sought funding. Due to the decrease in funding, we could not bring them into the partnership.** In 2020, we plan to reach out to additional cities and counties (especially east of the Cascades) that may benefit from joining the partnership. We will assess their interest in providing technical assistance to the businesses in their community.

With over ten years of data about the partnership, we can confidently say that PPA improves business practices and safety procedures while reducing the number of environmental issues found during site visits. With the help of additional funding, we hope to expand the program to new regions and continue our current trend of decreasing environmental issues found at businesses.







To request materials in a format for the visually impaired, call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. Persons with impaired hearing may call Washington Relay Service at 711. Persons with a speech disability may call TTY at 877-833-6341.

CITY OF PORT ANGELES

Stormwater Education Tracking for IDDE | Pollution Prevention Assistance Partnership

Date:	Address:	Contact Name:	Business Name	Business/ Residential:	Method of Contact:	City Staff:	Type of Education:	Basin:
5/6/2019	115 E Railroad Ave	Rick	Smugglers Landing	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	8
5/6/2019	3256 E. Highway 101		Traylor's Restaurant	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
5/6/2019	124 W Railroad Ave	John	The Beanery	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	8
5/6/2019	132 E Front St	Ben	Metta Room/ Turnip the Beet	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	8
5/6/2019	920 E 1st Street		Tendy's Garden	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/9/2019	929 E Front Street		Chestnut Cottage	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/9/2019	511 W 8th Street	Steven Bridge	8th St Bridge's Grille	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	5
5/9/2019	331 W 1st Street		Jackpot Food Mart	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	5
5/9/2019	210 E 1st Street		Portside Texaco	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	1
5/9/2019	807 S. Lincoln Street		Arco AM/PM	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	1
5/14/2019	802 S C St	Cami Cromer	Higher Grounds Espresso	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	5
5/14/2019	1001 A E 1st Street		Just rewards espresso	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/14/2019	134 W. Front Street	Istna	Songoku Hibachi	business	in person	Bowen, Rachel	talked about stormwater ordinances and keeping GRS recycler clean	8
5/14/2019	1520 E. Front Street	Robert	Frugals	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
5/15/2019	105 Del Guzzi Drive #103	Unknown	jimmy johns	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
5/17/2019	933 E 1st Street	michael	north olympic healthcare	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/17/2019	424 E 2nd Street	Joseph	Jims Pharmacy	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	1
5/20/2019	228 W 1st Street	Abel	Sea-Mar Dental Clinic	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	8
5/23/2019	2620 S. Francis ST	Ashley Woolsey	P.A. Boys and Girls Clubq	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	7
5/29/2019	819 E. Georgiana Street	Mary Hogan	Olympic Peninsula Community	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/22/2019	1331 E. Front Street BLDG 1331	Brittany	Olympic Vet Clinic	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
5/28/2019	221 N. Lincoln Street	Petryr	Red Lion Hotel	Business	in person	Bowen, Rachel	talked about stormwater ordinances along with GRS	8
6/3/2019	320 E 5th Street	Janelle	Wellspring Wellness of PA	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	1
6/5/2019	824 S Lindberg	Tony	Peninsula Golf Club	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
6/5/2019	222 N Lincoln St	Young Johnson	H2O Bistro	Business	in person	Bowen, Rachel	talked about stormwater ordinances; only rain down the drain	8
6/6/2019	903 W 8th Street		Sabai Thai	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	5
6/6/2019	113 East Park Ave	Rick	Laurel Park Assisted Living	Business	in person	Bowen, Rachel	Confirmed that kitchen mats were no longer washed into storm drains	4
6/6/2019	110 E. 3rd Street	Michael	Safeway	Business	in person	Bowen, Rachel	checked that trash compactors were not leaking into SW	1
6/7/2019	1830 E 1st street	Cindy	Wendy's	Business	in person	Bowen, Rachel	talked about garbage cans and proximity to SW; only rain down the drain	4
6/12/2019	1506 E 1st Street	James	Café Garden	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
6/13/2019	433 E 1st Street	Michael	North Olympic Healthcare Dent	Business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
6/14/2019	2527 E Highway 101	Randy	Les Schwab	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	4
6/14/2019	1414 E 1st ST	Gurpreet	Holiday Lodge	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
6/18/2019	811 Georgiana St	Kirk	Angeles Vision	business	in person	Bowen, Rachel	Talked about stormwater ordinances; only rain down the drain	3
6/28/2019	108 W 8th St		Laurel Lanes	business	in person	Bowen, Rachel	Went there after seeing PW operations. Let them know they need to avoid letting WW down storm drain and SW ordinances	2

ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE)
GENERAL AWARENESS TRAINING




2019

1

LEARNING OBJECTIVES

- WHAT IS AN ILLICIT DISCHARGE
- WHAT IS IDDE
- HOW TO IDENTIFY AN ILLICIT DISCHARGE
- HOW TO REPORT AN ILLICIT DISCHARGE
- HOW TO RESPOND TO AN ILLICIT DISCHARGE



Illicit discharge into storm drain

2

Stormwater Permit requirement - NPDES


WHAT IS AN ILLICIT DISCHARGE?

- Any discharge to a storm system that is not composed entirely of stormwater – i.e. Stormwater or other discharge that is contaminated. Something other than rainwater.
- City stormwater system is not designed to accept, process, or discharge any non-stormwater waste.

3

WHAT IS IDDE?

ILLICIT DISCHARGE DETECTION AND ELIMINATION



The identification and removal of illegal discharges and connections from storm sewer (drainage) systems

4

HOW TO IDENTIFY ILLICIT DISCHARGES

VISUAL OBSERVATIONS

- PETROLEUM
- VEHICLE FLUIDS
- PAINT
- SEWAGE DISCHARGES
- WASH WATER
- SEDIMENT FROM CONSTRUCTION
- FATS, OILS, & GREASE

5

COMMON SPILLS YOU MAY COME ACROSS

Motor Oil



6



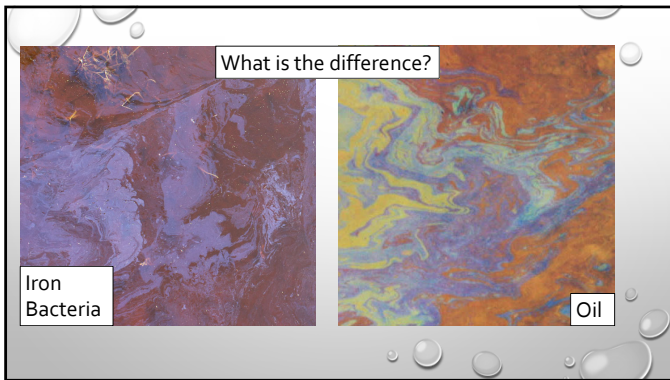
Antifreeze

7



Automatic Transmission Fluid

8

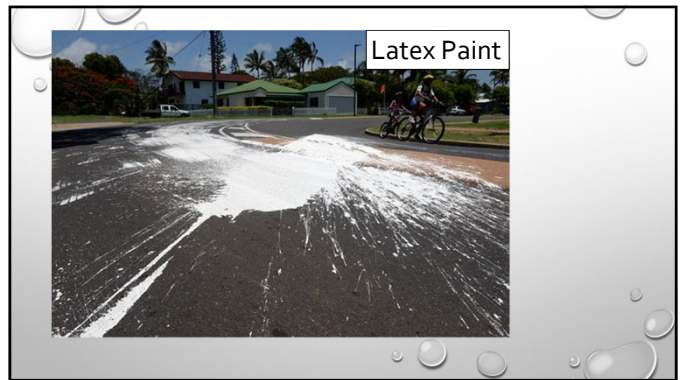


What is the difference?

Iron Bacteria

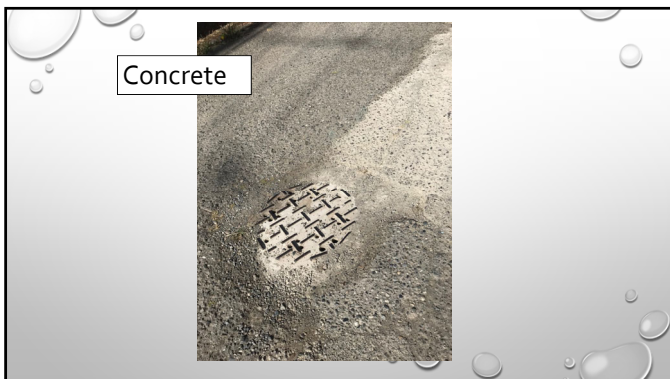
Oil

9



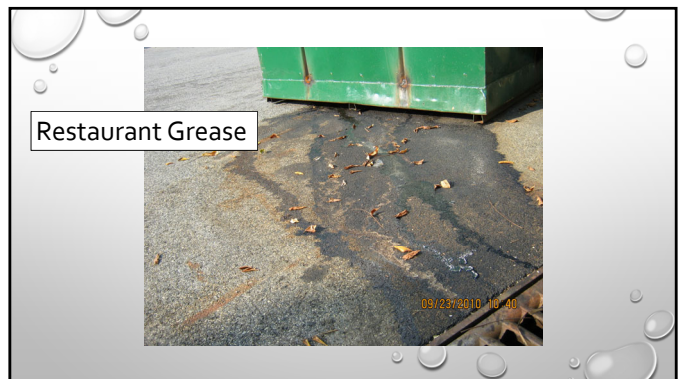
Latex Paint

10



Concrete

11



Restaurant Grease

12

CONSTRUCTION SITES – LOTS IN THE SUMMER!



13

HOW TO RESPOND TO AN ILLICIT DISCHARGE REPORTED BY THE PUBLIC



14

IT'S OF UTMOST IMPORTANCE THAT **NO ONE** IS TURNED AWAY WHEN ATTEMPTING TO REPORT A SPILL TO PUBLIC WORKS STAFF

REGULATORY REPORTING REQUIREMENTS DEPEND ON THE TYPE AND SIZE OF SPILL, A DELAY IN NOTIFICATION MAY RESULT IN A PERMIT VIOLATION.

- SPILLS WHICH COULD CONSTITUTE A THREAT TO HUMAN HEALTH, WELFARE, OR THE ENVIRONMENT SHALL BE REPORTED TO ECOLOGY WITH 24 HOURS.
- CITY STAFF SHALL RESPOND TO /CHARACTERIZE A SPILL WITHIN 7 DAYS OF ANY COMPLAINTS, REPORTS, OR MONITORING INFORMATION THAT INDICATES A POTENTIAL ILLICIT DISCHARGE.

15

THE FIRST QUESTION TO ASK!

IS THE SPILL A EMERGENCY OR NON-EMERGENCY SITUATION?

EMERGENCY SPILL IS A SPILL THAT IS HAZARDOUS OR OF AN UNKNOWN SUBSTANCE, THAT POSES AN IMMEDIATE THREAT TO HUMAN HEALTH, OR IS LARGE AND UNMANAGEABLE BY RESPONDER.

NON-EMERGENCY SPILL IS A SMALL OR MEDIUM SPILL (UNDER 5 GALLONS) OF A KNOWN SUBSTANCE, THAT DOES NOT PRESENT AN IMMEDIATE THREAT TO HUMAN HEALTH, AND CAN BE HANDLED BY RESPONDER.

16

DEFINITIONS

- **SMALL NON-HAZARDOUS SPILLS:** UNDER 5 GALLONS OF OIL BASED PRODUCTS, PAINTS OR AUTOMOTIVE FLUIDS.
- **LARGE NON-HAZARDOUS SPILLS:** OVER 5 GALLONS OF OIL BASED PRODUCTS, PAINTS OR AUTOMOTIVE FLUIDS.
- **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.
- **SANITARY SEWER OVERFLOWS:** SANITARY SEWER SPILLS OF ANY SIZE ARE CONSIDERED A THREAT TO HUMAN HEALTH AND THE ENVIRONMENT, THEY MUST BE REPORTED TO THE SANITARY SEWER OPERATIONS DEPARTMENT IMMEDIATELY.

17


IF IT IS AN EMERGENCY, CALL 911.

IF IT IS A NON-EMERGENCY SPILL, YOU SHOULD: CALL THE STORMWATER LEAD WORKER AND/OR STREET SUPERINTENDENT FOR ADDITIONAL ASSISTANCE, AND TO ENSURE THAT THE SPILL CAN BE REPORTED.

18

RECORD THE FOLLOWING INFO WHEN RECEIVING A REPORT OF AN ILLICIT DISCHARGE:

1. DATE AND TIME SPILL OCCURRED (OR WHEN IT WAS DISCOVERED)
2. CONTACT INFORMATION OF PERSON REPORTING THE SPILL (THEY CAN CHOOSE TO REMAIN ANONYMUS)
3. LOCATION OF SPILL
4. IF IT IS ENTERING THE STORM SYSTEM OR A BODY OF WATER
5. PROVIDE SUPERINTENDENT WITH A STATUS UPDATE ON THE SPILL. WAS IT CLEANED UP, OR STILL REQUIRES FURTHER CLEANING.



19

CALL UNTIL YOU REACH A LIVE PERSON

1. STORMWATER LEAD WORKER (GREG): 460-5174
2. STREET SUPERINTENDENT (ERIC): 417-4825
3. CIVIL ENGINEER I (LUCIO): 417-4720
4. CIVIL ENGINEER II (JONATHAN): 417-4811

INFORMATION TO PROVIDE:

- TYPE AND AMOUNT OF POLLUTANT DISCHARGED (ENTERING STORMWATER SYSTEM?)
- TIME / LOCATION DESCRIPTION / ADDRESS
- PHOTOS IF POSSIBLE

IF PUBLIC SAFETY IS THREATENED CALL 911

20

HOW TO REPORT AN ILLICIT DISCHARGE

IF A SPILLS ORIGINATES FROM YOUR OWN WORK ACTIVITY / EQUIPMENT:

- TAKE ACTION TO CONTAIN THE SPILL, AND TO PREVENT DISCHARGE TO CITY STORMWATER SYSTEM.
- DOCUMENT ACTIONS TAKEN ON COMBINED CONTACT & POLLUTION INVESTIGATION CHECKLIST. TAKE PHOTOS!
- CONTACT STREET/STORMWATER SUPERINTENDENT TO DETERMINE NEED FOR FURTHER REPORTING.

**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: _____ (Address) _____ (Phone #) _____
Reporting Citizen's Name: _____
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 PWR 0809_04 Emergency Call List)
Reported when a discharge or spill could constitute a threat to human health, welfare, or the environment
Oil Spill _____
(Petroleum or Hazardous Materials) _____
WS Emergency Management 1-800-258-5900
Division (City/Immediate) _____
National Response Center (Immediate) 1-800-424-6000
Ecology Regional Office (24 Hrs) 202-701-2100
City of PWS Stormwater Eng. 24 Hrs 202-650-3505

Sanitary

WWTP or Collection System Failure
Ecology Regional Office (24 Hrs) Immediate 202-650-4000
WS DCH (Sanitary Protection-Immediate) 202-228-3330
(24 Hrs) 202-799-4115
Chatham County Emergency Health 24 Hrs 202-417-2412
City of PWS Stormwater Eng. 24 Hrs 202-650-3505

ERTS # _____

6. Spill Discharge Source:
a) Location/Address _____
b) Type of spill # _____

21


WHICH OF THE FOLLOWING ARE ILLICIT DISCHARGES?



1. Trash
2. Paint
3. Grass clippings
4. Pet waste
5. Oil
6. All of the above

22

WHAT DOES A RAINBOW SHEEN ON STORMWATER TYPICALLY INDICATE?



1. A recent rain storm
2. Waste paint
3. Gasoline
4. Sewage contamination

23

WHICH OF THE FOLLOWING WOULD BE SUSPICIOUS IF OBSERVED AT A STORMWATER OUTFALL?

1. Vapors or fumes
2. Dead or dying vegetation
3. Discolored water
4. Stained drain
5. All of the above

24

WHAT IS THE BIGGEST CONCERN WITH RESTAURANTS AND STORMWATER?



1. Leaking dumpsters
2. Leaking trash compactors
3. Fats Oils and Grease (FOG) from Used cooking oil bins
4. Mat washing outside
5. All of the above

25

You see this muddy runoff coming from a construction site, what should you do?



1. Ignore, this is normal for construction sites
2. Stop and place absorbent booms where the muddy water is leaving the site
3. Test the water for turbidity
4. Call Street/Storm Superintendent

26

WHAT INFORMATION ABOUT A SUSPECTED ILLICIT DISCHARGE WOULD THE STREET SUPERINTENDENT NOT ASK YOU TO COLLECT AND REPORT?

1. Weather conditions
2. Date and time
3. Location
4. Description of the discharge

27

WHAT SUPPLIES SHOULD BE IN EVERY CITY VEHICLE?

- ABSORBENT PADS AND SOCKS/PIGS
- GLOVES
- EMERGENCY RESPONSE GUIDE
- PLASTIC BAG FOR CLEANUP
- MOST OPERATIONS CREW TRUCKS ALSO HAVE LOOSE ABSORBENT



28

SPILL KIT



Yellow materials: based, chemical

Gray materials: based, chemical

White material:

Always replace what to replace

29

WHICH TYPE OF ABSORBENT IS ESPECIALLY USEFUL FOR STOPPING A FLOWING LIQUID?

1. Loose absorbent like kitty litter
2. Pillows
3. Pads
4. Socks or pigs

30

SOCK OR PIG



LOOSE ABSORBENT





ABSORBENT PADS



31

SECONDARY CONTAINMENT

- THE SPILL PREVENTATIVE STORAGE OF HAZARDOUS MATERIALS THAT POSE A THREAT TO SOIL, GROUNDWATER, OR SURFACE WATER OF SPILLED OR LEAKED
- SECONDARY CONTAINMENT AND FLAMMABLE LOCKERS ONLY WORK WHEN INSIDE, OR WITH COVER IF OUTSIDE



32

CONTAINING AND REPORTING SPILLS HELPS KEEP OUR WATERS CLEAN, SAFE AND HEALTHY.
THANK YOU FOR YOUR HELP.





33

QUESTIONS?

THANK YOU !

34

34

IDDE INSPECTIONS (ILLICIT DISCHARGE DETECTION AND ELIMINATION) AND SPILL RESPONSE

WATER QUALITY AND WIDES PERMITS

STORMWATER DEFINED

- RUNOFF DURING AND FOLLOWING PRECIPITATION AND SNOWMELT EVENTS, INCLUDING SURFACE RUNOFF
- POLLUTANTS PICKED UP BY RUNOFF AS IT TRAVELS ACROSS THE GROUND
- IT IS NOT...
 - PROCESS WATER
 - WASTEWATER
 - GROUNDWATER



WE ARE IN THE BUSINESS OF PROTECTING STORMWATER...

- PURPOSE IS TO CONVEY STORMWATER AWAY FROM PROPERTY
- CATCHBASINS USUALLY FLOW TO NEARBY STREAMS, RIVERS, LAKES, AND/OR OCEAN, BUT SOMETIMES TO DRYWELLS OR INFILTRATION.
- STORMWATER COULD GO INTO THE GROUND AND RECHARGE AN AQUIFER.
- STORMWATER DOES NOT GO TO A TREATMENT PLANT EXCEPT FOR CSOS.



Topics Covered

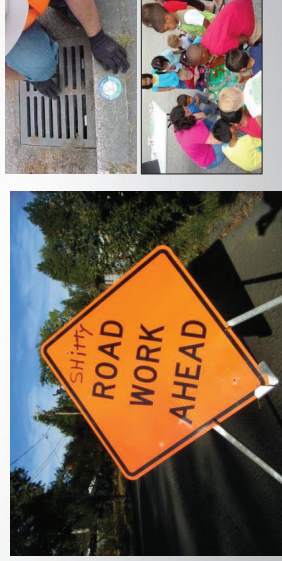
- STORMWATER BACKGROUND
- WHAT IS A SPILL AND ILLICIT DISCHARGE
- RESPONSE
- REPORTING
- DOCUMENTATION AND TRACKING

ACTIVITIES UPLAND IMPACT RECEIVING WATERS

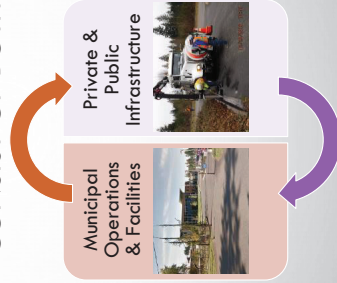
IMPACTS ON WILDLIFE, TOURISM, RECREATION AND THE NW WAY OF LIFE



CITIZENS ARE BECOMING MORE KNOWLEDGEABLE ON STORMWATER AND EXPRESS THEIR OPINIONS



MUNICIPAL STORMWATER PROGRAMS CONSIST OF BOTH



MS4 Examples



Only RAIN Down The Drain!



Never dump anything into a catch basin

WHAT IS AN IDDE PROGRAM?

THE STORMWATER UTILITY IS RESPONSIBLE FOR AN ONGOING PROGRAM TO DETECT AND REMOVE ILLICIT STORMWATER CONNECTIONS, DISCHARGES, AND UNAUTHORIZED DISPOSAL INCLUDING ANY SPILLS INTO THE STORMWATER SYSTEM



Routine and Response

WHAT IS AN ILLICIT DISCHARGE?

ANY DISCHARGE TO A MUNICIPAL SEPARATE STORM SEWER (MS4) NOT COMPOSED ENTIRELY OF STORMWATER, EXCEPT DISCHARGES PURSUANT TO AN NPDES PERMIT



SWM Enforcement Of Code

Investigate to Confirm

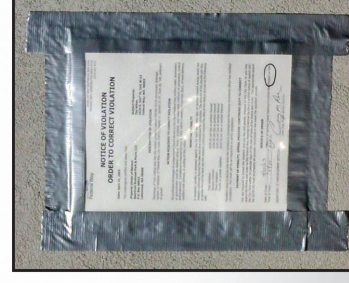
Alert Party and Provide Ed

Voluntary Compliance

Correction Letter

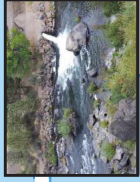
Notice of Violation

Refer to PAO



Slide courtesy of City of Federal Way

ALLOWABLE NON-STORMWATER DISCHARGE



- Diverted stream flows
- Foundation drains
- Air conditioning condensation
- Irrigation water from agricultural sources that is commingled with urban stormwater
- Springs
- Water from crawl space pumps
- Footing drains
- Discharges from emergency fire fighting activities
- **Discharges from authorized dye testing**

May have Standard Operating Procedures (SOPs) on how to prevent pollutants or minimize impacts to the stormwater systems in performing the above activities.

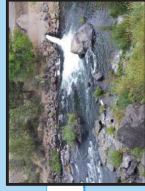
PROHIBITED OR ILLICIT DISCHARGE



EXAMPLES, BUT NOT LIMITED TO:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Trash or debris • Construction materials • Petroleum products including, but not limited to, oil, gasoline, grease, fuel oil, heating oil • Antifreeze and other automotive products • Metals in either particulate or dissolved form • Flammable or explosive materials • Radioactive material • Batteries • Acids, alkalis, or bases • Paints, stains, resins, lacquers, or varnishes • Degreasers and/or solvents | <ul style="list-style-type: none"> • Drain cleaners • Commercial and household cleaning products • Pesticides, herbicides, or fertilizers • Steam cleaning wastes • Pressure washing wastes • Soaps, detergents, or ammonia • Swimming pool or spa filter backwash • Chlorine, bromine, or other disinfectants • Heated water • Domestic animal wastes • Sewage • Recreational vehicle waste | <ul style="list-style-type: none"> • Animal carcasses • Food wastes • Bark and other fibrous materials • Lawn clippings, leaves, or branches • Silt, sediment, concrete, cement or gravel • Chemicals not normally found in uncontaminated water • Any other process-associated discharge except as otherwise allowed in this section • Any hazardous material or waste not listed above |
|--|--|--|

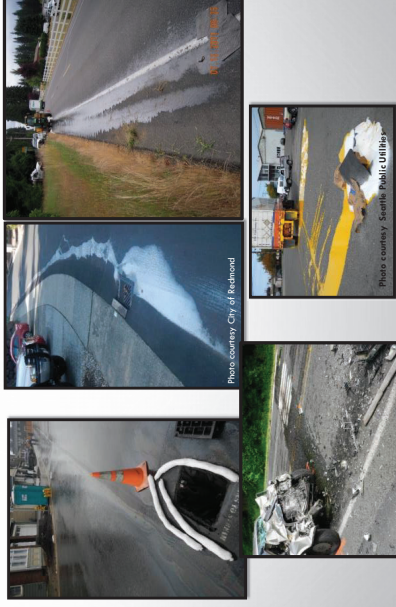
CONDITIONALLY ALLOWABLE DISCHARGES



- Discharges from
 - water from line flushing
 - fire hydrant system flushing
- Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted
- De-chlorinated swimming pool discharges
- Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents

Must have Standard Operating Procedures (SOPs) on how to prevent pollutants or minimize impacts to the stormwater systems in performing the above activities.

EXAMPLES OF PROHIBITED DISCHARGES



TYPES OF ILLICIT DISCHARGE SOURCES



- VEHICLE LEAKS
- PURPOSEFUL ACT OF INTRODUCTION/IGNORANCE
- ILLICIT CONNECTIONS
- INFRASTRUCTURE FAILURES
- CONSTRUCTION RUNOFF AND TRACK OUT
- POOR BUSINESS PRACTICES
- MOBILE BUSINESSES
- WILLFUL NEGLIGENCE

SIGNS OF AN ILLICIT DISCHARGE OR CONNECTION?

- DISCOLORATION
- FLOWING WATER WHEN IT IS NOT RAINING
- DEBRIS / FLOATABLES
- FOAM
- OILY SHEEN
- DEAD ORGANISMS
- INCREASED TEMPERATURE



SPILL VS. ILLICIT DISCHARGE

- SPILL = ACCIDENT, UNPLANNED EVENT THAT HASN'T YET ENTERED THE MS4
- ILLICIT DISCHARGE = WHEN SOMETHING OTHER THAN STORMWATER ENTERS THE MS4
- WHEN DOES A SPILL BECOME AN ILLICIT DISCHARGE?

HOW DO WE RECOGNIZE IT?

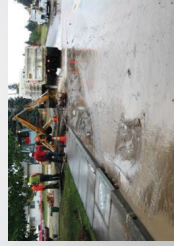
- EYES
- EARS
- NOSE
- LAB TESTING





LET'S IDENTIFY SOME HIGH RISK ACTIVITIES

- VEHICLE AND EQUIPMENT MAINTENANCE
- BUILDING AND LOT MAINTENANCE
- BUSINESSES, RESTAURANTS AND RETAIL CENTERS
- CONSTRUCTION, ROADWORK AND UTILITIES

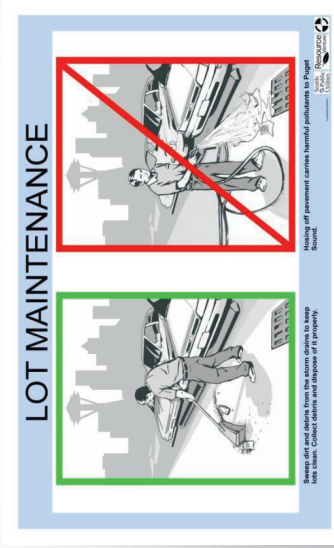


“NON-TOXIC” AND “BIODEGRADABLE” CLEANING PRODUCTS

- “NON-TOXIC” MEANS THE PRODUCT IS NOT TOXIC TO THE USER
- “BIODEGRADABLE” MEANS THE PRODUCT WILL EVENTUALLY BREAK DOWN BUT MAY STILL BE DAMAGING TO THE ENVIRONMENT



BUILDING AND LOT MAINTENANCE



BUSINESSES, RESTAURANTS AND RETAIL CENTERS

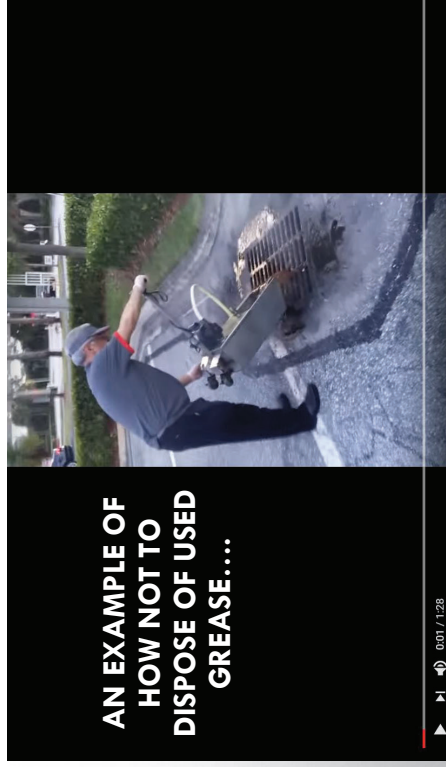


WASHING OF CARS, BUILDINGS, EQUIPMENT, OR INTERIOR MUST NOT BE DISCHARGED TO CATCHBASINS

Conditionally Approved – Defined Procedures



AN EXAMPLE OF HOW NOT TO DISPOSE OF USED GREASE....



MOBILE BUSINESSES



NEGLECTED HOUSEKEEPING

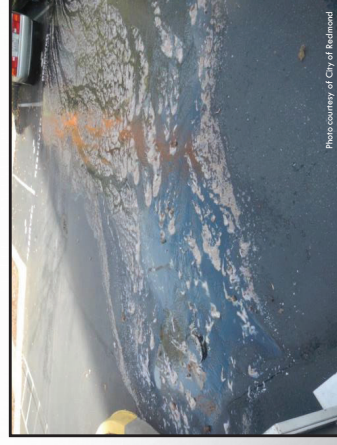


COMMERCIAL OFFICES AND RETAIL

- ISSUES
- TRASH AND DEBRIS, HYDROCARBONS, METALS, PROCESS WATER
- TYPICAL SOURCES
- KEEP WHAT YOU DO INSIDE YOUR BUILDING



SANITARY SEWER OVERFLOW



CONSTRUCTION, ROAD WORK AND UTILITIES



CONSTRUCTION WORK

ISSUES

- TURBIDITY, SEDIMENT, FUELS, PH AND OTHER CHEMICALS



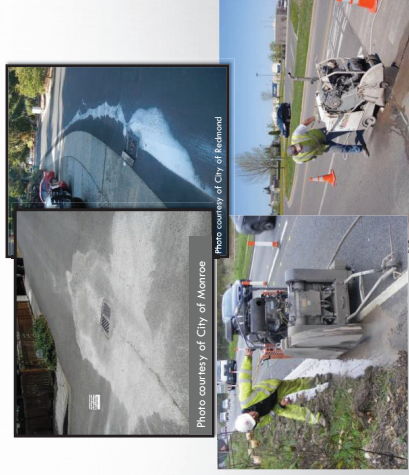
CONCRETE WORK AND SAWCUTTING

ISSUES IT CAUSES

- ELEVATED PH
- FALSE BOTTOMS IN SUMPS

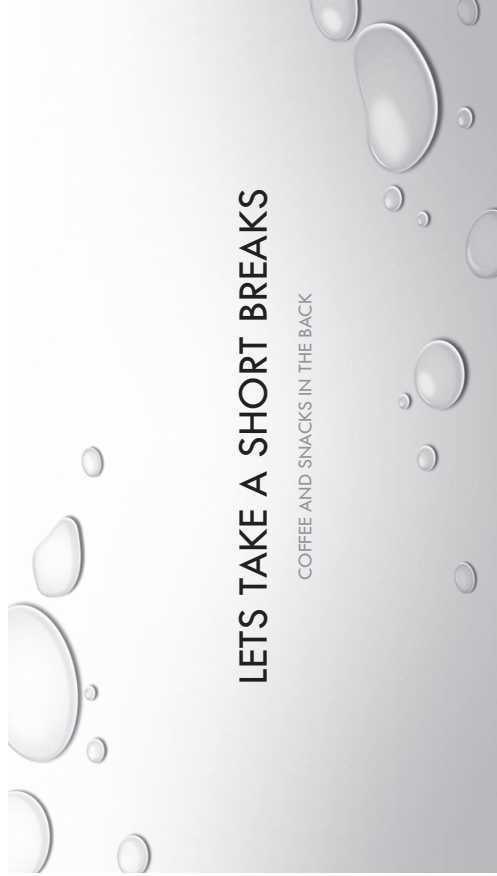
TYPICAL SOURCES

- CONSTRUCTION ACTIVITY
- ROAD PROJECTS (SAW CUTTING)
- HOME PROJECTS (EXPOSED AGGREGATE FINISH)



UTILITY INSTALL - DEWATERING





WHAT IS A SPILL?

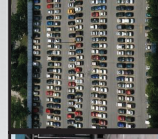
WEBSTER'S DICTIONARY:

- TO ALLOW OR CAUSE, ESP. UNINTENTIONALLY OR ACCIDENTALLY, TO RUN, FALL, OR FLOW OVER FROM A CONTAINER, USUALLY SO AS TO RESULT IN LOSS OR WASTE: WHO *SPILLED* THE MILK?



SPILL PREVENTION: HIGH-RISK AREAS

- Outdoor Storage Areas
- Outdoor Manufacturing &/or Repairs
- Fueling Stations
- Parking Lots
- Loading docks



SPILL PREVENTION - HIGH-RISK ACTIVITIES

- LOADING /UNLOADING
- MATERIAL STORAGE
- FUELING: MOBILE OR STATIONARY
- PAINTING
- CONSTRUCTION SITE ACTIVITIES WITH HEAVY EQUIPMENT
- REPAIRS AND/OR MAINTENANCE OUTSIDE



Field Staff Duties And Responsibilities

- Recognize & Report
- Assist with investigations
- Minimize impact to storm system and receiving water
- Spill response
 - Clean it up appropriately and completely
 - Dispose of the clean up material appropriately
 - Restock the spill kit materials



Slide courtesy of City of Federal Way

What Are Your Responsibilities?



YOU SEE AN ILLICIT DISCHARGE/ SPILL – NOW WHAT?

- NOTIFICATION
- BE SAFE (PERSONAL SAFETY AND OTHERS SAFETY)
- CONTAIN
- CLEAN IT UP
- REPORT IT

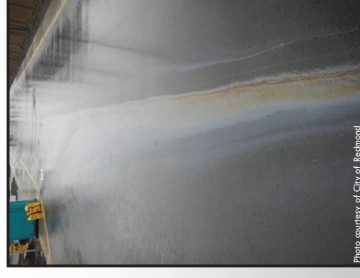


Photo courtesy of City of Richwood

OUNCE OF PREVENTION WORTH A TON OF CURE

- KEEP SPILL RESPONSE PLAN AND MATERIALS READILY AVAILABLE IN CASE OF EMERGENCY



02.23.2009

Truck based kit

Larger spill kit response

May Be Asked To Assist With Investigations

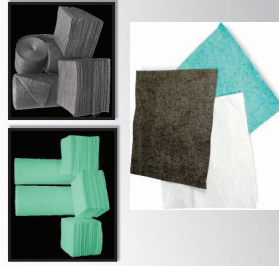


Slide courtesy of City of Federal Way

- Open manholes
- Direct traffic
- Participate in containment and cleanup if safe to do so

TYPES OF SPILL CLEANUP BMPS

- ADSORB VS. ABSORB
- HYDROPHOBIC VS. HYDROPHILIC
- OIL ONLY
- UNIVERSAL
- ACIDS
- COLOR CODING ISNT UNIVERSAL AMONG MANUFACTURERS

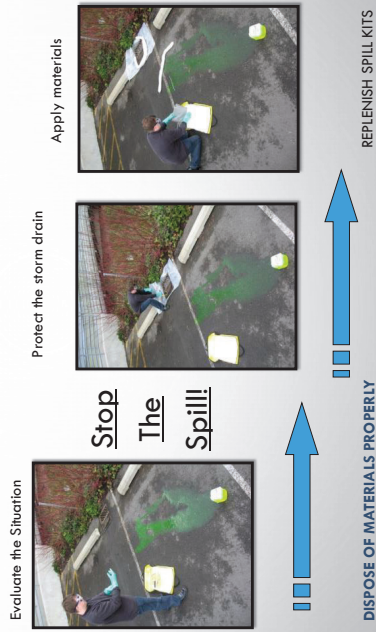


TYPES OF SPILL CONTROL BMPS

- EMERGENCY SHUT-OFF VALVES
- DRIP PANS
- DRAIN PLUGS
- POP UP POOLS
- LOOSE SORBENTS

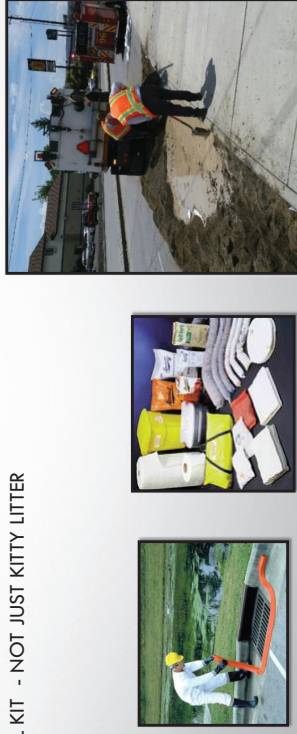


HOW TO CLEAN UP A SPILL



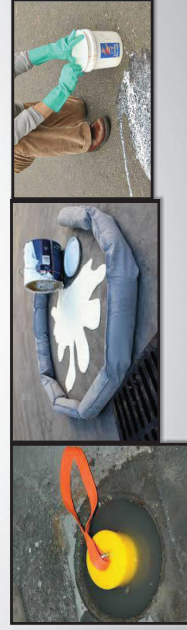
CONTAIN THE SPILL

- USE WHAT IS AROUND YOU TO PREVENT SPILL FROM EXPANDING
- SPILL KIT - NOT JUST KITTY LITTER



SPILL CONTROL BASICS

- MINIMIZING THE IMPACT OF A SPILL BY STOPPING THE SOURCE
- PLACE CONTAINER UPRIGHT
- PREVENT ACCESS TO STORMWATER SYSTEM OR SURROUNDING RECEIVING WATERS BY BLOCKING DRAINS OR PIPES



HOW TO RESPOND TO AN ILLCIT DISCHARGE



FIRST DETERMINE IF IT IS A NON-EMERGENCY OR EMERGENCY SITUATION

NON-EMERGENCY SPILL IS A SMALL OR MEDIUM SPILL (UNDER 5 GALLONS) OF A KNOWN SUBSTANCE, THAT **DOES NOT** PRESENT AN IMMEDIATE THREAT TO HUMAN HEALTH, AND **CAN BE HANDLED** BY RESPONDER.

EMERGENCY SPILL IS A SPILL THAT IS HAZARDOUS OR OF AN UNKNOWN SUBSTANCE, THAT POSES AN **IMMEDIATE THREAT** TO HUMAN HEALTH, OR IS **LARGE AND UNMANAGEABLE** BY RESPONDER.

PROVIDE THE FOLLOWING INFO TO THE STORMWATER LEAD WORKER AND/OR STREET SUPERINTENDENT:



1. DATE AND TIME SPILL OCCURRED (OR WHEN YOU DISCOVERED IT)
2. LOCATION OF SPILL
3. YOUR CONTACT INFORMATION
4. IF IT IS ENTERING THE STORM SYSTEM OR A BODY OF WATER
5. PROVIDE SUPERINTENDENT WITH A STATUS UPDATE ON THE SPILL. WAS IT CLEANED UP, OR STILL REQUIRES FURTHER CLEANING.

IF IT IS AN EMERGENCY, CALL 911.

IF IT IS A NON-EMERGENCY, YOU SHOULD:

1. BE SURE TO USE PROPER PERSONAL PROTECTIVE EQUIPMENT I.E. GLOVES.
2. IF YOU HAVE A SPILL KIT, TRY AND CONTAIN THE SPILL.
3. CALL THE STORMWATER LEAD WORKER AND/OR STREET SUPERINTENDENT FOR ADDITIONAL ASSISTANCE, AND TO ENSURE THAT THE SPILL IS REPORTED.

HOW TO REPORT AN ILLICIT DISCHARGE

SPILLS ORIGINATING FROM YOUR OWN WORK ACTIVITY / EQUIPMENT:

- TAKE ACTION TO CONTAIN THE SPILL, AND TO PREVENT DISCHARGE TO CITY STORMWATER SYSTEM.
- DOCUMENT ACTIONS TAKEN ON COMBINED CONTACT & POLLUTION INVESTIGATION CHECKLIST. TAKE PHOTOS!
- CONTACT YOUR SUPERINTENDENT TO DETERMINE NEED FOR FURTHER REPORTING.



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/reporting the spill.
3. If spill reported by public, name of staff reported to:
Reporting Citizen's Name: _____ (Address) _____ (Phone #) _____
4. Call to Key Response Personnel received by _____ (Name of the key response person who will report to the incident)
By _____ (Name of the person who will report to the incident) _____ (Address) _____ (Phone No.) _____
On Spill when a discharge or spill occurred at a residential location: _____ (Name) _____ (Address) _____ (Phone No.) _____
5. Notification of Authorities: (See PW 0003 - 24 Emergency Call List)
For spills that are not health, welfare, or environmental hazards:
City of PA Stormwater Eng. 24 Hrs 380-450-3456
For spills that are health, welfare, or environmental hazards:
National Response Center 1-800-255-5950
PA Dept of Environmental Protection 717-781-3302
Division of Air Quality Management 717-781-3302
City of PA Stormwater Eng. 24 Hrs 380-450-3456
Bacterial:
WVPE or Collections System Failure 380-450-6300
WVPE or Collections System Failure 380-450-6300
WV DCH Shellfish Protection-Immediate 380-450-3339
WV DCH Shellfish Protection-Immediate 380-450-3339
Columbiana County Empto Health-24 Hrs 380-47-2415
City of PA Stormwater Eng. 24 Hrs 380-450-3456

ERTS # _____
 a) Location/Address _____
 b) Time of arrival _____

ANY OTHER SPILLS: WHO TO CALL...


- **CALL UNTIL YOU REACH A LIVE PERSON**
- 1. STORMWATER LEAD WORKER (GREG): 460-5174
- 2. DEPUTY DIRECTOR TRANSPORTATION(ERIC): 417-4825
- 3. CIVIL ENGINEER I (LUCIO): 417-4720
- 4. SOURCE CONTROL COORDINATOR (DAVID): 417-4692
- 5. ILLICIT DISCHARGES CAN ALSO BE REPORTED BY EMAIL: ILLICITDISCHARGE@CITYOFPAUS

- **INFORMATION TO PROVIDE:**
 - TYPE AND AMOUNT OF POLLUTANT DISCHARGED (ENTERING STORMWATER SYSTEM?)
 - TIME / LOCATION DESCRIPTION / ADDRESS
 - PHOTOS IF POSSIBLE

IF PUBLIC SAFETY IS THREATENED CALL 911

CITY IS LEGALLY REQUIRED TO REPORT SPILLS, DISCHARGES, OVERFLOWS TO CITIZENS & AGENCIES.

- WASTEWATER DIVISION NPDES PERMIT #WA0023973
- P.W. & U POLICY 0610



- STAFF ARE THE CRITICAL LINK IN COMMUNICATION CHAIN!

REPORTING SEWER SPILLS, ILLICIT DISCHARGES, & OVERFLOWS

CITY OF PORT ANGELES WASTEWATER DIVISION
MAY 21, 2019

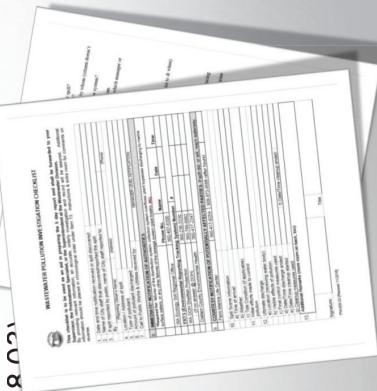
REPORT IN A TIMELY FASHION

CALL UNTIL YOU REACH A LIVE PERSON

1. WW COLLECTIONS LEAD (RICK H.) 460-3976
2. WW TREATMENT PLANT ON-CALL CELL 461-0111
3. WW TREATMENT PLANT 417-4845
4. WW PRETREATMENT SPECIALIST 417-4692

WASTEWATER POLLUTION INVESTIGATION CHECKLIST
(PW-808.02)


- WHEN DID YOU ARRIVE?
- SNAP A PHOTO OR 2.
- WHO TOLD YOU ABOUT THE SPILL?
- WHEN DID YOU LEARN OF THE SPILL?
- WHERE DID IT COME FROM?
- WHAT CAUSED IT?
- WHERE DID IT GO?



QUESTIONS



CONTACT INFORMATION



Nathan Hardebeck
 206-226-8820
NathanH@CleanWaterATS.com

Certified Erosion and Sediment Control Lead (CESCL) Certification Information

First Name	Last Name	Company	City	CESCL #	Expired	Status	Training Provider
Brent	Robinson	COPA	Port Angeles	CWT18-1114	4/24/2021	Current	CWT
Cody	Romero	COPA	Port Angeles	CWT18-1115	4/24/2021	Current	CWT
Dennis	Edgington	COPA	Port Angeles	CWT18-1117	4/24/2021	Current	CWT
Eric	Wheatley	COPA	Port Angeles	CWT18-1118	4/24/2021	Current	CWT
Eric	Walrath	COPA	Port Angeles	CWT18-1119	4/24/2021	Current	CWT
Greg	Haskins	COPA	Port Angeles	CWT18-1120	4/24/2021	Current	CWT
Jad	Groves	COPA	Port Angeles	CWT18-1121	4/24/2021	Current	CWT
Jason	Hart	COPA	Port Angeles	CWT18-1123	4/24/2021	Current	CWT
Jason	Paynter	COPA	Port Angeles	CWT18-1124	4/24/2021	Current	CWT
Jeff	Bender	COPA	Port Angeles	CWT18-1126	4/24/2021	Current	CWT
Jeremy	Pozernick	COPA	Port Angeles	CWT18-1128	4/24/2021	Current	CWT
Jim	Lierly	COPA	Port Angeles	CWT18-1130	4/24/2021	Current	CWT
John	Hayduk	COPA	Port Angeles	CWT18-1131	4/24/2021	Current	CWT
Jonathan	Boehme	COPA	Port Angeles	CWT18-1132	4/24/2021	Current	CWT
Jordan	Sage	COPA	Port Angeles	CWT18-1133	4/24/2021	Current	CWT
Josh	Borte	COPA	Port Angeles	CWT18-1134	4/24/2021	Current	CWT
Leon	Leonard	COPA	Port Angeles	CWT18-1129	4/24/2021	Current	CWT
Lucio	Baack	COPA	Port Angeles	CWT18-1135	4/24/2021	Current	CWT
Michael	Poats	COPA	Port Angeles	CWT18-1136	4/24/2021	Current	CWT
Roger	Vess	COPA	Port Angeles	CWT18-1137	4/24/2021	Current	CWT
Steve	Rutz	COPA	Port Angeles	CWT18-1138	4/24/2021	Current	CWT
Vince	McIntyre	COPA	Port Angeles	CWT18-1139	4/24/2021	Current	CWT

Certified Erosion and Sediment Control Lead (CESCL) Certification Information

Andy	Reandeau	COPA	Port Angeles	CWT18-1144	4/26/2021	Current	CWT
Brian	Anders	COPA	Port Angeles	CWT18-1147	4/26/2021	Current	CWT
Gavin	Medley	COPA	Port Angeles	CWT18-1155	4/26/2021	Current	CWT
Jared	Bridges	COPA	Port Angeles	CWT18-1157	4/26/2021	Current	CWT
Jeff	Gagnon	COPA	Port Angeles	CWT18-1159	4/26/2021	Current	CWT
Mindie	Hart	COPA	Port Angeles	CWT18-1166	4/26/2021	Current	CWT
Pat	Bartholick	COPA	Port Angeles	CWT18-1168	4/26/2021	Current	CWT
Richard	Smith	COPA	Port Angeles	CWT18-1169	4/26/2021	Current	CWT
Rick	Hartley	COPA	Port Angeles	CWT18-1170	4/26/2021	Current	CWT
Timmy	Wright	COPA	Port Angeles	CWT18-1175	4/26/2021	Current	CWT

101-17-002

2c
1/24

**INTER-LOCAL AGREEMENT
BETWEEN
CITY OF PORT ANGELES
AND
CLALLAM COUNTY
FOR STREAM WATER QUALITY MONITORING**

This Inter-Local Agreement is between the City of Port Angeles (herein after referred to as “the City”) and the Clallam County (herein after referred to as “the County”) for the purpose of volunteer recruitment, training and coordination for water quality monitoring, and associated data storage and reporting. Funding for this work is through the City of Port Angeles.

WHEREAS, the Inter-Local Cooperation Act, RCW 39.34, provides that any two public agencies of the state having separate authority to exercise a particular power may enter into an agreement for cooperative or joint exercise of that power; and

WHEREAS, the City is a municipal corporation of the State of Washington, and the County is a political subdivision of the State of Washington, and each party has the authority to contract for water quality monitoring services under Article XI § 11 of the Washington State Constitution; Chapter 17.10 RCW; Chapter 36.89 RCW; Chapter 85.15 RCW; and

WHEREAS, the City desires to monitor levels of fecal coliform bacteria and other water quality issues in the streams and harbor of Port Angeles, in a systematic and scientific manner,

WHEREAS, the City would like to use the services of the County’s Streamkeepers program.

It is mutually agreed that:

A. The County’s Responsibilities:

1. Recruit and train volunteers through the County’s Streamkeepers program to perform water-quality sampling in the Port Angeles area.
2. Devise a sampling plan in conjunction with the City. Sampling sites, parameters, and periodicity will be agreed upon by Streamkeepers and the City. Sites will have safe access. Where a sampling site is not accessible from a public road or other easement, the City will obtain the landowner’s permission for Streamkeepers’ staff and/or volunteers to access the site. Baseline sampling is expected to include monthly sampling for fecal coliform in fresh water streams and fecal coliform and enterococci in marine waters, as well as annual sampling for benthic macroinvertebrates. The sampling plan will depend upon funding and laboratory costs.
3. Submit samples to laboratories for analysis:
 - a. Bacterial and other water-quality samples to the County Environmental Health Lab or, when the County Environmental Health Lab is unable to perform the analysis, another state accredited lab as defined in RCW 43.21A.230 and WAC 173-50-040.
 - b. Benthic macroinvertebrate samples to professional taxonomy laboratories for identification and verification.

4. Gather data not requiring laboratory analysis, either on-site or using a facility of the County's choosing, using standard Streamkeepers protocols and quality-control measures.
5. Record, confirm, and analyze all results, and report them to the City as soon as possible but no later than 30 days following collection via the standard reporting/recordkeeping formats as used by the County's Streamkeepers program.
6. Produce and submit to the City a monthly and yearly report summarizing water quality data collected.

B. The City's Responsibilities:

1. Provide direction as to overall sampling design, including sites, parameters, and periodicity.
2. In the instance that a sampling site is not accessible from a public road or other easement, obtain landowner permission to access the site for sampling purposes.
3. Arrange with analytical laboratories for payment, as appropriate. Expected laboratory services include:
 - a) Water samples for pollutant analysis. The 2017 lab fees at the Clallam County Environmental Health Laboratory are \$26.00 per sample for membrane-filter fecal coliform tests and \$35.00 per sample for enterococci bacterial tests. Payment of lab fees will be based on current year sample rates as set by the Clallam County Environmental Health Laboratory. If other parameters, methods, or laboratories are used, fees will vary.
 - b) Benthic macroinvertebrate samples for taxonomic analysis per the Benthic Index of Biological Integrity (B-IBI). Laboratory fees cannot be determined in advance, but the City will use the same taxonomist(s) the County uses and will pay the same rate, including pro-rated costs for Quality Assurance laboratory analysis.
4. The City will pay for staff time and costs (described in "A." above) at the staff billing rate and actual cost of incidental material. The County will invoice the City monthly, and the City will pay within 30 days. The ~~2016~~²⁰¹⁷ staff billing rate is ~~\$49.40~~^{\$44.80} per labor hour. Subsequent years will be billed at the established staff billing rate set by Clallam County.
5. City's maximum obligation: The total cost of services for the above tasks, including payments to Streamkeepers and laboratories, will not exceed \$16,000 for each calendar year, totaling \$80,000 for the years 2017 through 2021.

C. General Conditions:

1. Duration: Unless terminated by either party, this agreement shall commence on the date of execution, and shall remain in effect through December 31, 2021.
2. Modification: This Agreement may be amended or altered only by written agreement of the designated representatives of both the City and the County upon the signature of such representatives. The amendment shall explicitly state that it is an amendment to this Agreement.

3. Termination: This Agreement may be terminated by either party sixty (60) days after receipt of written notice of intent to terminate; PROVIDED that either party may immediately terminate this Agreement for public convenience or in the event of a financial emergency. If this contract is terminated or expires, the City is obligated to reimburse the County for all costs incurred in performance of the Agreement prior to its termination or expiration.
4. Property: The parties do not intend to purchase or acquire any real or personal property in performance of this Agreement, other than the consumables necessary to perform this Agreement. However, should any property be purchased or acquired in performance of this Agreement, it will remain with the purchasing party upon termination or expiration of this Agreement.
5. Ownership of Items Produced: All writing, programs, data, public records or other materials prepared by the County and/or its consultants, subcontractors, or volunteers, in connection with performance of this Agreement will be entered into the Clallam County Water Resources database, and then delivered to the City. The parties recognize and acknowledge that all such information is available to the public.
6. Non-Discrimination: The County shall not discriminate against any person on the basis of race, creed, political ideology, color, national origin, sex, marital status, sexual orientation, age, or the presence of any sensory, mental or physical handicap.
7. Defense, Indemnity, Hold Harmless: The County shall defend, indemnify, and hold the City harmless from and against any liability for any/all injuries to person or property arising from the sole negligent act or omission of the County or its elected officials, department heads, agents, or employees in performance of this Agreement.

The City shall defend, indemnify, and hold the County harmless from and against any liability for any/all injuries to person or property arising from the sole negligent act or omission of the City or its elected officials, department heads, agents, or employees in performance of this agreement.

8. Administration: This Agreement will be administered by the County's Streamkeepers program.

The County's contact is: Ed Chadd, Associate Planner, Clallam County, 223 E. 4th Street, Suite 6, Port Angeles, WA 98362, (360) 417-2281, Streamkeepers@co.clallam.wa.us.

The City's contact is: Jonathan Boehme, Stormwater Engineer, City of Port Angeles, 321 E. 5th Street, Port Angeles, WA 98362, (360) 417-4811, jboehme@cityofpa.us.

IN WITNESS HEREOF, this Agreement is executed by Clallam County and by the City of Port Angeles, Washington.

CITY OF PORT ANGELES

CLALLAM COUNTY BOARD OF COMMISSIONERS



Dan McKeen, City Manager



Chair

Dated this 30th day of January 2017.

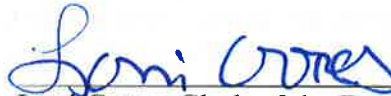
Dated this 24th day of January 2017.

Attest:

Attest:



Jennifer Veneklasen, City Clerk



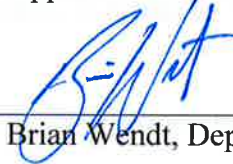
Loni Gores, Clerk of the Board

Approved As To Form:

Approved As To Form:



William E. Bloor, City Attorney



Brian Wendt, Deputy Prosecuting Attorney

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 2018 sampling plan. This plan was also utilized in 2019.

City of Port Angeles project: Streamkeepers Grab-Sample Plan, revised 4/30/18

Include Precip (24 hr) readings or multi-day retrospectives of preceding wet and dry periods, based on a reliable local weather station

- Organize sampling tours around volunteer/lab availability; min. 2 volunteers needed, and lab is generally available M-Th before 2 PM.
- Try for 50% monthly wet-weather tours during the year, where "wet" is defined as ≥ 0.15 " of rain-equivalent within the prior 24 hours.
- If 50% wet-weather tours have not been taken as the year progresses, conduct a wet-weather tour if volunteers are available even if a dry-weather tour has already been conducted that month.
- Conduct two "storm" (defined as ≥ 1 " of rain-equivalent within the prior 24 hours) tours per year, preferably in different seasons, with or without volunteers, even if a sample has already been taken that month.
- If volunteers are available, precede "storm" sampling tours with pre-storm tours, preferably the day prior to the storm.
- If a "storm" tour has been conducted during a month, no further tours will be conducted that month.
- If two "storm" tours have not been conducted by the end of November, consider relaxing the 1" criterion in December.
- For "wet-weather" or "storm" sampling, use best judgment to label each visit as Baseflow; First-Flush; Rising-Curve; Peak; or Post-Peak, considering storm intensity, turbidity, flow velocity, and stream stage relative to what it was pre-storm. The storm may iterate back and forth through multiple stages during a sampling tour.

Monthly Samples--Organize around volunteer availability; Aim for 6 dry-weather and 6 wet-weather samples	Additional sites for storm sampling (see above)--aim for 1 pre-storm and 1 during-storm or just-after-storm sample (preferably on consecutive days) 2x/yr if possible (preferably in different seasons)
Peabody 0.0 (when possible)	C Peabody 2.9 (Coyote Run Lane off Scrivner Rd)
Peabody 0.2 (just u/s of final culvert; include stage reading)	Tumwater 0.1 (d/s of storm pipe)
Peabody 0.2 rep	W Tumwater 0.1b (LB storm drain input @ 3rd St.)
Peabody 0.2a (pipe d/s of trailer park office)	Tumwater 0.1a (@ 3rd St. u/s of LB storm drain input)
Peabody 0.2b (u/s of pipe)	Tumwater 1.5a (u/s of Hwy 101, u/s of storm input from west)
Peabody 0.4b (u/s of trailers, d/s of plunge pool below culvert)	Tumwater 1.5b (u/s of Hwy 101, storm channel from west)
Peabody 0.4 (u/s of Peabody St.)	Tumwater 4.4 (3142 Black Diamond Rd)
W Peabody 0.4a (storm input under Peabody St.)	Valley 0.0 (when possible)
Peabody 0.9 (beneath water pipe, d/s of kids' play area)	Valley 0.4 (u/s of final culvert @ 6th St)
Peabody 1.2 (beneath Lauridsen, u/s of stormwater flume)	Valley 0.4 rep
Peabody 1.2c (beneath Lauridsen, stormwater flume)	Valley 0.7 (@ 12th St., near end of Valley Street)
C Peabody 1.4 (National Park loop trail, u/s of u/s crossing)	Valley 1.0 (u/s of "flatbed" bridge @ 14th St)
Tumwater 0.0 (across from Westport side door)	Valley 1.2 (d/s of Hwy 101)
Tumwater 0.0 rep	Valley 1.4 (Vern Samuelson Trail ~0.1 mile u/s of Hwy 101)
Tumwater 0.8 (d/s of storm input below Tumwater Truck Rt)	Semi- Annual Marine Samples--fecal + entero (big 500 mL bottles)
Tumwater 0.8d (storm pipe below Tumwater Truck Route)	PA Harbor @Hollywood west
Tumwater 0.8e (u/s of storm input below Tumwater Truck Rt)	PA Harbor @Hollywood central
Tumwater 1.5 (u/s of Hwy 101, d/s of storm input from west)	PA Harbor @Hollywood east
	PA Harbor @Peabody mouth
	PA Harbor @Peabody mouth rep

Selected Water-Quality Parameters From: 1/29/19 To: 1/29/19

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
			(°C)	(°C)		(mg/L)	(uS)	(pss)	(NTU) type	(in)	(Colonies/100ml)		(cfs)
Peabody 0.0				Peabody @ mouth									
49595	1/29/2019	12:46		5							6		
Peabody 0.2				Peabody @ 2nd St, above final culvert									
49596	1/29/2019	9:22		4							9		0.71
Peabody 0.2a				Peabody input - storm pipe d/s of RV park office									
49597	1/29/2019	9:29		4							2 U		
Peabody 0.2b				Peabody u/s of storm pipe d/s of RV Park office									
49598	1/29/2019	9:33		4							22 J		
Peabody 0.4				Peabody @u/s end of Peabody St culvert									
49600	1/29/2019	9:56		4							4		0.4
Peabody 0.4a				Peabody input - storm pipe inside culvert @ Peabody St.									
49601	1/29/2019	10:00		9							62		
Peabody 0.4b				Peabody ~80' d/s of Peabody St. culvert									
49599	1/29/2019	9:38		4							2		
Peabody 0.9				Peabody u/s of 8 St.									
49602	1/29/2019	10:15		4							4 J		
Peabody 1.2				Peabody u/s of storm pipe outfall @Lauridsen Blvd									
49603	1/29/2019	10:36		4							2 U		
Peabody 1.2c				Peabody storm flume d/s of Lauridsen Blvd installed 2014									
49604	1/29/2019	10:41		9							8		
Peabody 1.4				Peabody @ ONP Visitor Ctr									
49605	1/29/2019	11:00		4							2 J		
Tumwater 0.0				Tumwater d/s of Marine Dr									
49606	1/29/2019	12:25		4							91		

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2/6/2019

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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)	
Tumwater 0.1														
49607	1/29/2019													0.71
Tumwater 0.8														
49608	1/29/2019	12:01		4							44			
Tumwater 0.8d														
49609	1/29/2019	11:51		8							2	U		
Tumwater 0.8e														
49610	1/29/2019	12:11		4							40			
Tumwater 1.5														
49611	1/29/2019	11:35		4							2			

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

Selected Water-Quality Parameters From: 2/1/19 To: 2/28/19

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)	
Peabody 0.0				Peabody @ mouth										
49641	2/20/2019	9:50		2.8			0.1		26		138			
									ES					
									T					
Peabody 0.2				Peabody @ 2nd St, above final culvert										
49642	2/20/2019	10:13		2.9			0.1		21		65			1.1
Peabody 0.2a				Peabody input - storm pipe d/s of RV park office										
49643	2/20/2019	10:20		11			0.1				324			
Peabody 0.2b				Peabody u/s of storm pipe d/s of RV Park office										
49644	2/20/2019	10:23		2.9			0.1		19		34			
Peabody 0.4				Peabody @u/s end of Peabody St culvert										
49637	2/19/2019	14:00												0.69
49638	2/19/2019	17:35												0.95
49646	2/20/2019	10:49		2.8			0.1		19		42			0.98
Peabody 0.4a				Peabody input - storm pipe inside culvert @ Peabody St.										
49647	2/20/2019	10:55		5.5			0		EST		106			
Peabody 0.4b				Peabody ~80' d/s of Peabody St. culvert										
49645	2/20/2019	10:30		2.9			0.1		21		79			
									ES					
									T					
Peabody 0.9				Peabody u/s of 8 St.										
49648	2/20/2019	11:12		2.8			0.1		17		34			
									ES					
									T					
Peabody 1.2				Peabody u/s of storm pipe outfall @Lauridsen Blvd										
49649	2/20/2019	11:40		2.6			0.1		19		28			
									ES					
									T					
Peabody 1.2c				Peabody storm flume d/s of Lauridsen Blvd LB										
49650	2/20/2019	11:42		4.1			0		EST		90			
Peabody 1.2d				Peabody storm flume d/s of Lauridsen Blvd RB @836 Race St										
49653	2/20/2019	11:28		3.6			0.1		28		16			
									ES					
									T					

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3/5/2019

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SITE				Air	Water	DO	Specific (25°C)			Fecal	Entero-			Stage
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 1.4	Peabody @ ONP Visitor Ctr													
49651	2/20/2019	12:01		2.3				0.1	18 ProDSS		30			
Tumwater 0.0	Tumwater d/s of Marine Dr													
49654	2/20/2019	13:52		3.6				0.1	38 ^{ES} ProDSS _T		34			
Tumwater 0.1	Tumwater u/s of Marine Dr, d/s of LB stormwater drain input													
49655	2/20/2019	14:00												1.2
Tumwater 0.5a	Storm culvert under Tumwater Truck Rd below 8th St bridge													
49662	2/20/2019	13:42		6							20			
Tumwater 0.8	Tumwater nr. 11 St., d/s of storm outflow channel													
49656	2/20/2019	13:17		3.4				0.1	44 ProDSS		46			
Tumwater 0.8d	Tumwater input - storm outfall pipe into Tumwater @ 11 St.													
49657	2/20/2019	13:22		5.2				0.1			90			
Tumwater 0.8e	Tumwater u/s of 11 St. storm outfall													
49658	2/20/2019	13:26		3.4				0.1	40 ProDSS		38			
Tumwater 1.5	Tumwater d/s of runoff ditch from SW side of Hwy 101													
49659	2/20/2019	12:56		3.2				0.1	41 ^{ES} ProDSS _T		38			
Valley 0.0	Valley @ estuary pedestrian bridge													
49652	2/20/2019	10:02		28				0.1	16 ProDSS		7432 ^G			
Valley 0.4	Valley @ 6th St, u/s of final culvert 220ft													
49660	2/20/2019	14:05												1.25
Valley 1.4	Valley ~600' u/s of Hwy 101 where trail nears stream													
49661	2/20/2019	12:33		2.8				0.1	11 ProDSS		10			
WS-KCLM	Weather Station - PA - Fairchild International Airport													
49639	2/19/2019	12:50	through	20:50										
49640	2/20/2019	0:00	through	6:30										

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Selected Water-Quality Parameters From: 3/1/19 To: 3/31/19

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)	
Peabody 0.0				Peabody @ mouth										
49718	3/21/2019	11:05		6							2			
Peabody 0.2				Peabody @ 2nd St, above final culvert										
49717	3/21/2019	10:13		6							4			1.05
Peabody 0.2a				Peabody input - storm pipe d/s of RV park office										
49719	3/21/2019	10:25		12							2	U		
Peabody 0.2b				Peabody u/s of storm pipe d/s of RV Park office										
49720	3/21/2019	10:28		6							10			
Peabody 0.4				Peabody @u/s end of Peabody St culvert										
49722	3/21/2019	11:20		6							2	U		0.89
Peabody 0.4a				Peabody input - storm pipe inside culvert @ Peabody St.										
49723	3/21/2019	10:45		8							44			
Peabody 0.4b				Peabody ~80' d/s of Peabody St. culvert										
49721	3/21/2019	10:40		6							6			
Peabody 0.9				Peabody u/s of 8 St.										
49724	3/21/2019	11:40		6							4			
Peabody 1.2				Peabody u/s of storm pipe outfall @Lauridsen Blvd										
49725	3/21/2019	11:52		6							2			
Peabody 1.2c				Peabody storm flume d/s of Lauridsen Blvd LB										
49726	3/21/2019	11:55		9							2	U		
Peabody 1.4				Peabody @ ONP Visitor Ctr										
49727	3/21/2019	12:08		5							2			
Tumwater 0.0				Tumwater d/s of Marine Dr										
49728	3/21/2019	13:20		6							7			

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4/1/2019

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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 0.1														
49729	3/21/2019	13:22												0.96
Tumwater 0.8														
49730	3/21/2019	12:54		6							4			
Tumwater 0.8d														
49731	3/21/2019	13:00		8							2	U		
Tumwater 0.8e														
49732	3/21/2019	13:02		6							6			
Tumwater 1.5														
49733	3/21/2019	12:32		6							2			

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4/1/2019

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Selected Water-Quality Parameters From: 4/1/19 To: 4/30/19

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)	
Peabody 0.0				Peabody @ mouth										
49743	4/16/2019	9:46		7							8			
Peabody 0.2				Peabody @ 2nd St, above final culvert										
49744	4/16/2019	10:04		7							5			0.7
Peabody 0.2a				Peabody input - storm pipe d/s of RV park office										
49745	4/16/2019	10:14		7							46			
Peabody 0.2b				Peabody u/s of storm pipe d/s of RV Park office										
49746	4/16/2019	10:18		7							4			
Peabody 0.4				Peabody @u/s end of Peabody St culvert										
49748	4/16/2019	10:51		7							2			0.44
Peabody 0.4a				Peabody input - storm pipe inside culvert @ Peabody St.										
49749	4/16/2019	10:53		11							140			
Peabody 0.4b				Peabody ~80' d/s of Peabody St. culvert										
49747	4/16/2019	10:27		7							4			
Peabody 0.9				Peabody u/s of 8 St.										
49750	4/16/2019	11:26		7							2			
Peabody 1.2				Peabody u/s of storm pipe outfall @Lauridsen Blvd										
49751	4/16/2019	11:54		7							12			
Peabody 1.2c				Peabody storm flume d/s of Lauridsen Blvd LB										
49752	4/16/2019	11:57		10							8			
Peabody 1.4				Peabody @ ONP Visitor Ctr										
49753	4/16/2019	12:27		7							2			
Tumwater 0.0				Tumwater d/s of Marine Dr										
49754	4/16/2019	14:03		8							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)	
Tumwater 0.1														
49755	4/16/2019	14:09												0.58
Tumwater 0.8														
49756	4/16/2019	13:03		8							2	U		
Tumwater 0.8d														
49757	4/16/2019	13:28		10							2			
Tumwater 0.8e														
49758	4/16/2019	13:46		8							2			
Tumwater 1.5														
49759	4/16/2019	13:01		8							2	U		

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Page 2 of 2

Primary Name	Descriptive Name	Arrival Date	Fecal Coliform	Precipitation (24 hour)	Stream/River Stage	Temperature, water
Peabody 0.0	Peabody @ mouth	5/15/2019	96			11
Peabody 0.2	Peabody @ 2nd St, above final culvert	5/15/2019	89		0.50	11
Peabody 0.2a	Peabody input - storm pipe d/s of RV park office	5/15/2019	12			12
Peabody 0.2b	Peabody u/s of storm pipe d/s of RV Park office	5/15/2019	138			12
Peabody 0.4	Peabody @u/s end of Peabody St culvert	5/15/2019	44		0.20	11
Peabody 0.4a	Peabody input - storm pipe inside culvert @ Peabody St.	5/15/2019	114			12
Peabody 0.4b	Peabody ~80' d/s of Peabody St. culvert	5/15/2019	80			11
Peabody 0.9	Peabody u/s of 8 St.	5/15/2019	20			11
Peabody 1.2	Peabody u/s of storm pipe outfall @Lauridsen Blvd	5/15/2019	6			11
Peabody 1.2c	Peabody storm flume d/s of Lauridsen Blvd LB	5/15/2019	1388			12
Peabody 1.4	Peabody @ ONP Visitor Ctr	5/15/2019	4			10
Tumwater 0.0	Tumwater d/s of Marine Dr	5/15/2019	6			11
Tumwater 0.1	Tumwater u/s of Marine Dr, d/s of LB stormwater drain input	5/15/2019			0.42	
Tumwater 0.8	Tumwater nr. 11 St., d/s of storm outflow channel	5/15/2019	6			10
Tumwater 0.8d	Tumwater input - storm outfall pipe into Tumwater @ 11 St.	5/15/2019	12			11
Tumwater 0.8e	Tumwater u/s of 11 St. storm outfall	5/15/2019	12			11
Tumwater 1.5	Tumwater d/s of runoff ditch from SW side of Hwy 101	5/15/2019	38			11
WS-KCLM	Weather Station - PA - Fairchild International Airport	5/14/2019		0.08		

