

# Washington Department of Ecology

## Electronic Submission Cover Letter



**WQWebSubmittal - Submittal Submission Id: 1923098 - 4/1/2024 3:59:37 PM**

Company Name	Signer Name	System Name
City of Duvall	Larissa Grundell	WQWebPortal

### Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for City of Duvall	Copy of Record CityofDuvall Monday April 1 2024
WAR045512_2_03272024132614	01_2024_Duvall_SWMP_Final_2_03272024132614
WAR045512_21_03272024135849	02_021_General Awareness Effor_21_03272024135849
WAR045512_21_03272024145520	02_021_General Awareness Effor_21_03272024145520
WAR045512_25_03272024135850	03_025_Behavior Change Campaig_25_03272024135850
WAR045512_25_03272024145520	03_025_Behavior Change Campaig_25_03272024145520
WAR045512_26a_03272024140507	04_026a_Stewardship Opportunit_26a_03272024140507
WAR045512_30a_03272024142026	05_030a_Outfall Size and Mater_30a_03272024142026
WAR045512_77_04012024144145	07_077_Summary of Source Contr_77_04012024144145
WAR045512_78_03272024144022	07_078_Source Control Inspecti_78_03272024144022
ImportedIDDEsWAR045512-2023-ImportedIDDEs_03282024120935	WAR045512-2023-ImportedIDDEs_03282024120935

### Attestation Agreed to at Signing:

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

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

For Ecology Use Only



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# Water Quality Program

## Permit Submittal Electronic Certification

**Permittee:** DUVALL CITY

**Permit Number:** WAR045512

**Site Address:** 15535 MAIN ST NE  
DUVALL, WA 98019

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

**Version:** 2

**Due Date:** 3/31/2024

### Questionnaire

Number	Permit Section	Question	Answer
1	S5.A	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.	Not Applicable
2	S5.A	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	01_2024_Duvall_SWMP_Final_2_03272024132614
3	S5.A	Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.	Yes
4	S5.A.5.b	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)	Yes
5	S5.C.1.	Have you convened an interdisciplinary team to inform and assist in the development, progress, and influence of the comprehensive stormwater planning program? (S.5.c.1). August 1, 2020	Yes
14	S5.C.1.b	Did you submit a report as described in S5.C.1.b.i(b)? (Required to submit no later than January 1, 2023)	Yes
15	S5.C.1.c	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)	Yes
16	S5.C.1.c	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)	No
20	S5.C.2	Did you choose to adopt one or more elements of a regional program? (S5.C.2)	Yes
20a	S5.C.2	If yes, list the elements, and the regional program.	Duvall participates in STORM and Puget Sound Starts Here and chose the Adopt a Drain project as our regional program.

21	S5.C.2	Attach a description of general awareness efforts conducted, including your target audiences and subject areas, per S5.C.2.a.i.	02_021_General Awareness Effor_21_03272024145520
24	S5.C.2	Began implementing strategy outlined in S.5.C.2.a.ii(c) (S5.C.2.a.ii(d) – Required by April 1, 2021)	Yes
25	S5.C.2	Attach the report developed in accordance with S5.C.2.a.ii(e), which evaluated the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any planned or recommended changes to the program in order to be more effective. (Required no later March 31, 2024)	03_025_Behavior Change Campaig_25_03272024145520
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.	04_026a_Stewardship Opportunit_26a_03272024140507
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 City has posted program materials on the City website and sent messages out via social media. We have also translated some handout materials into commonly used languages in our community. A Public Hearing was held for the draft SWMP for public participation.
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.	<a href="https://www.duvallwa.gov/416/NPDES-Stormwater-Permit">https://www.duvallwa.gov/416/NPDES-Stormwater-Permit</a>
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).	05_030a_Outfall Size and Mater_30a_03272024142026
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)	Yes
33	S5.C.5	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste? (S5.C.5.b)	Yes

33a	S5.C.5	Actions taken to inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.	The City provides CESCL classes and IDDE training to public employees. The City also provides on-going education to the general public and local businesses on spill prevention and illicit connections including training on the hazards of dumping anything down the storm drains including food waste.
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.	Illicit discharge investigating and field screening is complete in accordance with the document titled "Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual" (Herrera Environmental Consultants and Aspect Consulting, May 2020).
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.)	100
36a	S5.C.5	Cite field screening techniques used to determine percent of MS4 screened.	Outfall screening is the primary field screen method used. Illicit discharge investigating and field screening is also completed as part of the City's catch basin inspection and cleaning program and employee training, facility monitoring, and inspections, and camera investigation as required.
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.)	100

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)	The hotline phone number and email address is publicized to employees, businesses, and the general public through the City newsletter website, social media, and posters at all City buildings open to the public.
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
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.	WAR045512-2023-ImportedIDDEs_03282024120935
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
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.	5
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?	No
48a	S5.C.6.	If no, inspected, prior to clearing and construction, all construction sites meeting the minimum thresholds (S5.C.6.c.ii)?	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.	7
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)	1
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
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
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)	131
63b	S5.C.7.	Number of facilities inspected during the reporting period.	131
63c	S5.C.7.	Number of facilities for which maintenance was performed during the reporting period.	0
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.	Yes
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
66a	S5.C.7.	Number of known catch basins?	2936
66b	S5.C.7.	Number of catch basins inspected during the reporting period?	1400
66c	S5.C.7.	Number of catch basins cleaned during the reporting period?	363
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
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)	Yes
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

74	S5.C.8	Established an inventory per S5.C.8.b.ii. (Required by August 1, 2022.)	Yes
74a	S5.C.8	Number of total sites identified for the inventory.	42
75	S5.C.8	Implemented an inspection program S5.C.8.b.iii (Required by January 1, 2023).	Yes
76	S5.C.8	Implemented a progressive enforcement policy per S5.C.8.b.iv (Required by January 1, 2023).	Yes
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.	07_077_Summary of Source Contr_77_04012024144 145
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.	07_078_Source Control Inspecti_78_032720241 44022
79	S5.C.8	Implemented an ongoing source control training program per S5.C.8.b.v?	Yes
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
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
87	S8	If conducting stormwater discharge monitoring in accordance with S8.C.1, attach a data and analysis report per S8.C.1. and Appendix 9. (Due annually beginning March 31, 2021.)	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
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)	Yes
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

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

Larissa Grundell

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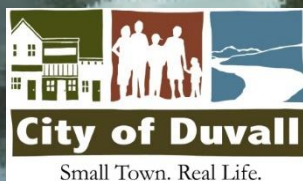
Signature

Date

# CITY OF DUVALL

## NPDES Stormwater Management Program Annual Report

*Prepared by:*



*City of Duvall Public Works Department  
PO Box 1300  
Duvall, WA 98019*

*March 31, 2024*

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# HISTORY

The Federal Water Pollution Control Act of 1948 was the first major U.S. law of its kind to address water pollution. Over time, growing public awareness and concern for controlling water pollution led to amendments in 1972. As amended in 1972, the law became commonly known as the Clean Water Act (CWA), with the intention to stop point source polluters and improve water quality for fishing, drinking, and recreational use.

The [National Pollution Discharge Elimination System](#) (NPDES) Permit Program was created by the 1972 CWA to protect and restore surface water quality by requiring a permit to continue discharging into waters of the United States. The NPDES Permit requires annual progress reports with various requirements that are phased into effect throughout the five-year coverage period that expires July 31, 2024. The City's Stormwater Management Program (SWMP) has been organized to reflect the structure of the 2019-2024 permit requirements. The required elements of this SWMP are:

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

The purpose of the SWMP is to develop and present the City's approach for addressing regulations, adopted plans and programs, and policies that affect urban stormwater, flooding, and associated water-dependent resources. The Public Works Department is responsible for the SWMP and NPDES Permit implementation with input and feedback from the City's Planning Department, Building Department, City Administration, Consultants, and citizens.

Provide comment about the City of Duvall's SWMP:

Email [stormwater@duvallwa.gov](mailto:stormwater@duvallwa.gov); Call Public Works at 425.939.8040

OR

Mail comments to:

City of Duvall - Public Works Department  
PO BOX 1300  
Duvall WA, 98019

View past reports - <http://www.duvallwa.gov/159/Stormwater-System-Information>

# INTRODUCTION

The NPDES Permit Program was created by the 1972 CWA to protect and restore surface water quality by requiring a permit to continue discharging into waters of the United States. This requires those permitted to establish a stormwater program with a set of activities and actions aimed at protecting and restoring local creeks, streams, rivers and lakes. The Washington State Department of Ecology (Ecology) administers the NPDES Permit for the Environment Protection Agency (EPA).

Specific permit requirements are identified using the Permit's citation methodology (e.g. S5.C.3.b). All Western Washington Phase II Municipal NPDES Permits and accompanying manuals, including the entire current NPDES Permit, can be viewed by visiting the Washington Department of Ecology Website: <https://ecology.wa.gov/>.

The City follows permit requirements and plans to maintain compliance with future requirements as they come into effect.

## S5 STORMWATER MANAGEMENT PROGRAM

### S5.C.1 STORMWATER PLANNING

Stormwater planning is a new permit requirement introduced in the 2019-2024 NPDES Permit. The City has engaged in various stormwater planning efforts for many years however, this new permit requirement asks the City to take a fresh look at a broad range of water quality tools available to protect and restore its receiving waters.

#### *S5.C.1.(a) Interdisciplinary Team*

The City utilizes the Development Review Committee (DRC) to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters. This committee includes City staff from the Public Works and Engineering Department, Planning Department, Building Department, and Fire Department.

#### *S5.C.1.(b) Coordination with Long-Range Plan Updates*

The DRC team, as well as City Administration, will continue to ensure that stormwater considerations are used to inform updates to the City's Comprehensive Plan, Transportation Plan, Water Comprehensive Plan, Sewer Capital Improvement Program Plan, Surface and Stormwater Management Plan, and Watershed Plan.

There were no changes to long-range planning documents, capital project lists, watershed protection measures, or minimum requirements to control or treat municipal stormwater discharges to waters of the United States during this reporting period. The City will be completing the 2024 Periodic Comprehensive Plan Update as mandated by the Growth Management Act (GMA), and the DRC team will continue to ensure watershed protections, water quality

standards, and stormwater management are included in long-term planning efforts as it relates to growth and transportation.

#### *S5.C.1.(c) Low Impact Development Code Requirements*

On an annual basis, Public Works will review municipal and zoning code to affirm that Low Impact Development (LID) principles and best management practices (BMPs) continue to be the preferred approach to site development. This step is included in the City's Annual Code Cleanup process. No Duvall Municipal Code barriers for implementation of LID BMPs were identified during this reporting period.

#### *S5.C.1.(d) Stormwater Management Action Planning*

The City adopted the [2018 Surface and Stormwater Management Plan](#) which includes basin delineation as well as prioritizing retrofit and stormwater management related projects based on receiving water, water quality, and erosion impacts.

Based on Permit section S5.C.1.d.i.(a) - *Basins having relatively low expected Stormwater Management Influence for SMAP do not need to be included in S5.C.1.d.ii-iii.* However, the City plans on addressing stormwater facility retrofits as described in the City's adopted Surface and Stormwater Management Plan. The ranking and prioritization metrics can be found in preliminary technical reports in the Plans appendix and will be used for future budget and grant application efforts.

Permit Deadlines and compliance:

- March 31, 2022 – submit a watershed inventory and include a brief description of the relative conditions of the receiving waters and the contributing areas. *All basins are expected to have relatively low Stormwater Management Influence – Complete*
- June 30, 2022 – receiving water prioritization. *All basins are expected to have relatively low Stormwater Management Influence – NA*
- March 31, 2023 – Stormwater Management Action Plan (SMAP) for at least one high priority catchment area. *All basins are expected to have relatively low Stormwater Management Influence – NA*

## S5.C.2 PUBLIC EDUCATION AND OUTREACH

The City provides and participates in a variety of stormwater education and outreach efforts focused on environmental stewardship, including stormwater management. When appropriate, the City partners with neighboring jurisdictions to ensure stormwater outreach messages are clear, consistent, and widely distributed.

#### *S5.C.2.(a) and (b) Targeted Stormwater Outreach*

The City continues to engage in the following activities to provide targeted stormwater-related outreach programs to the public:

- Provide school-based environmental educational programs through a partnership with the Cascade Water Alliance and the environmental education non-profit organization Nature Vision.
- Maintain pet waste stations at the City's Dog Park and various locations throughout the City. Evaluate the need for a pet waste cleanup campaign, monitor complaints received regarding pet waste, and provide general outreach and behavior change efforts to dog owners.
- Monitor, update, and replace signage as needed around City-owned stormwater ponds to educate residents, businesses, and visitors about the vital stormwater management function these facilities play.
- Update the City's Illicit Discharges page, <https://www.duvalwa.gov/167/Illicit-Discharges-Spills>, with current helpful tips and pollution prevention ideas and information.

In 2021, the City began implementation of the *Adopt-a-Drain* program in coordination with the STORM group to affect behavior change of residents and business owners (as applicable) in the prevention of illicit discharges into the MS4 by utilizing social marketing practices and methods. This program will continue as required.

*Adopt-a-Drain* mobilizes residents to take regular and sustained action to prevent localized flooding and reduce runoff pollution by clearing storm drains in their neighborhood. Participants sign up for the program online at [Adopt-a-Drain.org](http://Adopt-a-Drain.org) and create an account that allows them to adopt and un-adopt drains, report the amount of debris they collect and share stories and photos via social media. Permit requirement timeline:

- February 1, 2021 – Behavior change campaign and strategy – Complete
- April 1, 2021 – Behavior change campaign and strategy implementation – Complete
- March 31, 2024 – Evaluate and report on effectiveness of behavior change campaign and strategy – Complete

#### *55.C.2.(c) Creating Stewardship Opportunity*

SWMP stewardship opportunities have been created to encourage participation in surface water protection and active incorporation of SWMP principles and goals. General residential stewardship activities such as volunteer plantings are emphasized during public events such as Earth and Arbor Day, Duvall Farmers Market, and other public educational events. A partnership between the City and the Riverview School District has developed to complete stormwater educational activities for elementary school children. Stewardship is also encouraged through interaction and volunteer planting/maintenance parties and storm drain marking with the Boy Scouts of America, Riverview School District students, and groups and individuals that are requesting or required to complete volunteer service hours.

## S5.C.3 PUBLIC INVOLVEMENT AND PARTICIPATION

The City welcomes comments from the public throughout the year and provides a contact number and email address for residents to contact with questions. The public is invited to comment on the SWMP every year via a public hearing and announcement on the City's website and social media accounts. All city webpages can be translated into other languages using the Google Translate Tool. The City will continue to take advantage of opportunities to translate key written outreach materials into common languages spoken in our community.

Other ways to participate or get involved:

- Website: <http://www.duvalwa.gov/159/Stormwater-System-Information>
- Social Media: [Facebook](#) and [Twitter](#)
- Email: [stormwater@duvalwa.gov](mailto:stormwater@duvalwa.gov)
- Call Public Works: 425.939.8040
- Mail comments to:  
City of Duvall - Public Works Department  
PO BOX 1300  
Duvall WA, 98019

## S5.C.4 MS4 MAPPING AND DOCUMENTATION

The City continues to maintain and update its comprehensive stormwater conveyance map using ArcGIS geodatabase methods. Updating and managing data is done according to documented procedures and quality control standards. Global Information System (GIS) data includes attributes that describe ownership, water-quality-facility design details, flow-control-facility design details, conveyance design information, outfall location (size and material), and spatial data. Both private and public stormwater system connections and data are managed geospatially and updated or added as information is made available or discovered. Land use and drainage area delineations for each outfall have been developed and are also updated regularly. The City has no known connections from the MS4 to privately owned stormwater systems. Because the GIS geodatabase is a living document, the City continues to work on updating information and new connections to the City's system as they occur.

The City has completed minimum mapping requirements that include collecting size and material for all known outfalls and will continue to update data as discovered. Upon request, and to the extent appropriate, all mapping information described is available to the public.

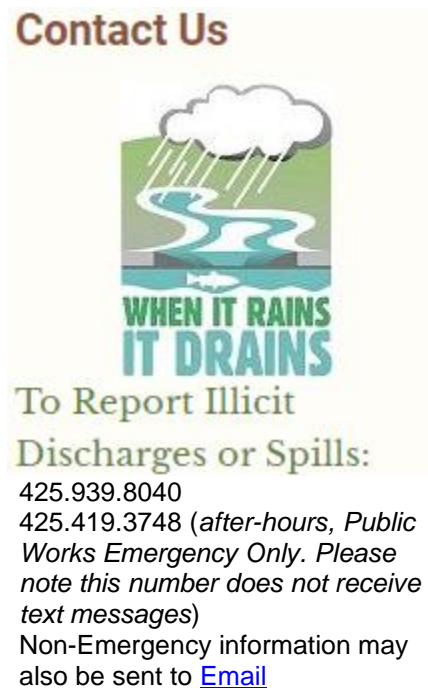
## S5.C.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City's Illicit Discharge Detection and Elimination (IDDE) program is designed to prevent contamination of groundwater and surface water by monitoring, tracking, and removing non-stormwater discharges into the stormwater drainage system. The City's SWMP includes an ongoing program to detect and remove illicit connections and discharges as defined in 40 CFR

122.26(b)(2), including any spills not under the purview of another responding authority, into the municipal separate storm sewers owned or operated by the City.

*S5.C.5.(a) Reporting and corrective measures*

The City has a telephone number that allows residents, visitors, and City employees to report illicit discharges, dumping or other stormwater related concerns within City limits: (425) 939-8040; emergency after-hours: (425) 419-3748. Additionally, reporting parties can email: [stormwater@duvallwa.gov](mailto:stormwater@duvallwa.gov). This information is available on the City's Public Works Department [Stormwater web page](#).



During regular business hours calls are received by the Public Works Department. After-hours reporting is managed by a Public Works Maintenance Crew standby person or person(s).

*S5.C.5.(b) Target Stormwater Outreach*

Please see S5.C.2.(a) and (b).

*S5.C.5.(c) Ordinance prohibiting non-stormwater and illicit discharges into MS4*

This SWMP includes an ongoing program to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the municipal separate storm sewer system (MS4). A City IDDE Ordinance was developed and adopted into the Duvall Municipal Code (DMC) [9.06.035](#) to effectively prohibit non-stormwater, illicit discharges into the City's MS4 to the maximum extent allowable under State and Federal law. The City continues to research and network with surrounding jurisdictions and Ecology to continue to improve and update these policies.

*S5.C.5.(d) IDDE program to detect and identify non-stormwater discharges and illicit connections*

The ongoing IDDE program is also designed to address illicit discharges including spills and illicit connections. The program requires inspections to prevent, detect, and characterize the potential public and environmental threat posed by an illicit discharge, while attempting to trace the source and eliminate the illicit connection.

The City is required to screen or inspect 12% of the City's stormwater conveyance and catchment system for illicit connections each year in accordance with permit section S5.C.5.d.i.a. This is accomplished by dry weather screening of City outfalls (pipes) that exceed 12-inches in diameter, annual catch basin inspections, and stormwater facility inspections. Any identified illicit connections during these inspections are recorded and documented with inspection paperwork or asset management software. The inspector would then notify the Engineering Department for documentation and remedy. Compliance with this provision is achieved by investigating or referring to the appropriate agency within seven days, any complaints, reports, or monitoring information that indicates a potential illicit discharge, including spills; and immediately investigating or referring problems and violations determined to be emergencies, urgent, or severe. This protocol will continue as required.

*S5.C.5.(e) Implement a program to address Illicit discharges*

Under the IDDE program the City responds to and investigates calls and emails regarding environmental concerns such as illegal dumping, spills, illicit discharges, and illicit connections.

*S5.C.5.(f) IDDE Staff Training and Recordkeeping*

Public Works Maintenance Crewmembers, inspectors, and those who may encounter or otherwise observe, an illicit discharge are trained to identify and report illicit discharges or connections to the Engineering Department. This training is geared towards identification, investigation, termination, cleanup, and reporting illicit discharges, spills, and connections. Training materials may feature annual video(s) describing IDDE identification and response, discussion of illicit discharge and spills identified during the previous 12 months, question and answer session, and lessons learned summary.

Staff trained includes Public Works Field Staff, Planning Field Staff and Building Department Field Staff. Follow-up training is provided as needed to address changes in procedures, techniques or requirements. The City maintains a spreadsheet tracking and recordkeeping system to track all activities conducted to meet the IDDE requirements. All City activities are summarized in an Illicit Discharge Summary Report.

City staff continue to look for resources that are tailored to specific job-related activities to aid in informing all the City's workforce. The City will also continue to refine new employee information and training opportunities. These trainings and recordkeeping activities will continue as required.

Illicit discharge investigating and field screening is completed in accordance with the document titled "Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual" (Herrera Environmental Consultants and Aspect Consulting, May 2020).

#### *S5.C.5.(g) Program Recordkeeping*

The City uses the Washington State WQWebIDDE portal to track and report on each illicit discharge incident that could constitute a threat to human health, welfare, or the environment with a spreadsheet as back-up documentation.

## S5.C.6 CONTROLLING RUNOFF FROM DEVELOPMENT AND REDEVELOPMENT PROJECTS

This SWMP will implement and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment and construction site activities. The program shall apply to private and public development, including transportation projects. Development and redevelopment projects in the City can have a significant impact on the health of the City's creeks, streams, and rivers. City staff review and inspect development sites during construction to ensure temporary and permanent facilities are maintained and functioning as designed.

#### *S5.C.6.(a) and (b) Develop Stormwater Management Standards*

[DMC 9.06.030](#) codifies stormwater management in the City and includes code for construction and stormwater infrastructure design. DMC authorizes the City to enforce provisions required by the NPDES permit, including the minimum requirements in [Appendix 1](#). The City updated DMC to match requirements, and adopt [Appendix 10](#) of the 2019-2024 permit.

- June 30, 2022 – implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects – Complete

#### *S5.C.6.(c) Review and Inspect Public and Private Development/Redevelopment Projects*

The City's DRC team reviews permits as submitted for both public and private development, redevelopment, and infrastructure improvement projects. This process includes Engineering or Site Plan review and approval, inspections, and enforcement actions necessary to meet standards established by DMC. These practices will continue as required.

The program includes provisions to verify adequate long-term Operation and Maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed pursuant to S5.C.6.(b) above. City Ordinance 1214 clearly identifies the party responsible for maintenance and inspection of facilities in accordance with all NPDES Permit requirements:

- i. Review of all stormwater site plans for proposed development.
- ii. Inspection prior to clearing and grading activities
- iii. Inspect all construction site temporary erosion and sediment controls for proper maintenance and continued function.
- iv. Inspect all permanent establishment of erosion control measures and or required surface and stormwater management facilities every 6 months until 90% buildout of lots is achieved.

- v. Final inspection of permitted development site upon completion of construction and prior to Final Plat approval or occupancy to ensure proper installation and function of stormwater facilities.
- vi. Compliance with required inspections and corrective actions is documented in project folders and completed by qualified personnel.
- vii. All record keeping of inspections and enforcement actions are maintained in the project folders.
- viii. Enforcement strategies are identified in [DMC 2.24.140](#) in response to issues of non-compliance.

The City has implemented new financial and permit generating software that streamlines the permit submittal, review, and approval process. The Public Works Department also manages a Wet Weather Permit that requires additional inspection, review, evaluation, and approval for construction activities occurring between October 1 and April 30. These practices will continue as required.

#### *S5.C.6.(d) Notice of Intent (NOI)*

In 2024 the City will continue to require application for NOIs for coverage under the NPDES Construction Stormwater General Permit and the NPDES General Industrial Stormwater Permit available to the development community. These forms are available on Ecology's website.

#### *S5.C.6.(e) Staff Training*

Staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Staff responsible for inspecting temporary erosion and sediment control (TESC) measures at larger construction sites are Certified Erosion and Sediment Control Lead (CESCL) certified. Staff responsible for inspecting construction TESC measures at smaller sites are trained to do so. In many cases, these staff are also CESCL-certified. The City will continue to document and maintain all relevant staff training records.

## S5.C.7 OPERATIONS & MAINTENANCE

The City has taken many steps to ensure operational and maintenance activities are done in a manner that protects and reduces potential impacts to not only stormwater infrastructure but also creeks, streams, rivers, wetlands, and lakes.

#### *S5.C.7.(a) Maintenance Standards*

The City verifies adequate long-term operation and maintenance (O&M) of permanent stormwater facilities and BMPs for all private projects. The City's maintenance standards implemented are as protective, or more, than those specified in the ***Stormwater Management Manual for Western Washington*** (Volume V, Chapter 4) or a Phase I program approved by Ecology and are adopted by reference in [DMC 9.06.030](#).

- June 30, 2022 – permittees shall update their maintenance standards as necessary – Complete

#### *S5.C.7.(b) Maintenance of Facilities Regulated by the City*

The City works with owners or operators of private stormwater facilities to ensure they continue functioning as designed. All stormwater infrastructure, including runoff treatment and flow control facilities, are inspected prior to a formal final approval or acceptance by the City. Once this occurs on private sites, these facilities are added to the long-term private system inspection program. Each year, City inspectors inspect all private stormwater infrastructure as required by the permit. In any case where maintenance needs are identified, the property owner provides the City with receipts and other documentation to prove the work has been completed.

#### *S5.C.7.(c) Maintenance of Facilities Owned & Operated by the City*

The City completes annual inspections of stormwater treatment and flow control BMPs and or facilities in accordance with adopted maintenance standards.

The City will continue to implement its municipal catch basin inspection program. All catch basins, inlets, and control structures owned or operated by the City are inspected every two years. Catch basins are cleaned if the inspection indicates cleaning is needed to comply with maintenance standards. Any identified maintenance actions occurred within the timeframe outlined by the NPDES Permit. Decant water shall be disposed of in accordance [with Appendix 6 – Street Waste Disposal](#).

New conveyance, catchment, and stormwater facilities are added to the City’s inventory and inspection list when the City takes ownership, typically after the maintenance and defect bonding period is over. City staff and Public Works Crew utilize asset management software to address maintenance corrections using maintenance requests and work orders.

The City inspects known “hotspots” in the stormwater system immediately after a large storm event (requirement: 24-hour storm event with a 10-year or greater reoccurrence interval). For the purpose of hotspot checks, a large storm in Duvall is considered two or more inches of rainfall in a 24-hour period, unless otherwise directed by the Engineering Department. There is a rainfall gauge located at the City’s Wastewater Treatment Plant (WWTP).

#### *S5.C.7.(d) Practices, Policies, Procedures to Reduce Stormwater Impacts of Municipal Operations*

The City has developed and 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 functional control of the City including, but 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. To reduce the impacts of surface and stormwater runoff on public lands adopted maintenance standards follow the City’s 2018 Stormwater Facility Maintenance Manual guidance.

#### *S5.C.7.(e) Employee Training*

The training program addresses the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. The City maintains records of ongoing training program for employees whose primary construction, operations, or maintenance job functions may impact stormwater quality. Records include dates, activities or course descriptions, and names and positions of staff in attendance. This practice will continue as required.

#### *S5.C.7.(f) Stormwater Pollution Prevention Plan for City Facilities*

The City implements a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to this Permit that are not required to have coverage under the Industrial Stormwater General Permit or another NPDES permit that authorizes stormwater discharges associated with the activity.

- December 31, 2022 – as necessary, update SWPPPs – Complete

#### *S5.C.7.(g) Record Maintenance*

The City maintains records of inspection, maintenance, and repair to City-operated stormwater facilities as detailed in this section.

## S5.C.8 SOURCE CONTROL FOR EXISTING DEVELOPMENT

The City currently uses the existing GIS inventory and annual inspections of public and privately-owned stormwater facilities and catch basins to satisfy this requirement and prevent and reduce pollutants in runoff from areas that discharge to the MS4. The City will continue to require pollution preventing BMPs and facilities for pollution generating sources based on land use and activities.

Staff updated [DMC 9.06.100](#), requiring Source Control BMPs to be applied to any business or residential activity that might discharge contaminants to a public drainage facility, natural drainage system, surface and stormwater, or ground water. Contaminants shall be controlled by implementing appropriate source control BMPs, as described in the KCSWPPM. Discharges associated with activities not addressed in the KCSWPPM shall be controlled using BMPs reviewed and accepted by the City. Failure to implement such practices are enforced and subject to [DMC 2.24.140](#).

Permit deadlines and compliance status:

- August 1, 2022 – 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 – Complete

- August 1, 2022 – establish (or update) an inventory that identifies publicly and privately owned institutional, commercial and industrial sites which have the potential to generate pollutants to the MS4 – Complete
- January 1, 2023 – implement an inspection program for sites identified in the City’s inventory as having the potential to generate pollutants to the MS4 – Complete.
- January 1, 2023 – implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time – Complete.

## S8 MONITORING AND ASSESSMENT

The City is an active member of the Stormwater Action Monitoring (SAM) consortium, which coordinates a regional monitoring program that includes (1) Status and Trends monitoring, (2) Stormwater Program Effectiveness monitoring, and (3) Source Identification and diagnostic monitoring. The City has opted to fully participate in SAM under the current permit cycle and is active on several SAM sub-committees. For information about SAM-sponsored monitoring projects, please visit the SAM website: <https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring>.

### S8.A STATUS AND TRENDS MONITORING

The City has chosen to participate in the RSMP to satisfy this requirement and notified Ecology prior to the deadline.

### S8.B EFFECTIVENESS AND SOURCE IDENTIFICATION STUDIES

The City has chosen to participate in the SAM effectiveness and source identification programs in order to meet this requirement.

# GLOSSARY

**Best Management Practices (BMPs):** The schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by the Department of Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State. For example, a structural BMP is the use of catch basin cloth inserts to capture sediment from turbid water prior to the water discharging into the stormwater system.

**Clean Water Act (CWA):** Formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500, as amended Pub. L. 95-217, Pub L. 95-576, Pub L. 6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

**Illicit Connection:** Any man-made conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains and other similar type connections.

**Illicit Discharge:** Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system. Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.

**Low Impact Development (LID):** A stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of onsite natural features integrated with engineered, small-scale hydrologic controls to more closely mimic predevelopment hydrologic functions. It aims to capture water, slow it down, allow it to enter our soil, and clean and cool the water before it reaches our streams.

**Municipal Separate Storm Sewer System (MS4):** A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- i. Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe of an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to water of the United States;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a combined sewer; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollution Discharge Elimination System (NPDES):** The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing

and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

**Non-Point Source Pollution (NPS):** NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and ground waters.

**Point Source Pollution:** Any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

**Stormwater:** Runoff during and following precipitation and snowmelt events, including surface runoff and drainage.

**Stormwater Management Program (SWMP):** A set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable and to protect water quality, and comprising the components listed in S5 and S6 of the NPDES permit and any additional actions necessary to meet the requirements of the NPDES permit.

**Surface Water:** Includes lakes, rivers, ponds, streams, inland waters, saltwater, wetlands, other surface waters, and water courses as well as shallow groundwater.

**Total Maximum Daily Load (TMDL):** A water cleanup plan. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for reasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body (i.e. drinking water supply, contact recreation such as swimming, and aquatic life support such as fishing), and the scientific criteria to support that use. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs.

## ATTACHMENT 4: Regional Program Element

### 21. Attach a description of general awareness efforts

The City's program includes education and outreach that is designed to achieve measurable improvements in the specified audience's understanding of stormwater issues and how they can improve stormwater quality. The resulting measurements are used to direct education and outreach resources most effectively, as well as to evaluate changes to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Education and outreach efforts are prioritized to target the general public, businesses, and homeowners.

To stay engaged regionally and promote regional and local general awareness efforts City staff participates in the Stormwater Outreach for Regional Municipalities (STORM) program, a partnership of 57 regional governments dedicated to improving water quality in Puget Sound.

#### ADOPT-A-DRAIN

The Adopt a Drain general awareness campaign encourages residents to take regular and sustained action to prevent localized flooding and reduce runoff pollution by clearing storm drains in their neighborhood. Participants sign up for the program online at [wa.adopt-a-drain.org](http://wa.adopt-a-drain.org), create an account, report the amount of debris they collect, and share stories and photos via Facebook and Instagram. Each resident receives a welcome packet that includes a yard sign to highlight their participation and encourage neighbors to also sign up.



#### PUGET SOUND STARTS HERE

Participation in the regional Puget Sound Starts Here (PSSH) campaign includes the PSSH Digital and Social Media Plan. This year's regional media campaign delivered almost 64K website clicks through the paid media campaign to the DontWaitToInflate.org website for tire care-specific information. Overall campaign performance saw over 44K users produce 52K engaged website sessions (page views) with a 94.42% engagement rate; meaning website users went to the website and actively engaged with the content based on the high engagement rate. Google defines engagement as a session that lasts longer than 10 seconds, has a conversion event, or at least 2 sessions/page views.



#### PET WASTE

The City also maintains pet waste stations at the City's Dog Park and various location throughout the City. The City also monitors complaints received regarding pet waste and provides general information via social media and the City website in an effort to effect behavior changes with dog owners.

## OTHER GENERAL AWARENESS EFFORTS

Activity	Target Audience
Education and outreach information and links on the City's NPDES website and City social media accounts.	General Public / Businesses / Engineers / Contractors
Presentations to local elementary school classes	Students
Continued development and collaboration with elementary school education programs or events	Students
Develop a LID education and outreach program. LID measures commonly utilized in the City are presented in Appendix A, "Low Impact Development (LID)"	General Public / students
Continued collaboration with other programs and citizen groups to provide community activities, outreach, and volunteer activities.	General Public
Business-oriented spill education program including on-site visits and spill kit distribution	Businesses
Created city webpage to promote local stewardship opportunities	General Public
Stewardship Partners – coordinated with booth at Farmers Market, rain barrel giveaways	General Public
PSSH Month (Sept 2023) participated in the regional "Don't Wait to Inflate" car care campaign	General Public

# Adopt a Storm Drain!



[adopt-a-drain.org/wa](https://adopt-a-drain.org/wa)

March 31, 2024



**City of Duvall**

Small Town. Real Life.

City of Duvall  
Public Works Department  
14525 NE Main Street  
Duvall, WA 98019  
425.788.3434

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## BEHAVIOR CHANGE CAMPAIGN

### *Introduction*

Under the Department of Ecology's mandated municipal stormwater permit for water quality, jurisdictions are obligated to implement a Behavior Change Campaign. This campaign aims to encourage individuals to alter specific behaviors. The City of Duvall has chosen to fulfill this requirement through the Adopt-a-Drain program (AAD), a community-based social marketing (CBSM) strategy. AAD engages the community in adopting storm drains near their homes, businesses, or neighborhoods, while committing to cleaning debris and trash from around their storm drain inlets at least monthly.

The program is strategically designed to change residents' behavior regarding storm drain care. Participants are tasked with cleaning up leaves, sediment, and debris around the drain, and then reporting the amount via a web-based portal. Developed by Hamline University over five years, the program employs various CBSM tools and strategies, and has been successfully operational in the Minnesota area. The intention is to share this program with utilities nationwide, with New Jersey, Vermont, Massachusetts, Louisiana, Florida, Utah, and the Puget Sound area of Washington now participating.

The collaboration between the City of Duvall and Puget Sound jurisdictions involved adapting Hamline's AAD program outreach tactics. These regional efforts included engaging underserved communities, translating materials, and adjusting other strategies as required based on regional demographics. Observations suggest that participants in the AAD behavior change campaign not only clean storm drains but do so with increased frequency, indicating a positive impact on the adoption of the target behavior.

### *Target Audience & Behavior*

In Duvall, the primary target audience for our campaign is Duvall residents, with a deliberate focus on residential communities. The goal is to instill a sense of responsibility among residents and raise awareness about the environmental impact of stormwater runoff once it enters the storm drain system. Key considerations during the campaign development process included fostering a collective sense of community responsibility and delivering a clear message to empower individuals. By encouraging residents to adopt storm drains and commit to regular maintenance, our aim is to enhance human agency and contribute to the prevention or reduction of the release of pollutants, debris (such as litter), and other detrimental impacts on the waters of Washington State.

### *Campaign Strategy*

The campaign materials utilized are detailed in the Appendix, showcasing our efforts to tailor the campaign to the unique characteristics of our community. The appendix outlines various campaign materials including postcards, yard signs, debris kits, magnets, water bottles, reusable bags, dustpans, and more. This diverse array of materials serves as a strategic approach to engage the community effectively and provide practical tools that align with the campaign's objectives. The flexibility in material options underscores our commitment to adapting the campaign to the

specific needs and preferences of the residents, ensuring a more resonant and impactful outreach.

The campaign was executed through a multi-faceted approach, leveraging various channels to maximize outreach and engagement. Social media platforms played a crucial role, serving as dynamic spaces for disseminating information, updates, and fostering community interaction. Newsletters were employed to deliver targeted and informative content directly to residents, ensuring a consistent flow of campaign-related information.

Active participation in community events provided valuable in-person opportunities to connect with residents, share campaign objectives, and distribute materials. Additionally, the campaign's presence on the official website served as a centralized hub for comprehensive information, resources, and updates, enhancing accessibility for those seeking details online.

This integrated strategy, utilizing social media, newsletters, community events, and website resources, reflects a holistic and inclusive approach to communication, ensuring that residents receive information through diverse channels tailored to their preferences and lifestyles.

## EVALUATION

The campaign was regionally implemented by eight (now 16) participating jurisdictions, including the City of Duvall. The campaign focus is on the target audience understanding of the impact of debris in the stormwater system, particularly emphasizing that safeguarding water quality is the primary benefit of removing debris from storm drains. The action was to remove debris from adopted storm drains at least monthly. Engagement in the AAD behavior change campaign deepened participants' comprehension of these impacts.

In identifying barriers and motivators, efforts were made to recognize obstacles hindering drain adoptees from cleaning debris monthly, understand the motivations driving them to maintain a regular cleaning schedule, and address any challenges in the reporting process.

The AAD campaign, tailored to fit the community, commenced in late 2021, marking a new initiative in our region.

Before the implementation phase, the City of Seattle conducted a preliminary review of the program in collaboration with their Department of Neighborhoods Community Liaisons. The overall response was positive, with favorable feedback on various aspects such as the program setup, graphics, commitment level, website functionality, and features related to program reporting.

Duvall's evaluation process took the form of an online survey specifically targeted at City residents who had adopted a drain. By confining the survey to the city limits, the assessment focused directly on the community being served, providing valuable insights into the experiences and perceptions of those actively participating in the local Adopt-a-Drain program. This targeted approach aimed to gather relevant and localized feedback, enhancing the accuracy and applicability of the evaluation results to the City of Duvall.

Campaign general information:

- **Target Behavior:** clean debris (litter, leaves, and sediment) from storm drain inlet at least once a month.
- **Target Audience:** approximately 8,000 people.
- **Target Population/Sample Size:** number of people who signed up, 40.
- **Language:** English and Spanish are the dominant languages spoken in Duvall therefore information/materials were provided in both.
- **Media:** information on the preference of media platform was not collected. Information and engagement were conducted at in-person events, social media, City website, mailer, etc.

The collaboration between the City of Duvall and City of Seattle staff was integral to piloting, implementing, and evaluating the AAD program for a Behavior Change Campaign. This partnership ensured a coordinated and effective approach throughout the campaign's various phases. See table below for roles and responsibilities.

**TABLE 1 - PROJECT TEAM MEMBERS: ROLES & RESPONSIBILITIES**

KEY TEAM MEMBERS	DECISION-MAKER	DEVELOPMENT	IMPLEMENTATION	DATA COLLECTION	DATA VERIFICATION	RESEARCH	MATERIAL DISTRIBUTION	QA/QC	ROLE
Sara Ruhland, City of Duvall <i>Public Works Department</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Duvall Project Manager
Larissa Grundell, City of Duvall <i>Public Works Department</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Duvall Permit Manager
Tracy Fredin, Hamline University <i>Center for Global Environmental Education</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Program Creator/Director
Susan Harper, City of Seattle <i>Seattle Public Utilities</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Seattle Program Manager
Jessica Huybregts, City of Seattle <i>Seattle Public Utilities</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Seattle Permit Manager

## RESULTS & DISCUSSION

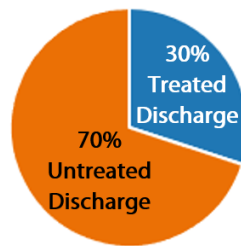
This section presents the findings from an online survey conducted to assess the target population's engagement with the behavior change campaign. A comparative analysis with the City of Seattle's campaign is also discussed, along with an evaluation of the campaign's overall effectiveness and identification of any challenges encountered during the study that may have influenced the results.

### Results

#### 1. Understanding of the Target Behavior:

**Question 1:** Rain runoff picks up debris and pollution before it goes into a storm drain inlet. What do you think happens **after it enters the drain?**

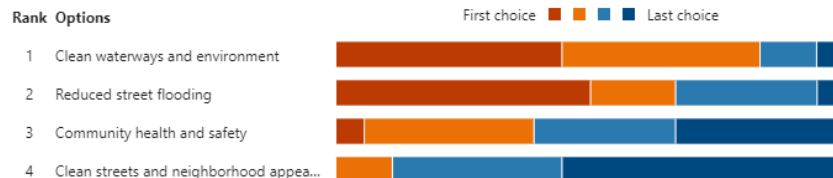
**Result:** The survey revealed that 100% of participants are aware that rain runoff in the City is conveyed through pipes and discharged into the nearest creek, lake, river, or Puget Sound. However, only 14 out of 20 participants were aware that this runoff is not treated or cleaned before discharge.



**Interpretation:** While there is a high overall awareness of the rain runoff path, almost a third of participants lacked understanding regarding the treatment of the runoff. This indicates a potential area for further education and awareness within the target population.

**Question 2:** What do you think is the **main benefit** of removing debris from storm drain inlets? (Rank the following, 1= high and 4 = low)

**Result:** Approximately half of the participants (44-50%) identified reducing street flooding and protecting water quality, respectively, as the primary benefits associated with the removal of debris from storm drain inlets.



*Results similar to the City of Seattle survey response.*

**Interpretation:** The data indicates that a substantial portion of participants recognize protecting water quality and minimizing street flooding as the main advantages of removing debris from storm drain inlets. This suggests a positive impact of the behavior change campaign in conveying the key benefits and fostering understanding within the target population. Although protecting water quality was not chosen as the main benefit, it was a close second.

**Question 3:** How has your understanding about the impacts of debris (litter, leaves and sediment) on the drainage system changed **since starting** the program?

**Result:** Almost two-thirds of participants (12 out of 20 or 60%) reported an increased understanding of the impacts of debris, including litter, leaves, and sediment, on the drainage system. This understanding ranged from a little to a lot.



*Results similar to the City of Seattle survey response.*

**Interpretation:** The data reveals a positive outcome, indicating that a significant majority of participants experienced an enhanced understanding of the detrimental impacts of debris on the drainage system. This suggests that the behavior change campaign effectively contributed to increasing awareness and knowledge within the target population regarding the consequences of debris in stormwater systems.

## 2. Adoption of the Target Behavior:

**Question 4:** How often did you remove debris from your storm drain inlet **before** you joined the program?

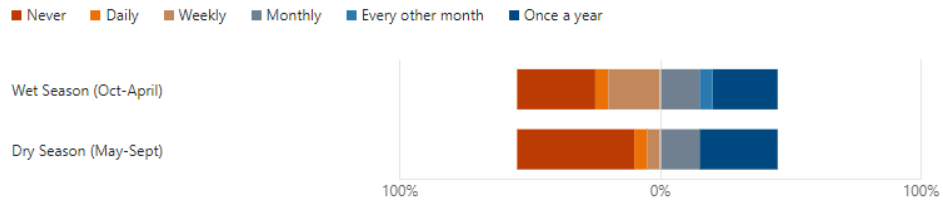
**Question 5:** How often do you remove debris from your storm drain inlet **since joining** the program?

### Results:

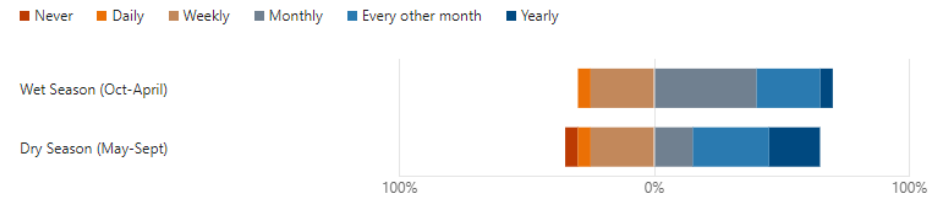
- 30-45% of participants reported never removing debris from a storm drain inlet before joining the campaign.
- 0-15% of participants removed debris at least monthly prior to joining the campaign.
- Since joining the campaign, there was a decrease (0-5%) in the number of participants who never remove debris from a storm drain.

- An increase (15-45%) was observed in the number of participants who now remove debris at least monthly.

**Before campaign:**



**After campaign:**

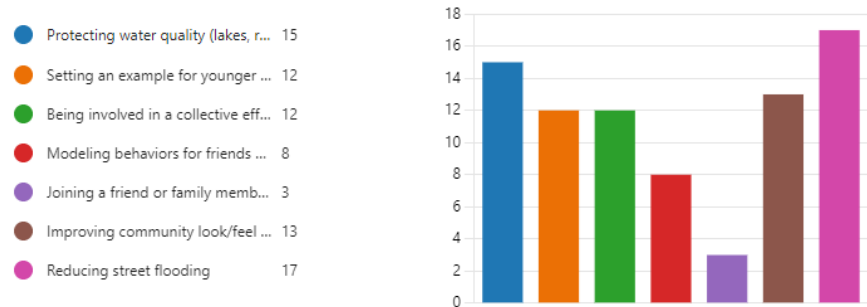


**Interpretation:** The data suggests a positive impact of the behavior change campaign on the adoption of the target behavior. There has been a notable decrease in the percentage of participants who never remove debris from storm drains, coupled with a significant increase in the number of participants engaging in monthly debris removal. These changes indicate a positive shift in behavior within the target population since their involvement in the AAD campaign.

**3. Barriers and Motivators for Target Population:**

**Question 6:** What motivates you to remove debris from your adopted storm drain inlet at least monthly? (Select all the apply)

**Results:** Of the 20 survey participants, "reducing street flooding" and "protecting water quality" emerged as the top two motivators. Participants demonstrate motivation derived from various benefits, fostering a commitment to cleaning their adopted storm drain inlets at least once a month.



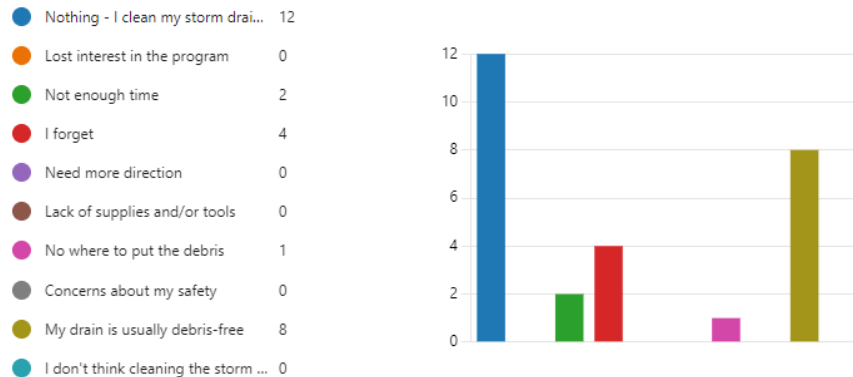
*Results similar to the City of Seattle survey response.*

**Interpretation:** The survey indicates a strong alignment of participant motivation with key campaign objectives, emphasizing the significance of reducing street flooding and protecting water quality. Understanding these motivators can help enhance the campaign's effectiveness by tailoring messaging and strategies to further emphasize these compelling factors.

**Question 7:** What gets in the way of removing debris from your storm drain inlet(s) monthly? (Select all that apply)

**Results:** Minimal barriers were identified for cleaning adopted storm drain inlets at least once a month. Top Responses:

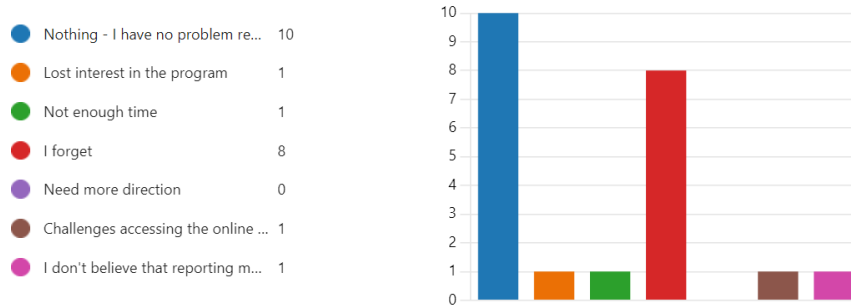
- “Nothing”: Some participants reported no specific barriers, suggesting a positive attitude and willingness to engage in the behavior.
- “It's Usually Clean”: Participants may perceive their storm drain inlets as generally clean, potentially leading to a lower perceived urgency in regular cleaning.
- “I Forget”: Forgetfulness emerged as a notable barrier, indicating a potential area for improvement in creating reminders or implementing strategies to enhance participant recall.



**Interpretation:** The overall identification of minimal barriers is positive, suggesting a generally receptive attitude toward the behavior. The acknowledgment of forgetfulness, however, provides an opportunity to explore strategies that address memory lapses, such as implementing reminders or establishing routine cleaning schedules to mitigate this specific barrier.

**Question 8:** What gets in the way of reporting your drain cleaning activities? (Select all that apply)

**Results:** Barriers identified for reporting cleaning activities were primarily "nothing" and "I forget."



**Interpretation:** Much like the cleaning behavior, the identification of "nothing" as a barrier suggests a generally positive disposition toward reporting activities. However, the recurrence of "I forget" indicates a potential area for improvement in the reporting process. Implementing reminder systems or streamlining reporting procedures could be explored to address this specific barrier and encourage more consistent reporting from participants.

### Discussion

#### Observations of 1. Target Population's Understanding of the Target Behavior:

**Path of Stormwater:** After entering a storm drain inlet, data suggests that AAD behavior change campaign participants understand that stormwater goes into a piped conveyance system. A significant number (70%) knew that it is untreated before discharge to a waterway.

**Beliefs About Treatment:** About a third (6 out of 20 or 30%) believed that underground pipes take stormwater to a treatment plant, removing pollutants, before emptying into the closest waterway.

**Perceived Benefits of Removing Debris:** Half (9 out of 18 or 50%) chose "reduced street flooding" as the main benefit of removing debris from storm drain inlets, while about 44% selected "clean water and environment" as the primary benefit.

**Increased Understanding of Debris Impacts:** Most survey participants reported they understand a little or a lot more about the impacts of debris (litter, leaves, and sediment) on the drainage system since participating in the AAD behavior change campaign.

**Benefits of Removing Debris for Those with Increased Understanding:** Among those with an increased understanding of the impacts of debris on the drainage system, half (6 out of 12) believe that "reduced street flooding" is the main benefit of removing debris from storm drain inlets. Four of those reported that the second greatest benefit of cleaning debris from storm drain inlets is "clean water and environment," and one chose "community health and safety" as the main benefit.

**Belief About Stormwater Treatment:** 25% of survey participants (3 out of 12) think that stormwater goes to a treatment plant, which removes debris and pollutants before entering a waterway.

These observations provide valuable insights into the target population's perceptions and beliefs regarding stormwater management and the impact of the AAD behavior change campaign on their understanding.

### **Observations of 2. Target Population's Adoption of the Target Behavior:**

**Pre-AAD Participation Data:** Before joining the AAD program, only 15% (3 out of 20) of participants reported cleaning debris away from their storm drain inlets at least monthly throughout the year. Just under one third (6 out of 20 or 30%) of survey participants never removed debris from a storm drain during the year before adopting a storm drain inlet.

**Post-AAD Participation Data (Current Actions):** Since joining the AAD program, just over a quarter (11 out of 40 or 27%) reported cleaning debris away from their storm drain inlets at least monthly throughout the year. After adopting a storm drain inlet, participants who never cleaned a storm drain increased debris removal by approximately 35% during the year. Only 15% of participants reported not clearing debris from their storm drain at least monthly throughout the year after adopting a storm drain inlet.

### **Comparing Before and After AAD Participation:**

**Those Who Never Cleaned vs. Clean Now:** Of the 6 survey participants who never cleaned debris from their storm drain inlets during the year prior to joining the program, almost all (5 out of 6 or 83%) of them cleaned debris monthly or every other month since joining the AAD Program.

#### **Increases in Frequency of Cleanings:**

- There was only 1 reported reduction in storm drain inlet cleaning during the year. This participant cited their motivation as "Being involved in a collective effort; Reducing street flooding." Barriers included "I forget" and "Lost interest in the program."
- Noticeable increase in the frequency of cleanings during the year:
  - 14 survey participants reported cleaning a storm drain annually, and of those, 6 or 43% reported increases in frequency to at least every other month during the wet season (Oct-April).
  - During the dry season (May-Sept), 11 survey participants reported cleaning storm drains annually, and of those, 5 or 45% reported increases in frequency to at least every other month.

Most participants who never cleaned before joining the AAD Program have shown a significant increase in cleaning frequency. Additionally, there are notable increases in cleaning frequency among participants who were already cleaning storm drains annually before joining the program, demonstrating a positive impact on behavior and engagement.

Overall, the data suggests a positive impact of the AAD program on participants' behavior. Post-AAD participation, there is an increase in the percentage of participants cleaning debris at least monthly, and a significant decrease in the percentage of participants who never clear debris from

their storm drain. These findings indicate a positive shift in behavior since the adoption of storm drain inlets through the AAD program.

### **Observations of 3. Barriers and Motivators for Target:**

This survey section reveals that participants in the AAD program are driven by multiple factors to clean their storm drain inlets at least monthly. The primary motivator is the desire to reduce street flooding, followed closely by the aspiration to improve the community's appearance by keeping the streets clean. Other significant motivations include the goal of protecting water quality, setting an example for younger generations, and actively participating in a collective effort.

It's encouraging to find minimal barriers identified for storm drain inlet monthly cleaning among participants in the Adopt-a-Drain (AAD) program. Most survey participants reported either nothing, indicating a positive disposition towards cleaning, or cited reasons such as it's usually clean or forgetfulness.

Noteworthy points include:

- Participants reporting “nothing” typically cleaned their storm drain inlets at least monthly during the year (40%).
- Among those who reported not cleaning at least monthly, most mentioned that their drain is usually debris-free (67%), with one participant noting a lack of space to dispose of debris.
- Other barriers mentioned were forgetfulness or lack of time, indicating potential areas for improvement in promoting consistent engagement.

Overall, the identified barriers align with common challenges and present opportunities to address forgetfulness or time constraints, enhancing the effectiveness of the program.

Identifying barriers for reporting storm drain cleanings in the online portal provides valuable insights into the challenges faced by participants in the Adopt-a-Drain (AAD) program:

1. Forgetfulness as a Barrier (30%):
  - A notable portion of participants (30%) mentioned forgetting as a barrier to reporting their storm drain cleanings. This highlights the need for strategies or reminders to facilitate consistent reporting.
2. Nothing - I have no problem reporting (45%):
  - A substantial number of participants (45%) reported no barriers to reporting their cleanings. Interestingly, these participants tend to clean their drains at least every other month throughout the year, showcasing a positive correlation between regular cleaning habits and seamless reporting.
3. Portal Issues (5%):
  - One participant reported encountering issues with the online portal, specifically regarding the inability to report old or missing cleanings. Addressing technical

challenges in the portal system is crucial for ensuring a smooth reporting process.

Understanding these barriers provides an opportunity to enhance the reporting experience for participants. Implementing user-friendly features, reminders, and addressing technical glitches can contribute to increased engagement and more accurate reporting in the online portal.

## FUTURE ACTION RECOMMENDATIONS

While it appears, there is a high overall success of the Behavior Change Campaign, less than 1% of our residential population participates in the Adopt-a-Drain program. Those that are participating recognize protecting water quality and reducing street flooding are the main benefits. Although protecting water quality was not chosen as the number one main benefit, it was a close second.

The City of Duvall plans to continue to use the AAD Program for the Behavior Change Campaign requirement of the NPDES Permit. Future recommendations for campaign improvement are, but not limited to:

- Encourage adopters to set up reminders for cleaning / reporting – newsletter articles, social media posts, send out automatic emails.
- Email new adopters (monthly, quarterly) with helpful tips, information, list of tools available (claws, grabbers, buckets, trash bags, etc.).
- Attend Earth and Arbor Day Festival, Farmers Market, SummerStage, and other City events.
- Increase door hangers, mailers, newsletter information to encourage more signups.

To effectively convey this message, we will consider the following strategies:

### 1. Educational Campaigns:

- Continue to improve/develop informational materials, such as brochures, pamphlets, and online resources, to explain the impact of debris on water quality.
- Use visual aids, infographics, and real-life examples to illustrate the consequences of neglecting storm drain maintenance.

### 2. Community Engagement:

- Organize or promote workshops, seminars, or community events to engage with drain adopters and the wider community.
- Encourage active participation through hands-on activities, demonstrations, and discussions.

### 3. Highlighting Water Quality Benefits:

- Emphasize the direct correlation between maintaining storm drains and preserving water quality.
- Provide statistics or case studies showcasing improvements in water quality resulting from proper storm drain maintenance.

**4. Partnerships and Collaborations:**

- Collaborate with local environmental organizations, government agencies, or community groups to amplify the message.
- Continue to leverage partnerships to access additional resources, expertise, and regional support for the campaign.

**5. Clear Communication:**

- Ensure that the messaging is clear, concise, and easily understandable by the target audience.
- Use language that resonates with the values and concerns of the community.

**6. Regular Updates:**

- Provide regular updates on the positive impact of community efforts in maintaining storm drains.
- Highlight success stories and showcase the positive changes brought about by the collective actions of drain adopters.

By combining these strategies, we will continue to improve on a comprehensive approach to effectively communicate the importance of removing debris from storm drains, with a specific focus on safeguarding water quality.

## GLOSSARY

**Behavior Change:** is the act of adopting new Best Management Practices (BMPs) in lieu of not participating in them.

**Behavior Change Campaign:** An Education & Outreach (E&O) requirement of the National Pollutant Discharge Elimination System (NPDES) Permit that is directed to a target audience to change a specific behavior that negatively impacts water quality of the downstream watershed.

**Behavior Understanding:** The target audiences understanding of why preferred BMPs should be adopted including the negative implications of not adopting the BMPs.

**Best Management Practices (BMPs):** The schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

**Education and Outreach (E&O) Program:** The NPDES Permit requirement to provide stormwater education and measure a behavioral change campaign to a selected target audience, as to provide stewardship opportunities to the public.

**Motivators:** Incentives for the target audience to take part in the target behavior. These may be tangible items distributed from participating jurisdictions or monetary, socially desirable, or esteem-boosting incentives.

**Target audience:** The group that the behavior change campaign is directed towards who participate in the behavior that impacts stormwater quality.

**Target behavior:** The behavior aimed for the target audience to adopt by implementing a BMP which could improve a water quality issue. See BMP.

**Target population:** A subgroup of the target audience that includes all members of the ideal sample size. This subgroup of the target audience should be of a size that represents the understanding and behaviors of the target audience.

# APPENDICES

*Evaluation Schedule***TABLE 2 - EVALUATION TIMELINE**

TASK & DELIVERABLE	START DATE	COMPLETION DATE
Adopt-a-Drain (AAD) Contract – signed agreement	March 2021	On-going
Coordinate GIS data to Hamline – AAD portal updated with City CBs	April 2021	June 2021
Coordinate with City of Seattle for pilot evaluation results	April 2021	June 2021
Confirm strategy for launching program – target audience, target behavior	July 2021	September 2021
Coordinate campaign with City of Seattle staff	October 2023	December 2023
Draft and implement evaluation survey	January 2024	February 2024
Analyze survey data and draft Behavior Change Campaign Report	February 2024	March 2024

## Campaign Materials

### Yard Sign:



*All new adopters receive a yard sign with their welcome packets*

### Direct Mail Postcard:



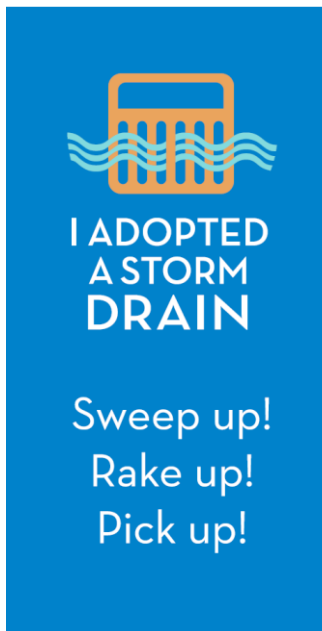
Magnets / Yard Signs:



Event Postcards / Utility Inserts (2-sided):



Stickers:



Door Hanger:

Pull-up Banner:

Water Bottles:



Hats:



## ATTACHMENT 4: Stewardship Opportunities

### 26.a: Attach a list of stewardship opportunities

SWMP stewardship opportunities have been created to encourage participation in surface water protection and active incorporation of SWMP principle and goals. General residential stewardship activities such as volunteer plantings are emphasized during public venues such as Earth and Arbor Day, and other public educational events. A partnership between the City and the Riverview School District has developed to complete stormwater educational activities for elementary school children. Stewardship is also encouraged through interaction and volunteer planting/maintenance parties and storm drain marking with the Boy Scouts of America, Riverview School District students, and groups and individuals that are requesting or required to complete volunteer service hours. Coordinated with Stewardship Partners to host a booth at the local Farmers Market to promote stewardship opportunities. They also gave away rain barrels at the Market.



**General Stewardship Opportunities are presented in the table below.**

ACTIVITY	SHARED	TYPE
Stewardship Opportunities updated on website	Website	Stewardship
Earth and Arbor Day Festival	Event	Stewardship
Oxbow second Saturday voluntary work party	Website / Social Media	Stewardship
Stewardship opportunities	Website / Social Media	Stewardship
update stewardship opportunities on city website as needed	Website / Social Media	Stewardship
share PSSH, Adopt a Drain, other agencies with relevant information	Website / Social Media	Stewardship

## ATTACHMENT 5: Outfall Size and Materials

30a: Attach a spreadsheet that lists the known outfalls' size and materials

Outfall #	Location	Description	Material	Size
1	North Hill	Type II bubble up structure that outfalls into grass-lined swale		Type II
2	Legacy	CPEP that discharges to a gabion basket, to unnamed drainage creek	CPEP	18"
3	NW of Stella Street (at end of trailer park rd)	CMP to Snoqualmie River at DMP	CMP	18"
4	3rd Ave NE outfall to Coe-Clemmons Creek	CMP culvert crossing outfall to Coe-Clemmons Creek	CMP	36"
5	Thayer Creek tributary at SW corner of WWTP	Type II bubble up structure that outfalls to unnamed Thayer Creek tributary		Type II

## Summary of Source Control Program Actions

**Inspection Program (S5.C.8.b.iii)** - The City implements a Source Control program to reduce pollutants in runoff from areas of existing development that discharge to the MS4. This includes an inspection program for businesses and/or properties with identified pollution generating activities. Below is a summary of the City's actions taken to implement these source control requirements.

- a. The City distributes materials and provides technical assistance during inspections. Stormwater best management practice information is also available on the City's website and social media accounts.
- b. In 2023, the City conducted 42 source control inspections for 15 sites draining to the MS4. Inspection types include annual maintenance, construction, and follow-up and represent 36% of the facility inventory.
  - The City plans to prioritize inspection frequency based on outdoor activity and business type (high risk = at least annual inspections, low risk = at least once during the permit cycle).
- c. Each site with a credible complaint was inspected.
- d. Complaint-based inspections will count towards the 20% inspection rate requirement (S5.C.8.b.iii.(b)).

**Progressive Enforcement Policy (S5.C.8.b.iv)** - The City implements a progressive enforcement policy to require sites to come into compliance with stormwater requirements within a reasonable time period. This policy includes a corrective action letter and a notice of violation. If an identified violation cannot be resolved, the violation may be referred to Ecology for enforcement. Below is a summary of actions taken for the Commercial Inspection Program, the Stormwater Facility Program, the Complaints/Spill Response Program, and the Illicit Discharge Detection and Elimination (IDDE) Program. Records are maintained electronically.

Table 1 – 2023 Inspection Summary by Program

<b>Program Name</b>	<b>Corrective Actions Required</b>	<b>Violations Issued<sup>1</sup></b>	<b>Ecology Referral</b>
<b>Commercial Inspection Program</b>	0	0	0
<b>Stormwater Facility Program</b>	0	0	0
<b>Complaints/Spills/IDDE</b>	0	0	0

1 Violations for 1<sup>st</sup> time offence are issued warnings and follow-up inspection for corrective action requirements

## ATTACHMENT 7: Source Control Business Inspections

78 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.

	Name	Business Category	# of Inspections in 2023	Enforcement Action Required	Notes
1	15904 Main Street	Food Services	0	No	La Pasadita Guatemalan Cuisine and Café
2	15934 Main Street	Food and Beverage, Durable Goods / Multifamily	0	No	Duvall Goldsmiths, Apartments
3	Ace Hardware	Building Materials, Hardware, Garden Supplies	0	No	
4	Allen St. Professional Center	Educational Services	1	No	Wilderness Awareness School, Hillside Academy
5	Amarillo BBQ	Food Services	0	No	
6	Braithburn Academy	Educational Services	1	No	
7	Cedarcrest High School	Educational Services	4	No	
8	Cherry Valley Elementary	Educational Services	4	No	
9	Chevron	Gasoline Service Stations	1	No	
10	Copperhill Square	Ambulatory Health Care Services, Food Services	2	No	Subway, Evergreen Health Primary Care
11	Darcy Dinky Donuts	Food Services	1	No	
12	Duvall Auto Parts	Automotive Services, Repair and Maintenance	2	No	
13	Duvall Commons	Food Services, Repair and Maintenance	1	No	Papa Murphy's, Starbucks, Pickle Time, Jiffy Lube

	Name	Business Category	# of Inspections in 2023	Enforcement Action Required	Notes
14	Duvall Distillery	Drinking Places	0	No	
15	Duvall Market	Food and Beverage Stores, Food Services	0	No	Minimart, Pho Thailand
16	Duvall Tavern	Food Services and Drinking Places	0	No	
17	Duvall Veterinary Hospital	Veterinary Services for Animal Specilaties	0	No	
18	Duvall Town Center	Food Services	0	No	Best Teriyaki, Mediterranean Grill
19	Family Grocery	Food and Beverage Stores	0	No	
20	Greatful Bread Café	Food and Beverage Stores	0	No	Bakery
21	Ixtapa	Food Services and Drinking Places	0	No	
22	Sani-Tech Systems	Primary Metal Manufacturing	0	No	Industrial NPDES Permit?
23	Red Pepper	Food Services	0	No	Pizzeria
24	Residential Development	Construction of Buildings & Civil Engineering Construction	15	Yes	65 Degrees, TRBR, Rio Vista, Sunlit Ridge, Skylit Ridge, Sunset Court, Meadowlark
25	Riverview Plaza	Food Services and Drinking Places	2	No	Amonos, Twin Dragon, Duvall Sports Bar
26	Safeway Fuel Station	Gasoline Service Stations	1	No	
27	Safeway Plaza	Food and Beverage Stores, Food Services, Veterinary Services for Animal Specilaties, Printing and Related Support Activities	5	No	Safeway, Quiznos, Poke, Teriyaki, Cherry Valley Vet, Print & Post

	Name	Business Category	# of Inspections in 2023	Enforcement Action Required	Notes
28	Shell Station	Gasoline Service Stations	1	No	
29	The Grange	Food Services and Drinking Places	0	No	
30	Valley Business Park	Food Services	0	No	Thai Duvall
31	Valley Center	Drinking Places	0	No	Winery
32	Valley House Brewing Company	Food Services and Drinking Places	0	No	
33	Valley Tech Center	Repair and Maintenance, Food and Beverage Stores, Printing and Related Support Activities, Durable Goods	1	No	WSB HVAC, Ranaway Diesel, Chase Race, Coffey Tile and Marble, TowSigns, Anchorhead Coffee Company, Big Horn Excavating
34	Whitefield Plaza	Food Services and Drinking Places	0	No	Rustic Cabin, Flavour Bistro
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