



# **Soak It Up Rain Garden and Native Vegetation Landscaping Rebate Program Evaluation**

**CITY OF SHORELINE**

**JUNE 2020**

**Purpose.** The [Western Washington Phase II Municipal Stormwater Permit](#) requires jurisdictions to evaluate an ongoing behavior change program, develop a strategy to broaden its impact, and implement the updated program (S5.C.2.a.ii.(b-d)). Since 2014, the City of Shoreline has offered a rebate program for Shoreline property owners to install either a rain garden or restore hardscape or turf and plant native vegetation landscaping. Both features increase a property's capacity to capture, filter, and return storm water to ground water sources. This, in turn, reduces both flow and pollutants to the City's municipal storm water system. The following evaluation use social marketing research principals to investigate barriers to program participation, perceived benefits that motivate participation, and explores attitudinal and demographic characteristics of interested and actual program participants.

**Participants.** Survey participants included both Soak It Up program participants (hereafter referred to as "SIU Participants") and those that passed an initial site consultation but had not yet moved forward with the program (hereafter referred to as "Interested Participants"). Interested participants included property owners that had decided not to participate in the program, as well as those that were still interested but had not yet applied. Invitations to participate in the survey were limited to those who had completed the program between January 2017 and December 2019 with the respective goals of reducing the likelihood of inaccurate recollections due to time passed and not including those that were either currently applying for or constructing a Soak It Up feature.

*SIU Participants:* during January 2017 and December 2019, 23 properties participated in the Soak It Up program. Of these, 19 of the property owners completed the survey (83% response rate). No participants chose to opt out.

*Interested Participants:* from January 2017 to December 2019, there were 133 interested participants. Seven individuals were removed from the participant group for the following reasons:

- Three stated that they had already begun construction for a Soak It Up feature without having applied for the program due to confusion about the program requirements.
- Two included incorrect or bad contact information.
- One property owner did not actually qualify for the program and was miscoded in CityWorks as an approved applicant.
- One had already applied for the program under his spouse's name.

A total of 126 properties had passed an initial site inspection and were eligible to participate in the survey. Of these, two individuals opted out and 71 property owners completed the survey (56% response rate).

**Method.** Two surveys were developed – one for SIU Participants and the other for Interested Participants. The surveys were essentially identical, with slight language and verb tense differences used to best frame questions for those that had completed the program or for those that were considering the program. One question regarding the likelihood of program participation was asked only of Interested Participants. Copies of both surveys are provided in Appendix A and B. Participants were contacted either by phone or email, depending on what contact information the City had on file. Whenever possible, email contact was made and a link to the survey was included. Three attempts via email were made. For those with phone information only, two calls were made, and participants were provided with the option of completing the survey by phone or online. Phone calls and emails took place between April and May 2020.

## Results

**Demographics.** In effort to better understand who is currently reached by the Soak It Up Program, demographic data was collected. Importantly, many households in both participant groups contain two or more decision-makers, but surveys only reflect input from one decision-maker per household. Additionally, the sample size of the SIU Participant group is somewhat small ( $n=19$ ). For these reasons, results should be interpreted with caution. Descriptive statistics for all demographic data are provided in Tables 1 – 7.

Several important insights from the demographic data emerge:

- 1) Caucasian/White identifying respondents are overrepresented in both participant groups and all other race/ethnic groups are underrepresented compared to the [2019 U.S. Census Bureau data](#) for the City of Shoreline (Table 4).
- 2) Program participants are more likely to have a higher household annual pre-tax income (89.4% above \$76,000 annually). Reported income for Interested Participants shows a similar pattern, although is spread slightly more across income brackets (67.6% above \$76,000 annually; Table 6). Shoreline's median household income in 2019 was \$80,489, indicating program participation is skewed towards higher-income households.
- 3) The average number of years living in one's current household for both participants groups was 5 years (median), with 52% of SIU Participants and 52.8% of Interested Participants occupying their homes for 5 or less years (Table 7).

Table 1

Interested Participants		SIU Participants	
Age group	Percentage	Age group	Percentage
18-35	11.3%	18-35	31.6%
36-50	40.8%	36-50	36.8%
51-65	32.4%	51-65	21.1%
Older than 65	12.7%	Older than 65	10.5%

Table 2

Interested Participants		SIU Participants	
Sex	Percentage	Sex	Percentage
Female	64.8%	Female	63.2%
Male	28.2%	Male	36.8%

Note: A small percentage of participants chose to not provide some demographic data. Percentages for demographic breakdowns do not equal 100% due to missing data.

Table 3

Interested Participants		SIU Participants	
Household Composition	Mean (SD)	Household Composition	Mean (SD)
Adults	2.09 (0.78)	Adults	1.84 (0.50)
Children under 18 years	0.75 (0.87)	Children under 18 years	0.72 (1.02)

Table 4

Interested Participants			
Race/Ethnicity	Evaluation Percentage	U.S. Census Bureau 2019 Percentage	Difference
American Indian or Alaskan Native	0%	0.5%	-0.5%
African American or Black	1.4%	5.9%	-4.5%
Asian American or Asian	11.3%	15.1%	-3.8%
Hispanic or Latinx	2.8%	7.7%	-4.9%
Native Hawaiian or other Pacific Islander	0%	0.7%	-0.7%
White of Caucasian	83.1%	70.2%	+12.9%
Another race	3.3%	--	--

Table 5

SIU Participants			
Race/Ethnicity	Evaluation Percentage	U.S. Census Bureau 2019 Percentage	Difference
American Indian or Alaskan Native	0%	0.5%	-0.5%
African American or Black	5.3%	5.9%	-0.4%
Asian American or Asian	10.5%	15.1%	-4.6%
Hispanic or Latinx	0%	7.7%	-4.9%
Native Hawaiian or other Pacific Islander	0%	0.7%	-0.7%
White of Caucasian	78.9%	70.2%	+8.7%
Another race	5.3%	--	--

Table 6

Interested Participants		SIU Participants	
Annual Pre-tax Income	Percentage	Annual Pre-tax Income	Percentage
\$50,000 or less	7.0%	\$50,000 or less	5.3%
\$51,000 - \$75,000	11.3%	\$51,000 - \$75,000	5.3%
\$76,000 - \$100,000	12.7%	\$76,000 - \$100,000	26.3%
\$101,000 - \$125,000	14.1%	\$101,000 - \$125,000	10.5%
\$125,000 or more	40.8%	\$125,000 or more	52.6%

Table 7

Interested Participants			SIU Participants		
Years in home (Median)	Minimum	Maximum	Years in home (Median)	Minimum	Maximum
5 years	1 year	48 years	5 years	2 years	38 years

**Water quality beliefs.** When understanding our current Soak It Up audience, one characteristic that likely drives interest and participation is water quality perceptions. Data for Interested Participants and SIU Participants was collected to explore whether these individuals espouse generally high perceptions of water quality problems and personal impact on water quality.

Participants were asked how polluted they believed Shoreline's waterways, including Puget Sound, to be on a scale of 1, *completely overrated*, to 5, *a very significant of a problem*." Both participant groups ranked water pollution as a fairly significant problem (Table 8).

Table 8

Group	Mean (SD)
SIU Participants	4.37 (0.68)
Interested Participants	4.17 (0.83)

A second water quality opinion question asked the degree to which personal actions influence local waterways, including Puget Sound on a scale of 1, *absolutely no impact*, to 5, *a very significant impact*. Endorsement of this statement was slightly less, but still above average, indicating that participants in both groups believe that to some extent, their personal actions influence local water quality (Table 9).

Table 9

Group	Mean (SD)
SIU Participants	3.84 (0.90)
Interested Participants	3.69 (0.99)

Taken together, these results suggest that both Interested Participants and SIU Participants both believe local water pollution is a significant issue and that personal actions can influence it. Future research could compare these results to Shoreline's general population for a more accurate understanding of water quality perceptions among program participants.

**Feature interest.** Soak It Up offers rebates for two types of features: rain gardens and native vegetation landscaping. While Interested Participants initially appear interested in rain gardens and native vegetation landscaping equally (Table 10), it is far more common for native vegetation landscaping to be installed among SIU Participants (Table 11). This suggests that barriers to rain garden installation may be more substantial.

Table 10

Interested Participants	
Interested in installing:	Percent
Rain Garden	16.90%
Native Vegetation Landscaping	18.31%
Both	64.79%

Table 11

SIU Participants	
Installed:	Percent
Rain Garden	15.79%
Native Vegetation Landscaping	57.89%
Both	26.32%

**Barriers.** To address barriers to program participation, participants were asked to rate a series of issues commonly cited in green stormwater infrastructure (GSI) rebate programs. Barriers were rated on a scale of 1, *not an issue*, to 5, *makes it very difficult to participate*. Additionally, participants were invited to comment on any additional barriers they experienced. Barriers are ranked twice; first, to compare barriers experienced by Interested Participants compared to SIU Participants and, secondly, to compare barriers experienced based on the feature type (rain garden, native vegetation landscaping, or both). Finally, follow-up analyses explored the role of income on income-related barriers.

## **Barriers: Interested Participants vs SIU Participants**

Table 12 ranks each barrier separately for Interested Participants and for SIU Participants. Each group offers a unique perspective on barriers to the program. Interested Participants have completed an initial site assessment and qualify for the program but have not yet applied. Interested Participants can speak to barriers that may be preventing their participation – barriers that may not be captured by SIU Participants who were able to successfully navigate the program.

Interested Participants represent those who (1) are planning on moving forward with the program at a later date, (2) are unsure if they will be able to move forward with the program, and (3) do not plan to participate in the program. Therefore, Interested Participants are in different planning phases, and, as a result, some of the barriers ranked may be estimations for how difficult they expect the barriers to be. On the other hand, SIU Participants speak to barriers faced while completing the program. Both perceived and actual barriers provide valuable program information – actual barriers, in fact, make it more difficult to complete the program and deter participation. Perceived barriers make the program appear more difficult to complete than it might be and, likewise, deter participation.

There is considerable overlap for both participant groups, with four barriers ranking in the top five for each group:

- Constructing the garden
- Designing the garden
- The upfront cost
- Time required of the project all rank as top five barriers for both groups.



Table 12

Interested Participants	Mean (SD)	Soak It Up Participants	Mean (SD)
Constructing the garden	3.07 (1.36)	Designing the garden	2.53 (1.31)
Designing the garden	3.03 (1.39)	The upfront cost	2.47 (1.35)
Wasn't sure if the rebate would cover enough of the cost	2.68 (1.47)	Constructing the garden	2.32 (1.34)
Time required of the project	2.62 (1.14)	Maintaining the garden	2.16 (0.9)
The upfront cost	2.56 (1.37)	Time required of the project	2.11 (1.1)
The 10-year covenant	2.26 (1.48)	Wasn't sure if the rebate would cover enough of the cost	2.11 (1.2)
Difficulty finding a contractor	2.17 (1.3)	The 10-year covenant	2.00 (0.88)
Maintaining the garden	2.00 (1.13)	Not sure garden would look good	2.00 (1.4)
The application was confusing	1.84 (1.04)	The application was confusing	1.58 (0.9)
Not sure garden would look good	1.58 (1.03)	Difficulty finding a contractor	1.42 (0.96)
Worried about what my neighbors would think	1.07 (0.35)	Worried about what my neighbors would think	1.11 (0.5)

When barriers ratings are compared between groups, Interested Participants rank finding a contractor (Table 13) and constructing the garden (Table 14) as significantly more challenging issues than do SIU Participants.

Table 13

Difficulty finding a contractor	N	Mean (SD)	t (df)	Significance
Interested Participant	69	2.17 (1.31)	-2.34(86)	$p = 0.2$
SIU Participant	19	1.42 (0.96)		

Table 14

Constructing the garden	N	Mean (SD)	t (df)	Significance
Interested Participant	68	2.17 (1.31)	-2.15(85)	$p = 0.3$
SIU Participant	19	1.42 (0.96)		

Strategies to increase program participation should address both the top ranked barriers and those that appear to be significantly more challenging for Interested Participants.

### **Barriers: Rain Garden vs. Native Vegetation Landscaping**

Table 15 compares barriers by feature type (rain garden, native vegetation landscaping, or both) to examine the extent to which barriers differ between each feature. Generally, reported barriers for rain gardens were rated as more difficult than were barriers to native vegetation landscaping. Interestingly, for participants that indicated that they were interested in ( $n = 46$ ) or had installed ( $n = 5$ ) both a rain garden and native vegetation landscaping, all barriers were rated as more difficult compared to either rain gardens or native vegetation landscaping. It may be that this represents a number of Interested Participants that wanted to participate in the program but had not started the planning or research necessary to install the feature. A follow-up analysis looking at only Interested Participants interested in both features reported that the barriers to participation were higher for all issues except for maintenance, concern over the look of garden, and concern for what neighbors might think.

Table 15

<b>Rain Garden</b>	<b>Mean (SD)</b>	<b>Native Vegetation Landscaping</b>	<b>Mean (SD)</b>	<b>Both</b>	<b>Mean (SD)</b>
Constructing the garden	3.00 (1.31)	Constructing the garden	2.42 (1.32)	Designing the garden	3.26 (1.36)
Designing the garden	2.73 (1.49)	Designing the garden	2.38 (1.21)	Constructing the garden	3.13 (1.41)
The upfront cost	2.67 (1.30)	Time required of the project	2.25 (1.19)	Wasn't sure if the rebate would cover enough of the cost	2.82 (1.52)
Wasn't sure if the rebate would cover enough of the cost	2.33 (1.35)	Wasn't sure if the rebate would cover enough of the cost	2.13 (1.19)	The upfront cost	2.78 (1.40)
Time required of the project	2.20 (1.21)	The upfront cost	1.96 (1.16)	Time required of the project	2.73 (1.36)
Difficulty finding a contractor	2.00 (1.20)	The 10-year covenant	1.92 (1.14)	The 10-year covenant	2.42 (1.41)
The 10-year covenant	1.93 (1.53)	The application was confusing	1.88 (1.19)	Difficulty finding a contractor	2.24 (1.36)
Maintaining the garden	1.86 (1.06)	Maintaining the garden	1.79 (0.78)	Maintaining the garden	2.21 (1.20)
The application was confusing	1.53 (0.64)	Difficulty finding a contractor	1.54 (1.02)	Not sure garden would look good	1.86 (1.26)
Not sure garden would look good	1.46 (0.92)	Not sure garden would look good	1.42 (0.93)	The application was confusing	1.81 (1.01)
Worried about what my neighbors would think	1.00 (0.26)	Worried about what my neighbors would think	1.00 (0.01)	Worried about what my neighbors would think	1.13 (0.49)

Across feature types, the top five barriers were the same, albeit ranked in slightly different orders:

- Constructing the garden
- Designing the garden
- The upfront cost
- Wasn't sure if the rebate would cover enough of the amount
- Time required of the project

These barriers also top the ranks for both participant groups, as detailed earlier. These results suggest that survey respondents view these barriers as significant regardless which feature, they are constructing and regardless of whether they are in the program planning stage or have completed the program.

### **Barriers: lower income households vs. higher income households**

Because the upfront cost and concern that the rebate would not cover enough the project cost were ranked in the top five concerns Interested Participants, a follow-up analyses explored if these costs were prohibitively expensive to specific income brackets. Please note that because the sample size of households with an annual pre-tax income of less than \$75,000 is relatively small, these findings should be interpreted with caution.

Interested Participants with a pre-tax income of \$75,000 or less indicated that the upfront cost of installing a Soak It Up feature was a significantly greater barrier than did households with a pre-tax income of \$76,000 or more (Table 16). Interestingly, no significant difference was detected for rebate amount between any income groups (Table 17).

Table 16

Upfront cost	N	Mean (SD)	t (df)	Significance
Pre-tax income <\$75,000	13	3.38(1.50)	2.53(59)	$p = 0.14^*$
Pre-tax income > \$76,000	48	2.35(1.25)		

Table 17

Concern rebate was inadequate	N	Mean (SD)	t (df)	Significance
Pre-tax income <\$75,000	13	3.23(1.64)	1.47(59)	$p = ns$
Pre-tax income > \$76,000	48	2.56(1.40)		

These findings suggest that, for lower-income households, the upfront cost is still a substantial barrier to program participation.

Interestingly, concern over whether the rebate amount would cover enough of the Soak It Up installation did not differ between income groups. Because this barrier is ranked highly for the Interested Participant group, it could be that the rebate is considered insufficient compared to the project's total cost. Alternatively, it could be that Interested Participants were unsure of the total cost and, therefore, unsure if the rebate would be substantial.

**Barriers: Qualitative Themes.** Survey respondents had the opportunity provide additional comments about the barriers they faced. Comments were thematically organized and are reported below. Next to each barrier theme, the number in the parentheses indicates the number of times a comment addresses that theme. Only themes with two or more comments are reported here. All comments are available in Appendix C.

- **Site or feature qualifications too restrictive (25).** Most participants reported that program restrictions prevented installation of either the feature they were interested in or required the feature to be placed in an area they did not prefer.
- **Technical assistance (8).** Participants noted specific issues with design, construction, connecting with vetted contractors, and pricing out the project. Requests for handholding, fixed options, or a more “turnkey” style program were made.
- **Ten-year covenant (7).** The covenant was a deal breaker for several participants, especially for those that were considering selling their homes within the covenant timeframe.
- **Competing priorities (7).** Installing either a SIU rain garden or native vegetation landscaping is relatively time-intensive and other activities or projects took priority.
- **One-year timeframe too limited (5).** Especially given the need to time planting seasonally, the one-year time frame between applying for the program and passing post-instruction was too limited. One participant noted they had been advised that the timeline could be extended, so long as the participant proactively communicated their status and needs.
- **Application too much work (3).** As one participant put it, “Time spent with a shovel isn't time at a computer printing and filling out papers.”
- **Maintenance requirements unclear (2).** Participants noted that there was a lack of information about what maintenance would entail, especially in light of the covenant.
- **Rebate insufficient (2).** One respondent noted that the amount was not enough to cover the costs, a comment heard anecdotally by program managers. There may be a better way to communicate the rebate is meant to help, not cover all costs. Another respondent noted the incentive was too low to really increase participation.
- **COVID-19 (2).** Social distancing and health concerns prevented projects from moving forward.

**Benefits.** Participants were asked to rate how important six different reasons were to their interest or participation in the Soak It Up program on a scale of 1, *not at all important*, to 5, *very important*. Exploring the relative importance of each of these reasons can elucidate what motivates property owners to participate in the program.

### **Benefits: Interested Participants vs. SIU Participants**

For both groups, three benefits ranked highly (Table 18).:

- Desire to reduce pollution in local waterways
- Desire to beautify one's yard
- Desire to create wildlife habitat

Interestingly, the remaining three benefits show more variance in responses from participants, likely because these benefits are subject to stronger situational differences among participants. The benefits of improving the look of the neighborhood or setting an example should be realized by those who intend to place Soak It Up installations in publicly visible areas of their property. Similarly, the benefit of mitigating flooding or ponding on property is likely ranked as a more important benefit to those that have drainage issues. Future evaluations could include questions about garden placement and existing drainage problems to better understand how motivating these benefits are to program participation.

Table 18

<b>Interested Participants</b>	<b>Mean (SD)</b>	<b>Soak It Up Participants</b>	<b>Mean (SD)</b>
Desire to reduce pollution in Shoreline's waterways and Puget Sound	4.51 (0.77)	Desire to beautify my yard/landscape	4.63 (0.50)
Want to create wildlife habitat	4.08 (1.18)	Desire to reduce pollution in Shoreline's waterways and Puget Sound	4.32 (0.95)
Desire to beautify my yard/landscape	4.06 (0.95)	Want to create wildlife habitat	4.11 (1.15)
Want to set an example	3.55 (1.27)	Want to set an example	3.56 (1.29)
Want to improve the look of the neighborhood	3.00 (1.37)	Want to improve the look of my neighborhood	3.42 (1.22)
Prevent flooding/ponding on my property	2.80 (1.56)	Prevent flooding/ponding on my property	2.79 (1.75)

### Benefits: Rain Garden vs. Native Landscaping

Again, desire to reduce pollution in local waterways, desire to beautify one's yard, and desire to create wildlife habitat ranked as the top benefits and larger variances are observed for the other three benefits, which likely are influenced strongly by context (Table 19).

Table 19

Rain Garden	Mean (SD)	Native Vegetation Landscaping	Mean (SD)	Both	Mean (SD)
Desire to reduce pollution in Shoreline's waterways and Puget Sound	4.87 (0.35)	Desire to beautify my yard/landscape	4.38 (0.82)	Desire to reduce pollution in Shoreline's waterways and Puget Sound	4.59 (0.70)
Want to create wildlife habitat	4.33 (0.62)	Want to create wildlife habitat	4.04 (1.33)	Desire to beautify my yard/landscape	4.18 (0.91)
Desire to beautify my yard/landscape	3.87 (0.99)	Desire to reduce pollution in Shoreline's waterways and Puget Sound	3.96 (1.00)	Want to create wildlife habitat	4.04 (1.22)
Want to set an example	3.47 (1.13)	Want to set an example	3.61 (1.16)	Want to set an example	3.55 (1.38)
Prevent flooding/ponding on my property	3.20 (1.78)	Want to improve the look of my neighborhood	3.58 (1.25)	Want to improve the look of my neighborhood	3.04 (1.34)
Want to improve the look of my neighborhood	2.47 (1.30)	Prevent flooding/ponding on my property	2.29 (1.40)	Prevent flooding/ponding on my property	2.92 (1.59)

**Benefits: Qualitative Themes.** Survey respondents had the opportunity provide additional comments about benefits that drew them to the program. Comments were thematically organized and are reported below. Next to each benefit theme, the number in the parentheses indicates the number of times a comment addresses that theme. Only themes with two or more comments are reported here. All comments are available in Appendix C.

- **Environmental benefit (14).** Participants reported desire to support an array of environmental goals, including water quality and reducing flow, supporting native species, and creating wildlife habitat.
- **Desire to eliminate lawn (6).** Some participants saw the program as an opportunity to remove their high-maintenance, water-intensive lawns.

- **Wanted to change landscape (5).** Program was a good opportunity to add new native plants and to recreate landscape.
- **Wanted a low-maintenance garden (4).** As one participant stated, “Wanted a yard where I had to pull weeds and that was pretty much it.”
- **Community benefit (3).** A few participants noted that the program allowed them to be engaged with the broader community.
- **Enjoy gardening (3).** A few participants expressed a love for gardening.
- **Address water issues (2).** Hope that the program could address significant drainage issues.

**Additional GSI feature interest.** Soak It Up could consider offering rebates for other GSI features. To determine if there was an appetite for this among property owners, both participant groups were asked if there were any additional stormwater management landscape features that they would be interested in. It’s important to note that participants may not be familiar with all the options available; indeed, only a few options were mentioned. All suggestions are presented in Appendix C.

- **Rain catchment systems, including rain barrels and cisterns (33).**
- **Anything that helps with ponding/flooding (6).**
- **Permeable pavement (5).**
- **Rain chains/disconnect downspouts (2).**

**Additional feedback.** At the end of the survey, participants were invited to provide any additional feedback that they had for the program. All recommendations are presented in Appendix C.

- **Technical assistance (14).** Again, participants described the barriers to different technical aspects of the program, including design, construction, pricing the project, and maintenance. As one participant stated, “The rebate wasn't the most important aspect [of the program].”
- **Rebate (6).** Recommendations included keeping the rebate substantial, considering equity issues, and warning participants that the rebate counts as taxable income.
- **Promotion (5).** Wonderful recommendations for various ways to promote the program were shared, including tabling opportunities at specific events and garden tours (walking and virtual).
- **Communicate program processes better (5).** Eligibility and program processes not clear enough for some participants – a difficult first step in program participation.
- **More flexibility (2).** Requests for more flexibility in site eligibility and more GSI options.
- **Covenant (2).** Covenant discouraged some applicants.



- **Kudos (12).** Many praises for both the way the program is managed and its impact. Many thanks to Cameron Reed for being so knowledgeable and responsive

### **Recommendations for Program Adaption.**

***Recommended changes to implement by April 1, 2021 (\$5.C.2.a.ii.(d)).*** Notable barriers to program participation related predominantly to technical assistance issues. Garden design, construction, pricing out the project to determine if rebate sufficiently offset costs, and time required of the project ranked as top barriers by Interested and SIU Participants. These barriers were also substantial regardless of Soak It Up feature type. Additionally, Interested Participants deemed finding a contractor to be a significant barrier.

The current program offers technical assistance in the form of site consultations and printed resources to help with rain garden design and construction, native plant selection, and recommendations for local nurseries and GSI contractors. To provide additional support, the City of Shoreline should offer a workshop that addresses these technical assistance barriers. This model is used by other local jurisdictions, including the [City of Everett](#). The workshop should consider the following elements:

1. Program overview and processes
2. Overview of rain gardens and native vegetation landscaping and their benefits as stormwater facilities
3. Siting rain gardens and native vegetation landscaping beds
4. Designing rain gardens and native vegetation landscaping beds
5. Constructing rain gardens and native vegetation landscaping beds
6. Sharing GSI contractor and nursery resources
7. Maintaining rain gardens and native vegetation landscaping beds using natural yard care techniques
8. Advertise opportunity to participate in a community “learn and do” rain garden and/or native vegetation landscape project

The final suggested element, a “learn and do” rain garden and/or native vegetation landscape project invites volunteers interested in building their own rain garden or native vegetation landscaping bed to help construct and plant a Soak It Up feature in a community property. Such an experience allows interested program participants to get hands-on experience in GSI construction, further reducing some of the technical assistance barriers. “Learn and do” workshops can also help address equity concerns within the program. Census data indicated that the Soak It Up program lacks the racial and ethnic representation we would expect in the City of Shoreline. “Learn and do” workshops can prioritize projects that take place at valuable and visible gathering places for minority communities (e.g., churches, schools). Prioritizing projects in these communities could help to build positive relationships between these communities and the Soak It Up program or, even more broadly, the City of Shoreline.

Equity work should also include a better understanding of the diverse communities not currently engaged with the Soak It Up program. Follow-up focus groups should be conducted in effort to build relationships and better understand barriers, benefits, and in what ways a GSI program could support minority or overburdened communities in Shoreline.

A detailed strategy and timeline to implement these recommendations, along with a program evaluation plan, will be developed by February 1, 2021 (per S5.C.2.a.ii.(c)).

**Additional program modifications to explore.** This evaluation brought to light other opportunities to strengthen the Soak It Up program. Outside of permit requirements, the following recommendations should be considered for implementation.

- Increase program's environmental impact by adding additional GSI options to the Soak It Up program or by offering a related program that teaches residents how to incorporate less- technical GSI projects into their landscape (e.g., disconnecting downspouts, connecting to rain barrels, cisterns). Thirty-five percent of Interested Participants reported not moving forward with the program because a Soak It Up feature could not be placed and constructed in a desirable way on their property. Offering additional GSI options would increase flexibility for property owners.
- Increase program's environmental impact by offering a more significant incentive to older commercial properties in need of retrofits, including ageing school district campuses. Again, this work may be more suited by offering a program related to, but separate than Soak It Up.
- Increase participation among lower-income households. Lower-income households were less likely to participate in the Soak It Up program with the upfront cost presenting as a significant barrier. Strategies to make program more available to lower-income households include:
  - Develop a grant program for income-qualified households, to eliminate the need for upfront costs. Examples of existing programs include the [RainWise Access Grant](#) and the [GSI MiniGrant Program](#)
  - Develop a loan program for income-qualified households, similar to the [RainWise Access Pilot Loan program](#).
  - Develop a program that allows for incremental rebate payments, as work is accomplished.
  - Develop recommendations for ways to reduce project costs, including native plant, soil, and mulch resources (e.g., King Conservation District bare root sales, ChipDrop).
  - Make additional funds available for income-qualified homes to help with overall cost
- Increase environmental impact by targeting Soak It Up installations in SWMP recommended basins, critical waterways, or upstream of flood prone areas.
- Consider promoting program among new homeowners and local environmental groups to

increase program participation. Data suggests that new homeowners (under 5 years in home) are most likely to participate in the program. Similarly, respondents commonly mention environmental motives for participating in program. This finding is not surprising but underscores the opportunity to connect with existing environmental groups to help promote the program.

- To help promote program and address barrier of garden design, develop a virtual tour or photo album of existing Soak It Up projects.

**Conclusion.** The Soak It Up Program Evaluation used social marketing research methods to identify the benefits of and barriers to Soak It Up program participation and was conducted in compliance with the [Western Washington Phase II Municipal Stormwater Permit](#) education and outreach requirements (S5.C.2.a.ii.(b)). Findings indicate that greater technical assistance support could increase program participation and that racial and ethnic representation in the program is less than expected, given Shoreline's demographics. Recommendations for program adaptations are provided as a first step towards developing a strategy and schedule to more effectively implement the existing Soak It Up program (S5.C.2.a.ii.(c)). While these recommendations alone adequately meet permit compliance, additional recommendations were made to capture data insights that should be considered by the City, pending time and resources.



## Appendix A

### Soak It Up Evaluation Interested Participants

*Hello, this is your name with the City of Shoreline. I am calling for name.*

**[Give them an opportunity to respond].**

*Hi - I am calling about the Soak It Up Rain Garden and Native Landscaping program. In X year, you completed a free site consultation for the program. [Give them chance to acknowledge this].*

*I'm calling residents like you that passed the initial site inspection, but chose not to move forward with the program. I'm hoping you will participate in a short survey that will help us understand what made it difficult to participate in the program, as well as what drew you to the program in the first place. We'll use this information to help make the program easier for other residents to participate and more valuable. You can complete the survey by phone or online.*

**[If they say no, thank them for their time and remove them from the call list]**

**[If they ask how long it takes, tell them 10 minutes for most, although longer for people with a lot to say]**

**[If they say, I can't help you because they didn't complete the program, say:]** *We're actually specifically interested in talking with people who only completed the site consultation. Understanding what drew you to the program and anything you found difficult about the program can help us strengthen it.*

**[If they say yes to phone survey:]** *Great! Thank you for your willingness to participate. Please know that your responses will be completely confidential and you can skip any question you do not want to answer.*

**[If they say yes to online survey, ask for their email and make a note in your tracking log].**

*To start, I have two general opinion questions about local water quality before diving into some program-specific questions:*

How significant of a problem is pollution in local waterways - like streams, rivers, lakes, and Puget Sound- on a scale of 1, <i>completely overrated</i> , to 5, a <i>very significant of a problem</i> .				
Completely overrated			Very significant problem	
1	2	3	4	5

To what degree do the actions that you and your family take affect the health of local streams, rivers, lakes, and Puget Sound on a scale of, 1, <i>absolutely no impact on local waterways</i> , to 5, a <i>very significant impact on local waterways</i> .				
Absolutely no impact			Very significant impact	
1	2	3	4	5

For the Soak It Up Program, were you interested in installing a rain garden, native vegetation landscaping, or both?		
Rain Garden	Native Vegetation Landscaping	Both

**I'm now going to read a list of issues that make it difficult for some people to participate in the Soak It Up Program. For each issue, please tell me the extent to which it is an issue for you, from 1, *not an issue*, to 5, *makes it very difficult to participate*:**

	Not an issue				Very difficult to participate
Wasn't sure if the rebate would cover enough of the cost	1	2	3	4	5
The upfront cost	1	2	3	4	5
The 10-year covenant	1	2	3	4	5
Difficulty finding a contractor	1	2	3	4	5
The application was confusing	1	2	3	4	5
Designing the garden	1	2	3	4	5
Constructing the garden	1	2	3	4	5
Maintaining the garden	1	2	3	4	5
Time required of the project	1	2	3	4	5
Not sure garden would look good	1	2	3	4	5
Worried about what my neighbors would think	1	2	3	4	5
Is there anything else that made it difficult for you to participate?					

**For the reasons below, please rate how important each was to interest in the Soak It Up Program, on a scale of your 1, *not at all important*, to 5, *very important*.**

	Not at all important				Very important
Desire to reduce pollution in Shoreline's waterways and Puget Sound	1	2	3	4	5
Desire to beautify my yard/landscape	1	2	3	4	5
Want to set an example	1	2	3	4	5
Prevent flooding or ponding on my property	1	2	3	4	5
Want to improve the look of my neighborhood	1	2	3	4	5
Want to create wildlife habitat	1	2	3	4	5
Are there any other reasons you wanted to participate in the Soak It Up Program?					

**On a scale of 1, *not at all likely*, to 5, *very likely*, how likely is it that you will participate in the Soak It Up Program within the next two years:**

Not at all likely				Very likely	
1	2	3	4	5	

**Do you have any suggestions or feedback for the Soak It Up Program [OPEN ENDED]**

*Thank you. To wrap up, I have a few demographic questions. As a reminder, this information is completely confidential and will never be associated with your name. We ask these questions to get a better understanding of which residents we are serving in our City. If there is any question you do not wish to answer, please state “skip”.*

<b>I'm going to read some age ranges. Please stop me when I reach the range that applies to you.</b>									
<b>18-35</b>		<b>36-50</b>		<b>51-64</b>		<b>65 or older</b>		<b>Skip</b>	
<b>What race or ethnic groups do you belong to? You can state multiple groups.</b>									
Asian / Asian American	Black/African American	Caucasian/ White	Hispanic/ Latino	Native American, American Indian, or Alaskan Native	Pacific Islander/ Native Hawaiian	Other	Skip		
<b>How many adults live in your household?</b>									
<b>How many children under 18 live in your household?</b>									
<b>I'm going to read some income brackets. Please stop me when I reach the pre-tax income bracket that applies to your household.</b>									
<b>\$50,000 or less</b>		<b>\$51K-\$75K</b>		<b>\$76-\$100K</b>		<b>\$101-\$125K</b>		<b>Over \$125K</b>	<b>Skip</b>
<b>Gender</b>				<b>Male</b>		<b>Female</b>		<b>Other:</b>	
<b>How many years have you lived in your current residence?</b>								<b>Ski</b>	

*Thank you – that concludes our survey! Do you have any questions for me?*

*Thanks again for completing the survey. Stay healthy and take care.*



## Appendix B

### Soak It Up Evaluation SIU Participants

*Hello, this is [your name] with the City of Shoreline. I am calling for [name].*

[Give them an opportunity to respond].

*Hi - I am calling about the Soak It Up Rain Garden and Native Landscaping program that you participated in, in X year. I'm hoping you can help us make the program easier for other property owners to participate in by completing a 5-minute survey. Your answers will be completely confidential.*

[If they say no, thank them for their time and remove them from the call list]

[If they say yes:] *Great! Thank you for your willingness to participate. Please know that you can skip any question you do not want to answer.*

*To start, I have two general opinion questions about local water quality before diving into some program-specific questions:*

**How significant of a problem is pollution in local waterways - like streams, rivers, lakes, and Puget Sound- on a scale of 1, *completely overrated*, to 5, a *very significant of a problem*.**

Completely overrated			Very significant problem		
1	2	3	4	5	

**To what degree do the actions that you and your family take affect the health of local streams, rivers, lakes, and Puget Sound on a scale of, 1, *absolutely no impact on local waterways*, to 5, a *very significant impact on local waterways*.**

Absolutely no impact			A very significant impact		
1	2	3	4	5	

**For the Soak It Up Program, did you install a rain garden, native vegetation landscaping, or both?**

Rain Garden	Native Vegetation Landscaping	Both
-------------	-------------------------------	------

**I'm now going to read a list of issues that make it difficult for some people to participate in the Soak It Up Program. For each issue, please tell me the extent to which it was an issue for you, from 1, *not an issue*, to 5, *made it very difficult to participate*:**

Not an issue	Very difficult to participate				
	1	2	3	4	5
Wasn't sure if the rebate would cover enough of the cost	1	2	3	4	5
The upfront cost	1	2	3	4	5
The 10-year covenant	1	2	3	4	5
Difficulty finding a contractor	1	2	3	4	5
The application was confusing	1	2	3	4	5
Designing the garden	1	2	3	4	5

Constructing the garden	1	2	3	4	5
Maintaining the garden	1	2	3	4	5
Time required of project	1	2	3	4	5
Not sure garden would look good	1	2	3	4	5
Worried about what my neighbors would think	1	2	3	4	5
Is there anything else that made it difficult for you to participate?					

For the reasons below, please rate how important each was to your participation in the Soak It Up Program on a scale of 1, <i>not at all important</i> , to 5, <i>very important</i> .					
	Not at all important			Very important	
Desire to reduce pollution in Shoreline's waterways and Puget Sound	1	2	3	4	5
Desire to beautify my yard/landscape	1	2	3	4	5
Want to set an example	1	2	3	4	5
Prevent flooding or ponding on my property	1	2	3	4	5
Want to improve the look of my neighborhood	1	2	3	4	5
Want to create wildlife habitat	1	2	3	4	5
Are there any other reasons you wanted to participate in the Soak It Up Program?					

<b>Do you have any suggestions or feedback for the Soak It Up Program? [OPEN ENDED]</b>

*Thank you. To wrap up, I have a few demographic questions. As a reminder, this information is completely confidential and will never be associated with your name. We ask these questions to get a better understanding of which residents we are serving in our City. If there is any question you do not wish to answer, please state "skip".*

<b>I'm going to read some age ranges. Please stop me when I reach the range that applies to you.</b>							
18-35		36-50		51-65		Older than 65	
						Skip	
<b>What race or ethnic groups do you belong to? You can state multiple groups.</b>							
Asian or Asian American	Black/African American	Caucasian/White	Hispanic/Latino	Native American, American Indian, or Alaska Native	Pacific Islander/ Native Hawaiian	Other	Skip
<b>How many adults live in your household?</b>							
<b>How many children under 18 live in your household?</b>							
<b>I'm going to read some income brackets. Please stop me when I reach the pre-tax income bracket that applies to your household.</b>							
\$50K or less		\$51-\$75K		\$76-\$100K		\$101-\$125K	
						Over \$125K	
						Skip	



Gender	Male	Female	Other:	Skip
How many years have you lived in your current residence?				

*Thank you – that concludes our survey! Do you have any questions for me?*

*Thanks again for completing the survey. Stay healthy and take care.*

## Appendix C

### Barriers qualitative data:

- **Location of rain garden or other site issues/restrictions.**
  - Ponding depth requirement and having a water meter in the middle of the area (we ended up having to build two ponding areas)
  - Yes, the requirement for the size of the rain garden was twice what was recommended by my contractor and gardener. Which end up costing me a lot more money. My rebate was VERY slow to come.
  - My yard was not a suitable candidate per the city rep
  - The position of where the rain garden needed to be would require changing the design of the garden and removing existing garden beds. Due to slope in yard. The cost was a bit of a shock... but did seem like it was in the reality of landscaping cost. The grant money helped and was willing to deal with cost because it is an environmental benefit.
  - Wasn't a good spot for the garden. Identified one spot that would work but it was right in the middle of the yard.
  - After consultation on where it could possibly go, I decided it wasn't practical for our property.
  - Difficult project in terms of space and engineering required.
  - Location requirements for garden
  - My front yard where I wanted to put in rain garden is too close to a slope and is deemed a "critical area"
  - The inspector was great, but there was a minimum square footage to qualify for the program. But their lot was small and meeting that minimum wouldn't work. Also had also made some changes in the landscape like putting in woodchips which prevented those areas from qualifying.
  - Some of the rules, like what is and isn't considered impervious, made it difficult or impossible to participate. We have very little grass, and the gravel hardscaping we have was not something we were interested in removing. Large parts of our yard were sod that was covered, by the previous owners, with landscape fabric and beauty bark (not wood chips) that we wanted to rehabilitate by removing the landscape fabric, improving the soil health, and adding mainly native plants. We were told that, although the landscape fabric want healthy and making the changes we wanted would be better for the ecological health of our yard, it didn't meet the criteria to get the grant. It's a shame, because as we continued removing the bark and fabric, we discovered huge swaths of tarp under some of it, further blocking the drainage and negatively impacting the soil health. If the rules were different, we would have definitely applied.
  - The minimum requirements for square footage! I do have a big backyard, a lot of it is just lawn but even so, the amount of space that I would have to dedicate to the rain garden alone was the primary reason I couldn't participate. Along with the size comes the cost of filling in the large rain garden with all those plants. So if there were another option, maybe with a smaller rebate, that included a smaller square footage requirement, I would be more doable.

- They have a setback because of a swale. They wanted to incorporate with swale, but were worried about weeds, overgrown swale and making a rain garden work with that. Swale has only been cleaned out once - everyone on street has been cleaned out. They are one of the only ones that have not filled in their swale. Would like them to think about incorporating the City land and make sure they maintain it.
- Locating the garden
- I was worried about doing any digging or excavating because I'm scared I would disturb the root systems of our established Douglas Fir trees. We hired a consultant to come out and discuss rain garden options, among other things. He recommended having a certified arborist come out to give his/her expertise. Need to budget for that consultation before moving forward.
- The calculations - her rain garden would be 1 foot wide due to the set back requirements.
- Designing - where to place. Issue with the overflow impacting their neighbor. No way to prevent it from impacting the neighbor. The overall cost was a bit higher than what they had thought - if there were no other issues, they would have gone ahead with it. A lot of the cost was due to having to remove clay soil.
- Turned out they were not eligible - wasn't enough space or locations that were eligible were not large enough.
- After they found someone to help, they found out the drainage was not good. It would require a lot more work to put a rain garden in because of this.
- got sidetracked on to a massive water catchment system - The best location for a rain garden was both too close to a retaining wall and on a strip (tract) of land owned by someone else, but maintained by me and adjacent to mine.
- Website was not updated - found out about rain gardens through John Ruby. Had a \$500 consultation with him and then found out there were changes that did not allow the garden to be placed in the back yard. Also required a sign. Was headache after headache. Backyard was flooding and needed the rain garden there
- I just didn't have enough space for the rain garden without taking over my whole front yard.
- The site visitor said I was required to dig to a depth of 18-24" in my claypan soil; he would be using a soil probe to measure the depth of loosened soil. I said I planned to remove the gravel and use cardboard/woodchip mulching to kill the weeds and prepare the area for planting. He said my plan would give me basically the same results, but would not qualify for the rebate program. In the end, I decided to go with my plan and have seen good results, even though the project did not qualify for the rebate program. I also installed mini rain gardens, which would not qualify for the rain garden program, but are doing well so far.
- We did not qualify. Not enough square footage. Also, part of the space was apparently not our property, but was an asphalt strip between our yard and the road.
- Sorry, I don't recall what the total cost for us was going to be. The issue we ran into was wanting to be sure the dictated placement and amount of square footage it would take up didn't detour ours and our children's use of the area. We want to keep some lawn for playing in and were hoping to tie the rain garden in where we have steeper, currently unusable, area. I think that coupled with the time, application, cost, etc. etc.. just became a little overwhelming.
- **One year time frame too limited.**
  - Two small children and two working parents Finding the time to design, contract and install made it impossible this year.

- It's a little bit hard to remember now, because I was very attracted to the program and really liked everyone I interacted with associated with the program. I think that my main concern was that I couldn't pull it all off quickly enough to qualify that year, and the funding beyond that was uncertain. For us, this project needed to be part of an overall landscaping overhaul in our back yard. We just weren't ready to do it all at once like we would have had to. What I am doing now is slowly increasing my garden space one section at a time, manually cultivating each section. A lot of the things I plant are not native. I don't remember how much of an issue that would have been for my particular project.
- I have tried to be conscientious & introduce some native & drought resistant plants & be aware of erosion & rain shed. I was told I did not qualify to participate because I had already done some things & the yard I had remaining wasn't big enough. I did not feel there was either expertise or financial help available to improve.
- I was mainly concerned that I could create and prep all of the flower beds, purchase plants, and get them all planted within the allotted timeframe. Cameron mentioned there was some flexibility with the timeframe which I appreciated, but then life happened and I haven't had the time to re-consider the program or even if it still existed.
- Also timing with planting season - if you miss planting season, then it's even more difficult.
- **Covenant**
  - The 10 year covenant was the driving factor for not going forward. The amount of money we were going to get to compensate for the project didn't warrant 10 years in my opinion.
  - Nearing retirement, want option to move and worried about covenant limiting ability to sell home. Could decrease value of home. 5 year contract might be more palatable ... 10 years too long.
  - Was primarily the 10 year agreement. We knew that we'd be moving within a few years and did not want to try to sell the house with the agreement. We did eventually move to a bigger house in 2019.
  - will probably move in the next couple of years and covenant is a big deterrent.
  - Covenant - lack of flexibility in them being able to do what they wanted. Having to sign a covenant didn't seem worth the money. If they wanted to change it, they wanted the flexibility to do so. 10 years too long. Also, there was some standard that was too rigid - didn't allow them to do it the way they wanted. Nothing on earth they want to be tied to in 10 years - especially garden. If some changes were allowed, they would be more open to it. Would be okay with it if there was a 1-year covenant with the same restrictive covenant. Their specific concern was wanting option to repave a section, if needed (project was slated for their driveway). Also concern that they might not be able to sell house with a covenant on it.
  - I was renting the house, which is a block from the soon-to-be-built transit center. The owners didn't think that it would be worth the money when the house will likely be demolished before 10 years' time.
  - 10 year commitment
- **Competing priorities.**
  - I planned out too much without realizing how much I had to do before getting to that project. I'm hoping to take advantage of it in the near future, though.
  - General inertia, travel plans.

- I'm planning to do the work myself, but don't really have the time right now. Might look into finding a contractor again.
- Just not ready yet. The house remodel is delayed, and I am planning to install the garden after the remodel is complete or nearly complete - maybe this fall.
- Teenagers made it difficult -time suck.
- Not enough time between work and school.
- Competing with other house projects. Their project would require much more planning than most, as well.
- **Technical assistance needs: Design**
  - I wish there would've been more examples to reference. I don't love how ours turned out...it was the first real landscaping project we've done and I didn't feel that the contractor we chose was very helpful in that regard. If the program maybe had some photos of design ideas that would be pretty cool.
  - Coming up with a planting plan seems very cumbersome, especially at the initial stages of a project when an application is due. It would have helped simply to ask for assurance that native plants would be selected.
  - Mostly I got to the design piece and hit a wall as far as knowledge and motivation. I'm still very interested in a rain garden and hope to get my design in order then reapply.
- **Technical assistance needs: Construction**
  - Tilling the ground is a big barrier for me. I can't afford to use a contractor so that would mean I'd need to add a lot more steps to my project than what's in the posted application process. -check for service lines -rent tiller -time and physical commitment
- **Technical assistance: general**
  - More handholding during the site visit- help them plan it out. Then tell resident what they would qualify for, then give them a list of vetted contractors.
  - It was hard for me to decide what I needed to do because I wasn't sure how much it would cost and I didn't have the time to figure out all the details.
  - It isn't a turnkey program. You have to do a lot of work to figure out what you want and who will do the work. I would have preferred choose from 3 options at prefixed prices.
  - I had a great momentum going in with the assessment. Your team was responsive and came out quickly. They were helpful and did a great job. They then gave me this packet of information, and the name of a bunch of gardeners and that folder sat on my desks for months. It just got lost in the shuffle. I did start calling some of the recommended gardeners, but they didn't get back, and they were slammed, and then I lost track of it. I also have NO idea how much a garden like the one they are talking about costs. I hate yard work (which is why my yard is in the state it is), and I just needed someone to say - A garden of this size usually costs X amount. We are going to send this guy over to take a look. If you don't like him, let us know, and we will send someone else. I know that sounds ridiculous as I am a grown-up, and you are not a babysitter, BUT my yard is a mess because I don't know the first thing about keeping it up and have no interest in gardening. I am, however, exceptionally environmentally aware, so I thought that this could be the perfect solution. If the program is still available, I would like to still take part in it. I guess that with this questionnaire being sent out, it is probably not.
- **Application too much work**

- Time spent with a shovel isn't time at a computer printing and filling out papers. ;-)
- Approval processes is too much! Lots of upfront work before getting garden going.
- approvals, application. Too much work.
- **Maintenance requirements unclear**
  - Wasn't sure who they could ask without potentially voiding their application or project. Had a lot of questions about what the maintenance requirements were and also confused about cultivars. Maintenance - include description about what we will be looking for at maintenance inspections.
  - . No one had answers about what requirements would mean - a lot of work for a little rebate. Wasn't sure what standards were for maintaining it. If neighbor's water comes onto your property, Shoreline leaves it to property owners to figure out. Not a lot of support. The rain garden Shoreline was going to offer (in front yard) would not help their problems. The rain garden they would have to install would also be huge given program's standards and they did not have enough space - needed room for other activities, like dogs.
- **Rebate not enough**
  - The rebate was not nearly enough to cover costs.
  - Financial incentive is not sufficient to create citizen response. Raise incentive to increase participation. -Russ
- **COVID-19**
  - Covid-19 and us being an at-risk family makes it difficult to procure supplies, screen contractors for jobs, and have contractors over at our home for an extended period of time. An illness which causes handicap makes it difficult to the manual labor on my own.
  - COVID 19! Live in a condo, so its the board and community decision. cost factor during strange time and the fact that we aren't supposed to be socializing
- **Other**
  - None of these were issues because it was a wonderful thing to do for the environment. She is from Ethiopia and for people like her who don't speak English as a first language, it would be difficult. They may not get the information and they might not understand it in English. Translate. She was able to do it because her husband helped. To her it sounded too good to be true so she almost passed it up. Had a friend that threw mailer away because she didn't understand it. Then when her friend came over she saw the mailer and the two of them looked into it.
  - Unfortunately, coming up with the upfront funds was the reason we delayed it for a few years. We are now saving up for a rain garden.
  - I thought it was very straight forward but I'm probably not your average recipient! Cameron did a great job of helping to work us through the application process. I would love to chat about our experience though!
  - Mainly financial - looking for options to solve the drainage problem. Was better decision to fix French drains.
  - My downspouts were already working well. Difficult to dig them up when they're functioning well.
  - Our home is finishing up a major remodel, including a completely new roof design and angles with new downspouts for water runoff. All this needs to be considered with the placements and design of the Rain Garden.

- I love the idea behind the soak it program. Unfortunately the time/ cost of installation were too great. I plan to install a rain garden and native vegetation down the road.
- Had the city told us this soak it up option when we remodeled our home, we would build in the garden instead of spending the money on constructing a French drain. The city made it a requirement to construct the French drain with out letting people know this soak it up option, that needs to be changed.
- I was looking at putting one or two in the common areas of Ballinger Creek Condos. The board is ok with the idea, however they have been dealing with new roofs and did not want to allocate the funds at this time. We might do one in the future, but would most likely not go through the program because of all the requirements at wouldn't work for a condo association.
- Yes. The program did not make it clear that I couldn't sheet mulch my lawn before applying. I prepared a significant part of my yard in anticipation of participating only to be rejected. Very disappointing

#### **Benefits qualitative data:**

- **Environmental benefit**
  - Our desire is to contribute for the betterment of the environment regardless of look of aesthetic impact on the neighborhood. Ours turned out beautiful though!
  - Ultimate goal - improve waterways. Very big on polluted water runoff. Part of Paramount Park group 1980s and helped restore wildlife pond there.
  - Certified wildlife habitat in backyard.
  - It's such a great way to reduce storm water runoff and incorporate native vegetation into residential landscaping. I'm a fan.
  - Decrease water usage. Very happy to hear about program because there is a financial barrier.
  - Nope. I like the premise of plants that nourish wildlife, are drought tolerant to reduce water consumption and runoff, and are native which reduces the need for amendments, chemical or otherwise.
  - Less stress on the MS4 system.
  - I wanted to have a yard that had native plants and didn't require watering as I know we often have to conserve in the summer. Native planting is important to me.
  - I wanted to ensure that water was being used and not wasted.
  - So supportive of doing anything that is good for the environment and would love to prevent runoff from their property. Totally support native plantings - want to get rid of invasives and introduce plants that bring in good insects and birds.
  - Cost is an issue and the subsidization helps. Wanted to direct water to ground water and not into MS4. She is an environmental biologist.
  - make sure that water on his property is going deep into soil - there is a lot of runoff right now from his clay soil
  - care about the environment.
  - To make a difference
- **Community benefit**

- want to part of the community
- We like being involved
- I wanted to do my part in helping to improve the community.
- **Eliminate lawn.**
  - We wanted to get rid of our lawn and since the city was offering this program, we figured we could get some reimbursement if we participated.
  - Eliminate lawn care.
  - I am really tired of trying to have a lawn!
  - They are already a certified wildlife habitat. Continuously looking for ways to get rid of the grass. This would have been a major chop away at the grass.
  - Grass is boring and those native plant "lawns" look cooler and more interesting.
  - Lower maintenance than lawn area
- **Enjoy gardening**
  - Another reason to do some gardening!
  - I enjoyed the creative process of design in and building the garden.
  - Gardening is my hobby. I work year-round in my garden.
- **Wanted to change landscape**
  - I also wanted to have it as a demonstration project for friends who come to visit. Our material costs, after designing and building the garden ourselves were 100% offset by the grant. We chose this as our first landscaping project at a new house because the costs to us were so low. I like that you did not require a contractor to sign off on the design or construct the garden. The resources were sufficient to get a sense of what we needed to do.
  - We needed to do landscaping and we were happy to install native vegetation if it helped defray some of the cost.
  - Helping cover the cost of plants and materials, since we were already interested in adding more maybe plants
  - Backyard landscaping needed updating. Moss and groundwater buildup were big issues.
  - I wanted native plants
- **Wanted low maintenance garden**
  - Thought having a rain garden in her yard would be less maintenance than grass or things like that.
  - Want to create a low maintenance garden to support long term maintenance of the house.
  - Wanted a yard where I had to pull weeds and that was pretty much it.
  - I wanted to have a low maintenance garden that would not waste water.
- **Water issues**
  - Water issues on her property drove her interest. Ended up hiring a company to put in dry wells.
  - Control surface flooding in city right-of-way adjacent to my property.
- **Set an example for her kids!**
  - The rebate allowed us to do something we wouldn't have otherwise done for a long time. It wouldn't have been a priority without the financial help.
  - Selfish reasons - do the program, show it off, and try to get potential landscaping clients to participate
  - This is a great idea and the incentive is great! It's just a matter of doing it.



### **Other GSI feature interest:**

- **Rain barrels, cisterns, catchment systems**

- Rainwater irrigation for lawn
- Rainwater collection (barrels or cistern)
- Rain barrel, catchment system.
- Rain garden and rain barrel installation
- I have several above and below ground rain barrels to catch run off, but they are not being used to maximum efficiency. Promoting use of cisterns and rain barrels would be welcomed, as well as identifying persons/contractors who specialize in this.
- Rain barrel collection
- Rain Barrels
- Water capture cisterns! We have a 275-gallon cistern on site and the biggest issue with capturing water for summer use is CAPACITY. You should be handing them out like candy. It will not only reduce runoff during winter months, it also reduces city water demand for plant watering during the summer months. There is almost no storm water infrastructure in our neighborhood. I would like to see a depave incentive to capture surface water runoff from the streets which ponds in our driveway. It could easily be captured through permeable pavers or a small bioswale and transported via French drain to the rain garden. Concrete is expensive to expose of it would be great to offer free removal for depave projects. Even better would be a stipend for permeable pavers as well.
- Rain barrels
- Cistern.
- Rain barrels and cisterns
- I would love to be able to store water during rain and then water my garden with it later on.
- cisterns
- Rain barrels
- Like the idea of rain gardens but the project seems too difficult. Didn't think they could successfully implement it on their own with their current knowledge base. Instead, became more interested in rain barrels that could be used to help water the garden. Have a permeable weed barrier in public space and prioritized that project because they had more freedom with that project.
- on-site storage downspout rain barrels
- Rain barrels, somewhat, but I heard they don't have much effect.
- A very large buried cistern for storing lots of rain for watering plants during the long summers.
- water catchment system
- Pervious surfaces.
- Rain catchment system.
- Rain barrels.
- Rain barrels - but don't have a lot of understanding about them
- Rain barrels
- rain barrels
- installed 5,000-gallon rainwater catchment system.
- cistern - but would difficult to find a contractor. rain barrels fill up too fast.

- rainwater catchment systems,
- rainwater storage
- Rain barrels
- Rain barrels
- Rain barrels
- discount on rain barrels or anything related to water collection.
- **Permeable pavement**
  - permeable surfaces
  - Permeable pavement
  - permeable driveway
  - more permeable driveway
  - Permeable pavers. Hope to replace entire driveway.
- **Rain garden or native landscaping**
  - Would like to do rain garden but it was too expensive.
  - rain garden
  - Native vegetation
- **Gray water**
  - gray water options
  - gray water systems,
- **Anything that helps/works on my property**
  - Trenches/plants that move water away from my house.
  - Any that work with my property
  - Any that might help our crawl spaces from flooding. Some buildings have sump-pumps going full time.
  - Would like to consider s, composting in ground to increase water retention, drought tolerant plants, native plants, getting rid of lawn, adding pea patch instead of lawn. Swales in streets.
  - Main reason for interest in program was to alleviate groundwater buildup. Now has sump pump, sealed the house.... would be interested in anything that could help alleviate that groundwater/drainage issue.
  - Anything to help redirect water away from slope and keep it intact.
- **Rain chains/downspout disconnection**
  - Downspouts connected to drainage system - would like to see those fixed. Help with disconnecting downspouts/gutters.
  - Rain chains
- **Other**
  - Incentives to maintain and manage the gravel shoulder that conveys water to the catch basin beside my property to reduce ponding and sediment transfer.
  - French drains
  - and possibly a dry well for roof drainage.
  - Interest in program beyond managing waters - broader environmental native plants, wildlife habitat. creating space that reflects her as an environmental scientist.
  - I wish I had vegetable garden was an option

- Cameron ruled out the necessity of a constructed rain garden. Can't think of any other stormwater management features that wouldn't already be helped with less grassy areas and planting drought tolerant and native plants.
- rainwater seasonal "ponds"
- not much - they have a wastewater catchment for the ten houses they live in.

## **Other feedback:**

### • **Kudos**

- You did a great job with guiding us and coming by to check the progress and giving us feedback on the project. Thank you!
- I think it is a great program and feel fortunate to have participated in it. I love my native garden as it has breathed life into my yard, which had previously been unsightly.
- Cameron was very nice and very professional.
- Great program - great job. Love that we are getting feedback.
- Think it's a good program. Would have participated if it hadn't been for overflow outfall issue.
- The person that came to my house was very kind and knowledgeable.
- The inspector was very personable and explained the program well. Gave a very thoughtful assessment and she really appreciated the thoughtful assessment.
- We thought the program was great and wanted to support it.
- I love your program and appreciate the guidance and advice and collaboration with people working on the landscape in related areas.
- Great program and very kind and knowledgeable employee who consulted. We plan to try to participate in the future!
- Nothing specific, felt like it was pretty easy to get the info I was looking for and the City was very responsive to my requests.
- Keep Soaking

### • **Promotion**

- More advertising to raise awareness. It is a fantastic program that I wish more people were doing. I tell anyone who will listen about it.
- It would be great to see more promotions and networking for interested folks. Have you ever considered posting virtual tours of demonstration projects? I'd be happy to volunteer our site if you'd like to pilot it! Partner with regional NGOs to assist with outreach and education. Identify public spaces (especially where low income and communities of color such as churches or community centers for well signed demonstration projects.
- Go table at events like Ridgecrest Neighborhood Picnic. Get in contact with Shoreline Council of Neighborhoods to present program there and learn about other events. When tabling, have table specific to SIU program and not general Shoreline City business. She skips City of Shoreline table because she thinks it will be general info that she already knows (e.g., map of parks, how to pay bill). Get youth involved! They share information at home. Storm drain marking program is great. Advertise it with people who work with youth. [Christie note - can we build in SIU on school district property as a way a curriculum option in School District Fee Waiver program]?
- Maybe put flyers up at the nurseries in early spring. I forget how I found out about the program.

- I would like to see massive education around such programs and neighborhood tours of rain gardens offered.
- **Rebate**
  - I'm sure cost and knowledge are two major barriers to entry. Make sure to continue to address both and think about how resources can be more equitably distributed.
  - Keeping the rebate high enough to offset costs is key!
  - Warn participants that the rebate is income and they will receive a tax form at the end of the year showing that.
  - Make the rebate a % of the cost, rather than a flat fee. This might promote better and more rain gardens.
  - Senior discount would be helpful! Or anyone on a fixed income.
  - Raise the subsidy to citizens. Value is too low to create incentive for Shoreline residents. Subsidy doesn't have to be cash value. It can be making application process easier, providing plants, or labor.
- **Technical assistance**
  - I'm sure cost and knowledge are two major barriers to entry. Make sure to continue to address both and think about how resources can be more equitably distributed.
  - More guidance for maintenance.
  - It would help to have technical assistance at the city for those of us who are doing it ourselves, e.g., good deals on topsoil, plants, and mulch.
  - There are SO MANY native plants to choose from. Way too many choices. I'd like a "great for Seattle's climate", "great for pollinators", "low maintenance" filters to drastically reduce the available options.
  - A quicker process or helping people in the planning stages. List of vendors with discount or listed rate. Needs to be a bit more incentivized/find a way to keep costs down/help facilitate it a bit better.
  - Provide suggestions on possible contractors known to the city who can do the required job and undertake the project at reasonable cost.
  - Booklet was great!! Some ideas on design. Maybe pictures of what others in Shoreline have done with their gardens. Partner with local landscaping company or nurseries for design/plants, perhaps at a reduced price
  - Make it turnkey. Here are the options, here are the plants you get, here is the price.
  - Provide a list of local nurseries that sell native plants (and the time of year the sales happen) with estimated pricing. It would also be good to add some different general rain garden templates that people could stick to or slightly modify on their own if they wish.
  - There is a lot of education required on the consumers part to participate in the program. She didn't know enough and the landscapers she found were also not very knowledgeable.
  - Handhold a bit more until people are set up with their gardener.
  - It is promoted but difficult to access the program & get support to bring it about - even if you are willing to do the work.
  - Help with identifying contractors. Maybe you could certify people who know what to do.
  - I am still trying to grow some native drought tolerant plants on my own. The rebate wasn't the most important aspect
  - More time to complete the program

- Give more time to get the project done. There is a fair amount of work to be done to make healthy flower beds out of lawn, selecting the right plants, and properly planting them. I for one will not be hiring a contractor to help with any of this work.
- **Communicate program and program processes better**
  - Efficient, clear communications.
  - See above. Improve communication about the program. I spent hours reading and re-reading program material to try to understand it. Still failed
  - Eligibility requirements unclear to her - maybe a way to more clearly communicate this.
  - Just make it clearer and simpler for people and you'll get more participation. The process seemed very confusing to me and I had to take too much time to try to figure it out that I ended up giving up because I simply had to prioritize other things in my life.
  - Make sure website is updated and everything is clearly conveyed. This was not her experience or John Ruby.
- **Covenant**
  - Covenant too dicey...
  - Covenant too restrictive and too loose on how maintenance would be required. Suggest 5 year covenant. Or if 10 year covenant, then if homeowner has to pay back because tree root grew into pipe or house is sold and new homeowner doesn't want to maintain, then they should only have to pay back a percentage because the city's stormwater systems did see a benefit for a number of years (e.g., install minimum of 5 years, after that sliding scale if garden not maintained or removed).
- **More flexibility/options for residents who don't qualify for RG**
  - Would like to see other options in the program for residents that can't qualify for a rain garden
  - Allow more flexibility in project qualifications for the program
- **Other**
  - Create a similar program to encourage homeowners to re-pave their driveways with permeable pavement.
  - Follow up with folks who do the consultation. I did construct a rain garden and channel much of my rainwater to it. I just didn't follow up with paperwork.
  - Financial barrier - condo needs a new roof and people are struggling with finances right now.
  - Don't include renters in the initial visit, even with owners' permission / agreement.
  - Building codes need to be changed - too much mitigation for developers because all the mitigations result in more water in the MS4. Need as much pervious land in the city as possible and as much canopy as possible. More codes to protect canopy and pervious surface. Developers are subsidized in the City.
  - Need to reacquaint myself with ins and outs of the program..... Not certain why I declined the first time out. Fairly certain it was the correct choice for me, but....
  - lots of young ppl not interested in gardening because they are not introduced to it.
  - Make the city offer this soak it up program an alternative option to French drain.
  - I know that money is tight for all programs like this, but it would be nice to participate in the program more than once or in both rain garden and native plants. I have a property with a lot of roof runoff directly near a storm drain, but also a backyard that waterlogs every winter. Both areas would benefit greatly from better water management.

- **Encourage and support people to beautify and convert spaces adjacent to their property. Help with identifying contractors. Maybe you could certify people who know what to do.**