

SEATTLE'S ADOPT-A-DRAIN PROGRAM

BEHAVIOR CHANGE CAMPAIGN EVALUATION REPORT



Submitted to Fulfill the Requirements of the City's 2019 Phase I MS4 Permit
(Permit Condition S5.C.11.a.vi and Annual Report Question 82)



March 2024

TABLE OF CONTENTS

1.0	INTRODUCTION	3
2.0	BEHAVIOR CHANGE CAMPAIGN	4
2.1	BACKGROUND	4
2.2	IMPLEMENTATION	5
2.2.1	<i>Target Audience and Behavior</i>	5
2.2.2	<i>Campaign Strategies</i>	5
3.0	EVALUATION	8
3.1	EVALUATION GOALS AND METHODS	8
4.0	RESULTS & DISCUSSION	11
4.1	DATA SUMMARY	11
4.2	UNDERSTANDING OF THE TARGET BEHAVIOR	11
4.3	ADOPTION OF THE TARGET BEHAVIOR	14
4.4	BARRIERS AND MOTIVATORS FOR THE TARGET POPULATION	16
4.5	SUMMARY	20
5.0	FUTURE ACTION RECOMMENDATIONS	22
6.0	GLOSSARY	24
7.0	APPENDICES	25
7.1	CAMPAIGN MATERIALS	25
7.2	SURVEY QUESTIONS.....	32
7.3	SURVEY DISTRIBUTION	45
7.4	SURVEY RESULTS.....	46

1.0 INTRODUCTION

This report was prepared to meet part of the Education and Outreach (E&O) Program requirements of the 2019 Phase I Municipal Separate Storm Sewer System (MS4) Permit (Permit), under which the City of Seattle (City) has coverage (Permit # WAR044503). One of the goals of the E&O Program, which is a component of a broader Stormwater Management Program (SMWP), is to *effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts*.

Special Conditions S5.C.11.a.ii through v of the Permit required Permittees to develop (by February 1, 2021) and implement (by April 1, 2021) a strategy for a behavior change campaign targeting one audience and one best management practice (BMP). The City chose to fulfill this Permit requirement by implementing the Adopt-a-Drain (AAD) program, adapted for the City's demographics. AAD Program participants adopt storm drains near their homes, businesses, or neighborhoods, and commit to cleaning debris and trash from around their storm drain inlets at least monthly, thereby preventing those from entering the MS4 and local waterways.

Special Condition S5.C.11.a.vi of the Permit requires Permittees, no later than March 31, 2024, to evaluate and report on (a) *the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy*, and (b) *potential changes to the campaign in order to be more effective*. Between October 2023 and March 2024, Seattle Public Utilities (SPU), as the department that coordinates the City's MS4 Permit compliance and reporting, evaluated the AAD Program and will use the knowledge gained from the evaluation to improve the effectiveness of the Program. The City is providing this report to the Washington State Department of Ecology (Ecology) to meet S5.C.11.a.vi and in response to question 82 of the 2023 MS4 Permit Annual Report, due to Ecology no later than March 31, 2024.

SPU thanks our Seattle AAD participant community for completing the survey described in this report and for their involvement in the Program itself. We also acknowledge our partners at the City of Duvall who collaborated with us to help craft the evaluation survey and discuss results.

Questions and comments on this report should be directed to SWMP@seattle.gov.

Questions and or interest related to the Adopt-A-Drain Program or other SPU-led stormwater/water quality education and outreach programs can be directed to preventpollution@seattle.gov.

2.0 BEHAVIOR CHANGE CAMPAIGN

2.1 Background

Seattle Public Utilities identified the Hamline University Adopt-A-Drain (AAD) Program while conducting a review of SPU's existing education and outreach programming and other programs being implemented across the United States. Hamline designed the AAD Program over a five-year period using a Community-Based Social Marketing (CBSM) methodology. The objective of the AAD Program is to change the behavior of a resident to maintain their nearby storm drain. The program is successfully implemented in the Minnesota area. Hamline University's intention was to share this program with other utilities across the country.

Seattle conducted a preliminary review of the program by leveraging the knowledge and experience of the Department of Neighborhoods' Community Liaisons (CLs). Modeled after other "trusted advocates" programs, the Community Liaisons are embedded community leaders from a variety of immigrant and refugee communities (including Spanish, Vietnamese, and Somali), communities of color, and communities of seniors, youth, and people with disabilities. These stakeholders reviewed the content, messages, and tools for plain language and translation/transcreation potential. They also provided input on strategies that could increase participation. The overall feedback about the AAD Program from Community Liaisons was positive; they appreciated the graphics and design, the website, the reporting features, and that it was based on CBSM methods and research.

Seattle joined the Hamline Adopt-A-Drain program in early 2021 and launched it in coordination with a number of other Puget Sound jurisdictions in October of 2021. Seattle's strategy was to modify the outreach tactics and supporting materials established by Hamline to focus our engagement on historically underserved communities.

Seattle played a key role in launching the program and forming a foundation for the Puget Sound region. Seattle-led media helped to launch the program (see the press release here [Puget Sound Cities Launch Adopt-A-Drain - At Your Service \(seattle.gov\)](#)), Seattle set up a Microsoft Teams site to host the regional group, and the regional group became a working group of the STORM organization.

2.2 Implementation

Over the past 2.5 years, the City (led by SPU) and others in the regional cohort have implemented Hamline's AAD Program with modified outreach tactics, including engaging underserved communities, translating materials, and adjusting other strategies as needed based on regional or local demographics.

Information about Seattle's AAD Program can be found here: [Adopt a Storm Drain - Utilities | seattle.gov](https://www.seattle.gov/utilities/adopt-a-storm-drain) Individuals and groups can sign up to adopt a storm drain here: <https://wa.adopt-a-drain.org/>

2.2.1 Target Audience and Behavior

SPU is implementing the AAD Program widely, to an English-speaking audience, using Hamline's program and toolkit. The **primary target audience** are people living in single family residents in the MS4 areas (i.e., not combined sewer areas) of the city. Furthermore, our **focus audience** is a Hispanic/Latino/a community. The Duwamish Valley area of southwest Seattle has a substantial proportion of the community who speaks Spanish as a first language. SPU has worked with the Duwamish Valley Youth Corps (DYVC) to engage the youth to help with outreach and education in their communities.

The AAD Program is intended and designed to change residents' behavior regarding storm drain care. Participants are asked to **remove debris** (leaves, litter, sediment, other debris) from their adopted storm drain inlets (also referred to as "storm drains" in this document and in the AAD materials) at least monthly, and **then report** the amount via a web-based portal. This action helps prevent or reduce pollutants (e.g., trash, sediments, organic matter) from entering the stormwater conveyance system and the downstream local waterways.

By encouraging residents to adopt storm drains and commit to regular maintenance, the Program helps to instill a sense of responsibility among residents, raising awareness about the environmental impact of stormwater runoff on water quality.

2.2.2 Campaign Strategies

Since rolling out the AAD Program in 2021, the City has focused on participant **recruitment** and delivered a steady stream of **communication** using a range of print and electronic formats.

Hamline developed a diverse array of campaign materials, with consistent branding, so the City and the regional cohort were able to adapt the campaign to the specific needs and preferences of the residents, which helps foster more impactful engagement. Section 7 illustrates some of the campaign materials utilized during AAD Program implementation so far, which are primarily directed at recruiting drain adopters (e.g., welcome packet, welcome letter, tips for getting started). Other campaign materials include debris kits, magnets, water bottles, reusable bags, dustpans, and more. These serve to engage the community and provide practical tools that align with the campaign's objectives.

Overall, the campaign was executed using methods designed to help **empower individuals to feel competent to perform the desired action - removing debris from the storm drain - in their own time**. Local waterway-specific information was shared when possible, to help link the action to benefits in the applicable downstream receiving waterbody.

2.2.2.1 Recruitment

The City has leveraged various channels to maximize outreach and engagement with the goal of recruiting drain adopters into the AAD Program. Staff have used digital media including social media, printed resources, and in-person event participation to create awareness and excitement around the program and recruit drain adopters.

Recruitment messaging has focused on stormwater awareness - what is stormwater and why residents would want to adopt their nearby drain. SPU has used local adopter photos and content on resources and promotions where possible, to emphasize the local actions and impacts of this Program. The City also leverages other E&O Programs to share information about the AAD Program, wherever possible; for example, the AAD Program is incorporated into Youth Service-Learning Program modules.

Social media platforms have played a crucial role in AAD Program awareness so far, providing a dynamic and interactive tool to engage the community. AAD Program recruitment messaging has been shared on the SPU, Washington AAD, and Puget Sound Starts Here platforms.

SPU AAD Program staff often participate in local events because these provided valuable opportunities to connect with residents, share campaign objectives, sign-up participants, and distribute materials. The City's AAD Program event display includes information about pollutants like pet waste, sediment and trash, pesticides and chemicals, and the connection between the drain and the local waterway. Recruitment resources available onsite include AAD flyers, AAD kit for new participants (contains a reusable bag, gloves, trash picker and leaf grabber), large AAD event banner to capture attention of event attendees, AAD cornhole game with prizes, and a storm drain stencil/color activity. Staff use an iPad for onsite participant sign-ups at events. Over the past couple of years, SPU has partnered with the AAD regional group to have a presence at the 2022/2023 King County Chomp Festival, hosted a booth at the 2023 Duwamish River Festival (with other SPU E&O Programs), coordinate with SPU's Adopt a Street Program to conduct outreach at Farmer's Markets, and maintained a presence at Storm Drain Stenciling events.

One of our AAD Program's goals is to recruit and involve more Spanish-speakers. SPU's AAD Program staff are working with consultants, Bridge Latino and Latino NW, who are from the community Hispanic/Latino/a community, to create a competent marketing campaign to recruit Spanish-speaking participants. In 2023, we completed 2 focus groups and an online survey. This foundational information will guide the creation of content that better resonates with this audience. The campaign will be launched in Fall 2024, and include digital media, targeted outreach and an evaluation plan to monitor progress and guide changes.

Prior to initiating the Behavior Change Campaign Evaluation process in Fall 2023, SPU's AAD Program staff had expressed interest in the following potential future recruitment strategies:

- Engage more young adults and renters.
- Conduct outreach/recruitment events at third place(s) venues (businesses that already have an audience that would be interested in AAD, like a local family friendly food/beverage business) in priority communities/neighborhoods.
- Connect pathways for Adopt-a-Street volunteers, who often clean their street's storm drains, to participate in AAD and report their activities.
- Send postcards to single-family residents located near MS4 storm drains.
- Partner with existing Fall cleanup organizations.

2.2.2.2 Communications

The City has focused on consistent communication and engagement efforts with AAD participants to help them feel supported by the program and continue to clean up around their drain. We also use the opportunity to build connections to behaviors related to car care, yard care and pet waste so that participants understand the nature of stormwater pollution and how to prevent and/or reduce it.

Communications with AAD Program participants includes both Hamline-led and SPU-led communication, described below.

SPU pays a fee to maintain AAD Program membership and, as a result, receives some ongoing administrative Program support from Hamline. Once an individual or group signs up through the website to adopt a drain (or more than one drain), Hamline sends them a welcome kit with a yard sign highlighting their local waterway (see Seattle area examples in Figure 7-5). Hamline also sends new participants a welcome email on behalf of the City, sends out a reminder email to report cleanups (a participant signs up to receive these emails in their profile), and sends out an end-of-year postcard to participants who have not been reporting their debris removal activities. Hamline also provides the City with a brief Annual Report, summarizing recruitment and storm drain debris removal activities/metrics (see Figure 7-7).

Since 2021, SPU has sent out welcome emails to the new batch of AAD participants who signed up in the previous month. In 2023, in order to boost a sense of pride in their participation and co-create materials, SPU offered a photoshoot (shared through email) and conducted 20 participant photoshoots. Beginning in winter 2023, SPU established a seasonal AAD e-newsletter, intended to be distributed to the entire list of Seattle AAD participants quarterly. The e-newsletter provides AAD Program information, resources, safety tips, event updates, interesting facts or tips about pollution prevention and local impact, and visuals of our program community in action. SPU also established a "Drain of the Season" Award, where eligibility is based on volunteers logging/reporting their storm drain clean ups, and Award winners are announced in the e-newsletter.

3.0 EVALUATION

3.1 Evaluation Goals and Methods

The goals of this behavior change campaign evaluation were to:

- **measure changes** in our target audience's **understanding** of stormwater and stormwater best management practices (BMPs), like periodically removing debris from storm drain inlets, as a result of the AAD Program;
- **measure the changes** in our target audience's **actions** in removing debris from inlets (i.e., **adopting** the target behavior) as a result of their participation in the AAD Program; and
- **identify and recommend changes** to the City's AAD Program to be **more effective**.

The City chose to conduct an online AAD Program participant survey in January 2024 to generate data to help achieve those goals. The survey sought to answer the following four (4) broad evaluation questions:

1. Has the **target population's understanding** of the target **behavior** increased, decreased, or stayed the same, as a result of participating in the AAD Program?
2. Has the **target population's adoption** of the target **behavior** increased, decreased, or stayed the same, as a result of signing up to the Program?
3. What would help **encourage (i.e., motivate) the population** to perform/adopt the targeted **behavior** on the desired schedule?
4. What are the **barriers** to performing/adopting the targeted **behavior**? (i.e., what are the obstacles hindering drain adopters from cleaning debris monthly and reporting their data periodically).

The survey was created in Microsoft Forms and consisted of eight (8) AAD Program-specific questions and three (3) optional demographic questions. The survey questions and response options are illustrated in Section 7.2.

When the survey was drafted in December 2023, there were 395 drain adopters in Seattle's Program. On January 17, 2024, the survey was emailed to all 395 participants using the email addresses that they provided during the sign-up process. The survey was open for about two-weeks, closing at 11:45pm on January 31, 2024. A reminder email was sent at 8:30am on January 30, 2023. The initial and reminder emails are provided in Section 7.3.

The behavior change campaign evaluation followed the schedule illustrated in Table 3-1 below. Table 3-2 describes how each survey question helps answer the evaluation questions and goals, and how the results would be interpreted.

TABLE 3-1: BEHAVIOR CHANGE EVALUATION TIMELINE

Tasks	2023			2024		
	Oct	Nov	Dec	Jan	Feb	Mar
Task 1. Plan evaluation process	X	X				
Task 2. Develop survey questions & create survey in MS Forms		X	X			
Task 3. Administer survey				X		
Task 4. Analyze survey results					X	
Task 5. Prepare evaluation report						X

TABLE 3-2: INFORMATION NEEDED TO MEET EACH EVALUATION OBJECTIVE AND QUESTION

Evaluation Goal	Evaluation Question	Hypothesis	2024 AAD Participant Survey Question	How Results will be Analyzed/Interpreted
Measure changes in our target audience's understanding of stormwater and the impact of this best management practice, as a result of the AAD Program.	Has the target population's understanding of the target behavior increased, decreased, or stayed the same, as a result of their participation in the AAD Program?	<i>The drain adopter understands the impacts of debris entering the stormwater system.</i>	1. Rain runoff picks up debris and pollution before it goes into your storm drain inlet. What do you think happens after it enters the drain?	There is an opportunity for more education about stormwater and stormwater infrastructure if a substantial proportion of the respondents do not select "underground pipes take it to the nearest waterway without any treatment".
		<i>The drain adopter believes that protecting water quality is the main benefit of removing debris from storm drain inlets.</i>	2. In your opinion, what do you think are the main benefits of removing debris from storm drain inlets?	Results will determine to what extent the respondents recognize protecting water quality and minimizing street flooding as the main advantages of removing debris from storm drain inlets.
		<i>The drain adopter understands the impacts of debris entering the stormwater system more because of their participation in the AAD Program.</i>	3. How has your understanding about the impacts of debris (litter, leaves and sediment) on the drainage system changed since starting the program?	While this is the respondent's self-assessment, this will provide some gauge of whether the participants believe the AAD Program has increased awareness and knowledge regarding the consequences of debris in stormwater systems.
Measure changes in our target audience's adoption of this best management practice.	Has the target population's adoption of the target behavior increased, decreased, or stayed the same, as a result of participating in the AAD Program?	<i>The drain adopter cleans storm drain inlets, and cleans them more frequently, since joining the AAD program.</i>	4. How often did you remove debris from your storm drain inlet <u>before you joined the program</u> ?	Compare results from question 4 and 5 to determine if more respondents clean their inlet more since being in the Program compared to before their participation. May also use individual responses (Excel dataset) to compare cleaning frequency before vs. after joining the Program.
			5. How often do you remove debris from your storm drain inlet <u>since joining the program</u> ?	
Identify and recommend changes to the Program to be more effective.	What are the barriers to performing the targeted behavior ?	<i>There are barriers that prevent drain adopters from cleaning debris away from storm drain inlets monthly.</i>	6. What are the barriers to you in cleaning your storm drain inlet at least once a month?	Response will directly help us understand if there are barriers that the City can help remove or reduce, or if the barriers are out of the City's control. Since this is a rank-type question, use information about the first few choices selected, rather than only the top choice.
	What would help encourage/motivate the population to perform the targeted behavior on the desired schedule ?	<i>Drain adopters are motivated to clean debris away from storm drain inlets monthly due to various potential outcomes.</i>	7. Which of these benefits would (or do) motivate you to remove debris from your adopted storm drain inlet at least monthly?	The results tell us what the drain adopter is most interested in (their motivations) and what they want to get out of their involvement. This may help enhance the campaign's effectiveness by tailoring messaging and strategies to further emphasize these motivators. Since this is a rank-type question, use information about the first few choices selected, rather than only the top choice.
	What are the barriers to performing the targeted behavior ?	<i>Drain adopters do not experience challenges reporting their drain cleaning activities.</i>	8. What is getting in the way of <u>reporting</u> your drain cleaning activities?	Response will directly help us understand if there are barriers that the City can remove or reduce to improve reporting (data collection).
Understand AAD Participant demographic information	Who has the Program successfully reached so far? Who have we not reached as successfully as we'd like?	N/A	9. What is your age? (optional)	The responses to these questions will help direct future outreach approaches but must be considered along with available resources.
			10. How do you identify (race)? (optional and more than one answer allowed)	
			11. What is your zip code? (optional)	

4.0 RESULTS & DISCUSSION

This section presents the findings from the online survey conducted to assess the changes in understanding and adoption of behaviors resulting from the implementation of the City's AAD Program over the last 2.5 years (described in Section 2). Barriers and motivators to performing the desired actions are also identified. This information provides the basis for identifying some potential changes to the campaign in order to be more effective, described in Section 5.

4.1 Data Summary

The survey attained a 30% response rate; 120 survey responses (out of 395 drain adopters) were received at the conclusion of the two-week open period. Most respondents completed the survey either on the day they received the original email (January 17) or the reminder email (January 30). Survey results are included in Section 7.4.

4.2 Understanding of the Target Behavior

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

Findings:

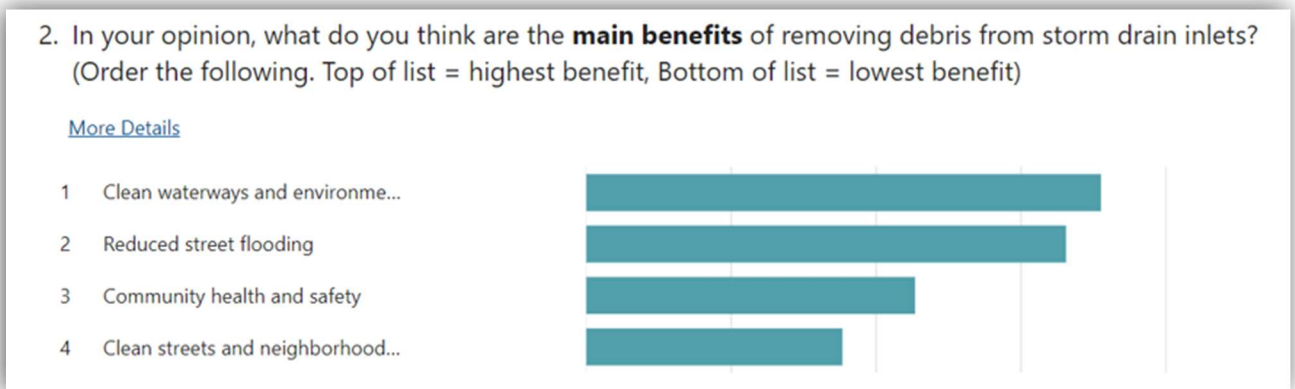
- Very few participants were not sure what happens after stormwater and debris enter the drain, indicating that there is a high overall awareness of the stormwater pathway; AAD Program survey respondents appear to understand that stormwater travels into a conveyance system (pipes) after it enters the storm drain inlet.
- Just over half shared that they (accurately) thought underground pipes take stormwater to the nearest waterway *without any treatment*. However, about a third of respondents lacked understanding about the treatment of runoff and believed that underground pipes take stormwater to a treatment plant, removing pollutants, before emptying into the closest waterway. This represents a potential area for further education and awareness.



Question 2: In your opinion, what do you think are the main benefits of removing debris from storm drain inlets? (Rank from high to low)

Findings:

- About half of the survey respondents selected “clean waters and environment” as the primary benefit associated with the removal of debris from storm drain inlets (i.e., selected this as their top benefit, out of four options), with reduced street flooding being a fairly close second (40% selected this as their top benefit).
- Like the City of Duvall’s survey results, many of Seattle’s survey respondents appear to see benefits in both clean water and reduced street flooding, and the rank-type question allowed those dual-benefits to be recognized (30 responses selected clean water as the top benefit with reduced street flooding as the secondary benefit, while another 28 selected reduced street flooding as the top benefit with clean water as the secondary benefit). This suggests that the AAD Program appears to have effectively conveyed the key benefits of the target behavior to the target population.



Clean waterways and environment	Reduced street flooding
1st choice: 56 (51%)	1st choice: 44 (40%)
2nd choice: 33 (30%)	2nd choice: 34 (31%)
3rd choice: 12 (11%)	3rd choice: 22 (20%)
4th choice: 8 (7%)	4th choice: 9 (8%)

Community health and safety	Clean streets and neighborhood appearance
1st choice: 7 (6%)	1st choice: 2 (2%)
2nd choice: 25 (23%)	2nd choice: 17 (16%)
3rd choice: 47 (43%)	3rd choice: 28 (26%)
4th choice: 30 (28%)	4th choice: 62 (57%)

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

Findings:

- About two thirds of the survey respondents reported an increased understanding (a little or a lot) of the impacts of debris, including litter, leaves, and sediment, on the drainage system since participating in the AAD program. These results were very similar to the City of Duvall's findings and suggest that, overall, the AAD Program appears to have contributed to increasing awareness and knowledge within the target population regarding the consequences of debris in stormwater systems.
- Some caution should be placed on this interpretation, however, because the level of understanding is based on self-assessment. In addition, one third of the survey respondents reported that their understanding about the impact of debris on the drainage system has not changed since joining the AAD Program, which presents a potential area for improvement.



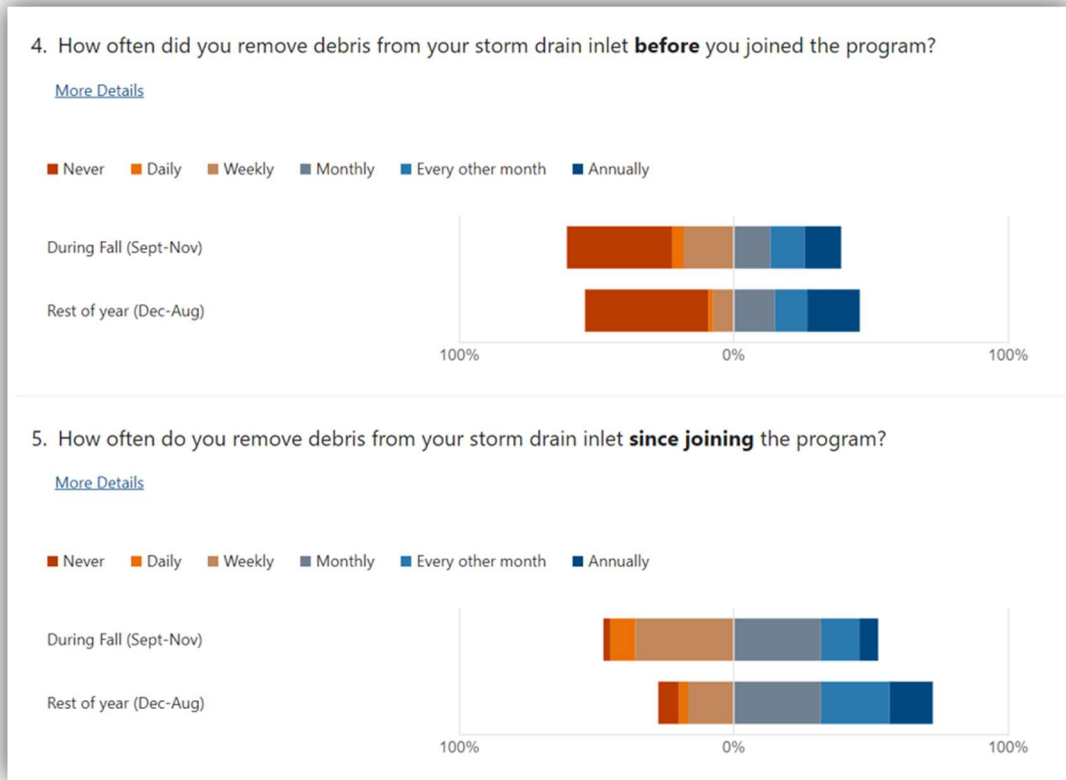
4.3 Adoption of the Target Behavior

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?

Findings:

- Prior to participating in the AAD program, many survey respondents did not regularly clean away debris from their storm drain inlet, if ever. Over a third of survey respondents stated that prior to joining the AAD program, they never cleaned debris away from their storm drain inlets at any time of the year, and about half never cleaned debris from their storm drain inlets outside of the fall season (Dec-Aug) prior to joining the AAD program. About a quarter stated that they removed debris at least monthly prior to joining the campaign.
- About half of the survey respondents reported that, since joining the AAD Program, they clean debris from their storm drain at least monthly year-round. Even more survey respondents appear to be taking actions to remove debris from storm drain inlets during fall months. Most survey respondents (77% or 92 out of 120 responses) reported that they clean debris from their storm drain at least monthly (though some do it more often - weekly or daily) during the fall leaf drop season (Sept-Nov).
- If they did not clean away debris before joining the AAD program, do they clean away debris now? Since joining the AAD Program, there was a decrease in the number of respondents who never removed debris from the storm drain (the proportion of red in the bar graph below has considerably decreased from question 4 to 5). No survey respondents reported cleaning debris from storm drain inlets *less* frequently since joining the AAD program, during fall leaf drop season. Of the 46 respondents who stated they never cleaned debris from their storm drain inlets prior to joining the AAD program (at any time of the year), most (43 out of 46, or 93%) cleaned debris at least annually since joining the AAD Program, which is more often than they had but not as frequently as requested in AAD Program materials (monthly). About a third of the survey respondents who stated they did not clean debris away from storm drain inlets prior to joining the AAD program now clean debris away from their storm drain inlet at least monthly (monthly, weekly, or daily) throughout the year (the proportion of beige [weekly] and grey-blue [monthly] in the bar graph below has noticeably increased from question 4 to 5).



- The survey results indicate that, in general, participation in the AAD program has increased the frequency that participants adopt the behavior, suggesting a positive impact and behavior change. Results also illustrate that the frequency of cleaning storm drains is not consistently monthly, suggesting that there may either be an opportunity to provide better clarity to Program participants, or potentially re-consider the Seattle Program’s suggested storm drain cleaning frequency (see findings from question 6).

4.4 Barriers and Motivators for the Target Population

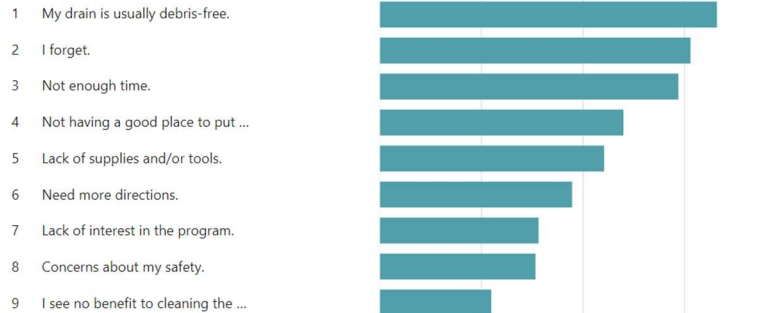
Question 6: What are the barriers to you in cleaning your storm drain inlet at least once a month?

Findings:

- Overall, the survey suggested that there are minimal barriers to cleaning adopted storm drain inlets at least once a month, most respondents see a benefit to cleaning the drain, and there appears to be a willingness to engage in the behavior. Concerns about safety and lack of interest in the program were not strong barriers to removing debris from storm drain inlets monthly. The top barriers to removing debris monthly were:
- **It's Usually Debris-Free:** The survey suggests that AAD Program participants tend to perceive their adopted inlet being without debris. Over two thirds of survey respondents who answered this question selected "my drain is usually debris-free" as the first or second reason for not clearing debris away monthly. It may be useful for SPU's AAD Program staff to consider the suggested storm drain cleaning frequency, to clarify that with Program participants and also appropriate to the conditions experienced in our neighborhoods.
- **Forgetfulness and Time:** Forgetting to check and clean storm drain inlets was recognized by survey respondents as the most likely barrier to performing the behavior; "I forget" was selected as the first, second, and third choice in 16%, 27% and 24% of respondents to this question. "Not having enough time" was also a common second, third, or fourth choice response. While the City cannot meaningfully tackle the lack of time that our drain adopters experience, it appears worthwhile to explore strategies that address the memory lapse barrier, such as implementing or encouraging reminders.
- **Resources and Direction:** While lack of resources or directions were not commonly selected as top barriers to cleaning storm drain inlets monthly, there are still individuals who may be more successful in performing the behavior if they had a better place to put the debris, more supplies/tools, and/or more directions. For example, eight (8) respondents stated not having a good place to put debris was their top barrier and another 13 said it was their second greatest barrier. Three respondents who stated their drain is usually debris-free as the primary reason for not cleaning it monthly, selected that the second most impactful barrier to them was not having a good place to put the debris. A number of survey respondents reported that "needing more directions" was a moderate barrier; 17%, 21%, and 18% of respondents to this question shared that this was their 4th, 5th, and 6th barrier. These barriers are not common, but should be acknowledged and worth considering further because, for the individuals impacted, it could prevent their short- or long-term participation in the Program.

6. If you are cleaning your drain less than once (1x) per month, what are the **barriers to you in cleaning it** at least once (1x) per month? (Rank from most impactful to least impactful)

[More Details](#)



My drain is usually debris-free.

1st choice: 50 (56%)
 2nd choice: 16 (18%)
 3rd choice: 5 (6%)
 4th choice: 3 (3%)
 5th choice: 1 (1%)
 6th choice: 2 (2%)
 7th choice: 2 (2%)
 8th choice: 4 (4%)
 9th choice: 6 (7%)

I forget.

1st choice: 14 (16%)
 2nd choice: 24 (27%)
 3rd choice: 21 (24%)
 4th choice: 13 (15%)
 5th choice: 9 (10%)
 6th choice: 2 (2%)
 7th choice: 5 (6%)
 9th choice: 1 (1%)

Not enough time.

1st choice: 6 (7%)
 2nd choice: 15 (17%)
 3rd choice: 37 (42%)
 4th choice: 16 (18%)
 5th choice: 7 (8%)
 6th choice: 3 (3%)
 7th choice: 2 (2%)
 8th choice: 3 (3%)

Not having a good place to put the debris.

1st choice: 8 (9%)
 2nd choice: 13 (15%)
 3rd choice: 5 (6%)
 4th choice: 13 (15%)
 5th choice: 20 (22%)
 6th choice: 9 (10%)
 7th choice: 15 (17%)
 8th choice: 4 (4%)
 9th choice: 2 (2%)

Lack of supplies and/or tools.

1st choice: 3 (3%)
 2nd choice: 7 (8%)
 3rd choice: 6 (7%)
 4th choice: 11 (12%)
 5th choice: 19 (21%)
 6th choice: 32 (36%)
 7th choice: 7 (8%)
 8th choice: 3 (3%)
 9th choice: 1 (1%)

Need more directions.

2nd choice: 3 (3%)
 3rd choice: 5 (6%)
 4th choice: 15 (17%)
 5th choice: 19 (21%)
 6th choice: 16 (18%)
 7th choice: 14 (16%)
 8th choice: 12 (13%)
 9th choice: 5 (6%)

Lack of interest in the program.

1st choice: 5 (6%)
 2nd choice: 4 (4%)
 3rd choice: 5 (6%)
 4th choice: 8 (9%)
 5th choice: 7 (8%)
 6th choice: 4 (4%)
 7th choice: 11 (12%)
 8th choice: 24 (27%)
 9th choice: 21 (24%)

Concerns about my safety.

1st choice: 2 (2%)
 2nd choice: 2 (2%)
 3rd choice: 4 (4%)
 4th choice: 8 (9%)
 5th choice: 3 (3%)
 6th choice: 17 (19%)
 7th choice: 20 (22%)
 8th choice: 21 (24%)
 9th choice: 12 (13%)

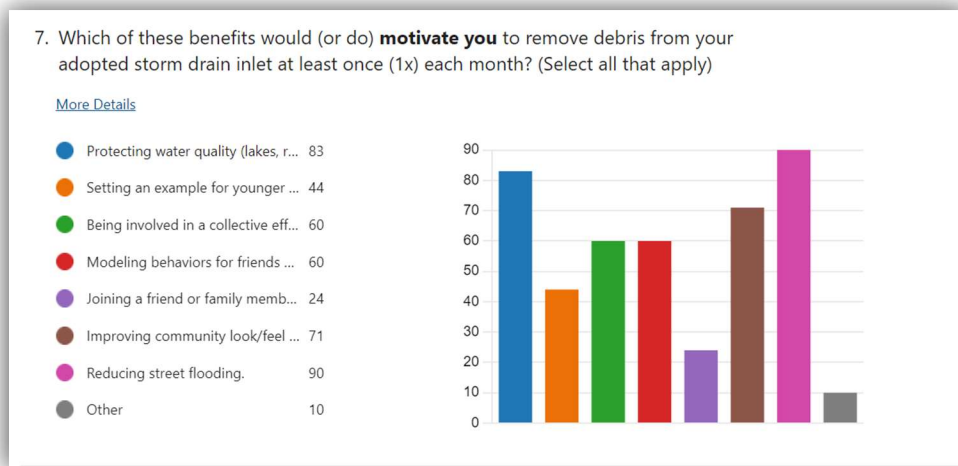
I see no benefit to cleaning the drain.

1st choice: 1 (1%)
 2nd choice: 5 (6%)
 3rd choice: 1 (1%)
 4th choice: 2 (2%)
 5th choice: 4 (4%)
 6th choice: 4 (4%)
 7th choice: 13 (15%)
 8th choice: 18 (20%)
 9th choice: 41 (46%)

Question 7: Which of these benefits would (or do) motivate you to remove debris from your adopted storm drain inlet at least monthly?

Findings:

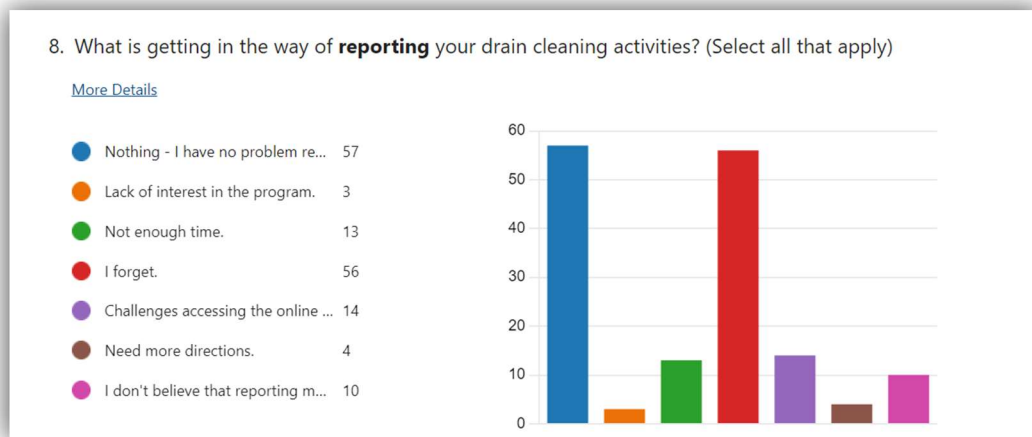
- Survey results indicate that AAD participants would be motivated to clean debris from their storm drains monthly for a variety of potential benefits. Most Seattle respondents selected 3 or more options out of the 7 provided in the survey question.
- “Reducing street flooding” and “protecting water quality” appeared to be the top two motivators, which is consistent with the City of Duval’s findings. Participant motivations appear to align with both the key campaign objectives and the outreach materials shared to date. The findings suggest it should be advantageous to continue to tailor, and enhance, messaging and strategies to further emphasize these motivations.



Question 8: What is getting in the way of reporting your drain cleaning activities?

Findings:

- Data indicate that a substantial number of participants, about half of survey respondents, reported no barriers to reporting their cleanings on the AAD Program portal, managed by Hamline. Similar to the responses to question 6, forgetting to report their cleaning activities appears to be the most common challenge experienced by Seattle AAD participants; the City of Duvall observed similar results. Herein lies an area for improvement, which could involve exploring a better reminder system.
- Fourteen responses selected that they experience challenges accessing the online tracking portal and four (4) responses selected “need more directions.” While these represent a low proportion of the survey respondents, providing clearer directions or sharing easy-to-follow tips should require minimal SPU effort and effectively address this barrier.



4.5 Summary

The goals of this behavior change campaign evaluation were to:

- **measure changes** in our target audience's **understanding** of stormwater and the impact of removing debris from storm drain inlets, as a result of the AAD Program;
- **measure the changes** in our target audience's **actions** in removing debris from inlets (i.e., **adopting** the target behavior) as a result of their participation in the AAD Program; and
- **identify and recommend changes** to the City's AAD Program to be **more effective**.

What did we learn about the Target Population's Understanding of the Target Behavior?

Seattle's AAD Program participants appear to understand that stormwater goes into a piped conveyance system after it enters the storm drain inlet. Many understand correctly that stormwater is usually untreated before discharging to a waterway; however, about a third of survey respondents currently believe that stormwater goes to a treatment plant, to remove pollutants, before discharging to a waterway. This highlights an educational opportunity.

The AAD Program appears to have effectively conveyed the key benefits of the target behavior to the target population; most survey participants indicated that *clean water and environment* and *reduce street flooding* were the main benefits of clearing debris from storm drain inlets, which is consistent with the messaging implemented by SPU over the last 2.5 years.

Seattle's survey results, and those from our partners at the City of Duvall, suggests that AAD participants in both areas believe they understand a little or a lot more about the impacts of debris (litter, leaves, sediment) on the drainage system as a result of their involvement in the Program. With that said, about a third of survey respondents shared that their understanding did not increase, which suggests more education on this topic may be necessary.

What did we learn about the Target Population's Adoption of the Target Behavior?

Since the roll-out of Seattle's AAD Program in 2021, over 400 participants have signed up to clean debris from over 700 storm drain inlets. This has prevented thousands of pounds of leaves, sediment/dirt and trash from entering the MS4 stormwater conveyance system and nearby receiving waterbodies (Figure 7-7). The 2023 Seattle AAD Program Annual Report states that about 28% of Program participants in Seattle reported their storm drain cleanings in 2023, so the amount of debris removed from storm drain inlets by AAD participants is likely much higher than reported.

A small proportion of the Seattle population who live in the MS4 drainage area participate in the AAD Program, however the Program has had a positive impact on the behavior of those who participate. Data collected as part of this evaluation indicate that AAD participants who had not

cleaned debris from storm drains prior to joining the Program, and those who had cleaned debris from storm drains in the past, have increased the frequency at which they clean away debris. Almost all AAD participants surveyed clean debris from their adopted drain sometime over the year, though not all participants follow the suggested monthly cadence. As with Duvall, SPU observed a significant decrease in the percentage of participants who never clear debris from their storm drain and recognize a positive shift in behavior since the adoption of storm drain inlets through the AAD program.

What did we Learn About how to Make the AAD Program More Effective?

The Community-Based Social Marketing approach recognizes that understanding a community's motivations and the barriers to adopting a targeted behavior is an essential step toward improving Program effectiveness.

This evaluation found that AAD Program participants in Seattle are motivated to clean storm drain inlets routinely based on multiple factors, but primarily for protecting water quality and reducing street flooding. These motivations appear to align with both the key campaign objectives and the outreach materials prepared by Hamline and Seattle so far. Being involved in a collective effort, setting an example, and improving the look at feel of neighborhoods were also found to be motivators for Seattle participants, so it may be helpful to explore engagement through that lens.

Survey results indicated that there are few barriers that prevent drain adopters from cleaning debris away from storm drain inlets monthly. Participants shared that their drains are usually debris-free but also acknowledged that forgetting to clean debris was a major reason for not implementing the targeted behavior monthly. A small number of participants noted challenges in finding a place to put the collected debris and a few acknowledged they need more directions to effectively perform the behavior.

Forgetfulness was also the primary reason for not reporting drain cleaning activities. Tackling forgetfulness through reminders or other tools, and providing assistance to navigate/use the online portal support, are all potential areas for improving the reporting component of the behavior change.

Finally, there are opportunities for future engagement to clarify or re-define existing Program aspects, such as the suggested cleaning and reporting frequency. In addition, it appears that the Seattle AAD Program has been effective in engaging the white, English-speaking community, across the City; incorporating more diverse participation (e.g., varied race, language, ownership) will require a focused approach. With that said, forgetfulness and not enough time are likely common barriers for participants of all backgrounds and should therefore be prioritized.

5.0 FUTURE ACTION RECOMMENDATIONS

Seattle's AAD Program takes a comprehensive approach to communicate the importance of removing debris from storm drains to prevent stormwater pollution, and empowers the community to take tangible actions to help protect downstream water quality. SPU plans to continue to implement the AAD Program in MS4 areas of the City. In moving forward, we will build on the strong foundation already established and incorporate the lessons learned through this evaluation process.

Our future recommendations to improve campaign effectiveness include, but are not limited to, the following strategies and tools:

1. Highlight water quality benefits and provide stormwater education

- Emphasize the direct correlation between removing debris/maintaining storm drains and preventing downstream water quality impacts.
- Consider developing or adapting visual aids, infographics, and real-life examples to illustrate the consequences of neglecting storm drain maintenance.
- Educate participants about the stormwater conveyance system and the impact of stormwater on receiving waterbodies (leverage partnerships with other stormwater E&O Programs).

2. Engage a more diverse community

- Work with Bridge Latino and Latino NW to recruit and involve more Spanish-speakers. This should include a culturally-informed marketing campaign and be based on lessons learned from the focus groups and survey conducted in 2023.
- Engage under-represented groups in the AAD Program, such as younger adults and renters, and use language that resonates with the values and concerns of the community.

3. Build relationships and leverage partnerships

- Be methodical in how we use our existing participant database. Make better use of existing participants who identified as community organizations, schools, businesses to promote drain adoption across their network.
- Build relationships with adopters to help them become ambassadors within their communities, increasing neighborhood understanding of stormwater pollution prevention and fostering behaviors that will improve the environment and our drainage system operations.
- Encourage Adopt-a-Street volunteers, who often clean their street's storm drains, to participate in AAD and report their activities.
- Conduct targeted outreach/recruitment events at businesses that already have an AAD-friendly/interested audience, with Fall cleanup organizations, and others.
- Collaborate with other jurisdictions to access resources, expertise, and support the 2024 regional recruitment goal.

4. Clear communications

- Work to retain existing participation/engagement to promote consistent behavior, by continuing to improve outreach materials and help make the messaging is clear, concise, and easily understandable by the target audience.
- Review what we are asking participants to do (e.g., drain cleaning frequency, frequency during fall leave-drop season versus rest of year, what to report, and how often), and communicate those asks more clearly using a variety of outreach tools.

5. Enhance supports and updates

- Effect change by encouraging adopters to set up reminders for cleaning and/or reporting (use newsletter articles, social media posts, emails to make suggestions).
- Reach out individually to new adopters a few months after joining the Program to provide clear direction and resources, and guide them through the cleaning and/or reporting process in detail if needed.
- Send more timely reminders, such as a postcard in August, just before leaf-drop season.
- Include a “pre” survey in Seattle’s welcome email to learn basic information about the participant, their level of knowledge about stormwater, and their motivations so that we can provide better support (and develop a baseline for a future evaluation survey).
- Consider establishing periodic surveys to support future evaluations and measure success.

SPU looks forward to sharing our experiences and strategies with the regional cohort in an effort to support regional water quality improvement.

6.0 GLOSSARY

All definitions below were taken directly from [Ecology's](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ezview.wa.gov%2FPortals%2F1962%2FDocuments%2FSAM%2FD5.6%2520Report%2520Template%2520Final.docx&wdOrigin=BROWSELINK) evaluation report template, available here: <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ezview.wa.gov%2FPortals%2F1962%2FDocuments%2FSAM%2FD5.6%2520Report%2520Template%2520Final.docx&wdOrigin=BROWSELINK>

Behavior change: Similar to behavior adoption, behavior change is the act of adopting new BMPs in lieu of not participating in them.

Behavior change campaign: A portion of the E&O program 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.

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.

7.0 APPENDICES

7.1 Campaign Materials



FIGURE 7-1: POSTCARD USED TO HELP RECRUIT DRAIN ADOPTERS (FRONT & BACK)

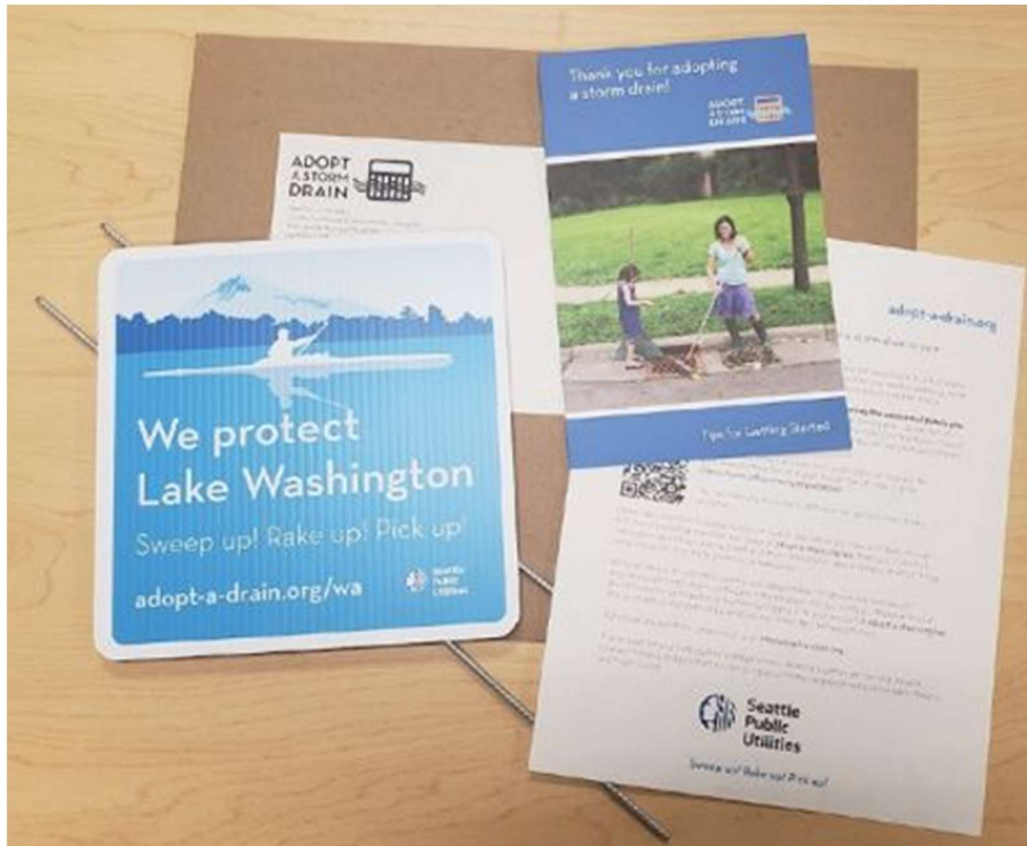


FIGURE 7-2: WELCOME PACKET SENT TO SEATTLE DRAIN ADOPTERS

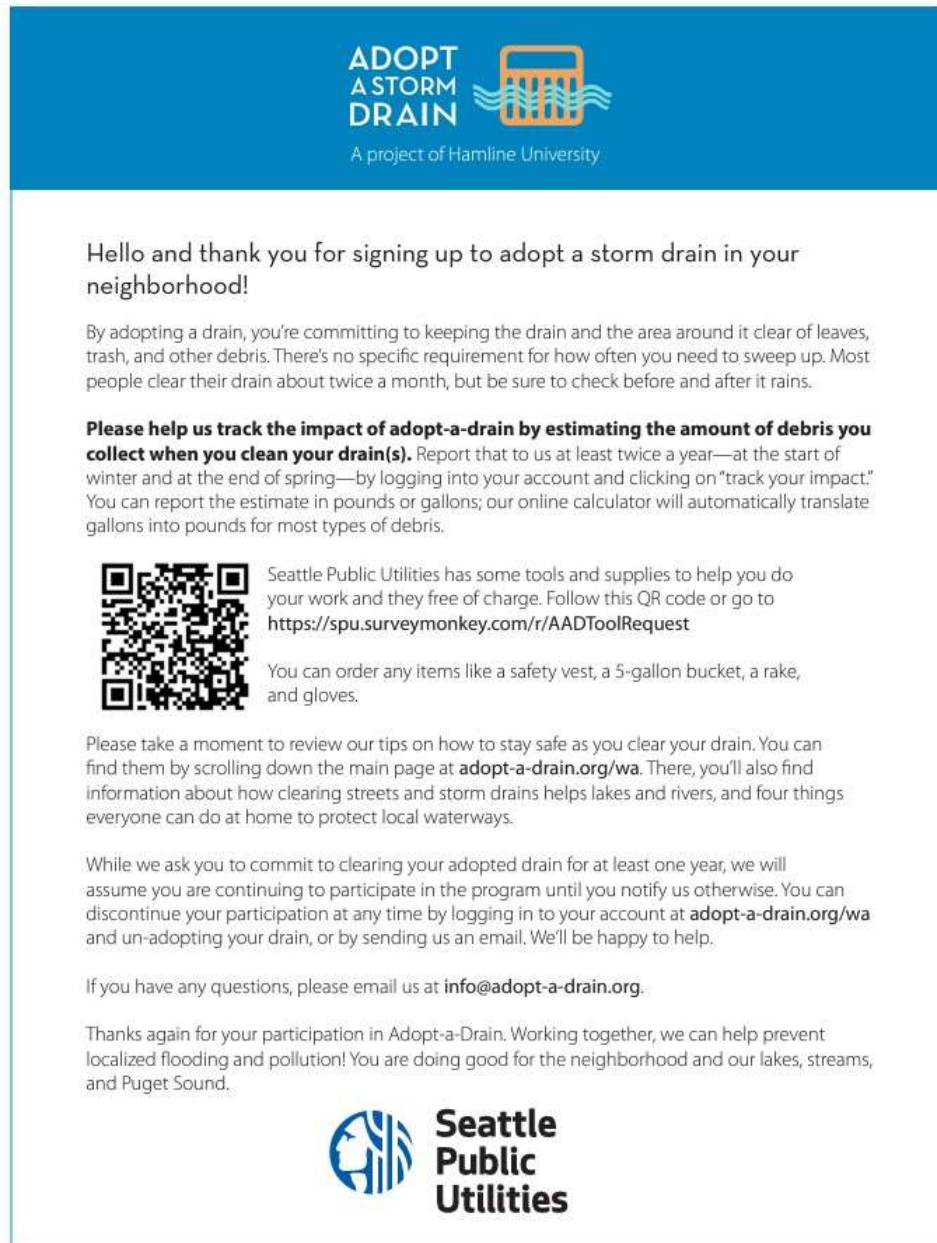


FIGURE 7-3: WELCOME LETTER SENT TO SEATTLE DRAIN ADOPTERS

Sweep up! Rake up! Pick up!

Rain washes anything that's on streets and other paved surfaces down storm drains and into rivers, lakes, creeks, and the Puget Sound.

Thank you for adopting a storm drain!





1| Leaves, grass, and yard waste feed algae and turn lakes and rivers green. Pollutants like fertilizers and pesticides add to the problem.



2| Trash clogs drains and pipes causing flooding. Trash that enters storm drains flows to local waterways. Scoop it up and put it in the garbage.



3| Oil, grease, and soap grime washes into storm drains which flow unfiltered to local waterways. Keep chemicals off streets and sidewalks.



4| Dog poop carries harmful bacteria. Pick it up, bag it and put it in the garbage.




Help us track our impact. Report your work at adopt-a-drain.org.

Tips for Getting Started

How to clear your storm drain and stay safe while doing it

adopt-a-drain.org



Helpful tools for cleaning. You might want these tools for cleaning your drain: a broom, a rake, a trash grabber, work gloves, an orange cone and/or safety vest, a dustpan, and a 5-gallon bucket or yard waste bag.



Not just the drain. While the program asks you to adopt a drain, clearing debris from streets and sidewalks is helpful since anything on pavement can wash into storm drains when it rains. Do your best to avoid sweeping debris into the drain.



Never remove the grate. Clean only on top of the storm drain grate and the area around it. Never remove the grate or otherwise attempt to clean the inside. If the drain seems to be plugged or have any problem, contact city or county staff to address the issue.



Separating and disposing of waste. To dispose of waste, separate it into three categories and place it in the appropriate receptacle:

- trash (litter, dirt, and grit)
- clean recyclables (cans, glass and plastic bottles)
- clean compostables (leaves, grass clippings, and sticks)

When in doubt throw it in the trash.

If there is A LOT of sediment near your drain, notify your city or county staff, as this may be an indicator of a bigger problem.



Safety first! There could be something sharp or otherwise harmful near the drain, so wear work gloves to protect your hands and be careful when picking up leaves and trash. You might want to use a trash grabber to collect debris. Work with a friend, set up orange cones, or wear reflective clothing to make sure you are visible to cars. Do not stand or crouch on busy streets.



Busy streets. It's best to adopt drains on local residential streets. If you do adopt a drain on a street with lots of traffic, please stick to clearing trash and debris from the sidewalk and let city staff take care of the street and the surface of the storm drain.



If you have **questions about how to properly dispose of trash, compost, and recyclables**, contact the city or your garbage collection service.



For **questions about the Adopt-a-Drain program**, email us: info@adopt-a-drain.org.

FIGURE 7-4: TIPS FOR GETTING STARTED BROCHURE (FRONT & BACK)



FIGURE 7-5: WATERWAY-SPECIFIC YARD SIGNS PROVIDED TO PARTICIPANTS



FIGURE 7-6: POSTER ADVERTISING AN ADOPT-A-DRAIN PROGRAM EVENT AT A LOCAL BUSINESS



2023 Seattle Annual Report



We're Making a Difference!

150

participants
2023

246


drains adopted
2023

428

participants
TOTAL

761

drains adopted
TOTAL




REPORTING DATA

Annual Report
2023 Seattle

Drain Cleaning & Collection Data


121 Seattle participants reported cleanings, which represents 28.3% of all participants
Seattle participants collected 4,705.6 lbs of debris from their adopted storm drains in 2023

Debris Type	Amount (lbs)
Brown Leaves	2,545.5
Grass and Green Leaves	132.2
Sediment and dirt	1,659.0
Trash	301.1
Recyclables	67.9
Pet Waste	0.0
Salt	0.0



Month	New Participants	Drains Adopted	Debris collected (lbs)	Time spent (hrs)
January	24	37	811.81	15.22
February	6	9	32.7	2.52
March	16	23	45.5	9.08
April	5	6	270.6	5.58
May	7	25	52	2.25
June	15	16	6	0.42
July	3	6	32.75	1.1
August	21	23	669.58	18.35
September	14	24	211.05	11.35
October	7	13	232.28	7.48
November	23	41	1138.64	43.43
December	9	23	1202.7	31.48
TOTALS	150	246	4,705.6	148.3

2 Adopt-a-Drain
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GEOGRAPHIC BREAKDOWN

Annual Report
2023 Seattle

Watersheds

Watershed	Drains adopted	Debris collected (lbs)	Time spent (hours)
Lake Union	233	1,353.2	32.1
West Lake Washington - Seattle South	147	1,618.3	47.7
West Lake Washington - Seattle North	128	433.3	19.3
Lower Puget Sound - Seattle	58	448.5	17.6
Thornton Creek	46	538.6	14.7
Elliott Bay	45	46.7	3.0
Longfellow Creek	36	62.5	3.9
Duwamish River	22	14.1	1.1
Pipers Creek	20	166.9	5.8
Middle Puget Sound - Seattle Lower	20	19.0	2.1
Salmon Creek	5	15.6	0.8
Sesia Creek	1	1.0	0.2
Middle Puget Sound - Seattle Upper	1	0.0	0.0

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PROMOTION

Annual Report
2023 Seattle


Mailings and Signs

Sign	Packets Mailed
Lake Union	31
Lake Washington	30
Puget Sound	22
Thornton Creek	6
Longfellow Creek	5
Duwamish River	3
Miller Creek	1
Total	98

Sample welcome packet pictured below, including yard sign and stake, welcome card with safety tips and instructions, and customized welcome letter



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WASHINGTON STATE SUMMARY

Annual Report
2023 Seattle

451

participants
2023

784

drains adopted
2023

1,357

participants
TOTAL

2,422

drains adopted
TOTAL

431 Washington participants reported cleanings, which represents 31.8% of all participants
Washington participants collected 9847.9 lbs of debris from their adopted storm drains in 2023

Month	New Participants	Drains Adopted	Debris collected (lbs)	Time spent (hrs)
January	48	79	1676.75	34.72
February	21	29	137.92	6.05
March	38	72	172.3	11.62
April	37	69	282.86	6.47
May	27	56	82.36	2.97
June	28	39	39.1	2.68
July	13	24	144.11	2.53
August	63	92	1127.94	40.48
September	49	82	484.35	28.67
October	30	40	743.4	24.58
November	65	131	2436.54	77.33
December	32	71	2526.3	68.65
TOTALS	451	784	9,847.9	396.2

5 Adopt-a-Drain
A Project of Hamline University's Center for Global Environmental Education. adopt-a-drain.org

FIGURE 7-7: EXAMPLE OF AN ANNUAL REPORT PROVIDED TO SPU BY PROGRAM ADMINISTRATORS AT HAMLINE UNIVERSITY

7.2 Survey Questions

This section includes the 2024 Adopt-A-Drain Participant Survey that was available to Seattle's drain adopters between January 17 and 31, 2024. Questions 2 and 6 requested that survey respondents rank answers by using their cursor to move a row up or down the list.



Seattle's Adopt-a-Drain Program 2024 Participant Survey

Thank you for sharing your experience in the Adopt-a-Drain program with us. Your responses will help us ensure that we are meeting program goals designed to help keep Seattle's storm drains clear and the water clean.

This survey will take about 5 minutes to complete and will be open until January 31, 2024.

Privacy Notice:

Information provided in this form is considered a public record and may be subject to public disclosure. For more information, see the Public Records Act, RCW Chapter 42.56. To learn more about how we manage your information, see our Privacy Statement at <https://www.seattle.gov/privacy-statement>.

* Required

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

- Underground pipes take it to a treatment plant, which removes pollutants, then it empties into the closest creek, lake, river or Puget Sound (waterway).
- Underground pipes take it to the nearest waterway without any treatment.
- It goes into the ground.
- I am not sure.

2. In your opinion, what do you think are the **main benefits** of removing debris from storm drain inlets? (Order the following. Top of list = highest benefit, Bottom of list = lowest benefit)

- Clean streets and neighborhood appearance
- Clean waterways and environment
- Community health and safety
- Reduced street flooding

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

- Not at all.
- A little.
- A lot.

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

	Never	Daily	Weekly	Monthly	Every other month	Annually
During Fall (Sept-Nov)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rest of year (Dec-Aug)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

	Never	Daily	Weekly	Monthly	Every other month	Annually
During Fall (Sept-Nov)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rest of year (Dec-Aug)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. If you are cleaning your drain **less than once (1x) per month**, what are the **barriers to you in cleaning it** at least once (1x) per month? (Rank from most impactful to least impactful)

Lack of interest in the program.

Not enough time.

I forget.

Need more directions.

Lack of supplies and/or tools.

Not having a good place to put the debris.

Concerns about my safety.

I see no benefit to cleaning the drain.

My drain is usually debris-free.

7. Which of these benefits would (or do) **motivate you** to remove debris from your adopted storm drain inlet at least once (1x) each month? (Select all that apply)

- Protecting water quality (lakes, rivers, streams, Puget Sound, etc.).
- Setting an example for younger generations.
- Being involved in a collective effort.
- Modeling behaviors for friends and neighbors.
- Joining a friend or family member who is also participating.
- Improving community look/feel by cleaning up the street.
- Reducing street flooding.
- Other

8. What is getting in the way of **reporting** your drain cleaning activities? (Select all that apply)

- Nothing - I have no problem reporting my storm drain inlet cleaning activities.
- Lack of interest in the program.
- Not enough time.
- I forget.
- Challenges accessing the online tracking portal.
- Need more directions.
- I don't believe that reporting makes any difference.

9. What is your age?

(This question is optional and will help us understand who our programs are reaching.)

- Under 18
- 18-34
- 35-54
- 55-64
- 65 and older

10. How do you identify? Select all that apply.

(This question is optional and will help us understand who our programs are reaching.)

- Native American
- Asian or Pacific Islander
- Black or African American
- Hispanic, Latino, or Spanish
- White
- Other

11. What is the Zip Code where you live?

(This question is optional and will help us understand who our programs are reaching.) *

98101

98102

98103

98104

98105

98106

98107

98108

98109

98112

98115

98116

98117

98118

98119

98121

98122

98125

98126

98133

98134

98136

98144

98146

98155

98168

98177

98178

○ 98199

7.3 Survey Distribution

On January 17, 2024, a link to the online survey was emailed to all Seattle AAD participants who provided their email addresses during Program registration. A reminder email was sent on January 30, 2024, before the survey closed the following day. Both emails are illustrated below.

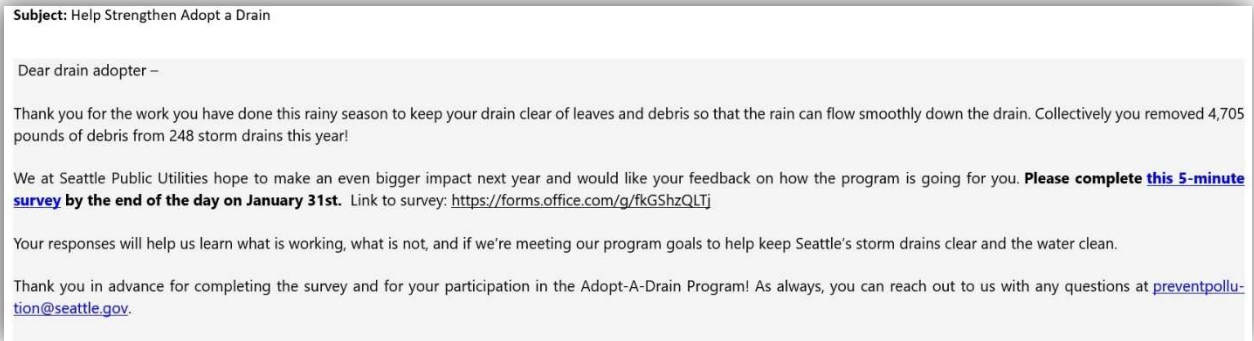


FIGURE 7-8: ORIGINAL EMAIL DISTRIBUTED TO AAD PARTICIPANTS

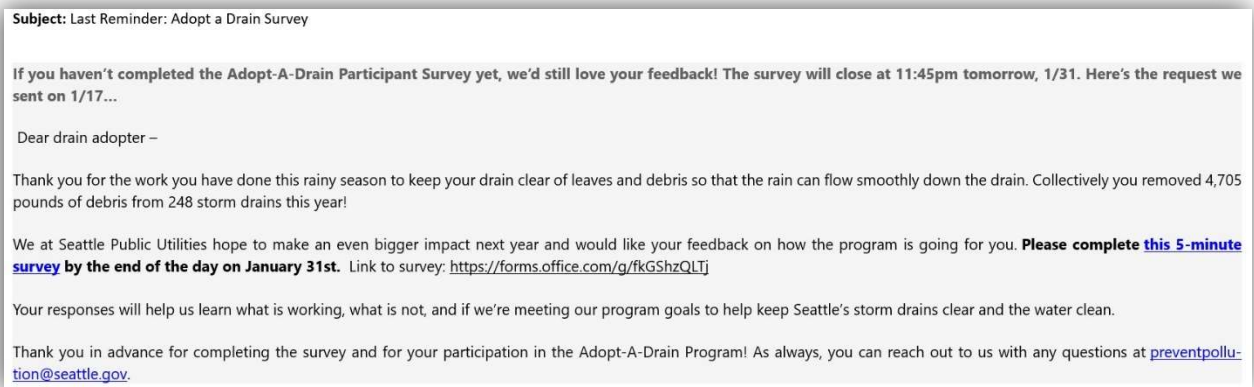


FIGURE 7-9: REMINDER EMAIL DISTRIBUTED TO AAD PARTICIPANTS

7.4 Survey Results

This section includes screenshots of data collected from Seattle’s 2024 Adopt-A-Drain Participant Survey. Results were obtained on February 1, 2024, after the survey had closed at 11:45pm the prior evening. Raw survey result data, in Excel form and organized by individual respondent, are available upon request.

Seattle's Adopt-a-Drain Program 2024 Participant Survey

120

Responses

08:42

Average time to complete

Closed

Status

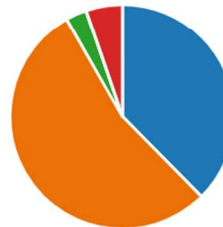
View results

Open in Excel ⋮

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

[More Details](#)

- Underground pipes take it to a t... 50
- Underground pipes take it to th... 72
- It goes into the ground. 4
- I am not sure. 7



2. In your opinion, what do you think are the **main benefits** of removing debris from storm drain inlets? (Order the following. Top of list = highest benefit, Bottom of list = lowest benefit)

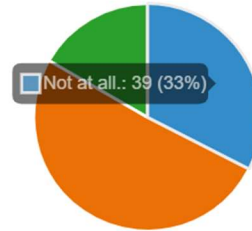
[More Details](#)



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

[More Details](#)

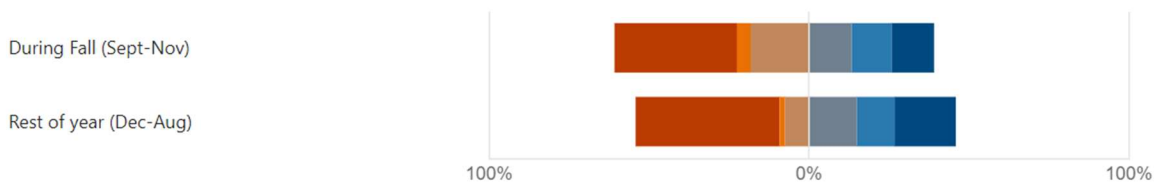
Not at all.	39
A little.	61
A lot.	20



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

[More Details](#)

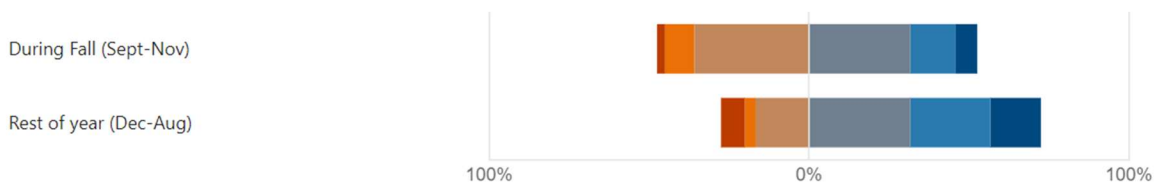
Legend: Never (dark red), Daily (orange), Weekly (brown), Monthly (grey), Every other month (blue), Annually (dark blue)



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

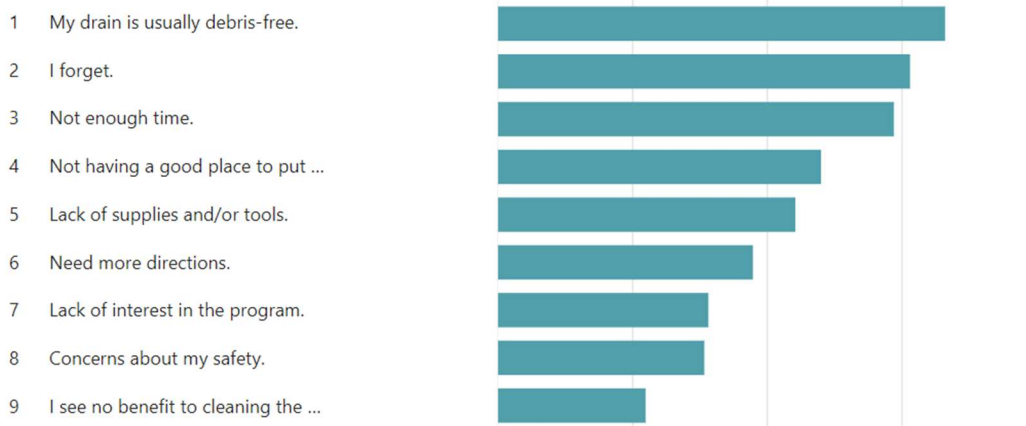
[More Details](#)

Legend: Never (dark red), Daily (orange), Weekly (brown), Monthly (grey), Every other month (blue), Annually (dark blue)



6. If you are cleaning your drain less than once (1x) per month, what are the **barriers to you in cleaning it** at least once (1x) per month? (Rank from most impactful to least impactful)

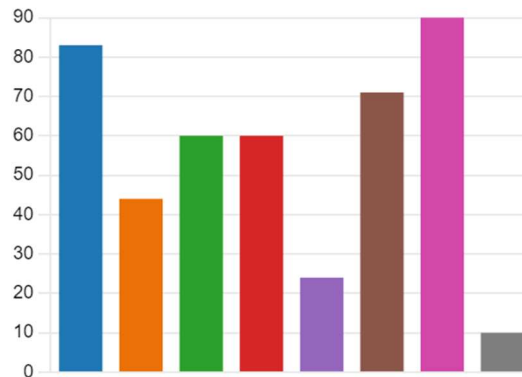
[More Details](#)



7. Which of these benefits would (or do) **motivate you** to remove debris from your adopted storm drain inlet at least once (1x) each month? (Select all that apply)

[More Details](#)

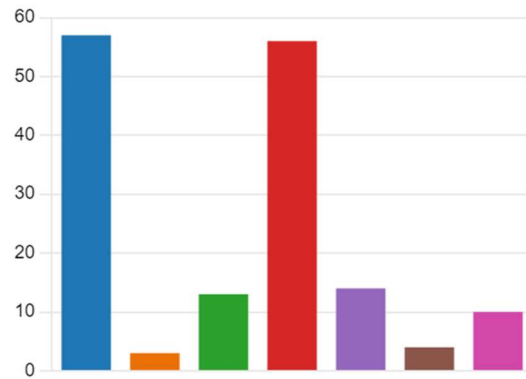
- Protecting water quality (lakes, r... 83
- Setting an example for younger ... 44
- Being involved in a collective eff... 60
- Modeling behaviors for friends ... 60
- Joining a friend or family memb... 24
- Improving community look/feel ... 71
- Reducing street flooding. 90
- Other 10



8. What is getting in the way of **reporting** your drain cleaning activities? (Select all that apply)

[More Details](#)

- Nothing - I have no problem re... 57
- Lack of interest in the program. 3
- Not enough time. 13
- I forget. 56
- Challenges accessing the online ... 14
- Need more directions. 4
- I don't believe that reporting m... 10

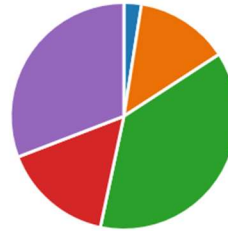


9. What is your age?

(This question is optional and will help us understand who our programs are reaching.)

[More Details](#)

- Under 18 3
- 18-34 16
- 35-54 45
- 55-64 19
- 65 and older 37

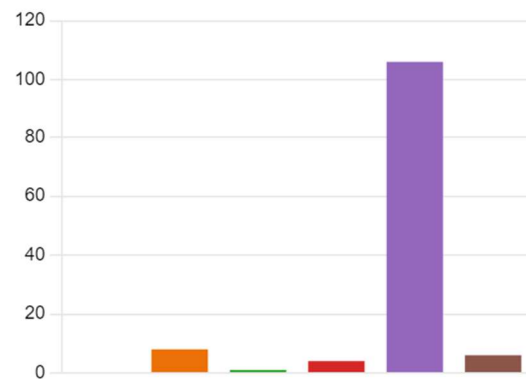


10. How do you identify? Select all that apply.

(This question is optional and will help us understand who our programs are reaching.)

[More Details](#)

- Native American 0
- Asian or Pacific Islander 8
- Black or African American 1
- Hispanic, Latino, or Spanish 4
- White 106
- Other 6



11. What is the Zip Code where you live?

(This question is optional and will help us understand who our programs are reaching.)

[More Details](#)

98101	1
98102	5
98103	9
98104	0
98105	3
98106	2
98107	5
98108	3
98109	7
98112	3
98115	15
98116	6
98117	9
98118	11
98119	1
98121	0
98122	6
98125	6
98126	5
98133	2
98134	0
98136	8
98144	5
98146	0
98155	0
98168	0
98177	2
98178	0
98199	6

