

2019 SUMMARY REPORT

PUBLIC EDUCATION & OUTREACH PROGRAM



City of Bothell™
SURFACE WATER DIVISION

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Introduction

Stormwater runoff is rain or snowmelt that falls on streets, parking areas, sports fields, gravel lots, lawns, rooftops or other developed land and flows directly into nearby streams, lakes, rivers, and Puget Sound. Stormwater pollution happens when rain picks up contaminants after it falls, like soil, pesticides, litter, oil, grass clippings, tree leaves, dirt, and bacteria, then carries them into nearby streams.

Polluted stormwater runoff is the single largest source of pollution in our local streams. Water pollution affects the health of aquatic life, wild animals, pets, and people, and it impacts industrial and recreational activities like fishing and swimming. As water pollution clearly became a health risk, the Environmental Protection Agency (EPA) introduced the Clean Water Act (CWA) nearly 50 years ago. Under the CWA, the EPA implemented pollution control programs and developed national water quality criteria recommendations for pollutants in surface waters.

Most polluted stormwater runoff is caused by the everyday actions of people just like us that live, work, travel through, or visit our area. While often challenging, changing peoples' daily habits costs much less than attempting to clean up these pollutants after they have reached our streams.

Goal

The education and outreach program's goal is to reduce or eliminate behaviors and practices that cause or contribute to polluted stormwater runoff.

Overview

Social marketing, which is essentially using marketing to change behaviors for the good of the individual and community, has been used for over forty years in the realms of social services, public safety, and disease prevention (e.g., *Give 'em a Brake*, *This is Your Brain on Drugs*, and *Empty, Clean, and Dry Recyclables*). Social marketing combines standard marketing techniques with social science and other practices to help determine

the best way to motivate someone to change a regular habit. City of Bothell has chosen to use various social marketing strategies, including Community-Based Social Marketing techniques, to change individual behaviors that pollute our local waterways.

The number of people you reach combined with the number of times you reach them plays a key role in establishing and maintaining the change in individual behaviors. Bothell began implementing broad outreach strategies in 2008 to provide education about a number of water pollution issues. We wanted our target audiences to have a clear view of the water pollution issues facing our community, and we wanted to teach them how they can help solve the problem.

In 2019, we provided broad education to local target audiences through a variety of outreach media. Types of outreach included:

- Banners and stationary signs
- BMP-related games
- Bothell Bridge quarterly magazine
- City e-news
- City social media (Facebook, Twitter, and Instagram)
- City staff events
- City website
- City-sponsored events
- Hands-on demonstrations
- Pledges
- Private events
- Surface Water e-news
- Surveys
- Utility vehicle signs
- Videos
- Volunteer events
- Workshops

The City of Bothell will continue using most of these outreach sources in 2020 to ensure our audience receives our messaging repeatedly through a variety of channels.

Regional Partnering and Awareness

We conducted broad regional awareness messaging in 2019 together with the Stormwater Outreach for Regional Municipalities (STORM) coalition and the Puget Sound Starts Here (PSSH) campaign at www.pugetsoundstartshere.org. This allowed the City to align messaging with 90+ surrounding county and city governments, 100+ businesses, and 400+ non-profits, and provide more effective outreach through combined and consistent regional messages.

Our local Stormwater Outreach Group (known as the SOGgies) conducted sub-regional outreach. The SOGgies includes the cities of Bellevue, Bothell, Clyde Hill, Issaquah, Kenmore, Kirkland, Lake Forest Park, Mercer Island, Newcastle, Redmond, Renton,



PSSH bus ads on King County Metro buses in 2019, sponsored by SOGgies

Samamish, Seattle, Shoreline, and Woodinville. These cities often choose to pool funding for sub-regional messaging efforts and evaluation to reduce production costs and leverage larger jurisdictional resources. In 2019 we each contributed funds to run stormwater-related ads on the exterior of King County Metro buses for a period of six weeks, but because of lack of demand for bus ad space, our ads remained on the buses, at no extra charge to us, for over four months.

Stormwater Trend Analysis

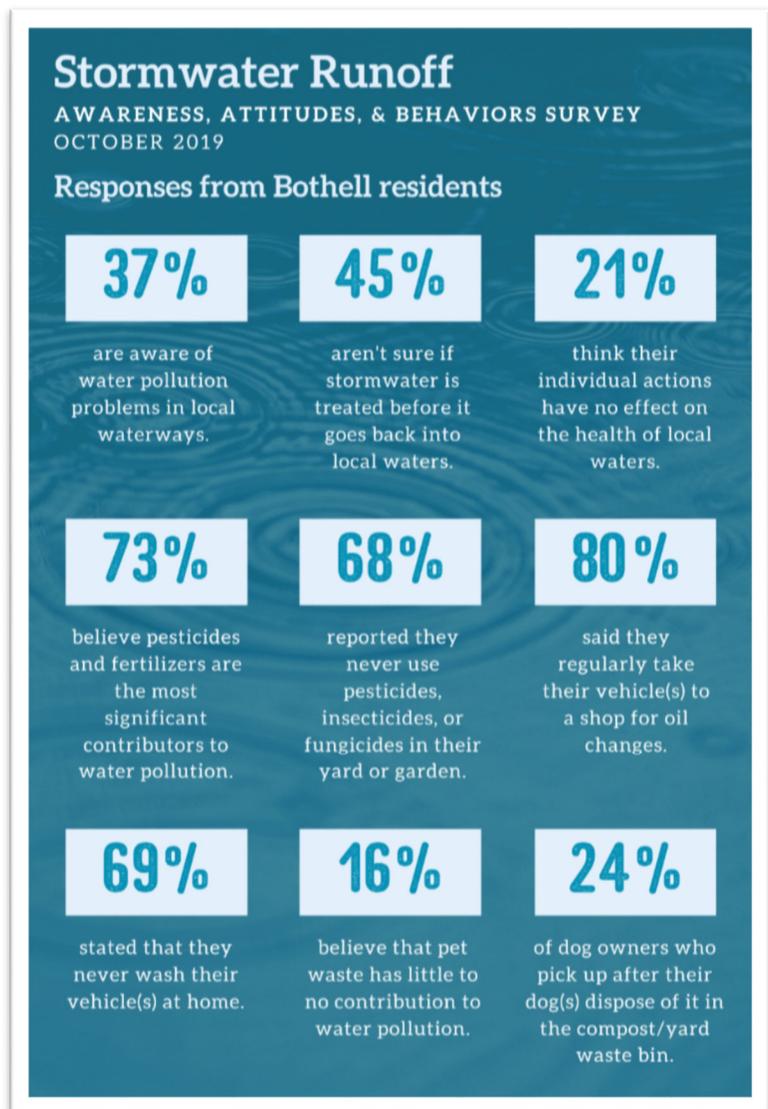
In fall 2019, Bothell and five other eastside jurisdictions (Bellevue, Duvall, Kenmore, Newcastle, and Woodinville) worked collaboratively with Elway Research, Inc. to develop a regional survey about stormwater runoff awareness, attitudes, and behaviors. A similar regional survey was conducted in 2012, which Bothell also participated in. We kept many of the questions similar to those from the 2012 survey so we could compare our

residents' understanding of stormwater runoff then vs. now. Our intent is to use the survey results to determine which BMPs our residents seem to understand and practice, and which behaviors may require more education and outreach efforts on our part.

Some of the survey results are shown below. The full report, including responses from all six participating jurisdictions and how the data compared to 2012's responses, is available at www.bothellwa.gov/2019stormwatersurvey.

Another way we participated in stormwater outreach at the regional level was by asking the community to "cast a vote" for their favorite fish in the second annual Survive the Sound steelhead migration race last May. This five-day interactive race is geared towards educating students about the challenges steelhead face on their migration journey to the river, but anyone can participate. An organization called Long Live the Kings uses real tracking data from steelhead to follow fish on their journeys.

This year, Bothell staff and the community voted for Fishy McFishface as their pick to make it to the Pacific Ocean finish line. We blogged and posted social media about our fish's status each day, and were glad to see that our



Results from 2019 Stormwater Runoff Survey

fish survived its migration, coming in second place. Out of all 48 fish that were tracked, only seven of them actually survived the trek to the Pacific Ocean – the remaining 41

steelhead died along the way. Scientists use the tracking data to help understand what obstacles are killing the fish, whether manmade structures like the Hood Canal Bridge, natural phenomena, or poor water quality and lack of protection from predators.



[Social media and blog post about Survive the Sound results](#)

City of Bothell will continue to be an active participant in STORM and SOGgies in 2020 to provide essential input and direction on the region's future outreach efforts, and to help meet the requirements of the current NPDES permit.

We will continue to promote the Puget Sound Starts Here campaign to help raise awareness of individual impacts to Puget Sound and our local streams. As in the past, we will participate in May's Puget Sound Starts Here Month by promoting behaviors that protect local streams and by preparing a proclamation for our City Council to read publicly. We will also host a Puget Sound Starts Here booth at our National Public Works Week open house scheduled at Bothell City Hall on Saturday, May 9, 2020. This new event will provide a way for us to engage with community members face-to-face in a designated space during Puget Sound Starts Here month, which we have not had an opportunity to do in several years.

Targeted Outreach Programs

Natural Yard Care

Target audience: Bothell residents in King County and Snohomish County who purchased a home with a yard between March 2016 and March 2019.

Goals for success: To reduce and potentially eliminate the use of chemical fertilizers and pesticides on residential lawns and gardens and provide information on native plants and protective yard care techniques.



Natural yard care lecture-based workshop presented by Tilth Alliance

We evaluated the various models of natural yard care workshops we offered as far back as 2009, including partnerships with King County and Snohomish County, and found that a hybrid of workshops and demonstrations generates the highest rate of behavior change.

In September 2019, we worked with Tilth Alliance to offer a series of two indoor lecture-based workshops and an outdoor hands-on demonstration. We held all three workshops at the Bothell Operations Center in north Bothell. The indoor workshops occurred on Wednesday evenings from 6:30 – 8:30 p.m., and the hands-on outdoor workshop happened on a Saturday from 10 a.m. – 1 p.m. The series included these workshops: 1) Design a Yard Your Plants Will Love, 2) Plants vs. Pests: Put Away Your Battle Gear, and 3) Smart Watering & Do-it-Yourself Rain Barrels. We received a high

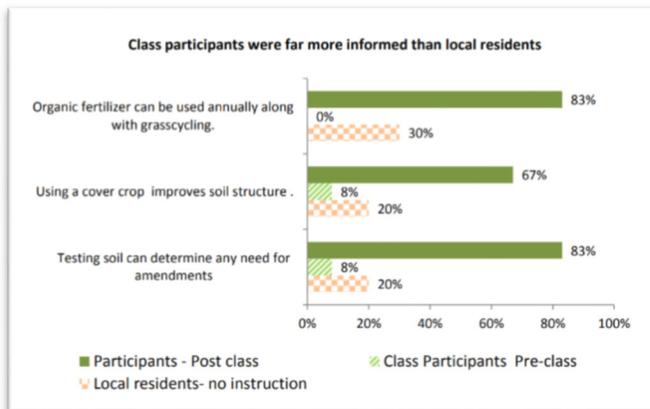
response to the rain barrel workshop, as participants were able to pay significantly less to assemble their own rain barrel instead of purchasing one from another source.

Our target audience included new single-family homeowners with at least 1,000 square feet of yard space. Our GIS Division compiled a list of any single-family homes in Bothell that had changed ownership in the last three years, which totaled 1,825 homes. Our list excluded apartments, condominiums, and townhomes.



Workshop participants building their own 55-gallon rain barrels with guidance from Snohomish Conservation District

We advertised the Natural Yard Care program and workshops using these methods:



Excerpt from 2018 Natural Yard Care Workshop Program Evaluation

- Introduction letter and workshop schedule sent to target audience via direct mail one month prior to first workshop.
- Postcard sent to target audience via direct mail two weeks prior to first workshop.
- Full-page workshop descriptions, schedule, and registration link provided in fall edition of Bothell Bridge, a

quarterly citywide magazine mailed to all Bothell residents.

- Workshop descriptions and registration links added to City’s website calendar, homepage banner, and Natural Yard Care webpage.

- Facebook events created for each workshop and advertised via BothellCool, City of Bothell, and Tilth Alliance Facebook pages.
- Eventbrite events created for each workshop to simplify and track number of registrants.
- Workshops added to Events section of Puget Sound Starts Here website.
- Flyers distributed at City-sponsored public events in August.
- Workshops advertised in City e-news in August.
- Workshops announced at City Council meetings during weeks prior to the events.
- Registrants received a reminder email two days before each workshop.

The classes and hands-on demonstration were well-attended, with an 8% rate of response, which is higher than the national average of 2.9% for targeted direct mailing

(www.thedma.org, 2016). Out of 1,825 direct mailers, we received 206 total RSVPs for the programs, with 146 people actually participating. We surveyed participants before and after the workshops to determine what new information they learned and what techniques they planned to implement in their own lawns and gardens. We also asked what

topics participants would be most interested in learning about at our next series of workshops in 2020. The 2019 Natural Yard Care program evaluation report is available at www.bothellwa.gov/2019nycevaluation.

Learn more about natural yard care at www.bothellwa.gov/nyc.



Pet Waste

Target audiences: 1) Bothell residents and other park/public space users that own at least one dog

Goal for success: To reduce the amount of pet waste left on public and private property, particularly in Bothell parks and public open spaces.

Within Bothell, the North and Swamp Creek watersheds have been listed on the 303 (d) list of impaired water bodies for fecal coliform bacteria and dissolved oxygen by the Department of Ecology (Ecology) since 1996. Because of this, Bothell focuses heavily on programs to reduce and eliminate sources of fecal coliform such as pet waste, failing septic systems, sewage, and bird feeding. According to our stormwater trend analysis report conducted in October 2019, 39% of people within Bothell's city limits own at least one dog, equaling well over 17,000 dogs. The average Bothell dog creates .75 lbs. of waste each day, totaling 12,750 lbs. in Bothell per day, or over 4.5 million lbs. a year. We want to keep as much of that waste out of our local waterways as possible, which is why pet waste continues to be one of our top stormwater-related issues to address.

Pet Waste Signs

In 2018, we began a new program with a target audience of Bothell residents that own at least one dog. The City has one Animal Control Officer who is typically the only staff person who would issue a fine to someone for not picking up after their dog. Because the officer



24" x 12" Corex pet waste H-frame sign for display in public spaces that are patrolled by Bothell's Animal Control Officer

cannot be everywhere at once, we began increasing our signage about Bothell’s scooping law not only in public spaces, but also in residential areas.

We redesigned our scooping law signs to include larger text and some humor, and gave residents the option of requesting up to three signs for their yard or neighborhood if people were not picking up after their dog in specific areas. When residents filled out the online request for a sign, we also asked them for information such as whether there was a pet waste station near the problem area, what the exact problem was (e.g., pet waste left on a sidewalk, pet waste area left near an area where kids play, pet waste left on private property, etc.), and whether they belonged to a Home Owners Association. The pet waste sign program continued in 2019, and included several businesses and property managers also requesting signs.

Scooping Incentive

Because of the number of multi-family buildings downtown that allow pets, we have observed an increase in the amount of dog poop not being properly disposed of. Not only have we seen piles not being scooped, but we have also seen more bagged dog poop left on the ground. This could be because there is not always a trash can nearby and the owner may not be willing to carry the full bag on their walk. Our downtown plan limits the number of trash receptacles we can have in public spaces, so we needed to look for another option to encourage dog owners to carry the bag all the way to the trash rather than leaving it on the ground. Most of the dog-owners we observed downtown had their own supply of pet waste bags with them, usually in the form of a small container clipped onto the leash. This led us to believe that a lack of pet waste bags or stations wasn’t the main problem, but rather a lack of trash receptacles to dispose of the full bags. After doing some market research, we opted to try a new incentive this year called Alcott pet waste bag carriers. These are rubbery holders that attach to a dog’s leash and are designed to stay in one place on the leash. They can hold empty or full pet waste bags so the owner



Alcott pet waste bag carrier

doesn't have to carry the full bag in their hand. We ordered a small batch of these carriers in early summer to test them out with dog-owning coworkers, who generally liked the product. Based on staff's positive feedback, we decided to offer the carriers as incentives for dog owners who signed a pet waste pledge. When we distributed these incentives at public events like the Bothell Pet Parade, recipients were intrigued by the concept and were eager to try them out.

Pop-Up Dog Parks

In August 2019, our Parks and Recreation Department opened a temporary "Pop-Up Dog Park" at one of the Park at Bothell Landing for two and a half months. The park had two separate fenced off areas designated for large dogs or small dogs, and each area included signage about the rules for use, including the requirement to pick up after your dog. To make it more convenient and safer for park users, our Parks staff installed several pet waste stations in the dog parks, located them near trash cans, and kept them



Pet owner showing proper BMP by disposing of bagged pet waste in a trash can

well-stocked with pet waste bags. There were still some dog owners who did not pick up after their dogs, but observation lead us to believe this was typically because owners were not paying attention to their dogs when the action was happening (e.g. looking at their phones or talking with other dog-owners in the park), so they likely did not realize their dog had left a pile.

In November, the pop-up dog park was relocated to the grassy area in front of Bothell City Hall, again with separate areas for large and small dogs. We did not see as many large dogs using the park in this location, which was likely because of the rainy weather, which caused the large dog area to get quite muddy, and their area was quite sloped. We did see quite a few users in the small dog area though, which was convenient for many of the apartment-dwellers right across the street from the park. Although we saw

fewer dogs overall, we also saw much less pet waste being left on the ground in this location, possibly because it was next to the heavily-windowed side of City Hall and across from the Police Department. This may have made users feel they were being observed more closely.

Surface Water staff and our Animal Control Officer visited the first park several times during its operation, including on its opening day, bringing pet waste pledges and incentives for dog owners who signed them. Our interactions with dog owners were positive, and the community appreciated having a public place with adequate parking where dogs could legally run off-leash and socialize with other dogs.

Pet Waste Stations in Parks

In 2019 we installed 19 new pet waste stations in City parks to replace our aging “give-a-bag/get-a-bag” plexi-glass stations. We did this for several reasons:

- 1) We needed a new kind of dispenser. The plexi-glass dispenser we had been using for years required pet waste bags to be torn off the roll before being placed in the dispenser, and it consumed a lot of staff time.
- 2) City of Bothell passed a single-use plastic bag ban that will go into effect in April 2020. Our previous stations encouraged the community to help supplement the bag supply by adding their own plastic bags (e.g. grocery bags) for others to use. When plastic bags are no longer given out at businesses and restaurants in Bothell, the dispensers are more likely to remain empty unless staff keeps them stocked with individual bags.



Example of single-pull pet waste station bag dispenser from BagSpot

- 3) The new stations are more cost efficient. They are locked and allow only one bag to be dispensed at a time, which helps prevent users from stockpiling their own bag supplies by taking a handful of bags that were purchased with City funds. Refilling the stations requires unlocking them with a key, so bag theft is less likely than with the former stations. Our new stations each hold 600 bags at a time, so Parks staff does not need to refill them as frequently, which saves costs on staff time.
- 4) As more residents move to Bothell, so do more dogs. We've seen more people using public parks to exercise their dogs off-leash despite Bothell's leash laws. We installed the new pet waste stations at all of our most frequently-used parks to encourage pet owners who are exercising their dog(s) to follow Bothell's scooping law even if they did not bring their own bag.

Adding new pet waste stations to our parks was one step towards encouraging proper pet waste disposal, but we still need to do more to discourage dog owners from leaving pet waste – bagged or not – on the ground. We are currently looking for a manufacturer that sells brightly-colored pet waste bags made of recycled content, not labeled as biodegradable, that will fit in our existing pet waste stations. Studies have shown that people are less likely to leave a pet waste bag on the ground or toss it in the bushes if the bag is a bright color like pink or orange because these bags stand out and aren't easy to disguise in bushes or grass. If we find a manufacturer that meets our needs, we will order new pet waste bags in 2020 and observe whether they impact dog owners' behavior about scooping.

Results of a regional stormwater awareness survey administered to Bothell residents in October 2019 by Elway Research, Inc. showed us that



we need to adjust our messaging in one specific area. According to the survey results, nearly 26% of dog owners who reported picking up after their dog(s) said they dispose of it in the compost/yard waste bin rather than the trash. In 2020, we will continue to promote the appropriate best management practices among our target audience, as well as among single family residences with at least one dog. Our messaging will focus on the importance of proper disposal, and will aim to educate residents about the reasons why pet waste should be thrown away in the trash rather than in an organics bin or compost pile.

Pledges

Through our various pet waste outreach events in 2019, we received 82 pledges from dog owners promising to pick up after their dog every single time it poops. We received these pledges at events like Music in the Park, the Just Kidding Around kids' concert series, Sustainamania, the Pop-Up Dog Park, the Bothell Pet Parade, and at the front desk when customers came to City Hall to pick up or renew their pet licenses.



Signed pet waste pledges

Audience Engagement

In 2019 we engaged with younger audiences and their caregivers in a number of ways. We hosted a booth at several City-sponsored kids' concerts and at Music in the Park, and at Bothell's first ever Pet Parade. For pet waste outreach, we purchased equipment to create our own portable version of the "Poop Toss" game (modeled after Snohomish County's game). This became a fun way for kids and adults to learn about the proper BMP for pet waste disposal, and it gave us a way to interact with younger audiences while simultaneously delivering the intended message to their caregiver(s).



"Poop Toss" pet waste outreach game at City of Bothell Wellness event

Learn more about proper disposal of pet waste at www.bothellwa.gov/scoop.

Residential Car Washing

Target audience: Bothell residents and City staff who own at least one vehicle.

Goal for success: To educate residents and City staff about the harmful pollutants contained in car wash runoff and soap, and to promote healthier alternatives such as using a commercial car wash or washing over a permeable surface.



Vehicle driving through a commercial car wash cycle

In early 2019 we conducted a survey asking residents for information about how they currently wash their vehicle(s), and what they considered to be barriers to using a commercial car wash. We received 225 completed surveys, with the following top three reasons given for not using a commercial car wash: 1) it costs too much; 2) fear that the equipment will scratch or damage the vehicle; and 3) the vehicle does not get as clean as desired. Of the survey respondents, 81% responded that they currently use a commercial car wash or other alternative to washing their vehicle(s) in the driveway. Only 18% reported that they wash their vehicle in the driveway. When survey participants were asked if they would consider using a commercial car wash if they knew that vehicle wash water contains harmful pollutants, only 1.54% responded that they still would not consider it.

In early 2019 we conducted a survey asking residents for information about how they currently wash their vehicle(s), and what they considered to be barriers to using a commercial car wash. We received 225 completed surveys, with the following top three reasons given for not using a commercial car



Car wash pledges signed by Bothell residents and commuters

We held two in-person events in 2019 aimed to educate residents and City staff about residential car washing. At those events, we received 159 pledges from community members (100) and staff (59) promising to keep car wash runoff out of storm drains. These events also gave us an opportunity to talk about why biodegradable soap, although not as harmful as some of the

alternatives, is not a safe solution when it comes to washing vehicles in the driveway. Aside from soap, car wash runoff can contain grease, oil, heavy metals, solvents, and surfactants, which pollute our local waters and harm aquatic life when they dump into storm drains and travel to local waterways.

Learn more about car washing at www.bothellwa.gov/carwashing.



Youth Stormwater Education

Target audience: All K-12 grade children attending public school within Bothell's city limits.

Goal for success: To educate our Bothell students about their individual impacts on local water, direct storm drain connections to local waterways, and basic knowledge about polluted stormwater runoff and the water cycle.

In 2009, City of Bothell began contracting with Nature Vision, Inc., a non-profit organization, to administer water quality education courses to all service area schools.

“ This was the fifth time Nature Vision has visited first grade at our school. Every year, Nature Vision does a fabulous job, this this year, the program and presenter were outstanding. Katie was amazing. She had wonderful energy and was so good with the kids. I have no suggestions for improvements - everything went so great! I would love to see this program again next year. The City of Bothell should continue to sponsor this wonderful program. ”

- Kenya Ward, Westhill Elementary

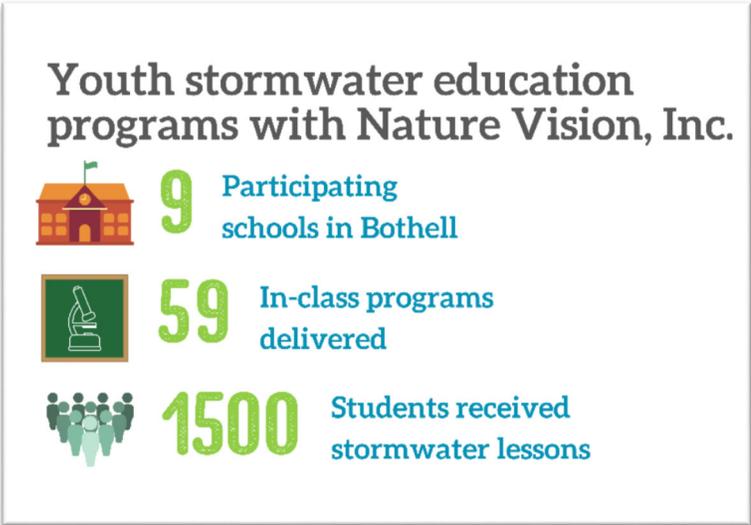
These classes are tailored to provide water education courses that meet our state's common core and next generation science standards (NGSS). Nature Vision solicits teachers electronically using a water education flyer, and a number of classrooms sign up for

programs each year. In order to be sure the stormwater messages are also reaching the students' parents, a stormwater flyer with links to stormwater education activities are given to all students and teachers. The flyer provides an opportunity for parents to work with their children to understand and quantify their individual stormwater impacts.

In 2014, the City also worked with Puget Sound Partnership (PSP) and Pacific Education Institute (PEI) to create new stormwater classroom curriculum that meets the common core and NGSS requirements and helps students prepare for state testing requirements.

This allows teachers to incorporate stormwater education into the general education requirements, ensuring more students receive stormwater messaging at a more in-depth level.

Nature Vision conducts a three-tiered evaluation strategy each year to determine student retention of information, understanding, and teacher satisfaction over time. In 2019, Nature Vision delivered programs to 1500 students in nine schools through City of Bothell sponsorship. They were also able to provide programs to a number of students at Skyview Middle School for the first time, which had not participated in the program in past years. Nature Vision received positive feedback from all teachers who signed up for programs. The 2019 program evaluation is available at www.bothellwa.gov/2019stormwatereducation.



“Exposure to key messages in schools each year is helping students to develop the desired culture of sustainability in our watersheds.”
- Ginny Sanchez Ballard,
Nature Vision Executive Director

In 2020, the City will again work with Nature Vision to continue offering stormwater presentations in the classroom. As of the time this report was written, Nature Vision had already

received requests from teachers to schedule programs in Winter/Spring 2020 totaling 43 programs delivered to 1032 students.

Learn more about stormwater youth education and view the regional Drain Rangers curriculum at www.bothellwa.gov/drainrangers.

Environmental Stewardship Opportunities

Target audiences: Volunteers and residents interested in learning about native plants and stream ecology, preserving wildlife habitat, and maintaining streambanks to improve habitat function.

Goals for success: To engage residents in taking care of our local streams, soils, and native plants and increase the amount of riparian structure, input, and shading along Bothell rivers, creeks, streams, lakes, and wetlands.

The City partnered with King Conservation District (KCD) from 2012 to 2017 to conduct a riparian enhancement project with a Rose Foundation grant. The project allowed students, teachers, businesses, and the general public to learn about stream planting and participate in planting native trees and shrubs around Parr Creek in the North Creek

Business Park. Because the trees and shrubs were considered well established, in 2018 volunteers spread mulch around the young plants before King Conservation District removed the protective blue tubes from the plants. As part of Orca Recovery Day in 2019, we again worked with KCD to host a volunteer event for participants to add over 300 new native trees and



City of Bothell flyers for volunteer events in 2019

shrubs to replace dead plants and to fill in areas where more shade and vegetation was needed. KCD's Washington Conservation Corps crews lead the event and returned to the site the following week to spread 15 cubic yards of mulch along Parr Creek's banks to help protect the new plants and absorb runoff.



Volunteers preparing to add native trees and shrubs and spread mulch alongside Parr Creek for Orca Recovery Day in 2019

In early 2019, Surface Water staff began partnering with a local stewardship organization called Friends of North Creek Forest (FNCF), who regularly hosts volunteer work parties focused on restoring North Creek Forest in Bothell. Activities include spreading mulch, planting native species, removing invasive plants, and repairing pedestrian stream crossings. Surface Water staff and FNCF hosted volunteer work parties together for Martin Luther King, Jr. Day of Service and again for Earth Day in 2019, drawing several hundred participants eager to give back to their community. We will continue our partnership



Volunteers filling buckets with mulch at North Creek Forest

with FNCF, working together in 2020 to host volunteer work parties for Martin Luther King Jr. Day of Service and Earth Day.

Aside from the large events already mentioned, we also work with small groups and individuals to accommodate specific volunteer requests when possible, like a group of local Scouts who ask to fill sandbags at our Operations Center each year.



Surface Water stewardship participation in 2019

In early 2019, City of Bothell hired a citywide Volunteer and Special Event Coordinator, housed in our Parks and Recreation Department. This is a new position designed to help develop, promote, and oversee volunteer opportunities throughout the City. Once the program is fully developed, Surface Water staff

look forward to collaborating with the Volunteer and Special Event Coordinator to promote events, find community partners, recruit volunteers, and increase the amount of inclusive stewardship opportunities we are able to offer our community each year.

One past stewardship opportunity we were not able to pursue in 2019 was the Salmon Watcher program, which lost its WRIA-8 funding in 2016. We tried to keep the program functioning on a smaller scale in 2017 and 2018, but because of no funding, a lack of participation, and historically low numbers of salmon seen in Bothell's creeks over the past few years, we opted not to actively promote the Salmon Watcher program this year. Only 17,000 sockeye salmon passed through the Ballard Locks this summer. That's drastically lower than the 450,000+ salmon that came through the locks in 2006.

Despite the disappointment of a low salmon turnout this year, we will continue promoting the regional Salmon “SEEs on” campaign and other salmon-related outreach opportunities through coordination with King County. Whether we see salmon in our local streams or not, we still want the community to understand why salmon are important, where to look for them, how to identify them, and what actions they can take as individuals to promote healthy stream habitat for salmon.

Aside from at our volunteer events, we provided stormwater outreach at a number of community events, including several newer events like the Bothell Pet Parade, the Just Kidding Around concert series for kids, the Pop-Up Dog Park, and a staff event called

the Wellness Family Fair. We continued to participate in annual events like Sustainamania, the Safety Rodeo, sustainability fairs for private organizations, and elementary school science fairs. These face-to-face outreach events give us a chance to engage with the community in a more hands-on way and answer their specific

Surface Water Community Events in 2019

- Rain Barrel Sale & Native Habitat Tour at Crystal Springs
- Maywood Hills Science Fair
- Earth Day Volunteer Event
- Bothell Pet Parade
- Pop-Up Dog Park
- Safety Rodeo
- Just Kidding Around Kids' Concert Series
- Design a Yard Your Plants Will Love Workshop
- Sustainamania
- Plants vs. Pests Workshop
- Panasonic Perks at Work
- Smart Watering & DIY Rain Barrels Workshop
- Martin Luther King, Jr. Day of Service
- Philips EHS Sustainability Fair
- Wellness Family Fair
- Orca Recovery Day Volunteer Event
- Stormwater Runoff Q&A at Northshore Senior Center



questions with a variety of target audiences.

We decide which BMP to focus on at any given event based on what kind of audience we expect to see. For example, when we conduct outreach at an event in a business park that likely has many commuters who don't necessarily live in Bothell, we might choose



Salmon-themed kids' activities at Sustainamania including Salmon Bracelets, learning how to remember different species of Pacific Northwest salmon, and explaining the link between salmon and trees.

to focus on vehicle maintenance to encourage them not to drip auto fluids onto roads and parking lots located in Bothell.

Learn more about our Surface Water stewardship opportunities and other community events at www.bothellwa.gov/swmevents.

Vehicle Leaks

Target audience: The general public who live in or drive through Bothell.

Goal for success: Reduce the amount of oil and mechanical fluids released on Bothell roads due to vehicle leaks

This program originated through a regional effort by the STORM group known as the Don't Drip & Drive campaign. STORM conducted regional advertising through a grant, and our staff met with every auto body shop in Bothell to personally ask them to participate in the program. Participating shops agreed to honor coupons for repair discounts through 2017.



Although the repair coupons were no longer valid after 2017, for the next few years we continued to promote other aspects of the Don't Drip & Drive campaign featured on



Motor oil spots on ground from leaky vehicles

www.fixcarleaks.org. This included free leak inspections with certified mechanics, leak identification tips, and free vehicle maintenance workshops and videos. We also continued to distribute brochures that helped drivers identify leaking auto fluids by their color and location.

We will continue to promote these aspects of the Don't Drip & Drive campaign in 2020 through social media, our website, Bothell Bridge articles, and posted flyers. If there is regional interest from STORM to offer repair discount coupons again, Bothell will look for opportunities to promote the program and recruit local auto body shops to participate.

Learn more about vehicle leaks at www.bothellwa.gov/vehicleleaks.

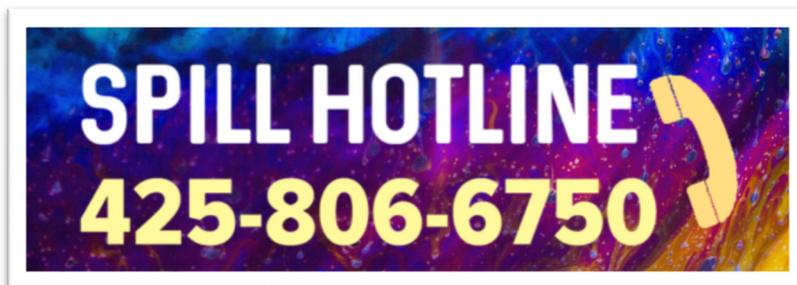
Spill Hotline Awareness

Target audiences: City of Bothell residents, businesses, and the general public in areas where a spill could occur or has already occurred.

Goals for success: Increased number of spills reported directly through the spill hotline, and quicker staff deployment for spill response.

In 2009, City of Bothell established a local spill hotline for businesses and residents to report spills. We publicize the spill hotline number on our utility trucks, on City of Bothell’s website, on our printed outreach materials, in local publications like the Bothell Bridge, at events like Sustainamania, during internal events like the Safety Rodeo, and in City Hall’s lobby. We also provide the number to businesses during outreach visits and during spill response to try to prevent the same party from having another spill.

In 2017, to spread awareness throughout the business community and encourage use of the hotline, we partnered with Blue Environmental Associates (BEA) to conduct a survey of small quantity hazardous waste-generating businesses located in Bothell. We wanted



Bothell’s 24-hr spill hotline number is answered by Sound Telecom, a third-party answering service

to understand businesses’ knowledge of the spill hotline number, their spill response preparedness, their barriers to reporting a spill, and how the City could improve its outreach about spill response. BEA

worked with 53 different businesses to conduct in-person interviews. They mainly focused on automotive, mobile construction, food service, industrial, and warehouse businesses. Survey results indicated that about half of the businesses knew it was their

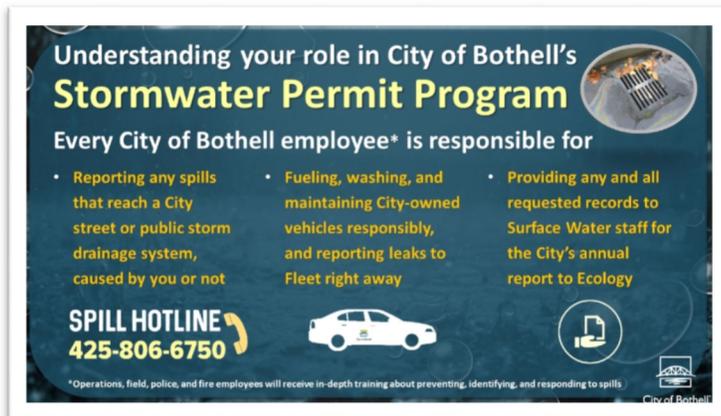
responsibility to address outdoor spills, and they knew they had materials on-site to clean up spills. However, about one-third of the businesses were not aware of their responsibilities about spill response. These results made us realize we needed to look more closely at our outreach efforts for businesses. At the same time, we also wanted to find a way to encourage the public to report spills whether they caused them or not.

In 2018, we began using Sound Telecom, a third-party answering service, to answer any calls to the spill hotline, day or night. Sound Telecom has protocols in place for ensuring appropriate staff receives the information quickly to expedite our response. We also



Social media graphic with examples of when to call the spill hotline

added an online non-emergent spill reporting option that interfaces with our asset management software, called Lucity. This notifies appropriate staff through email whenever someone fills out the online form, and automatically populates our tracking software with a work request.



Slide from new employee orientation PowerPoint

We continued publicizing the spill hotline number in 2019, and provided direction to our construction inspectors and other City staff to use the spill hotline rather than trying to reach a specific staff person for spill response. At first, staff needed frequently reminders about this process because they were in the

habit of calling individual staff members directly, but over time the process improved and spill response staff was able to investigate and respond to calls more quickly and more efficiently. Additionally, our construction inspectors began to look even more closely at the sites they were inspecting to ensure contractors were following proper stormwater-related BMPs.

In 2020, we will continue promoting our spill hotline to the general public through social media, staff training, printed publications, magnets, website, and events, and by making it a more prominent discussion point at our technical assistance visits. We will continue using our asset management tracking system, Lucity, to most accurately track how many spills are being reported through the 24-hour hotline versus through other methods. We will also keep encouraging internal staff to use the hotline number to report spills rather than seeking out an individual staff person.

Learn more about reporting spills at www.bothellwa.gov/reportspills.

Hazardous Materials Use, Storage, and Disposal

Target audience: *All Bothell residents and businesses that use or store hazardous products.*

Goals for success: *To increase the awareness of proper use, storage, and disposal of household hazardous materials, and to reduce the amount of hazardous materials entering Bothell's storm drains and streams.*

The City has participated in hazardous waste outreach through funding from the Local Hazardous Waste Management Program (LHWMP) for a number of years. We offer



[Wastemobile collection site at The Seattle Times building in Bothell](#)

hazardous waste collection events throughout the year, and we provide in-person outreach at every Bothell festival. Our goal is to encourage proper use, storage, and disposal of indoor and outdoor hazardous household chemicals and materials. As in years past, we offered free vouchers to residents to drop off hazardous materials at the Shoreline Transfer Station. The Household Hazardous Wastemobile visited Bothell six times during 2019 to collect similar items. Residents also have the option of disposing of items like CFL bulbs, tubes, and batteries at The Recology Store, established locally by one of our garbage and recycling haulers, Recology.

Garbage service is mandatory for Bothell residents. Both of our haulers (Recology and Waste Management) provide annual printed service guides to their customers with information about how to properly dispose of hazardous items. They both also offer curbside collection for certain hazardous materials.

Our additional hazardous materials education resources include:

- A checklist of Wastemobile eligible items by room where the products would typically be found in a home.
- Bothell Bridge articles about the Wastemobile schedule, hazardous waste, and curbside recycling.
- Wastemobile flyers for the Northshore Senior Center to encourage participation among seniors.
- Social media posts providing tips for safer outdoor use, storage, and disposal of hazardous materials.
- Green cleaning coupons for Recology Store Bulk Cleaning Station providing residents with coupons to try products for free.
- Annual Sustainamania event highlighting sustainable tools and resources for the community, including greener alternatives to using household and lawn hazardous chemicals.

For business outreach, in 2019 Public Works focused on companies in Bothell that are considered hazardous waste small quantities generators (SQG). Indoor hazardous materials education for SQGs transitioned from Surface Water to our Sustainability / Administrative Division. The City began contracting with BEA Environmental to provide technical assistance and onsite training to ensure proper application, handling, safety, and disposal of hazardous products in October. BEA focused on dry cleaners, landscapers, and the industrial/biomedical industry, conducting 38 site visits. 182 SQGs were sent a mailer providing detailed information on disposal and storage options.

In 2019, we offered technical assistance and on-site training to ensure proper application, handling, safety, and disposal of hazardous products. We also sent a mailer



Wastemobile
is back

The Wastemobile travels to communities to provide free, safe disposal of household hazardous waste. Proper handling and disposal of hazardous materials protects our health and environment. If you have pesticides, oil-based paint, automobile products, or cleaners around your house, take them to the Wastemobile. Questions, call 206-296-4692.

10 a.m. to 5 p.m.
May 17-19
June 21-23 • July 26-28
Sept. 13-15 • Oct. 18-20
Dates are subject to change

The Seattle Times Building
19200 120th Ave. NE

Local Hazardous Waste Management Program in King County

For more information on what to bring, request a Wastemobile checklist at www.bothellwa.gov/wastechecklist

Wastemobile ad in spring 2019 Bothell Bridge

to all SQG businesses that contained best management practices for hazardous waste safety.

In 2019, Surface Water staff began focusing less on indoor hazardous materials storage and more on outdoor stormwater pollution prevention at businesses as specifically required in our current annual NPDES permit.

In 2020, we will continue providing education on use, storage, and disposal of hazardous materials through mailers, articles, social media, website, and grant-funded vouchers and workshops. We will also continue offering free disposal opportunities through the Wastemobile, curbside collection, and The Recology Store. The Wastemobile location is changing in 2020. The location we had been using as the Wastemobile site for Bothell residents will no longer be available because a private

developer purchased the land. King County has secured a spot in Redmond, one of our neighboring cities, to host Wastemobile events for Bothell residents in 2020.

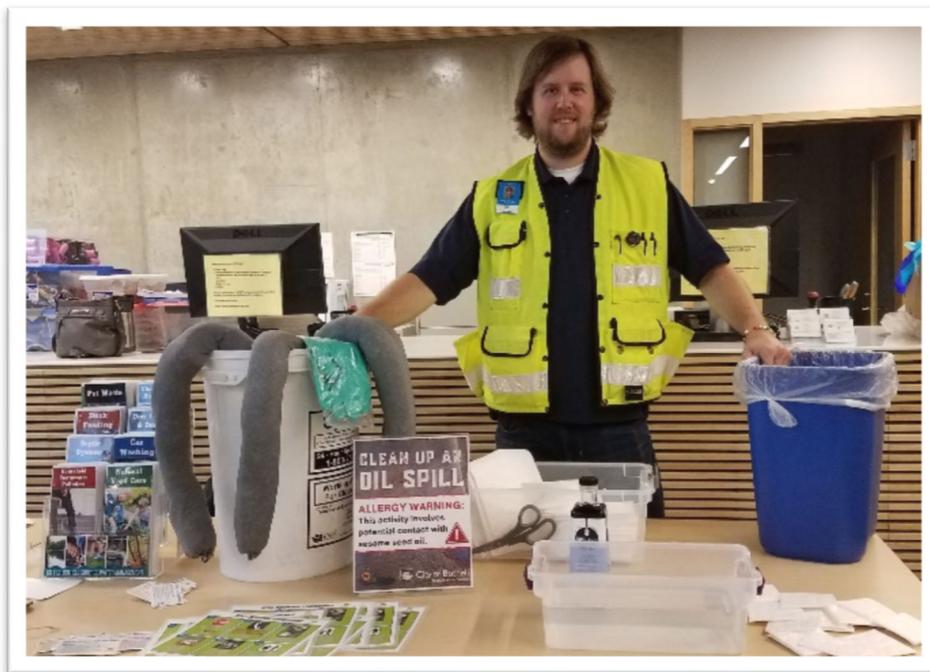
Learn more about our Hazardous Waste Program at www.bothellwa.gov/hazwaste.

Illicit Discharge Identification, Education, and Reporting

Target audiences: Bothell businesses most likely to have a spill occurrence (restaurants, landscaping companies, auto repair and maintenance) and the general public.

Goal for success: To reduce the amount of pollutants entering our stormwater system from spills and illicit discharges.

In 2018, this program was administered with funding from an Ecology grant. This program was designed to encourage the use of proper BMPs to reduce the amount of materials improperly disposed of by small quantity hazardous material generators through direct outreach and technical assistance.



[Stormwater source control kids' activity at Sustainamania](#)

We educated our target audiences through social media, printed materials, e-news, workshop presentations, and incentive items highlighting the spill hotline number. Staff will continue publicizing the spill hotline number through new and existing channels.

City of Bothell adopted a Stormwater Policy in our staff personnel policies in 2018. It emphasizes each employee's responsibility to report spills and to use proper BMPs to reduce stormwater pollution. Our Human Resources Department presents this information to every new employee during orientation. Surface Water staff provides in-person annual IDDE training to the City's Maintenance and Operations staff. Topics typically include what the permit requires of us, the history behind the Clean Water Act, protocol for reporting a spill, what BMPs staff should implement to prevent spills, and how poor water quality affects us. Our Police and Fire departments incorporate spill awareness, prevention, and response training into their individual training programs, and provide the Surface Water Division with a roster showing who completed the training and when.



Surface Water staff responding to a vehicle fluid spill

Public Works responds to all reported spills, no matter the cause or severity. We use a maintenance management program called Lucity to track our spill response and maintenance activities, and to provide annual data to Ecology.

In 2020, all of our Operations and Maintenance staff will attend a day-long stormwater training presented by ECOSS. At the end of the training, they will have a better understanding of our NPDES permit requirements, how to identify an illicit discharge, what constitutes a "spill," and how to properly clean up a spill. This training is

especially important because outside of regular business hours, Operations and Maintenance assigns an on-call staff person who could encounter a stormwater-related issue, but who may not necessarily be a Stormwater Division employee with the expertise to respond appropriately.

Low Impact Development (LID)

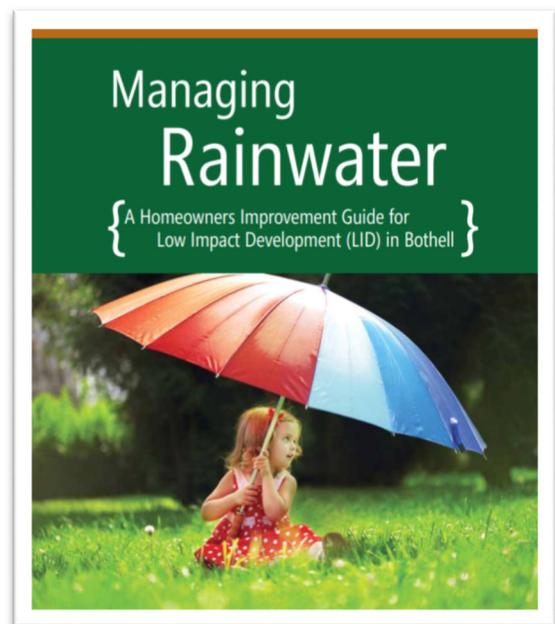
Target audiences: City staff, private and commercial land developers, and the general public.

Goal for success: To increase the awareness, understanding and acceptance of LID techniques among key staff, developers, and the general public.

Low impact development (LID) techniques involve educating several different groups, including City staff and elected officials. The techniques add an element of complication due to lack of clear and consistent language, individual site conditions, maintenance concerns, and the fact that each technique requires extensive education and expertise to ensure successful design, installation, and maintenance. Further complications occur because most techniques require using a professional contracting company or consulting group for design review, site review, and proper installation.

We have several books available for the public from Washington State University (WSU) Extension that provide helpful information on all aspects of building a rain garden, including detail design, placement, size, planting zones, and a list of native plants to suit each type of yard constraints.

The following highlights of our efforts date back to 2011, when we first began promoting LID techniques:



[Guide for low impact development techniques in Bothell](#)

- **2011 to 2013:** Held fall and spring LID workshops at demonstration rain garden (Bothell Regional Library); created “LID Techniques in Bothell” guide for residents.
- **2014:** Received Ecology grant to create a demonstration neighborhood within Queensborough watershed, but project was infeasible because of high groundwater tables, liability concerns, and site constraints.
- **2015:** Worked with Stewardship Partners to review and purchase a maintenance manual for new homeowners with LID facilities on their property.
- **2016:** Assessed community’s wants and needs concerning LID; adopted code revisions and design standards that incorporate LID techniques into requirements.
- **2017:** Reviewed our literature and conducted research regionally to determine a common set of LID terms and definitions to use.

In 2018, we worked with both Snohomish Conservation District (SCD) and King Conservation District (KCD) to offer LID assistance to interested residents. In late summer, SCD’s Veteran Crew dug out space and installed materials and educational signage for rain gardens at four private residents’ homes near Bothell High School. Then the two districts and City of Bothell held a volunteer rain garden planting party for those homes in the fall. We worked in partnership with the residents, using grants and jurisdictional funds to pay for the labor and supplies, while the residents themselves paid for the plants.



One of the City-owned rain gardens alongside the Multiway Boulevard in downtown Bothell



Cisterns installed next to portables at Crystal Springs Elementary

In 2019, one of our local schools, Crystal Springs Elementary, expressed interest in low impact development techniques on school grounds. SCD worked with school staff and students to install cisterns and provide related curriculum. The school requested that SCD and City of Bothell provide a small sustainable landscape demonstration, interpretive signage, and a rain barrel sale on site which was held in January 2019.

In March 2019, we worked with Snohomish Conservation District's Veteran Crew to remove existing plants from and add new native plants to the

residential rain gardens in the Verde development. This was one of the first private developments in Bothell that had rain gardens installed during its development, and we discovered a learning curve in educating the Home Owners Association about how to care for the rain gardens along the sidewalks and in their cul-de-sac, as well as the reasons for selecting certain plants for rain gardens. With SCD's help, the development now has healthy plants that are being cared for properly, and the residents have learned how to take over maintenance of the rain gardens in the future.

Conservation district and City of Bothell staff are available to meet with interested Homeowners Associations to explain how to properly care for their rain gardens, explain the gardens' function, provide a list of appropriate plants to use when replacements are necessary, and answer any other questions about the gardens.

In fall 2019, Snohomish Conservation District joined Tilth Alliance and City of Bothell at one of our Natural Yard Care workshops to host a do-it-yourself rain barrel building

session. The class sold out quickly and participants seemed eager to install and start using their new rain barrels.



Snohomish Conservation District's Veteran Crew installing residential rain gardens near Bothell High School

Because of development code and design standards revisions that went into effect in 2016, we are seeing more public and private development incorporating low impact development techniques into their projects. We expect to see this trend continue in 2020 as Bothell's private development expands. If needed, we will update our LID outreach materials to make terminology, stormwater benefits, and implementation easier to understand.

Learn more about low impact development options in Bothell at www.bothellwa.gov/raingardens.

Conclusion

City of Bothell has an active education and outreach program designed to reduce and eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Our City Council added “Environmental Stewardship and Sustainability” to its 2019 Council Goals, which reiterates Public Works’ existing practice of encouraging the public to participate in stewardship activities, both locally and regionally.

Staff track our outreach efforts and maintain records of current public education and outreach activities and budgets in accordance with State requirements. Refer to Appendix A for outreach materials developed and distributed in 2019.