

City of Bothell

# Public Education and Outreach Program

Summary Report 2014



JanetG  
12/20/2014

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## Introduction

Most polluted stormwater runoff is caused by the everyday actions of people that live in, travel through, or visit our area. While difficult, changing peoples' daily habits is more effective than attempting to clean up these pollutants after they've reached our streams.



## Goal

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

## Overview

Social marketing, 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 (think of campaigns such as *click it or ticket*, *this is your brain on drugs*, or *five a day*). Social marketing

combines standard marketing with social science and other practices to help determine the best way to motivate someone to change a regular habit. The City of Bothell has chosen to use various social marketing strategies to change individual behaviors that pollute our local waterways.

The amount of people you reach and the amount of times you reach them over time also play a key role in establishing and maintaining the change in individual behaviors. In the City of Bothell, broad outreach strategies began in 2008 to provide understanding and education concerning several different water pollution issues. The goal was to give our residents, businesses, and the general public a clear view of the water pollution issues facing our community and establish a level of basic understanding concerning polluted stormwater runoff, pollution control, the flow of water, and the water cycle.



For 2014, broad education was provided to local target audiences through a variety of outreach media. These types of outreach included:

- Bothell Cable News (BCTV)
- Bothell Bridge
- City P.R.I.D.E. Post
- Newspaper articles in Bothell Reporter, Seattle Times, etc.
- Press releases
- City website
- Weekly posts on City social media sites (facebook and twitter)

- Water education presentations
- Workshops
- City-sponsored and private events
- Volunteer events
- Community newsletters
- Utility vehicle signs
- Bus ads
- Banners and stationary signs
- Online web ads
- You-tube videos
- Earned media interviews and articles

The City of Bothell will continue to utilize these outreach media sources in 2015 to ensure our messaging is received repeatedly through a variety of means.

*Examples of print media outreach are provided in Appendix A.*

Broad regional awareness messaging was conducted in 2014 in accordance with the Stormwater Outreach for Regional Municipalities (STORM) coalition and the Puget Sound Starts Here (PSSH) campaign found at [www.pugetsoundstartshere.org](http://www.pugetsoundstartshere.org). This allowed the City to align messaging with over 80+ surrounding county and city governments, 100+ businesses, 400+ non-profits, and provide better outreach through a combined and consistent regional message. The City of Bothell also co-chaired the STORM coalition to ensure limited funding resources were utilized effectively and topics were applicable for smaller jurisdictions. Sub-regional outreach was conducted through the Stormwater Outreach Group (known as the SOGgies) which consists of the Cities of Bothell, Kirkland, Redmond, Shoreline, Bellevue, Sammamish, Kenmore, Issaquah, Lake Forest Park, Clyde Hill, Newcastle, and Seattle. These cities chose to pool funding for sub-regional messaging efforts and evaluation to reduce production costs and leverage larger jurisdictional resources.



*Examples of sub-regional bus boards, web ads, and regional outreach we conducted are provided in Appendix B.*

The City will continue to be an active participant in STORM and SOGgies in 2015 and will co-chair the STORM coalition as able to provide essential input and direction on future outreach efforts. The City will also continue to promote the PSSH campaign to raise awareness of individual impacts to Puget Sound and further regional messaging.

### Targeted Outreach Programs

#### **Natural Yard Care**

**Target audience:** *Bothell residents located within Snohomish County with a parcel size under an acre (2014)*

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



The City chose to partner with Snohomish County for 2014-2015 to run and evaluate their slightly different behavior change model with sixteen other jurisdictions in the County and Puget Sound region. This particular program was offered to randomly selected landowners with lots under an acre in size within the Snohomish County portion of Bothell. All homeowners were entered into a database and 1,000 homes were randomly selected to participate. These homeowners received outreach messaging and were invited to participate in a series of workshops. Once the extensive evaluation is complete, we will be able to determine whether their program model is more effective in creating behavior change than the King County model we've been using since 2010 for producing the required behavior change. This program will also be compared to a different technical assistance program currently being offered in Thurston County. Basic differences in the Snohomish program from the King County program include:

- Mailer solicitation was conducted at random instead of by geographic neighborhood location

- A much larger target group was selected
- Zero door-to-door canvassing took place
- There were only three touch points instead of seven
- Different mailers were used with slightly different graphics
- The workshops took place in a central church location outside of Bothell instead of a community center within City limits
- Online registration was changed
- Information packets were not given out
- No refreshments were provided
- Master gardeners were used to answer questions
- Different speakers were utilized for a few of the talks
- The consulting firm was different

This program is scheduled to continue through 2015 to complete the evaluation and re-launch the program.

*Examples of outreach materials and workshop photos are provided in Appendix C.*

## **Car Washing**

***Target Audience:*** *Bothell residents that wash their vehicles at home*

***Goal for success:*** *To reduce and eliminate the number of residents that allow their vehicle wash water to enter Bothell storm drains.*

One current behavior contributing to stormwater pollution is home car washing that allows wash water to drain to streets and storm drains. In order to properly address this source of pollution, the City chose to conduct research in 2014 to determine the magnitude of the issue in Bothell, the current practices and attitudes of its residents towards this behavior, and appropriate next steps to address this issue. From our initial background and past assessments, we identified three main goals for this project;

1. Determine the level of pollutants entering local streams annually from improper home car washing.
2. Determine an understanding into the motivations and behaviors of home car washers, with the intent of shifting their behavior toward increased use of commercial car washes and safer home car washing techniques.

3. Determine next steps for Bothell's car washing program to maximize residents' adoption of the identified Best Management Practices (BMPs).

A scope of work was created and executed to achieve each of the three goals:

Goal 1- Runoff Volume Modeling: The project team undertook baseline modeling of the volume of home-generated car wash runoff currently entering the City's streams and waterways. Using conservative assumptions the model states that 2,329,017 gallons of contaminated home car wash runoff reach Bothell's waterways each year.

Goal 2- Residential Survey: Findings from our online survey generally supported the data inputs used in the runoff generation model. Major points include:

- 88% of respondents have two or more cars in their household
- 70% of respondents wash their cars at least six times per year
- 56% wash their cars at home on an impervious surface

Comments from survey respondents indicate that washing happens far more frequently in the summer months.

Goal 2- Focus Group Investigations: We recruited focus group participants from Bothell residents who reported they sometimes wash their cars at home and sometimes use a commercial car wash. Findings from our focus group session include:

- While participants were also open to changing their behavior accordingly, most acknowledged that they are unlikely to use tools and approaches that require more time and effort (such as wash water diversion through sand bags and absorbent socks, or dumping of collected wash water into a sanitary sewer.)
- Participants seem generally open to increasing their use of commercial car washes, particularly if the facilities can be made more convenient through increased locations within the City, and increased quality of existing operations (existing facilities were perceived to often be in disrepair).
- Some participants also indicated a willingness to increase their use of commercial car washes if a trustworthy third-party, such as a branded car dealership or the car manufacturer, could attest that the location would be safe for their car's paint and finish.

Goal 3- Recommendations Based on Findings:

Discussed in more detail below, top recommendations for 2015 include the following:

- Provide messaging to residents regarding best times and reasons to use a commercial car wash (e.g. choose quality car washes, incorporate into existing errands to save time and increase convenience, go when lines will likely be shortest, etc.).
- Provide incentives and rewards to increase long-term behavior change (e.g. car wash coupons).
- Incorporate community-based social marketing techniques. Examples include:
  - Spotighting City leaders who visibly use safer car washing techniques
  - Posting yard signs on neighborhood leaders' properties
  - Engaging respected groups in creating high profile storm drain murals
  - Creating a Green HOA certification
  - Having City staff implement car washing BMPs with all fleet vehicles
- Share results of focus group with existing local commercial car washes and encourage operational changes to attract more customers.
- Communicate the focus group results, and the potential for an expanded car wash market within Bothell, to commercial car wash entrepreneurs to potentially increase number of car wash locations in the City.
- Provide guidance to residents on car washing BMPs that are safe for their cars as well as the environment.
- Utilize auto parts store and dealership channels to distribute information.
- Rerun the June, 2014 online survey and Elway survey to identify long-term behavior change as well as provide a qualitative evaluation of changing attitudes and opinions.



*Complete Car Washing Research Final Report can be found in Appendix D.*

## **Pet Waste**

**Target audience:** *Bothell residents that own a dog*

**Goal for success:** *To reduce the amount of pet waste left on public and private property.*

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. For this reason, Bothell has conducted a more robust program to reduce and eliminate known non-point sources of fecal coliform such as pet waste, failing septic, sewage, and bird feeding.

For pet waste, past surveys (most recent in 2012) have shown that picking up pet waste has been established as a social norm among Bothell residents, so we were able to adapt our efforts to maintain this awareness and move to enforcement. In 2011, we established a pet waste ordinance that made leaving pet waste on public and private property a punishable offense (see BMC 6.16.011 and 8.06.240).

In 2014, we worked with our animal control officer to conduct targeted education and outreach concerning the right to enforce in problem parks, neighborhoods, and public spaces. Because outreach is a continuum and needs to be revisited in order to maintain established behaviors, we will continue to promote the appropriate best management practice among our resident target audience in 2015.

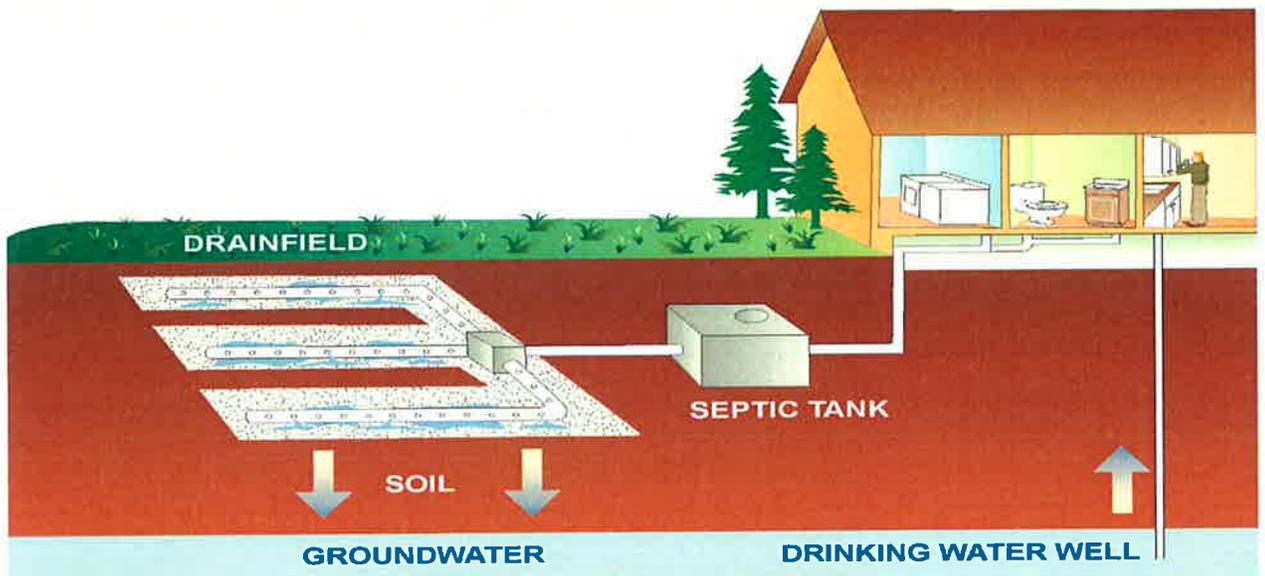


*Examples of pet waste and bird feeding materials as well as the adopted ordinance are provided in Appendix E.*

## **Septic System Maintenance**

**Target audience:** Septic System Owners within Bothell city limits.

**Goals for success:** To reduce the amount of fecal counts found in local creeks by improving maintenance efforts among septic owners and providing sewer connections for failing systems.



Graphic provided by Snohomish County

The septic tank is a watertight box, usually made of concrete or fiberglass, with an inlet and outlet pipe. Wastewater flows from the home to the septic tank through the sewer pipe. The septic tank treats the wastewater by holding it in the tank long enough for solids and liquids to separate. The wastewater forms three layers inside the tank. Solids lighter than water (such as fats, oils, and grease) float to the top forming a layer of scum. Solids heavier than water settle at the bottom of the tank forming a layer of sludge. This leaves a middle layer of partially clarified wastewater.

Septic systems were originally designed many decades ago to allow people to develop an area prior to sewer being available. They were designed as a temporary acceptable measure with a shelf-life, not a permanent fix. Because they weren't designed to be a permanent structure, it isn't a question of whether a septic system will fail but often when the drainfield will become clogged and the failure will occur. However, it is listed as common knowledge among long term health district workers that septic systems can last longer than 30 years with proper annual inspection, strictly adhering to Best Management Practices (BMP's), and pumping as necessary (Frenzl 2011).

For these reasons, the City has decided to actively encourage septic owners to follow BMP's and connect to sewer within five years of it becoming available in their area.

A septic system mailer with response incentive was provided in late 2010 to all suspected septic system addresses within Bothell city limits. The response data received helped update our GIS data records.

In 2012 we worked with Alderwood Water and Sewer to determine a path forward which included updating our map in order to adequately begin.

In 2013, we worked with several partners (other divisions within the City, Health Districts, Alderwood Water and Sewer, and Public Works Trust Fund) to help definitively determine current septic users, discover maintenance and improvement plans to allow for connection to sewer, establish relationships with partners to work together, determine average cost to homeowners for possible connection, and review how other jurisdictions were handling their septic system programs. It was determined that we couldn't apply for grant funding due to inadequate staffing for administering the funds, distribution of septic owners within our service area, and inadequate water quality data pinpointing specific neighborhoods outside our service area.

In 2014, we sent letters to all known septic system owners within 100ft of a sewer line to inform them of the five year timeline to connect to the existing system. Many homeowners found that the costs were prohibitive (some estimates were coming in between \$50,000-\$80,000) and therefore were fighting the need to connect to sewer, so staff determined there wasn't currently enough will to enforce this ordinance at this time. Our Utility Manager has consistently informed homeowners that while we are not currently enforcing connection, we have the ability to enforce at any time and they will be required to connect once there system fails.

In 2015, we plan to work with existing sewer providers to ensure that known failures are corrected with capital projects and are adequately prepared to handle the additional residents that will hopefully connect within the next five years.



## **Youth Stormwater Education**

**Target audience:** *All Bothell K-12 grade children attending public school.*

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

Several local cities and counties offer a water-centered educational program to children within their jurisdictions. These programs range from in-class presentations to field trips and festivals, and offer hands-on lessons about water conservation and stormwater education. This is an excellent way to provide basic watershed education to our future generations, and is often a great education and awareness tool for parents as well.

The City of Bothell began contracting in 2009 with the non-profit organization, Nature Vision, Inc., to administer water education courses to all service area schools. These classes are tailored to provide water education courses that meet teachers' Essential Academic Learning Requirements (EALR). Teachers are solicited electronically using a water education flyer (shown in Appendix F), and several classrooms sign up for programs averaging 2,000+ Bothell students per year. In order to be sure the stormwater messages are reaching the parents, a stormwater flyer and return postcard with stormwater education activities are given to all students and teachers (in both hard copy and electronic formats) providing an opportunity for parents to work with their children to understand and quantify their individual stormwater impacts.

The City of Bothell joined with the Cities of Kirkland and Redmond, which also offer Nature Vision presentations to their students, to create the postcards and flyers. This collaboration will allow us to see how the presentations are received in each of our jurisdictions and will provide the opportunity to compare our information. A three tiered evaluation strategy is conducted each year to determine student retention of information, understanding, and teacher satisfaction over time.

In 2014, the City worked with the Puget Sound Partnership (PSP) and the Pacific Education Institute (PEI) to create new curriculum that meets the next generation education standards and helps students prepare for the new testing requirements. This way, stormwater education can be

incorporated into the general education requirements ensuring more students receive stormwater messaging at a more in-depth level. The developed curriculum is being tested and administered to schools throughout Puget Sound in 2015 and will be evaluated for effectiveness.



The City is also a partnering agency in the regional Sammamish Watershed Festival which takes place the second week of May each year. The steering committee is planning to provide this all-day field trip event for over 800 4<sup>th</sup> grade students within the Sammamish River watershed again in 2015. The City will work within the steering committee to help administer a successful event at the Brightwater Education and Communication Center in Woodinville and help generate enthusiasm for water quality related topics.

Examples of youth education outreach are provided in Appendix F.

## Environmental Stewardship Opportunities

**Target audience:** Interested volunteers and residents with a yard that contain or abut wetland systems or surface waters.

**Goal for success:** To increase the amount of riparian structure, input, and shading along Bothell rivers, creeks, streams, lakes, and wetlands.

The City partnered with the Adopt-A-Stream Foundation and the King Conservation District (KCD) in 2011 to complete a Sammamish Streamkeepers Program which taught streamside landowners and other interested volunteers about restoration and helped them complete a large scale project along the Sammamish River. This project will continue to be maintained with volunteers through 2015.



The City partnered again with KCD in 2012-2015 to conduct a riparian enhancement project with a Rose Foundation grant. The project allows 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. This project will continue to be maintained with volunteers through 2015.

## **Hazardous Materials Use, Storage, and Disposal**

**Target Audience:** *All Bothell residents that utilize hazardous products.*

**Goal for success:** *To increase the awareness of household hazardous materials, provide awareness of proper BMP's for use, handling and storage, increase the use of proper disposal sites, and reduce the amount of hazardous materials being used by our residents wherever possible.*

The City has been participating in hazardous waste outreach for a number of years through funding from the Local Hazardous Waste Management Program (LHWMP). Bothell has offered several collection events as well as provided outreach at every Bothell festival to encourage proper use, storage, and disposal of hazardous household chemicals and materials. In 2011-2014, vouchers were given to Bothell residents to drop off hazardous materials at the Shoreline Transfer Station free of charge. One event mailer, several flyers, and two articles were sent to all residents to provide education and information as follows:

- Articles detailing Wastemobile dates and providing hazardous waste use, handling, and disposal information were printed in the Bothell Bridge, BothellCool Newsletter, and Bothell Reporter.
- A recycling event mailer was sent to all Bothell residences offering information on every program available such as the Wastemobile dates, the Take it Back program, recycling events, Waste watchers, Shoreline Transfer Station, City facilities that will accept certain waste, as well as information on use, handling, and storage of all household hazardous chemicals.
- A bill insert was provided to all Waste Management customers detailing disposal dates, curbside collection, and our spill response hotline number.
- Small flyers were provided to the local Senior Center to provide information and solicit participation for the Wastemobile disposal dates among Seniors.

All mailers sent people to our website for more information and offered LHWMP as an additional resource.

More education on use, handling, and storage will continue in 2015 through continued mailers, articles, collections, vouchers, and educational workshops through grant funding. Additional assistance with disposal will take place through free disposal opportunities with the wastemobile, curbside collection, and drop off options at the new Recology facility in Bothell.

Business outreach was also conducted in 2014 by our Local Source Control Specialist, focusing on companies that generate small quantities of hazardous waste while working and conducting business within Bothell. Technical assistance and training has been and will continue to be offered on-site to ensure proper application, handling, safety, and disposal of hazardous products in 2015.

Examples of outreach materials for 2014 are provided in Appendix G.

### **Mobile Business Generated Pollution**

**Target audience:** Mobile cleaning companies that service the Bothell area including the North Creek and Canyon Creek Business Parks.

**Goal for success:** To reduce the amount of pollutants from mobile business chemical and wastewater use, handling, and improper disposal which discharge to Bothell's MS4.

#### 2012-2014

Snohomish County determined that mobile businesses are not motivated to do the right thing regarding proper handling and disposal BMP's, so we reached out to educate those hiring for services and reinforce the need for property managers to hire reputable contractors that utilize proper BMP's in order to avoid fines for illegal discharges.

Our Local Source Control Specialist (LSCS) also made an effort to contact mobile businesses completing work within the City to provide technical assistance and inform them of the rules and regulations for proper disposal of their waste.

#### 2015

We plan to directly reach out to property management companies and homeowners to reinforce the need to hire reputable companies in order to avoid fines for illegal discharges. Our LSCS will also be following up with known mobile businesses to ensure they are keeping to the required practices.

The regional STORM group is also interested in developing a regional model to assist mobile businesses in adopting appropriate behaviors.

*An example of electronic outreach to property owners is provided in Appendix H.*

## **Illicit Discharge Identification, Education, and Reporting**

**Target audience:** 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.

This program is currently being administered through the use of our LSCS hired through an Ecology grant. This position is designed to encourage the use of proper BMP's to reduce the amount of improperly disposed materials by small quantity hazardous material generators through direct outreach and technical assistance.

We are also educating staff and the general public through outreach media, trainings, incentive items with the spill hotline number (key chains, magnets, window clings, etc.) and will continue to get the spill number out through new and existing channels.

This program will continue through June 2015 and will be evaluated for success after that time.



*Examples of outreach materials are provided in Appendix I.*

## Vehicle Leaks

**Target audience:** The general public who live near or drive through Bothell

**Goals for success:** Reduce the amount of oil and mechanical fluids released on Bothell roads due to vehicle leaks, and provide education for what to do if a spill occurs.

This program was run through a regional effort by the STORM group known as the Don't Drip and Drive Campaign. An event was conducted in Bothell through the Snohomish County Washington State Extension and paid for with a small STORM grant. Efforts in 2015 will greatly depend on grant dollars awarded by Ecology for further program development.



## Low Impact Development (LID)

**Target audience:** *City staff, developers, and the general public.*

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

Low impact development (LID) techniques are a newer idea for smaller municipalities and communities and involve educating several different groups including City staff and elected officials. The techniques add an element of complication due to lack of knowledge, maintenance concerns, and the fact that each technique requires extensive education and expertise to ensure the success of installation and maintenance. Our current economic situation causes further complication because most techniques require the use of a professional contracting company or consulting group for proper installation.

Our City Council has taken a proactive stance on sustainable practices and has encouraged our division to support use of LID techniques, such as rain gardens, to our residents. They have also asked us to provide rain garden plans to our residents to help people install gardens without the use of a professional landscaping company. We have several booklets available from Washington State University (WSU) Extension that provide great 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.

Our focus for 2011-2013 was on rain gardens and other more simple techniques that are possible to implement without a professional and can be completed with a limited budget. We offered workshops on LID techniques in the fall and spring at the location of our demonstration rain garden (Bothell public library) so the public could view a working garden, begin to understand how they function, and gather information for their own property needs.

We completed a guide in early 2013 that is still available at the front counter to walk Bothell residents through each approved LID technique and provide resource materials for them to complete each of the techniques on their own property.

For 2014, we utilized a grant from Ecology to create a demonstration neighborhood within the Queensborough watershed in an effort to reduce localized flooding and stream bank erosion and educate residents on these practices. Unfortunately, all designs proved to be infeasible due to high groundwater tables, liability concerns, and site constraints.

Fore 2015, we will continue to promote LID practices whenever possible and will work internally to prepare staff for the inevitable requirements through additional design standards coming in 2016.

*Example of outreach from the Queensborough project provided in Appendix J.*

## Conclusion

The City currently has an active education and outreach program designed to reduce and eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. We also encourage the public to participate in stewardship activities both locally and regionally. Staff are tracking outreach efforts and maintaining records of current public education and outreach activities and budgets in accordance with State requirements.

## Appendix A

# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

May 16, 2014



## Drug Arrest

On Saturday night, April 26, Bothell Police responded to the Extended Stay Deluxe for a threat of suicide. When they contacted the subject, he said he was not suicidal, but officer discovered that he had a felony drug-related warrant. He was taken into custody and booked into jail. Officers learned there were other subjects involved in the distribution of drugs associated with the same room but were not present.

The next morning, officer returned to the hotel and found the missing subjects as well as multiple other people, who had not rented any rooms, loitering and walking in, around, and about the hotel. Officers made contact with approximately six subjects who were also associated with several different vehicles. Two of the subjects, male and female, had Misdemeanor and Felony Warrants, were arrested and booked. The remaining subjects are currently under investigation for drugs with two of their vehicles impounded pending search warrants.

The following items, all associated with the illegal distribution of illegal narcotics, were discovered when the search warrant was served:

- \$10,990 U.S. Currency
- Over 539 grams total of Methamphetamine
- Over 42 grams total of Cocaine
- Over 69 grams total of Heroin
- 2 semi-automatic handguns
- Ammunition
- Drug paraphernalia associated to the use and distribution of illegal narcotics.
- Electronic Currency/Money Counter



## Upcoming Dates To Remember

### Salary Commission Public Hearing (confirmed)

Thursday, May 29  
6 p.m.

Municipal Courthouse

### Sustainamania

Saturday, June 7  
9:30 a.m. to 2 p.m.

Public Works  
Operations Center

## Sammamish Watershed Festival

Each year, school districts, cities, and water utilities in the Sammamish Watershed come together to teach our 4th grade students about the importance of water in our lives. This year, the festival was held at the Brightwater Education Center on May 12-14 and the City of Bothell once again sponsored and participated in the event. Approximately 700 students and 150 parents and teachers learned about watersheds, stormwater ponds, chemical engineering, wetlands, pollution, salmon, soil testing, water sampling, and so much more. The teachers and students were very thankful for the field trip learning opportunity and the other agencies were very appreciative of Bothell's involvement and assistance.



# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

June 27, 2014



City of Bothell™

## Wastemobile Coming to Bothell June 27-29

All King County and city residents can safely dispose of old car batteries, oil, paint thinner, and many other household hazardous items at no cost when the Wastemobile makes its third stop of the year in Bothell, June 27-29.

The Wastemobile will be in the parking lot of the Seattle Times building, 19200—120 Ave. N.E., from 10 a.m. to 5 p.m. each day. Residents can drop off household hazardous waste items including pesticides, oil-based paints, automotive products (oil, antifreeze, auto batteries, etc.), fluorescent bulbs/tubes and other items without a charge. The service is pre-paid through garbage and sewer utility fees.



Following its stop in Bothell, the Wastemobile travels to Snoqualmie for a household hazardous waste collection event July 11-13, in the parking lot of Snoqualmie Elementary School, 39801 S.E. Park.

## Upcoming Dates To

### Remember

**No City Council Meeting  
on July 1**

#### 4th of July Festivities

Pancake Breakfast

8:30 to 10:30 a.m.

Downtown Firehouse

Children's Parade

11:15 a.m.

Grand Parade

Noon

#### Music in the Park

Fridays

July 11 thru August 22

6:30 to 8 p.m.

North Creek

Sportsfield #3

## Puget Sound Governments Awarded National First Prize for *Don't Drip and Drive-Fix That Leak!* Campaign

The **Silver Anvil Award** is the Public Relations industry's most renowned honor. Only one is given per category each year nationwide. On June 12, Stormwater Outreach for Regional Municipalities (STORM), a consortium of over 80 local governments co-led by the City of Bothell to address polluted stormwater runoff, earned this highly-prized Silver Anvil for Public Service with consulting firm PRR and Cascadia Consulting Group for our Don't Drip and Drive campaign.

A few days later on June 17, the campaign also won a **Gold Creative Award** in the category of Cause-related/Sponsorship by the Summit International Awards. More than 5,000 entries from 24 countries were blind judged by an international panel of experts, and only one award is given per category each year.

The Don't Drip and Drive campaign, funded by a grant from the Washington Department of Ecology, is aimed to better inform residents in the Puget Sound region about pollution from automotive leaks, and encourages citizens to take action and fix their leaks. STORM partnered with the Automotive Service Association (ASA) and 84 local repair shops throughout the Puget Sound region to offer free vehicle inspections and discounts on leak repairs. Launched in April 2013, STORM tested close to 7,000 cars and trucks (429 of those in Bothell), found 2,000 leaking vehicles and confirmed over 700 were repaired by the end of the grant with an estimated total of 1,382 vehicles repaired within three months.

Ecology was so impressed with our campaign, they funded Don't Drip and Drive Phase II to strengthen our efforts and expand its partners. Phase II will launch July 1, and will offer an improved website, interactive map of participating repair shops, and a coupon for free inspections with up to \$50 off on any leak repairs, valid through September 30. The partnerships have expanded to include STORM, ASA, AAA, Envirostars, and a number of non-profit organizations and repair shops throughout the Puget Sound region.

# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

July 25, 2014



## City Hall Construction Begins

Construction on new City Hall starts! Activities that started this week related to construction of the new City Hall include installation of 6' chain link fencing around the city hall block, closure of the two parking lots adjacent to City Hall, opening of visitor parking spaces in the first row of the Police Department, "potholing" - identifying the exact location and grade of the underground utility, and closure of 101st Ave SE. City staff and area businesses have been notified of parking options and the City's website contains information about where visitors to City Hall may park during construction. See link: <http://www.ci.bothell.wa.us/CityServices/PlanningAndDevelopment/DowntownRevitalizationPlan/CityHall.ashx?p=1904>.



Next week, two 70' construction trailers arrive on-site along with subcontractor trailers. We are currently in the midst of planning a ground breaking celebration to take place in late August or early September.

If you receive inquiries or concerns about construction activities related to City Hall, please forward them to Kathie Oeser, 425-489-3371, [kathie.oeser@ci.bothell.wa.us](mailto:kathie.oeser@ci.bothell.wa.us).

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## Narcotics Search & Seizure



On Thursday morning, July 24, officers from the Bothell Police Department, North Sound Metro SWAT, and the Snohomish Regional Drug and Gang Task Force served a narcotics search warrant at a residence in Bothell. Bothell Officers obtained the search warrant after investigating a narcotics complaint in the area of the home. The residence, near Bothell High School, has been on the Police Department's radar for more than two years. Over the past few years, officers have investigated numerous complaints from citizens in the area regarding apparent drug activity. The culmination of everyone's effort was the successful service of the warrant today, which resulted in the arrest of two suspects, the seizure of over one-half ounce of

heroin, 18 grams of cocaine, 14 firearms, and more than \$2,000 U.S currency.

This is an ongoing investigation, which has been turned over to the Snohomish Regional Drug and Gang Task Force.

## **Storm and Surface Water Master Plan Update**

The Surface Water division is beginning to update our Storm and Surface Water Master Plan. The plan will include policies, procedures, and information on the following elements: infrastructure improvements, flooding prevention, water quality, habitat restoration, erosion control, maintenance, outreach, enforcement, development, Low Impact Development (LID) implementation, financial planning, and more.

We will solicit information and input from the public in a variety of ways throughout the process to ensure everyone has ample opportunity to influence the plan. Outreach efforts will include: articles, online and hard copy questionnaires, website landing page, potential interactive mapping, open house sessions, public process, and electronic updates.

For more information and to provide feedback at any time, please visit our Storm and Surface Water Master Plan page: <http://www.ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement/stormwatercomprehensiveplan.ashx?p=1905>

## **Upcoming Dates To Remember**

### **Music in the Park**

Fridays, 6:30 to 8 p.m.

North Creek

Sportsfield #3

Schedule:

7/25 = Joey Jewell

8/1 = Classic Roads

8/8 = Rewind

8/15 = Mr. Pink

8/22 = Magic Bus

### **Regional Fire Authority**

Next meeting

Thursday, September 4

6 p.m.

Northshore Fire Headquarters

## **Pet Waste Outreach**

Public Works Parks and Surface Water have joined together to place signs and door hangers in areas where we have received an increase in pet waste complaints. These materials discuss why leaving pet waste is a problem and how citizens can help. They also remind residents and the general public that leaving waste is against the law.

This outreach will continue over the next several months to try and reduce the amount of waste left in public spaces and on other residents' private property.

Please direct questions about this outreach to Debra Murdock (Animal Control) 425.486.1254 and Janet Geer (Surface Water) 425.486.2768.

## **Employee Potluck Picnic**

The annual Employee Picnic was rained out this week and rescheduled for Wed., August 6, 11:30 a.m. to 1:30 p.m. at Cedar Grove Park. Council members are welcome to attend!

# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

September 5, 2014



## Waste Management Truck Incident

On September 2, at 10 a.m., City staff from Fire and E.M.S., Police, and Public Works were called to an accident involving a Waste Management truck that tipped over while in operation in Bothell. The incident occurred in the neighborhood of 4<sup>th</sup> Avenue West, off of 228 Street Southeast. Reports on the scene indicated that the driver was making a right handed turn and the lift on the back of the truck malfunctioned, causing it to lift unexpectedly, and the weight caused the truck to tip over. According to Waste Management the truck had about one to two tons of material in the truck when the accident occurred.

The driver was transported by Bothell Fire and E.M.S. to Evergreen hospital with injuries and was released from the hospital on the same day. The truck was transported to Waste Management for mechanic review. Waste Management is working directly with the homeowner whose landscaping was impacted by the incident. Waste Management hired Whirlwind to clean up spilled fuel and other material on the street and in catch basins.



Staff is working with Waste Management to receive updates on the incident and a final report on the cause of the accident.

## Upcoming Dates To Remember

**Open House for Sammamish River Side Channel Restoration Project**  
Thursday, September 11  
6:30 to 8:30 p.m.  
Northshore Senior Center

**Ribbon Cutting for Crossroads/Multiway Blvd/ SR 522 Stage 2A Projects**  
Thursday, September 18  
11 a.m.  
Park at Bothell Landing

**Ribbon Cutting for Bothell-Everett Hwy Widening Project**  
Friday, October 3  
11 a.m.  
Country Village



## Sustain Fest

Public Works staff, Sabrina Combs and Janet Geer, provided information and resources to businesses and employees working in the Canyon Park Business Park at their annual Sustain Fest event last Thursday, August 28. CBRE, the property management company that runs most of the business park, hosts this event each year to help their owners, renters, and staff learn about more sustainable practices they can use every day to help reduce pollution and emissions, while improving their quality of life. For more information on what you can do to help, visit [bothellcool.org](http://bothellcool.org).



# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council  
September 12, 2014



## Structure Fire

Early Thursday morning, September 11, crews from Bothell Fire and E.M.S., Shoreline Fire Department, and Snohomish Fire District #7 responded to a structure fire at Caring Cabin Adult Family Home, located at 3511 236th Street SE in Bothell. Upon arrival, crews found significant smoke damage in the living and kitchen areas. Firefighters were able to extinguish the fire quickly. All occupants of the senior care living facility were evacuated safely by the time fire crews arrived to the scene, and they have been able to return to live in one wing of the building. The fire investigation determined that an overheated gas dryer appliance started this fire.



.....

## Salmon Watcher Training

Over 40 residents attended the salmon watcher training session on Thursday evening, September 11, to learn about identifying returning salmon, the effects of stormwater pollution on salmon, and fun facts to share with their friends and neighbors. Then, all attendees signed up to watch a section of North Creek or the Sammamish River from September to December and count returning salmon.



There are two more opportunities to attend the training and sign up:

- Tuesday, September 16 from 7-9 p.m. at Bellevue City Hall, 450 - 110th Ave NE, Bellevue
- Wednesday, September 24 from 7-9 p.m. at Seattle Carkeek Park Environmental Learning Center, 950 NW Carkeek Park Rd., Seattle

## Upcoming Dates To Remember

### State Auditor's Exit Conference

Tuesday, September 16  
2 p.m.  
City Hall  
Executive Conference Room

### Ribbon Cutting for Crossroads/Multiway Blvd/ SR 522 Stage 2A Projects

Thursday, September 18  
11 a.m.  
Park at Bothell Landing

### Open House for Sen. McAuliffe's New Bothell Office

Thursday, September 18  
5 to 7 p.m.  
18516 - 101st Ave. NE

### Ribbon Cutting for Bothell-Everett Hwy Widening Project

Friday, October 3  
11 a.m.  
Country Village

## Annual Report

The Police Department has produced their first Annual Report, and it is available online at:

<http://www.ci.bothell.wa.us/Site/Content/Public%20Safety/Police/2013AnnualReport.pdf>

# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

October 31, 2014



City of Bothell

## 2015-2016 Budget Proposal

I am pleased to submit the proposed 2015-2016 Biennial Budget to Council as part of the November 4, agenda packet. The proposed Budget will be electronically sent to Council by the end of Friday, October 31, 2014. It will also be uploaded to the website this weekend. I look forward to presenting and discussing the proposed budget with Council on Tuesday night.

### Storm Prep

In preparation for the fall stormy weather season, Public Works crews have been sweeping streets and picking up fallen leaves, seven days a week, since the beginning of October. Their diligence, along with the strong public outreach efforts of the Public Works Surface Water Division, appear to have greatly reduced urban flooding during the recent rain storms. With the rainy season upon us, the efforts continue in full swing.

For flooding emergencies during regular business hours (M-F, 7am-3:30pm), contact Public Works Operations at 425.488.0118. For after-hour flooding emergencies, contact Bothell PD at 425.486.1254. PD will page the on-call Public Works staff for response. For more information about Bothell's Adopt-A-Drain Program, please contact Surface Water Program Coordinator Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us).

### Robbery Suspect Arrested

Back in May of 2014, the La Mexicana Store in the 17200 block of Bothell Way NE was robbed by a man who displayed a knife to the employee and stole money. On September 18, 2014, the store was robbed again by the same person. This time, he displayed a handgun and stole money. Officers were able to obtain video from both robberies of the suspect from a nearby business. Through investigations, a suspect was identified and probable cause for arrest was established. Fliers of the suspect were distributed to surrounding jurisdictions. On Monday, October 27, an employee of the Kenmore Subway store called the Bothell Police. The employee had seen the crime bulletin regarding the incident and reported that the suspect was in the area. A Bothell Police Officer responded and took the suspect into custody. The Lead Detective interviewed the suspect who provided detailed information, confessing to both robberies. He was booked into King County Jail on two counts of robbery first degree.

### Upcoming Dates To Remember

#### RFAPC Next Meeting

Thursday, November 6  
Woodinville Fire & Rescue  
17718 Woodinville-  
Snohomish Rd. NE,  
Woodinville

#### Council Meeting Canceled

Tuesday, November 11  
In honor of Veteran's Day  
City Offices will also be  
closed this day.

#### Council Meeting Added

Tuesday, November 25

### Harassment via Twitter

On October 27, Bothell Police received a notification email from Twitter advising that University of Washington Bothell (UWB) had been mentioned in a tweet. Officer Ethan Nguyen reviewed the tweet which read, "If anyone plans on shooting up Cascadia or UW Bothell at least make it constructive and take out the sh\*t brained thugs who enforce parking".

Officer Ethan Nguyen was able to look up the Twitter account subscriber and, utilizing investigative tools, determined the subject's real name and address, and that he is a student at UWB.

Officer Nguyen and a security officer from UWB drove to the subject's residence in Snohomish, spoke with the subject and learned he had recently received over \$300.00 worth of parking tickets at the campus. The subject received his most recent ticket on October 26 and tweeted shortly thereafter. The subject also explained to officers that he was joking and meant his tweet to be humorous. Officers reminded the subject of the recent school shooting in Marysville and how his tweet caused many people on campus to be concerned for their safety.

Officers gained the subject's permission to search his residence and did not locate any firearms. The case was referred to the prosecutor for charges of Harassment. The subject will also be facing sanctions from the University.

### **Turf Replacement on Field #1**

The replacement of the synthetic turf on North Creek Field #1 has been slowed by the wet weather. The installers have laid approximately 50% of the green surface. They will be working over the weekend to take advantage of the drier weather that has been forecasted. Once the green surface that includes football and soccer lines is down, the crew will begin installing other marks for soccer, lacrosse and baseball/softball, followed by the spreading of the rubber in-fill. Spreading the in-fill requires dry weather. This project will probably continue for at least another two weeks.



### **Philips' Employee Fair**

Public Works staff attended the Employee Fair at Philips Medical on Monday, October 27, to teach, thru the "trick-or-treat" game, the proper way of disposing of items at work and in the community. Approximately 100 of Philips' staff participated.



# City Manager's Report

Weekly Highlights from City Manager Robert S. Stowe to the City Council

December 19, 2014



City of Bothell

## AWC Legislative Conference

The AWC legislative conference will be held on Wednesday and Thursday, February 18 & 19, 2015. **The hotels are filling quickly.** Please let the City Clerks Office know immediately if you plan to attend and, if so, will you travel to Olympia on Tuesday evening, February 17, or Wednesday morning so she can reserve accommodations appropriately.

## Upcoming Dates to Remember

### Offices Closed

**Christmas and New Year's**

Thursday, December 25

And

Thursday, January 1

### Post-Holiday

**Recycling Event**

Saturday, January 10

10 a.m. to 1 p.m.

Eastside Foursquare Church

Church

14520—100th Ave NE

## Parks & Rec Director Recruitment

The recruitment process for the Parks & Recreation Director has begun. Prothman Company has been engaged, and the job profile is currently being drafted. The goal is to begin advertising the position the first week of January. Applications would then be accepted until early February with interviews occurring at the end of February.

### City Manager's

**State of the City Speech**

Wednesday, January 14

11:30 a.m.

Greater Bothell Chamber of Commerce Membership Luncheon

Greater Bothell Chamber of Commerce Membership Luncheon

## Council Retreat

The Council Retreat for 2015 has been confirmed for Saturday, January 31, from 8 a.m. to 5 p.m. at the Public Works Operations Center. The agenda and packet will be provided as the date gets closer.

### Council Retreat

Saturday, January 31

8 a.m. to 5 p.m.

Public Works Operations Center

Center

## Science Night at Shelton View

Public Works staff attended the Shelton View Elementary Science Night on Friday, December 5. Janet Geer, Surface Water Program Coordinator, made rain sticks with students while Sabrina Combs, Recycle/Public Project Administrator, repurposed everyday items into ornaments using wine corks, PVC pipe, clothespins and creativity from students. It was a fun event, and staff received many thanks from parents for the great ideas.

### AWC Legislative Conference

Wednesday & Thursday

February 18 & 19

Olympia



# Bothell/COOL

A GREEN LIVING GUIDE

## FREE THIS ISSUE

- + It's a Beautiful Day in the Neighborhood
- + Sustainamania
- + Recycle Event
- + Wastemobile
- + Natural Yard Card Tips
- + Puget Sound Starts Here
- + Eco-Kit Lunches

## FEATURED ITEMS

- + Wastewatchers
- + Kids' Activity
- + Save the Date!
- + Great Tools and Resources

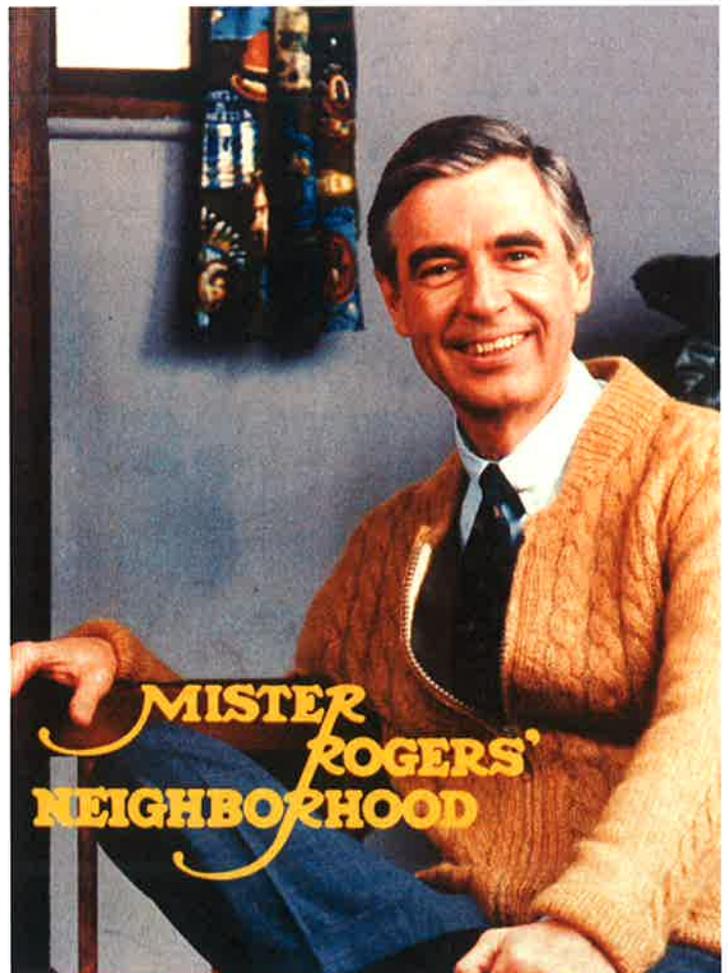




## WELCOME TO THE NEIGHBORHOOD!

The **BothellCOOL** program would like to welcome the newly annexed King County residents to the City of Bothell and share the programs BothellCool offers to help residents go BothellCool every day. **BothellCOOL** is the City of Bothell's sustainable program and includes information on the following programs:

- + Reuse and Recycling
- + Hazard materials (reduce your use and proper disposal info)
- + Proper disposal of pet waste
- + Car washing tips to reduce impacts on the local environment
- + Home Composting
- + Waste Watchers program
- + Shopping local as part of the Buy Bothell
- + Reducing energy use
- + Preventing oil leaks on roadways
- + Water Conservation
- + How to help local streams
- + Puget Sound Starts Here
- + Natural Yard Care
- + Volunteering
- + And much more...



Check out the Save the Date calendar on Page 7 to see a list of upcoming events that you can participate in for **FREE**.

Visit **[BothellCool.org](http://BothellCool.org)** for all things Cool and Sustainable!

# SUSTAINAMANIA

Saturday, June 7th from 9:30am – 2pm

FREE EVENT

Website: [sustainamania.org](http://sustainamania.org)

Location: Public Works Operations Center  
21233 20th Ave SE | Bothell, WA 98021

(Located behind Red Robin in Canyon Park at Thrashers Corner)

Join us for this fun family friendly event featuring chats with Public Works experts, touch-a-truck events, planting activities for kids, booths, vendors, eco free lunch kit tip for kids, recycle crafts for all ages and much more.

Come play **STUMP THE RECYCLER GAME**. Simply bring a hard to recycle item and see if you can stump the on-site Recycling Coordinator. Prizes will be issued for best items presented. Your items may help us improve education to your fellow Bothell residents.

Enter the ReUse Challenge at [sustanamania.org](http://sustanamania.org) click "ReUse"



COUPON

Bring this to the event to receive a Reusable Shopping Bag or Reusable BothellCool cup. Supplies are limited so come early.

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
\_\_\_\_\_



ONE PER HOUSEHOLD



Must bring coupon to event to redeem!

# RECYCLE EVENT

SPRING Recycle Event

March 1 – May 31

Request your voucher by 5/16/14

Location: SHORELINE RECYCLING AND TRANSFER STATION (2300 N. 165th St, Shoreline)

This Recycle Event is provided to residential City of Bothell residents. You have the option to request a voucher for large recyclables two times a year. The voucher is valued at \$22 towards the materials you are recycling. NO garbage is accepted at this event and a full list of accepted materials is mailed to you with your voucher. For more information, email [recyclebothell@ci.bothell.wa.us](mailto:recyclebothell@ci.bothell.wa.us) or request a voucher online today at [bothellcool.org](http://bothellcool.org) click "Recycle Event".

### Additional Recycling Options:

- |                     |   |
|---------------------|---|
| Curbside Collection | <a href="http://wmnorthwest.com/bothell">wmnorthwest.com/bothell</a>                      |
| Recycling Questions | <a href="http://KingCounty.gov/WhatDoIDoWith">KingCounty.gov/WhatDoIDoWith</a>            |
| Hazardous Materials | <a href="http://hazwastehelp.org">hazwastehelp.org</a>                                    |
| Wastemobile         | May 5th to 9th from 10am to 5pm at Seattle Times Building (19200 - 120th Ave NE, Bothell) |



Like us on Facebook!



# GREAT YARD CARE TIPS FOR SPRING

**Lawn** ❖ Your lawn is a great place to hang out and share time with family and friends. Make sure your lawn is not a hazard for your family and environment by following these simple tips:

- + Think twice before using weed-n-feed or other pesticides
- + Mow to a height of 2 inches- to develop deeper roots and crowd out weeds
- + Mulch your clippings- to grow a greener healthier lawn
- + Water deeply and infrequently- 1 inch per week (by you or the sky) no more, no less. Keep a rain gauge to make sure you aren't watering more than necessary
- + Aerate your lawn- rent a aerator and aerate your lawn to improve its condition
- + Overseed- with Pacific Northwest native seed after raking or aerating to expose your soil
- + Fertilize- spread a ½ inch of compost in spring and fall after overseeding or use a slow release organic product as directed

**Pest Control** ❖ Think twice before using pesticides! Scientists have found over 23 pesticides in our local streams, many at levels that damage salmon and other wildlife. Overuse of these products also causes soil and plant damage over time. The good news is we really don't need to use these chemicals on our lawns and gardens! By using the tips mentioned, you will build healthy soils and plants that can naturally fend off these predators.

- + Identify bugs before you spray- only about 5% of the bugs in your yard are pests. Good bugs help control smaller pests that will attack your plants and soils.
- + Review your practices- your problem could be due to overwatering, incorrect mowing, improper pruning, or other easily correctable practices.
- + Accept a Little Damage- natural predators will often bring pests under control but they need time to work. Don't spray at the first sign of damage.
- + If you can't rid your yard without the use of traps, barriers, or chemicals, use the least toxic option. Check out the Grow Smart, Grow Safe book at [www.naturalyardcare.info](http://www.naturalyardcare.info)
- + Replace Problem Plants- if you have a plant that has a pest or disease problem every year, replace it with a more tolerant variety that isn't plagued with the same issues.

For these and other great tips and resources, visit [www.naturalyardcare.info](http://www.naturalyardcare.info)

**Got Moss?** Moss is a native plant that prefers acidic soil while your lawn grass prefers basic soil. Simply add calcium or lime to your lawn in the spring as directed to discourage moss growth.



**Did you Know?** Because these are so toxic, it is illegal to apply Weed and Feed or Turf Builder with 2,4-D on lawns more than twice per year. Read the label carefully.



# WASTE WATCHERS



The typical American school kid generates 67 pounds of discarded school lunch packaging waste per school year. That's more than 18,000 pounds yearly for the average-sized elementary school. What does it cost to pack a waste free lunch instead?

## A Disposable Lunch

1 egg salad sandwich  
 1 yogurt  
 1 granola bar  
 1 apple  
 1 package of carrots and dip  
 3 plastic bags  
 1 juice pouch  
 1 plastic spoon  
 1 paper napkin  
**TOTAL: \$4.02**

VS.

## A Waste-Free Lunch

1 egg salad sandwich  
 1 serving of yogurt  
 1 serving of granola  
 1 apple  
 1 serving of carrots and dip  
 water  
 cloth napkin  
 stainless steel spoon  
 packaging  
**TOTAL: \$2.65**

To learn more about school lunch ideas visit the [BothellCool.org](http://BothellCool.org) web page or look for tips on the BothellCool Pinterest page. Check out our booth at Sustainamania (pg. 3) for an opportunity to receive a free lunch kit (*one per family*).

# PUGET SOUND STARTS HERE

Puget Sound and our local streams are in trouble, but you can help fix them! By making little changes in your daily habits you can make a big difference. Join the rest of us and make a change today:

- + **Pet Waste-** Scoop the Poop, Bag it, and Place it in the trash
- + **Natural Yard Care-** practice the Natural Yard Care tips listed on Page 3
- + **Car Washing-** Use a Commercial Car Wash or divert your wash water to grass or gravel
- + **Report Spills-** See a Spill? Call our Hotline, 425-806-6750

### Car Washing- Wanted: Home Car Washers

We are launching a pilot project to help research and develop tools and materials that will help residents who can't use a commercial car wash. These tools will assist with water collection, diversion, and distribution of vehicle wash water.

**Get in on the ground floor and help us to help you!**

Contact Janet Geer [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) for more information.

### Celebrate Puget Sound Starts Here Month in May - A Night at the Mariners

Every year, to help raise awareness, we join with cities and counties around the Sound to spend the month of May promoting ways you can help keep our water clean. Join us on Saturday, May 10 at 6:10 pm in a Night of Fun to celebrate clean water and support local non-profits in the area. Simply log onto [www.mariners.com/pugetsound](http://www.mariners.com/pugetsound) and purchase discounted tickets using the promo code: *salmon*



Like us on Facebook!



## KID'S CORNER: THE FLOW OF WATER

Water is not created but is recycled, as it has been since the beginning. The water from your faucet could contain molecules that the dinosaurs drank, or could've been used to quench the thirst of an ancient civilization. Water regulates the Earth's temperature just like it does in our own bodies.

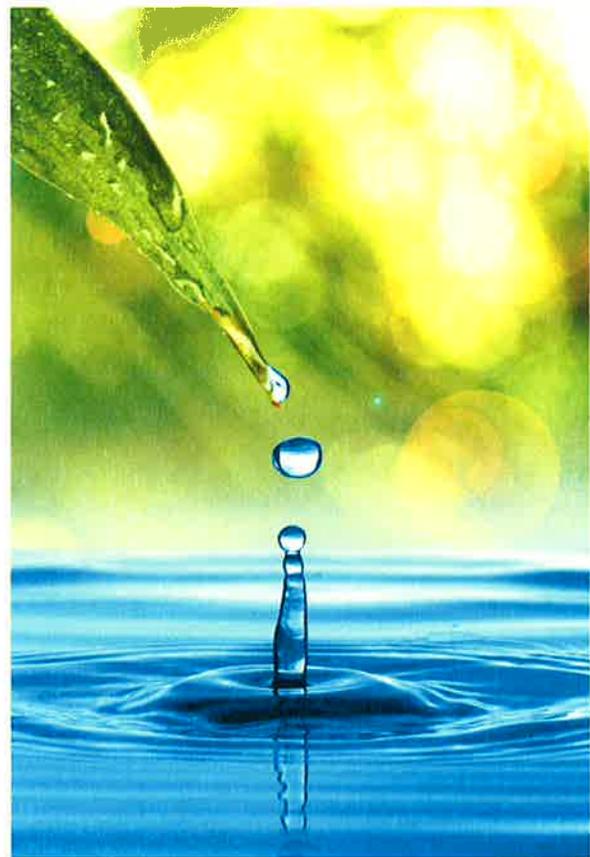
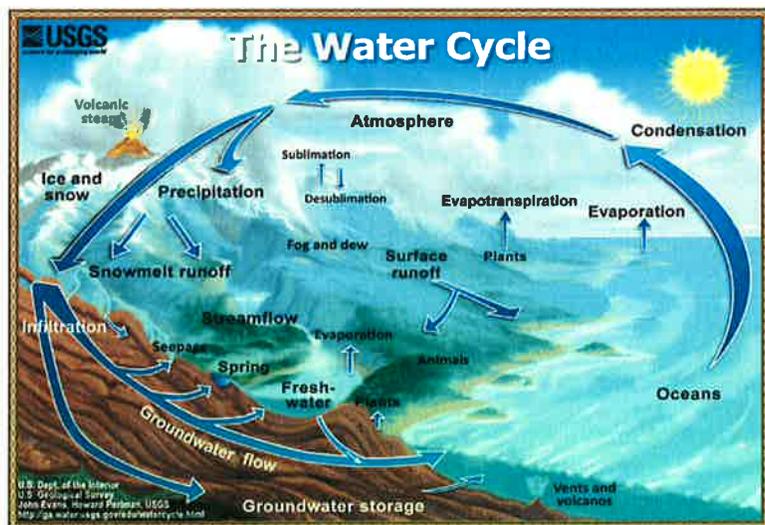
Fun facts about you and water:

- + 66% of your body is made of water
- + 75% of your brain is made of water
- + 75% of a living tree is made of water
- + A person can live up to a month without food, but only up to a week without water
- + The average person in the US uses about 120-160 gallons of clean water a day
- + The average cost of water supplied to a home in the US is about \$2.00 per 1,000 gallons, which equals approximately one penny per 5 gallons

All of the earth's water goes through a cycle. Water from oceans, lakes, swamps, rivers, streams, plants and even you turns into water vapor (called evaporation). Water vapor condenses into millions of tiny droplets that form clouds (called condensation). Clouds are heated or cooled and release their water as rain or snow (called precipitation). This water is absorbed into the soil or flows to the nearest body of water and the cycle continues.

### Did you Know?

*The water you drink today is billions of years old.*



## KIDS' ACTIVITY

- 1) Fill a jar half way with water
- 2) Place a tight fitting lid on the jar
- 3) Place the jar in a sunny spot

See how the water cycle works, watch as water condenses on the side of the jar and then precipitates into "rain" that collects on the lid and drips down the sides of the jar.

*\*You can also build two models and place one in a sunny or warmer location and one in a cooler location to compare the differences in the activity and movement of the water cycle.*

# EVENTS + ACTIVITIES

## March

### Recycle Event

March 1 – May 31 (Spring Event)  
\*See page 3 for more details



## April

### Recycle Event (CONT)

March 1 – May 31 (Spring Event)  
\*See page 3 for more details

### Festival of Frogs

Friday, April 4 from 6:30 – 8:30 pm  
**Brightwater Education Center**  
Take a night hike with experts and learn all about our local frogs and other amorous amphibians:  
[www.islandwood.org/events](http://www.islandwood.org/events)

### Arbor Day Planting

Saturday, April 5 at 10:00 am  
**Centennial Park 1129 208th Ave SE**  
Plant some trees and attend our Schoolhouse Grand Opening Event

### Brightwater Treatment Plant Tour

Saturday, April 19th at 10:00am  
Registration required [www.green.kingcounty.gov/wastewater-education/apptrequest.aspx](http://www.green.kingcounty.gov/wastewater-education/apptrequest.aspx)

### Earth Day

Learn about how you can practice Earth Day everyday on page 2 or at [BothellCool.org](http://BothellCool.org)

## May

### Recycle Event (CONT)

March 1 – May 31 (Spring Event)  
\*See page 3 for more details

### PSSH Month Night at the Mariners

Saturday, May 10 at 6:10 pm  
Come join the fun! Log onto [www.mariners.com/pugetsound](http://www.mariners.com/pugetsound) and enter promo code: *salmon* to purchase discounted tickets

### National Water Week

May 4 – 10  
“What do you know about H2O”  
learn more at [www.awwa.org](http://www.awwa.org)

### National Public Works Week

May 18 – 24  
Learn more at <http://www.apwa.net/discover/national-public-works-week>



## Coming Up!

**Sustainamania:** June 7 from 9:30am – 2pm (*see page 3 for more details*)

**Fall Recycle Event:** August 1 – October 31

More details about events are located at [BothellCool.org](http://BothellCool.org) or the City of Bothell events calendar at [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



Like us on Facebook!



## RESOURCES

### Websites

BothellCool.org  
www.pugetsoundstartshere.org  
wmnorthwest.com/bothell

### Phone

**Dawson Building Number:** 425.486.2768  
**Waste Management:** 800.592.9995

### Surface Water

BothellCool.org click "Surface Water"

### Recycling

BothellCool.org click "Recycling"  
KingCounty.gov/WhatDoIDoWith  
wmnorthwest.com/bothell

### Hotline

Report spills to our storm drains by calling 425.806.6750  
Garbage service delays or missed pickup requests: 800.592.9995  
Household Hazards Line 206.296.4692

Scan this code to visit  
BothellCool.org!



# STORM AND SURFACE WATER MASTER PLAN- UPDATE

## WE WANT TO HEAR FROM YOU

- + Do you have stormwater problems in your neighborhood?
- + Are you concerned about our wildlife habitat and water quality?
- + Do you have input on the City's Storm and Surface Water efforts?

If you answered "yes" to any of these questions than we want to hear from you! We are beginning to work on updating our storm and surface water master plan ( the City's planning tool for stormwater), which will include key information on: infrastructure improvements, flooding prevention, water quality, habitat restoration, erosion control, maintenance, community outreach, enforcement, development regulations, Low Impact Development (LID) implementation, financial planning, and more.

### PLEASE TAKE OUR SURVEY

<https://www.surveymonkey.com/s/bothellmasterplan>

Need a hard copy? Contact Janet Geer 425.486.2768 ext.4416



### HOW CAN I PROVIDE MY INPUT?

Please take our survey <https://www.surveymonkey.com/s/bothellmasterplan>

Attend one of our Open House Sessions

from 6:30- 8:30 p.m. Wednesday, October 8

Northshore Senior Center Thursday, October 9

Public Works Operations Center Sign up to receive updates Send an email or call Janet Geer

Janet.geer@ci.bothell.wa.us 425.486.2768 ext. 4416

# LOW IMPACT DEVELOPMENT

Low Impact Development (LID) techniques that mimic a natural forested environment like rain gardens, green roofs, cisterns, pervious pavement, etc. are being implemented throughout our region to help filter pollutants, slow water down, reduce erosion, and allow our underground aquifers to be recharged. In some areas, LID is proving to be difficult since the ground is already heavily saturated. In Bothell, the techniques that remove water from the system (cisterns, rain barrels, green roofs) will work anywhere while the techniques that require infiltration (rain gardens, pervious pavement, etc.) are only allowed in certain areas where the water can soak into the soil fast enough without causing harm. To learn more about these techniques, visit our surface water pages on the City website: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



Like us on Facebook!

# KIDS ACTIVITIES

## WHAT IS STORMWATER RUNOFF AND WHY IS IT A PROBLEM?

When rain falls or snow melts in Bothell, where do you think the water goes? Does it soak into the ground? Does it sit in a puddle until it disappears? If you answered “yes” then you are partially correct-some water soaks into the ground or evaporates into the air. But what happens to the rest of the rainwater? Some of it flows over hard surfaces (like roofs, parking lots, driveways, sidewalks, roads, etc.) and into the nearest storm drain, stream, or ditch. This water is called “runoff” or, sometimes, “stormwater runoff.” Storm drains look like big grates in the road where water “disappears” when it rains.

These storm drains carry water in pipes underground directly into your local streams. As this water flows over our hard surfaces, it picks up harmful pollutants that we have left behind. Pollutants are anything harmful to plants and animals. Sometimes the pollution is something you can see like; trash, oil, soap, and dirt. Other times you can't see the pollution at all like when chemicals, bacteria, pesticides, and fertilizers are washed into a nearby creek.

This activity is meant to help you identify some sources of seen and unseen pollution around your home and help you calculate your impacts. [For more information or tips on the answers visit pugetsoundstartshere.org](http://pugetsoundstartshere.org)

### ACTIVITY

Read the information above aloud, complete the activity questions below, and submit your answers to Janet Geer [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) to win a prize!

Question #1- Name three sources of water pollution that start at home

Question #2- How can we reduce these types of pollution?



### Youth Education

Drain Rangers is coming to a school near you! The City is working with the State to help implement stormwater education curriculum that aligns with the new education standards. If you are a teacher and would like

to provide input and assistance to ensure the adapted curriculum will best suit your needs,

Please contact Janet Geer:

[janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) or 425.486.2768 ext.4416





## KICK THE WEED AND FEED HABIT

**Weed and Feed and Turf Building products are not necessary.** They actually waste your time and money! Many professional landscapers don't use these products because it is useless to spread chemicals where they aren't needed, and fertilizers and pesticides can't effectively be applied together.

This year save your money, your family, and the environment by trying natural organic fertilizers to feed your lawn and soil. For more information and great tips, visit [naturalyardcare.info](http://naturalyardcare.info).

**DID YOU KNOW?**

Because these are so toxic, it is illegal to apply Weed and Feed or Turf Builder with 2,4-D on lawns more than twice per year. **READ THE LABEL CAREFULLY.**



**Stream Health**

We regularly collect samples from our local streams to check up on their health. This helps us to see how we are doing in our efforts to protect and restore these essential resources.

To learn more about our local stream health, visit our monitoring links at [bothellcool.org](http://bothellcool.org).





**PRESSURE WASHING**

In the Spring, many residents begin to maintain their roofs, siding, driveways, and sidewalks.

Whenever possible, try to sweep these areas instead of pressure washing. If pressure washing is necessary, be sure you let the water infiltrate into your lawn instead of allowing it to enter our storm drains.

**Remember,  
Nothing but  
Rain Down  
the Drain!**



**SEPTIC SYSTEMS**

The City of Bothell currently has over 1,400 known septic systems within its city limits. When septic systems fail, they are not only a smelly, messy nuisance, but they can release large amounts of untreated sewage. This raw sewage can spread disease and contaminate our local streams, placing residents and their families at risk. Proper attention to care and maintenance can prevent these problems and save you the cost of repair and early replacement.

Most septic systems are a simple design with a two-compartment tank and drainfield. The septic tank treats the wastewater by holding it in the tank long enough for solids and liquids to separate. The wastewater forms three layers inside the tank. Solids lighter than water (such as fats, oils, and grease) float to the top forming a layer of scum. Solids heavier than water settle at the bottom of the tank forming a layer of sludge. This leaves a middle layer of partially clarified wastewater.

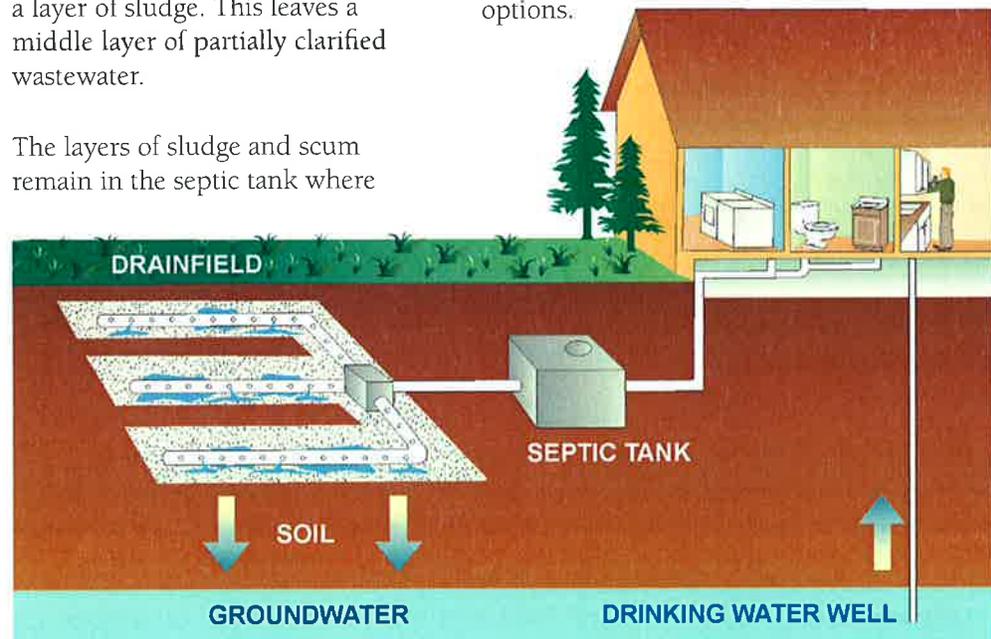
The layers of sludge and scum remain in the septic tank where

bacteria found naturally in the wastewater work to break down the solids. The sludge and scum that cannot be broken down are retained in the tank until the tank is pumped. The clarified water flows to the drainfield where perforated pipes or drain tiles distribute the wastewater one to three feet under your soil.

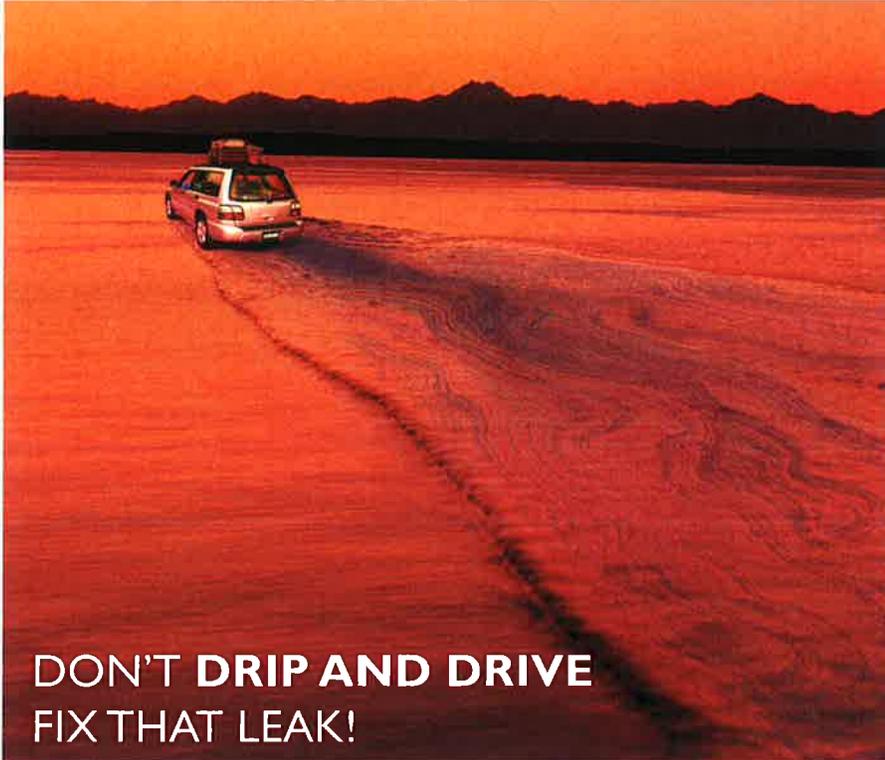
**KEEP BACTERIA WORKING**

Common household products will kill the necessary bacteria in your tank. Excessive amounts of chlorine, anti-bacterial soaps, disinfectants, strong acids, lye, medicines, pesticides, oil-based paint, or petroleum-based paint thinners can harm your septic system and pollute our environment.

Please dispose of these chemicals properly at the Wastemobile (details on page 4). Visit [bothellcool.org](http://bothellcool.org) for more information on **septic system care** and additional waste disposal options.



\*Graphic provided by Snohomish County



**D**on't Drip and Drive is back! This July, improve your car's safety and reliability by checking it for leaks. Every drop counts—even a single drop of oil on your driveway can affect the life of your car. Plus, vehicle leaks are harmful to us and our environment.

Go to [www.fixcarleaks.org](http://www.fixcarleaks.org) to find a list of participating mechanics offering free leak checks and a discount on leak repairs this summer.



**FREE Workshops** - only a few spots left!

Drivers can still learn basic car care and get an in-depth oil-leak inspection from experts at the FREE auto leak workshops around the Sound. The classes, valued at \$125, will cover how to check basic systems, vital fluids, belts, hoses, filters, and much more. Visit [www.fixcarleaks.org](http://www.fixcarleaks.org) to sign up at a community college today!

**IT'S NOT  
JUST DIRT**

Washing your car at home sends gasoline, oil, heavy metals, solvents and other harmful pollutants into our storm drains which are connected to our local streams and ultimately, Puget Sound. **Please do your part, take your car to a commercial car wash.**

**Remember, Nothing but  
Rain Down the Drain**



**Puget Sound  
Starts Here**

**PET WASTE - more than just an icky nuisance**

We've been finding increasing amounts of pet waste left in our parks, green spaces, and along our roadways. Dog waste, like human waste, is raw sewage and contains harmful bacteria and pathogens like Ecoli that are a health risk to humans, pets, and the environment. When pet waste is left in our yards and public spaces, it also gets washed into our storm drains which connect directly to the nearest lake, stream, or wetland without treatment. This waste impairs our local water bodies and then travels to Puget Sound where it causes bigger problems.

The great news is that it's easy to protect ourselves and our local waters, simply **Scoop the Poop, Bag it Up, and Place it in the Trash.**



**TAKE ACTION TO SAVE OUR STREAMS**

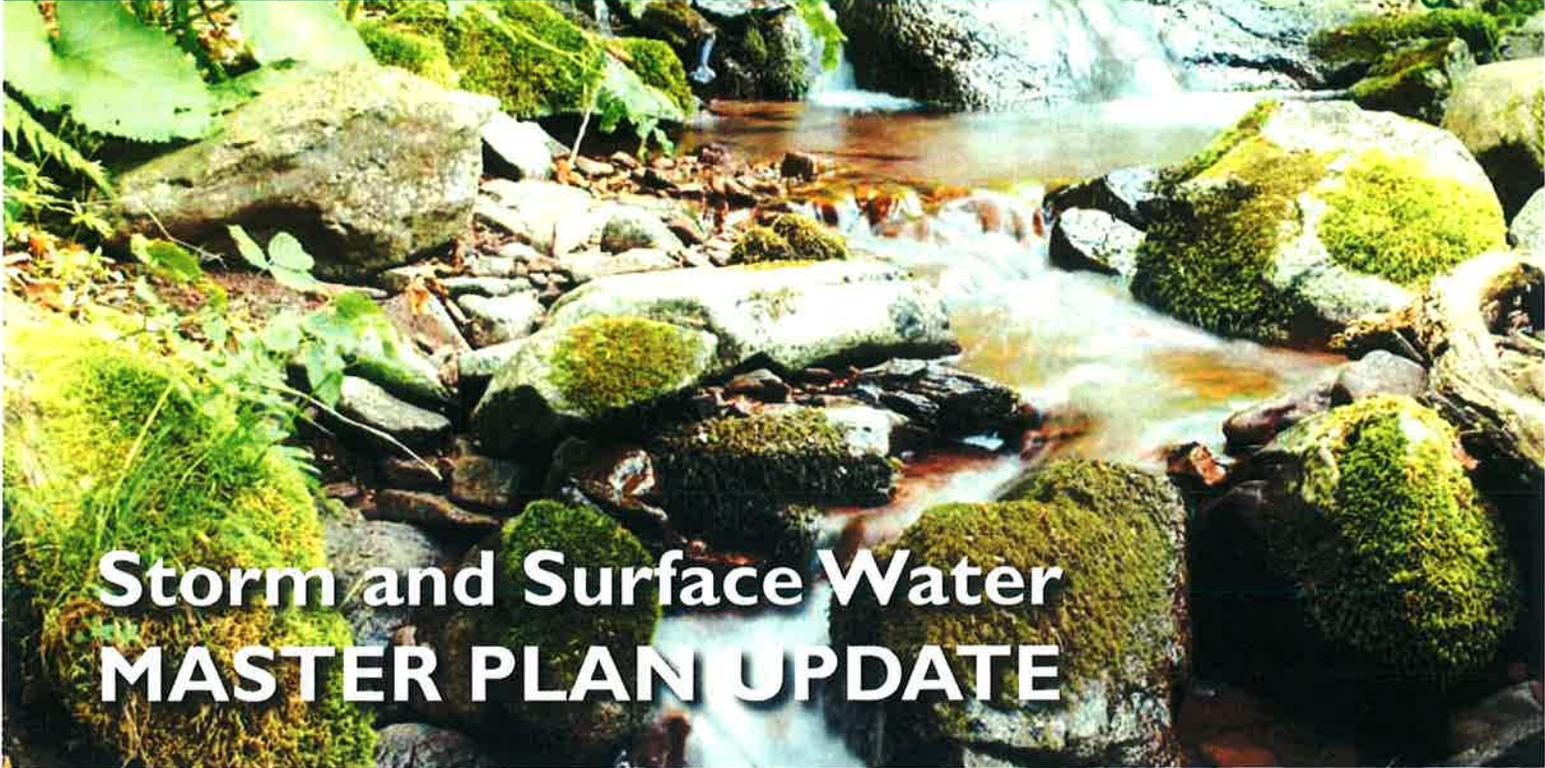
Stormwater, or polluted runoff, is the leading source of pollution in local streams and Puget Sound. You can help protect local water bodies from pollution and create an environment that is safer and healthier for all of us. Learn more about polluted runoff and what we are doing to address it in our Stormwater Management Plan and on our webpages: <http://www.ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement.ashx?p=1292>.

Take a moment to complete the online survey on the right hand side of our webpage and receive a special gift!



**DID YOU KNOW?**  
 Because of the human health risk, the City of Bothell has an ordinance making it illegal to leave pet waste on the ground. Do the right thing and avoid fines at the same time; **Scoop the Poop, Bag it, and Place it in the Trash.** Your neighbors will thank you!





# Storm and Surface Water MASTER PLAN UPDATE

## WE WANT TO HEAR FROM YOU

- ▶ Do you have stormwater problems in your neighborhood?
- ▶ Are you concerned about our wildlife habitat and water quality?
- ▶ Do you have input on the City's Storm and Surface Water efforts?

If you answered “yes” to any of these questions then we want to hear from you! We are beginning to work on updating our Storm and Surface Water Master Plan (the City's planning tool for stormwater), which will include key information on: system improvements and maintenance, flooding prevention, water quality, habitat restoration, erosion control, outreach, enforcement, development, Low Impact Development (LID) implementation, financial planning and more.

## PLEASE TAKE OUR SURVEY

[www.surveymonkey.com/s/bothellmasterplan](http://www.surveymonkey.com/s/bothellmasterplan)

Need a hard copy? Contact Janet Geer 425.486.2768 ext.4416



## HOW CAN I PROVIDE MY INPUT?

**Please take our survey**  
[www.surveymonkey.com/s/bothellmasterplan](http://www.surveymonkey.com/s/bothellmasterplan)

### Attend one of our Open House Sessions:

- Wednesday, October 8  
6:30-8:30 p.m.  
Northshore Senior Center
- Thursday, October 9  
6:30-8:30 p.m.  
Public Works Operations Center

Visit [www.bothellstorm.org](http://www.bothellstorm.org) for more information

### Sign up to receive updates

Send an email or call Janet Geer  
[Janet.geer@ci.bothell.wa.us](mailto:Janet.geer@ci.bothell.wa.us)  
425.486.2768 ext. 4416

## Calling All Sammamish River Trail Users: A CHANGE IS COMING

**City of Bothell to restore historic Sammamish River side channel**  
A large Sammamish River flood plain once provided abundant flood storage and habitat. In the early 1900s, modifications were made to the channel and floodplain to benefit navigation and agriculture. Unfortunately, the changes reduced ecological benefits for salmon and many other species. Today, we are improving fish habitat by providing shade along the banks and improving site conditions for the many other resident species.

Now, Bothell Public Works is designing a plan to restore some of the lost habitat by reconnecting a historic side channel to the Sammamish River. The project area is on the south side of the river, across from the Park at Bothell Landing.

Come and learn about this exciting project! Your input, as trail users and park enthusiasts, will help us determine what kind of access to the side channel wetland should be included in the plan.



### OPEN HOUSE

**Thursday, September 11th**  
**6:30-8:30 p.m.** Northshore Senior Center 10201 East Riverside Drive

*Want to provide input but can't attend?  
Contact Andy Loch [andy.loch@ci.bothell.wa.us](mailto:andy.loch@ci.bothell.wa.us) 425-486-2768*

### SPILLS HAPPEN, Help Us Find Them

If you see a spill on our streets or in our storm drains, please call  
**425-806-6750**



# ECOTOBER

## Saturday, October 25 10a-2p

**Bring the whole family to celebrate Ecotober with fun activities for all ages, live music, food, and tips from local experts.**

Brightwater Center  
22509 State Route 9 SE  
Woodinville, WA 98072

For more information and to register  
<https://bwecotober2014.eventbrite.com>





# Storm and Surface Water MASTER PLAN UPDATE

## NEXT OPPORTUNITY FOR INPUT

The Storm and Surface Water Master Plan is the City's planning tool for stormwater. It will include key information on: system improvements and maintenance, flooding prevention, water quality, habitat restoration, erosion control, outreach, enforcement, development, Low Impact Development (LID) implementation, financial planning, and more. Our last master plan was formally adopted in 1994.

Thank you to all who provided input on drainage and habitat concerns through our online survey and open house sessions. We have completed our information gathering efforts and are compiling this data into an initial draft. Projects and programs will then be prioritized based on established criteria.

An open house session will be held in early 2015 to show our draft findings and prioritization. This will be your next opportunity to learn about our stormwater program and what we are planning in the coming years.

## HOW CAN I PROVIDE MY INPUT?

**Attend our  
Open House Session:**

**Thursday, February 5**  
7:00-8:00 p.m.  
Hilton Garden Inn

Visit [www.bothellstorm.org](http://www.bothellstorm.org)  
for more information

**Sign up to  
receive updates**

Send an email or call Janet Geer  
[janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)  
425.486.2768 ext. 4416



### Sign up to receive updates.

Send an email or call Janet Geer [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)  
425.486.2768 ext 4416

## POLLUTED STORMWATER RUNOFF - What is it and what can you do about it?

*When rain falls or snow melts in Bothell, where do you think the water goes?* Does it soak into the ground? Does it sit in a puddle until it disappears? If you answered “yes” then you are partially correct—some water soaks into the ground or evaporates into the air.

### *But what happens to the rest of the rainwater?*

Most of it flows over hard surfaces (like roofs, parking lots, driveways, sidewalks, roads, etc.) and into the nearest storm drain, stream, or ditch without prior treatment. This water is called “runoff” or, sometimes, “stormwater runoff.”

### *As this water flows over our hard surfaces, it picks up harmful pollutants that we*

*have left behind.* Sometimes the pollution is something you can see like; trash, oil, soap, and dirt. Other times you can't see the pollution at all like when chemicals, bacteria, pesticides, and fertilizers are washed into a nearby creek.

Because this pollution is caused by each one of us we have the ability to make a difference. Visit [pugetsoundstartshere.org](http://pugetsoundstartshere.org) to hear stories of how Washington residents connect with our local waters and click on “How to Help” to learn about what you can do to improve our streams.



## CELEBRATE MARTIN LUTHER KING JR. DAY - Help in Your Community



Come and celebrate Martin Luther King Jr. Day with the City by planting trees in your community.

**When:** Saturday, January 17    **Where:** North Creek Trail  
from 9:00 a.m.-12:00 p.m.

**Register:** Visit <https://bothellplanting2014.eventbrite.com> to learn more and sign up

“ *Everybody can be great...because anybody can serve. You don't have to have a college degree to serve. You don't have to make your subject and verb agree to serve. You only need a heart full of grace. A soul generated by love.* ”

*Martin Luther King Jr.*



# P.R.I.D.E. Post



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City of Bothell Employee Newsletter  
April 2014

## Moss in your yard?

*Submitted by Janet Geer, Public Works*

This time of year, we begin the process of sprucing up our yards and preparing them for the growing season. If you have unwanted moss lurking in your lawn, then, before you buy chemicals, consider the following options to save yourself time and money:

- Moss likes acidic soils that naturally occur in this area. Spread lime on your lawn twice a year to make your soils more basic and deter moss growth.
- When you use chemicals to kill the moss, it dies in place which means you have to rake it out. Simply rake it out in the first place, then use your chemical funds to overseed with a native grass mixture (\$5 a bag at local retailer). Last, spread a little compost over the top and in 21 days you will be amazed at the results.
- Sometimes your lawn suffers from thatching, which is the buildup of excessive material that can choke out air, water, and sunlight. The presence of moss could mean your lawn is unhealthy and needs a little TLC. Simply rake your lawn to remove the excess material, rent a thatching machine from your local hardware store that will take small plugs out of your lawn and let air, water, and sunlight in. Next, spread native grass seed over your lawn and cover it with a thin layer of compost. Your lawn will come back stronger and able to outcompete with the moss.
- Maybe grass isn't the right plant for some areas of your yard. If spots in your yard are shady, sloped, or very wet, try putting in a plant that is better suited to your site conditions.
- When you use chemicals, the plants become resistant and will require more chemicals the following year to complete the same job.

## Did You Know?

In Japan, they are unhappy when grass gets in their moss beds and spend a lot of time and effort removing it. Here, we are unhappy when moss gets in our grass beds and spend millions of dollars removing it.... Both ways it's a matter of perspective and time you could've been enjoying a margarita instead.

## Upcoming Events Mark Your Calendars!

### Spring Yoga

Starts Wed., April 2  
12:05 to 12:55 p.m.  
Lytle House

### Healthy Cooking Presentation

Wed., April 16  
Noon to 1 p.m.  
Downtown Firehouse

### Mother's Day Flower Basket Lunch 'n Learn

Thurs., May 8  
PWOC  
Two sessions during lunch hours

### Employee Recognition Luncheon

Wed., May 14  
11:30 a.m.  
Int'l Union of Operating Engineers Hall  
16701—120th Ave NE, Bothell

### Annual City of Bothell Employees' Potluck Picnic

Wed., July 23  
11:30 a.m. - 1:30 p.m.  
Cedar Grove Park  
22421 - 9 Ave. S.E., Bothell

## Puget Sound Starts Here

*Submitted by Janet Geer, Public Works*

“Puget Sound Starts Here” Month kicked off in Bothell with bus ads, business partnerships, and city-wide articles. It culminated with a wonderful Night at the Mariners Event, a youth Watershed Festival with over 700 students, and a Natural Yard Care workshop series. Now, as PSSH Month has come to an end for 2014, please take a moment to think about what you place on your lawn, driveways, home, and vehicles. Only use products that are not harmful to our environment. Remember, no matter where you are in Western Washington, Puget Sound Starts Here!



## Vehicle Leaks

*Submitted by Janet Geer, Public Works*

Don't Drip and Drive is back! This July, improve your car's safety and reliability by checking it for leaks. Every drop counts—even a single drop of oil on your driveway can affect the life of your car. Plus, vehicle leaks are harmful to us and our environment.

Go to [www.fixcarleaks.org](http://www.fixcarleaks.org) to find a list of participating mechanics offering FREE leak checks and a discount of leak repairs this summer.



# P.R.I.D.E. Post



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City of Bothell Employee Newsletter  
September 2014

## Upcoming Events Mark Your Calendars!

### Summer Yoga

Sept. 3, 10, 17 24; Oct 1, 8  
11:35 to 12:25 p.m.  
Lytle House

### City Hall Groundbreaking Ceremony

September 3, 10 a.m.  
City Hall parking lot

### Lunch 'n Learn

"Making Successful Change"  
September 4, Noon to 1 pm  
(See attached flyer for more details.)

### Free 10-minute Shoulder Massage

September 9, Noon to 1:30 p.m.  
Contact Lynda, ext 4308, for appt.

### Ribbon Cutting Ceremony for Crossroads/Multway Blvd/ SR522 Stage 2A Projects

September 18, 11 a.m.  
Park at Bothell Landing

### Ribbon Cutting Ceremony for Bothell-Everett Highway Widening Project

October 3, 11 a.m.  
Country Village

### Flu Shots

October 6, 8, and 10  
PD Community Room

### Free Health Screening

Thursday, October 9  
7:30 a.m. to Noon

## Update- Storm and Surface Water Master Plan

*Submitted by Janet Geer, Public Works*

Staff members in the Surface Water Division are beginning to update our Storm and Surface Water Master Plan (our planning tool for stormwater). Here's what the update will include: infrastructure improvements, flood prevention, water quality protection, habitat restoration, erosion control, maintenance, community education and outreach, regulation enforcement, development requirements, Low Impact Development (LID) implementation, financial planning, and more!

We will be reaching out to various departments and divisions throughout the City in the coming months to capture drainage issues, water quality issues, update development regulations, and discuss code changes to implement required Low Impact Development (LID) techniques.

Do you have concerns or feedback to share? Would you like to be involved in this process? Please feel free to contact us with any thoughts, questions, or concerns:

To provide details on a drainage or flooding concern, contact Kristin Terpstra at [Kristin.terpstra@ci.bothell.wa.us](mailto:Kristin.terpstra@ci.bothell.wa.us) or 4463.

To talk about a specific stormwater topic, contact Craig Stampher at [craig.stampher@ci.bothell.wa.us](mailto:craig.stampher@ci.bothell.wa.us) or 4405.

To receive regular updates on our progress, including our open house schedule, contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) or 4416.

## Cartridge Recycling

*Submitted by Michele Woodhouse, Information Systems*

What to do with used printer cartridges? Here's an option for mailing in and it's free.

<http://magnumlaser.com/recycle/returnlabel.pdf>

## **Calling All Salmon Watchers!**

*Submitted by Janet Geer, Public Works*

It's almost that time of year again, when salmon make their way home to spawn. Learn about your local salmon, their habitat, and what you can do to help them. All you have to do is attend one training session and sign up to watch near your work or home.

Volunteered as a Salmon Watcher before?- Come for a refresher

New to the Program?- We'll teach you:

- how to identify our local salmon species
- what to look for in salmon habitat
- what you can do to help salmon
- fun facts that you'll want to share with friends and family



Then, if you want to sign up and count salmon this Fall, we will get you all set up!

Trainings this year:

- Tuesday, September 9- Renton City Hall
- Thursday, September 11- Woodinville City Hall
- Tuesday, September 16- Bellevue City Hall
- Wednesday, September 24 Seattle Carkeek Park Environmental Learning Center

Visit [www.kingcounty.gov/salmonwatcher](http://www.kingcounty.gov/salmonwatcher) to learn more or contact Janet Geer [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) with any questions.

## **Congratulations, Nik Stroup!**

*Submitted by Sabrina Combs, Public Works*

Nik was the July winner in the "Curb the Congestion" program offered by Community Transit and Snohomish County and won \$150 for his efforts to reduce traffic.

If your route to work takes you down the Bothell-Everett Hwy between 128th & downtown Bothell, or I-405 between I-5 & SR 522, you are eligible to participate in the "Curb the Congestion" program.

Read more about the program and Nik's prize-winning effort [here](#).

# P.R.I.D.E. Post



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City of Bothell Employee Newsletter  
November 2014

## Upcoming Events Mark Your Calendars!

### Safe Halloween

Friday, October 31

- Trick-or-treating at Country Village from 4 to 6 p.m.
- Trick-or-treating on Main Street from 5 to 7 p.m.

### Benefits Fair

Wed., November 5

11:30 a.m. to 1:30 p.m.

Sons of Norway Hall

23905 Bothell-Everett Hwy.

### Lunch 'N "Learn

**"Meal Planning: Keeping Your Group on Budget"**

Thursday, November 6

Noon to 1 p.m.

P.D. Community Room

### Veterans Day

City Offices Closed

Tuesday, November 11

### City Manager Update Meetings

- Tuesday, November 18  
10 a.m.  
Police Community Room
- Thursday, November 20  
10:30 a.m.  
PWOC

### Thanksgiving

City Offices Closed

Thursday & Friday, Nov. 27 & 28

## Swap the Shoptalk

*Submitted by Janet Geer, Public Works*

Research tells us that the current adult population is extremely busy and doesn't want to have to decipher what they are reading in basic outreach materials. Using technical words or other language your audience may not fully understand confuses your readers and can make them feel excluded. This means they will probably ignore your message. By using more plain talk, you might give up some nuance, but you'll get more understanding, agreement, and cooperation. Here are some tested examples from Water Words that Work:

- **Watershed:** More than half of residents can't accurately tell you what this term means. Instead, use upstream and downstream area or something similar to describe what you mean.
- **Conservation easement:** Easements are associated with intrusions on private property. Instead, use voluntary land protection area.
- **Land use planning:** This term is vague and ominous to the general public. Use planning ahead instead.
- **Landscape:** This evokes images of pretty unnatural landscaping. Instead, use natural area or a better description of the land you are referring to.
- **Green infrastructure:** This concept is confusing. Use clean water investments or something similar instead.

For more tips and information, please see <http://www.plainlanguage.gov/howto/guidelines/FederalPLGuidelines/index.cfm?CFID=2650206&CFTOKEN=2fa56c4dead83153-0B72ED07-FE61-644B-3816E36261BD4958&jsessionid=20222DBF55F4A00CE40443CEC3D0EB3A.chh>

## Toxic Stormwater Cocktail Causes Death in Salmon

*Submitted by Janet Geer, Public Works*

Polluted stormwater runoff is the single largest source of pollution in local streams and Puget Sound. Twenty six salmon and steelhead population segments in the west are currently listed as threatened or endangered under the Endangered Species Act (ESA) and scientists have been pointing to polluted stormwater runoff as a contributing factor in their decline. State and federal agencies, with funding from the Environmental Protection Agency (EPA), have been conducting experiments on adult salmon and fish embryos to determine the effects of polluted runoff (and individual chemicals present within the runoff). The results are very stark, salmon that were submerged in polluted runoff collected from a Seattle highway were all dead within four hours. However, when the polluted runoff was filtered through a mixture of gravel, sand, and compost before submerging the salmon, the fish survived with no apparent damage after 24 hours. While there is much controversy over this research, and long term testing is being conducted to determine whether this method will continue to be effective over time, the experiments are still promising.



The bottom line is that this pollution comes from each one of us in our everyday activities, so the solutions are likely to be a combined effort of changing our daily habits, removing some pollution sources from industry, and treating stormwater where possible before reaching our streams.

For more information, visit a recent published article from ABA News here: <http://tinyurl.com/k7rbju8>

*Welcome!!*



Jeff Sperry began work in the Public Works Department on November 25 as a Building Maintenance Specialist.

*Congrats!!*

Virginia Samuelson was promoted to Administrative Assistant in the Public Works Operations Division.

## FOR IMMEDIATE RELEASE

October 6, 2014

Media Contact:

Janet Geer, Surface Water Program Coordinator

Phone: 425-486-2768

Email: [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)

City website: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



### Help Your Neighborhood and Community: Protect Storm Drains from Clogging this Fall

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Bothell, Wash. – During the Fall, leaves and other debris drop onto our roads and cover our storm drains. This debris can clog the drains and prevent stormwater from moving away from your property, leaving your neighborhood at risk for flooding. Many residents mistakenly blow or sweep their fallen leaves into the street, not realizing they become a safety and stormwater hazard to their property and neighborhood.

City crews do their best to sweep and clear the street, but with over 8,000 storm drains in the City, it's no simple task.

The great news is you can help! There are many ways to safeguard yourself and your community:

- Rake leaves into your yard waste bin
- Use leaves as mulch on garden beds and landscaped areas
- Join the Adopt-A-Drain Program and pledge to remove leaves from at least four storm drains in your area (extra yard waste bags are available through the program by contacting Janet Geer at 425.486.2768 ext. 4416 or [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us))
- Tell your friends and neighbors how they can help themselves and their community

#### Adopt-A-Drain Program

The City of Bothell will provide you with simple instructions and equipment to help clear vulnerable areas when the leaves are falling or before projected major storm events.

Adopt-A-Drain is a great service project for a family, school group, scout troop or neighborhood community. For more information, please visit [www.bothellcool.org](http://www.bothellcool.org) or contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)



# ECOTOBER

## AT BRIGHTWATER CENTER

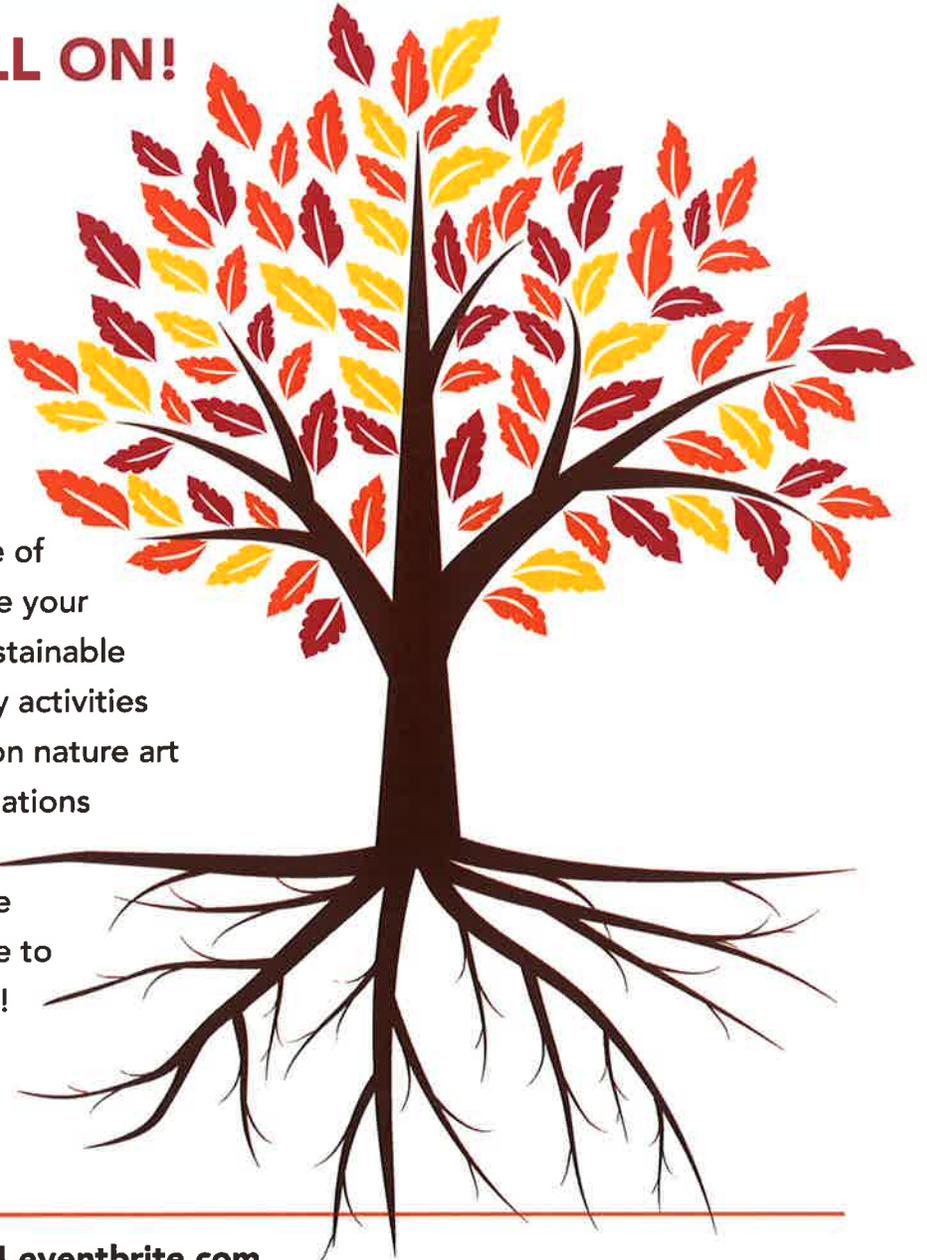
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### GET YOUR FALL ON!

**OCTOBER 25, 2014**  
**FROM 10 AM - 2 PM**

**Brightwater Center**  
**22505 St. Rt 9 SE**  
**Woodinville, WA 98072**

Bring the whole family to Brightwater to celebrate Ecotober. This is a great time of year to learn tips and prepare your home, kids and yard for a sustainable Fall and Winter season. Enjoy activities for all ages including hands-on nature art projects, composting investigations (free samples available while the supplies last!), a live bluegrass band, and a chance to explore a real recycling truck! Bring your used Halloween Costumes and participate in our **COSTUME EXCHANGE!**



---

Visit [www.bwecotober2014.eventbrite.com](http://www.bwecotober2014.eventbrite.com) for more information and to register.

---

Ecotober is presented by:



# HELP PREVENT LOCALIZED FLOODING

Many residents mistakenly blow or sweep their fallen leaves into the street, not realizing they become a safety and stormwater hazard to their property and neighborhood. The storm drains in your street capture, move, and release rain water into the nearest stream to keep excess water away from your property. If leaves clog these drains, it can cause localized flooding.

There are over 8,000 storm drains in the City, so it's infeasible for crews to clear all drains before and during storm events. Clogged storm drains can leave your neighborhood at risk.

## HOW CAN YOU HELP?

- Rake leaves into your yard waste bin
- Use leaves as mulch on garden beds and landscaped areas
- Join the Adopt-A-Drain Program and pledge to remove leaves from at least four storm drains in your area (extra yard waste bags are available through the program by contacting Janet Geer at 425.486.2768 ext. 4416 or [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us))
- Tell your friends and neighbors how to help themselves and their community

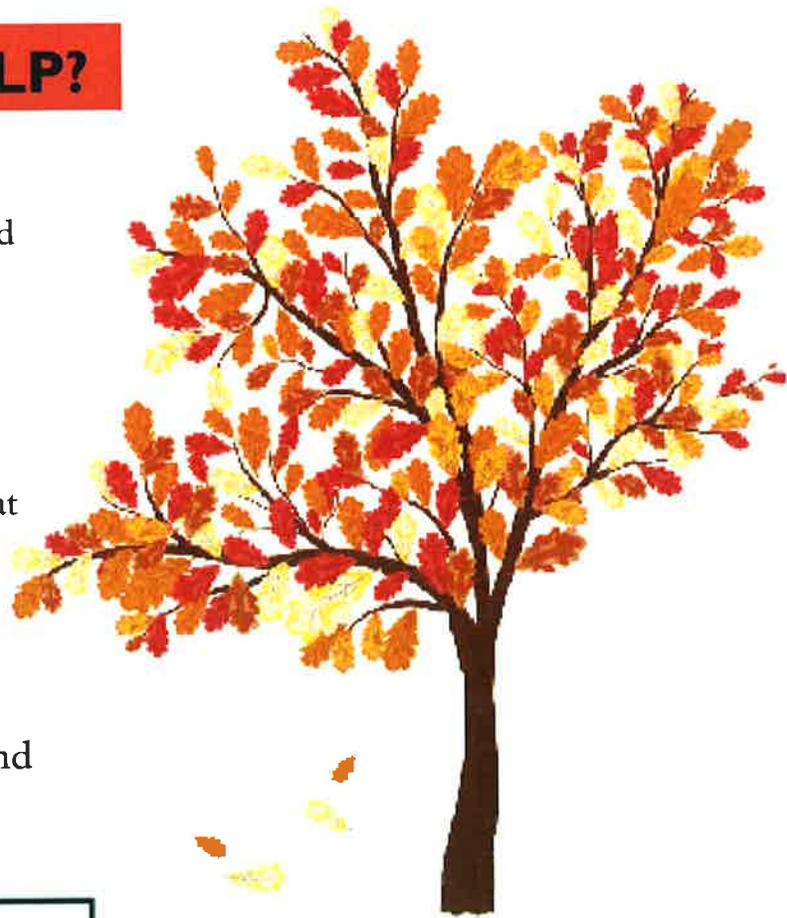


For more tips on mulch and natural yard care, visit [naturalyardcare.info](http://naturalyardcare.info)

To learn more about adopting storm drains, visit [bothellcool.org](http://bothellcool.org)



City of Bothell



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- Tell your friends and neighbors how to help themselves and their community

*\*Using additional bags could result in extra fees from your garbage service provider.*

Visit Waste Management: [wmnorthwest.com/bothell](http://wmnorthwest.com/bothell)



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*\*Using additional bags could result in extra fees from your garbage service provider.*

Visit Waste Management: [wmnorthwest.com/bothell](http://wmnorthwest.com/bothell)





# Prevent Local Flooding

Leaves that are blown or swept into the street cause safety and flooding hazards to the surrounding property and neighborhood.

City of Bothell has over 8,000 storm drains throughout the city, so while we do our best to keep them clean, it's infeasible to get to all drains before and during rain events.

## You Can Help!

- Rake leaves into your yard waste bin
- Use leaves as mulch on garden beds and landscaped areas
- Join the Adopt-A-Drain Program
- Tell your friends and neighbors how to help themselves and their community

## For More Info

Tips on mulching and other natural yard care practices:  
[www.naturallyardcare.info](http://www.naturallyardcare.info)

Adopt-A-Drain Program:  
[www.bothellcool.org](http://www.bothellcool.org)

Questions? Contact:  
[janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)



City of Bothell™



# Adopt-A-Drain

Leaves that are left on streets can clog storm drains and contribute to safety and flooding hazards. You can help prevent flooding by participating in our Adopt-A-Drain Program.

All you have to do is volunteer to clear at least four storm drains in your neighborhood.

## City of Bothell Provides

- Instructions
- Gloves
- Safety Vest
- Additional yard waste bags with free collection upon request

We will also remind you to clear the drains when the leaves are falling or before projected major storm events.

## Want to Sign Up?

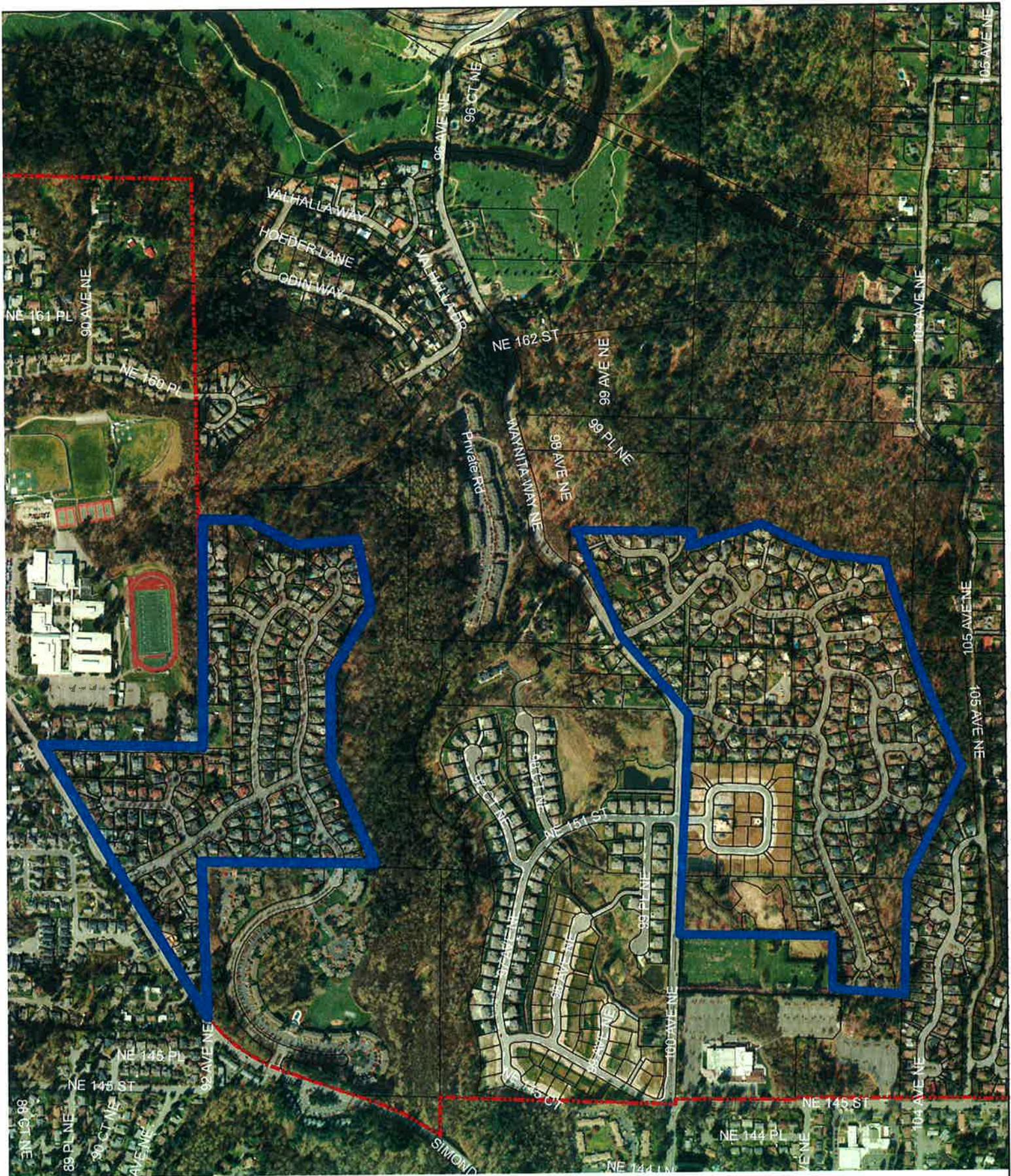
Contact Janet Geer  
Surface Water Program Coordinator  
[janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)  
425.486.2768 ext. 4416

## Questions?

Visit us at  
[www.bothellcool.org](http://www.bothellcool.org)



City of Bothell™



## Leaves Flyer- Amber Ridge and Bridlewood

Legend  
 Bozell City Limit

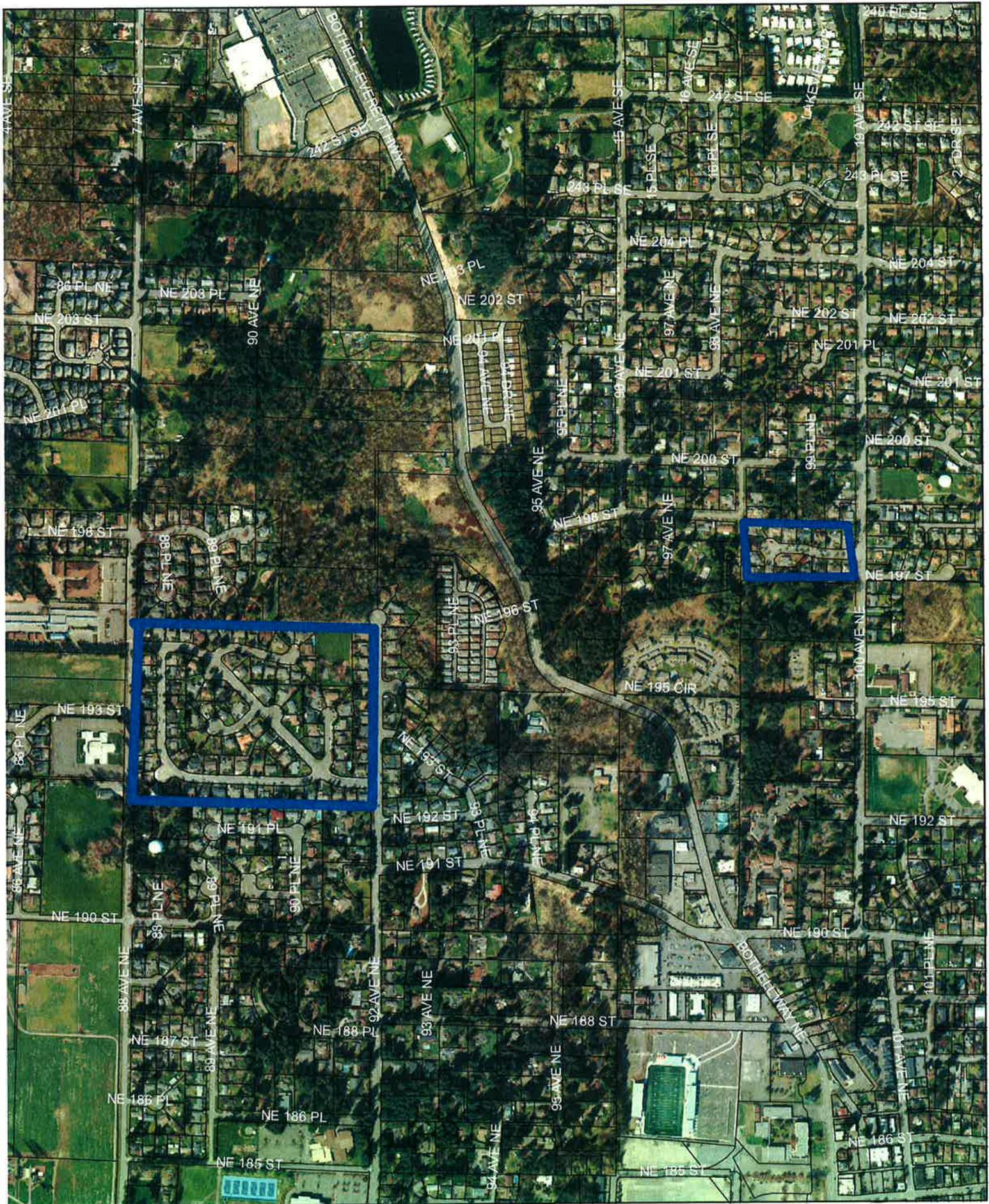


The City of Bozell delivers this data (map) in an AS-IS condition. GIS data (maps) are produced by the City of Bozell for internal purposes. No representation or guarantee is made concerning the accuracy, currency, or completeness of the information provided.

Date: 9/16/2014

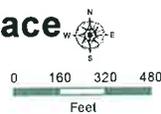


City of Bozell



Leaves Flyer- TallTrees-ConiferView-PennPlace

Legend  
 Bothell City Limit



The City of Bothell delivers this data (map) in an AS-IS condition. GIS data (maps) are produced by the City of Bothell for internal purposes. No representation or guarantee is made concerning the accuracy, currency, or completeness of the information provided.

Date: 9/16/2014



City of Bothell









## Appendix B



2512

Pizza at Sound Starts Here

THIS DRAINS HERE

WARNING

2512



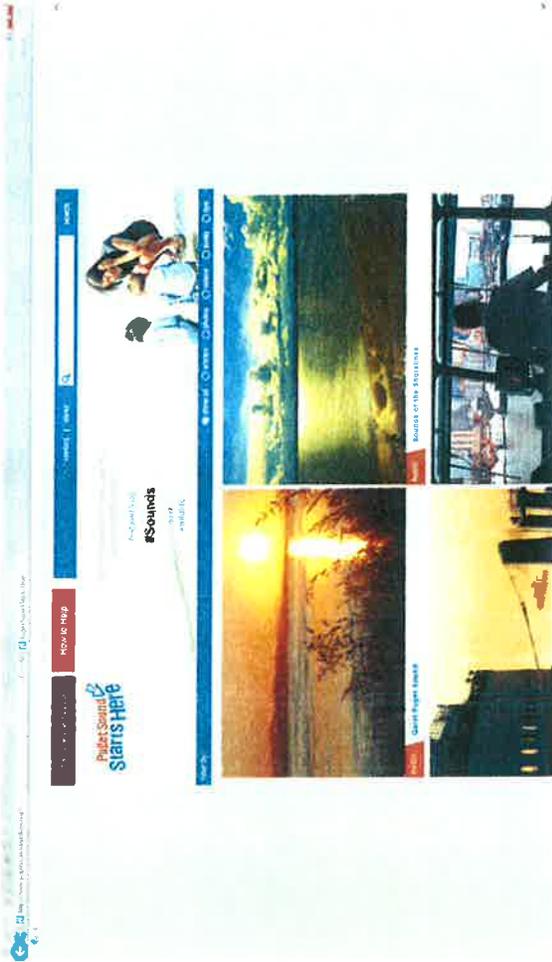
Only rain down the storm drain.

A WALK  
IN THE PARK  
SHOULDN'T  
STINK  
HARMFUL ORGANISMS  
CAN BE TRANSMITTED FROM  
PET WASTE TO CHILDREN

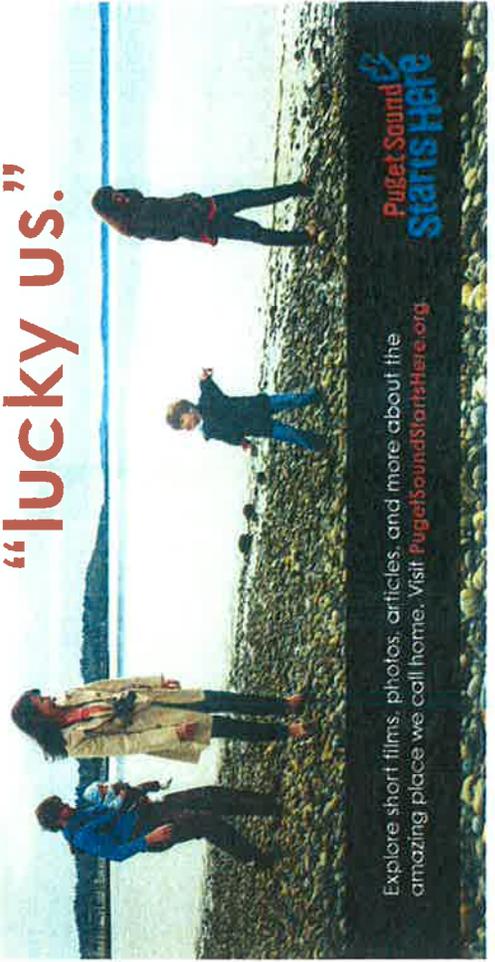
Field  
BAG IT!



Puget Sound Starts Here



Feed that feeling,  
**“lucky us.”**



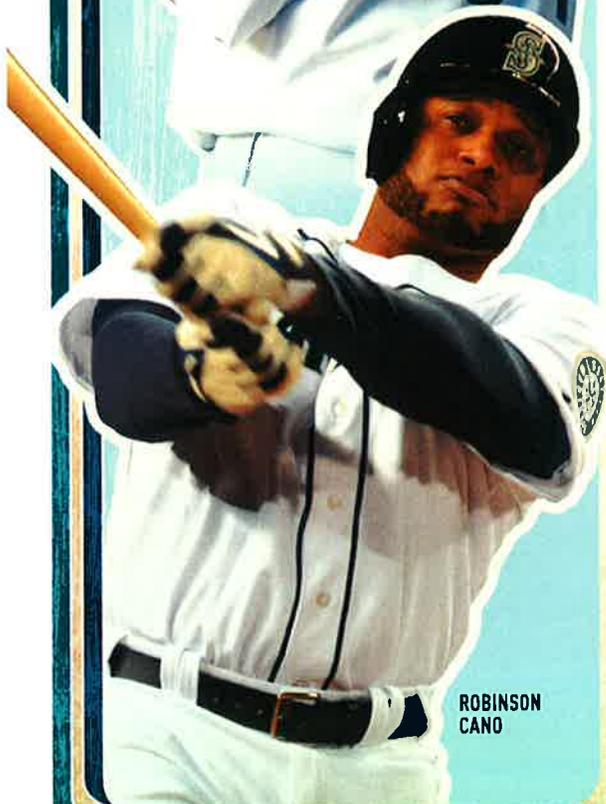
Explore short films, photos, articles, and more about the amazing place we call home. Visit [PugetSoundStartsHere.org](http://PugetSoundStartsHere.org).

2014 SEATTLE MARINERS

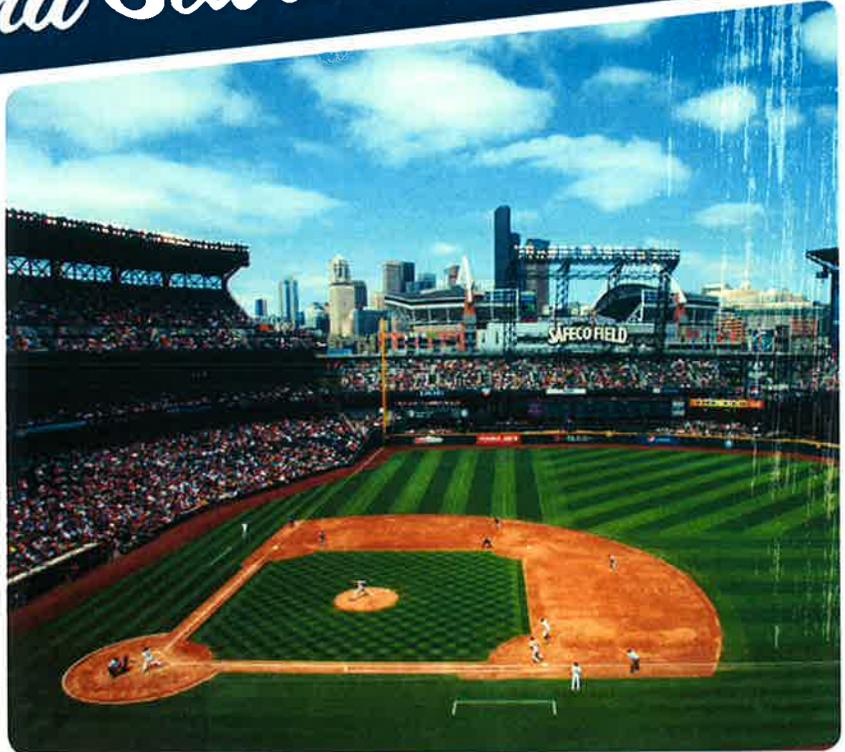
# Puget Sound Starts Here



FELIX  
HERNANDEZ



ROBINSON  
CANO



SAT., MAY 10  
6:10 PM



## Event Details

Join us on Puget Sound Starts Here Night at Safeco Field on Saturday, May 10 as the Seattle Mariners take on the Kansas City Royals. Receive a FREE Seattle Mariners Puget Sound Starts Here T-shirt when purchasing tickets through this special online offer!

## Pricing

- View \$20
- View \$34

A portion of the proceeds will directly benefit local non-profits working to protect Puget Sound

## Reserve your tickets

Deadline: Friday, May 9th – 5:00 p.m.

Visit: [Mariners.com/PugetSound](http://Mariners.com/PugetSound)

Password: Salmon

### FOLLOW THE STEPS BELOW TO PURCHASE TICKETS:

1. Visit the link: [Mariners.com/PugetSound](http://Mariners.com/PugetSound)
2. Select "Buy Tickets" then enter **SALMON** as your Special Offer Code.
3. Purchase and print your tickets instantly.



SAFECO FIELD

SEA-TIME MARINE

THE PEN 100

BUILT TOUGH

us bank

pepsi

Mobile

EDGARS

GRADER JOE'S



# SAVE the River Otters

Fix car leaks

Puget Sound  
Starts Here



# SAVE Tide Pool Life

Pick up pet waste

## Puget Sound Starts Here



**PugetSoundPartnership**  
LEADING PUGET SOUND RECOVERY



# SAVE the Gray Whales

Storm drains lead  
to Puget Sound  
Puget Sound  
Starts Here



# SAVE the Giant Pacific Octopus

Use less chemicals  
in your yard

Puget Sound  
Starts Here

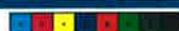
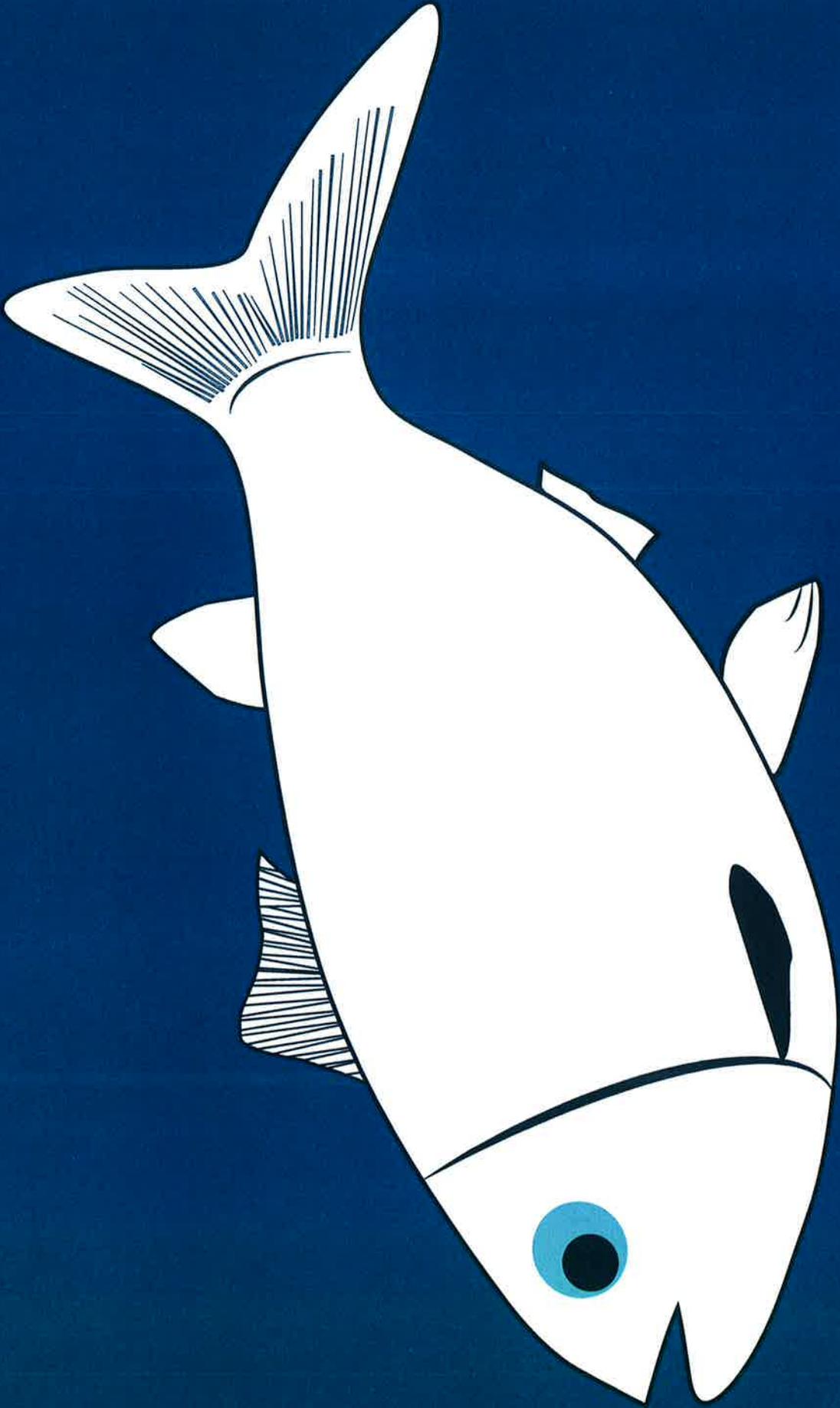


**PugetSoundPartnership**  
LEADING PUGET SOUND RECOVERY



**King County**







SAFECO FIELD

Nikon

SEATTLE MARINERS  
Salute to Kids Night  
ROOT SPORTS

I Love Puget Sound

You are invited to attend the

# 2014 STORM Symposium

**Tuesday, November 4<sup>th</sup>, 9:30am – 3:00pm**

Brightwater Education Center - 22505 State Route 9 SE, Woodinville, WA 98072

**Join us** to hear a special opening presentation by Dr. Tracy Collier, Former Science Director for the Puget Sound Partnership, about current research on stormwater, salmon, and Puget Sound.



## Break Out Sessions

- **Mobile Businesses: Let's Get Rolling**
- **Considering Risk: Psychology and Perception of Risk in Behavior Change Programs**
- **Successful Programs: Highlights from 3 Popular Programs**
- **Communication Strategies: Tips and Tricks for Successful Outreach Communication**
- **Low Impact Development: Communicating about Projects, Maintenance, and Lessons Learned**
- **Shoestring Audience Research: Attaining Big Insights with Small Budgets**
- **Outreach Materials and Ownership: Obtaining Rights, Borrowing, and Professional Courtesy**
- **Best Management Practices (BMP) Prioritization Process: Survey Results and What's Next**
- **Brightwater Treatment Plant Tour: \*Sign up information on reverse side.**

**\*\*Bring lunch with you or buy a boxed lunch from *Ingallina's*. See reverse side for ordering details.**

**Please bring samples of your hard work to share! New displays, ads, swag, newsletters....**



**STORM (STormwater Outreach for Regional Municipalities)**

## 2014 STORM Symposium additional details

### Schedule

Meet & Greet, Sign In	9:30 – 10:00
Intro and Keynote Address	10:00 – 10:55
1 <sup>st</sup> Sessions & *Brightwater Tour	11:00 – 12:00
**Lunch Break, Networking, Brightwater Displays	12:00 – 1:00
2 <sup>nd</sup> Sessions	1:00 – 2:00
3 <sup>rd</sup> Sessions	2:00 – 3:00

### \*Brightwater Treatment Plant Tour

Attendance will be first-come first-served. Look for a special sign in sheet when you arrive at the symposium. The Brightwater Wastewater Treatment Plant is King County's newest treatment facility. Attend the tour to learn how waste is transformed into valuable resources using science and state-of-the-art technology. The tour route includes one mile of walking and several long flights of stairs. Dress for the weather and wear sturdy, closed-toe shoes. \*\*The tour will overlap a little with the lunch hour.

### \*\*Lunch & instructions on how to buy box lunch

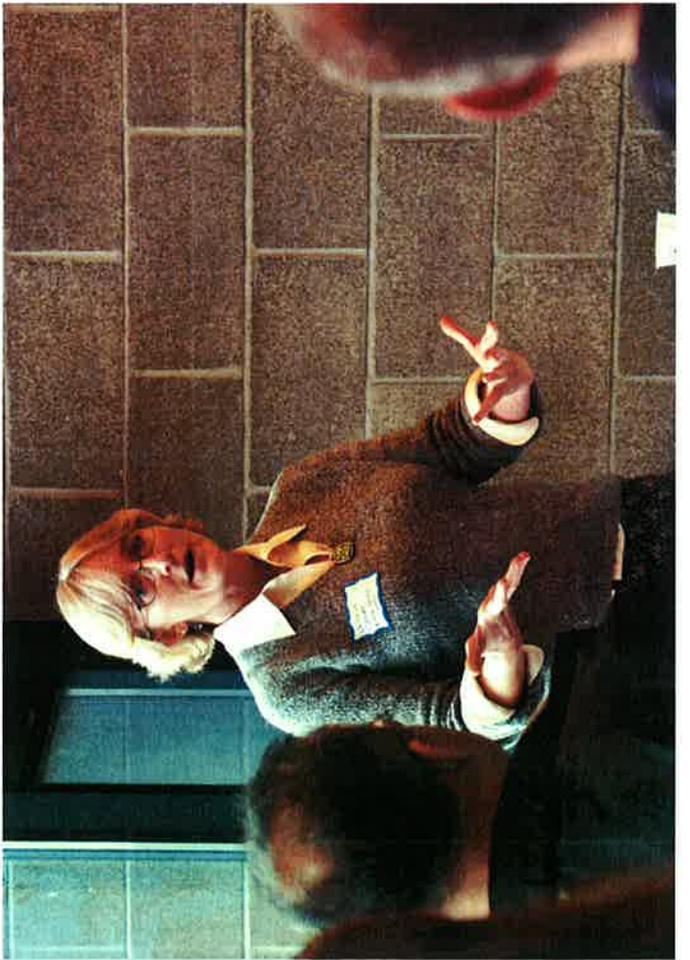
**You can bring your own lunch or buy one in advance from Ingallina's** which will be delivered to us on the day of the Symposium. There is nowhere to eat within walking distance of Brightwater. You could drive off site but your options will be limited.

**To order from Ingallina's:** (You can do this now. There's no need to wait.)

1. Go to [www.ingallina.net](http://www.ingallina.net).
2. Enter Brightwater's address for delivery: 22505 State Route 9 SE Woodinville, WA 98072.
3. Choose your box lunch
4. Select **November 4<sup>th</sup>** for the date and **10:00am – 10:30pm** for your delivery time.
5. Make a comment in the special request box **"part of larger order for STORM/Brightwater"**







## Appendix C

September 9, 2013

Suzi Wong Swint  
Senior Planner for Education & Outreach  
Surface Water Management Division  
Snohomish County Department of Public Works  
3000 Rockefeller Avenue  
Everett, WA 98201



City of Bothell™

Re: Letter of program commitment - Natural Yard Care - Regional Delivery & Evaluation

Dear Ms. Swint,

The City of Bothell values this opportunity to partner with Snohomish County and neighboring municipalities to implement and evaluate a county-wide residential Natural Yard Care program as part of our NPDES Phase II Municipal Stormwater General Permit. We likewise endorse Snohomish County's application for WA Department of Ecology Grants of Regional or Statewide Significance (GROSS) funding to support this multi-jurisdictional stormwater program work.

Snohomish County has developed a Natural Yard Care outreach and education program based on the successful King County urban neighborhood model and customized for our rural, suburban and urban audiences. This grant funding opportunity will catalyze broader program dissemination and enable comparison of Snohomish County's Natural Yard Care program with up to two other programs in the Puget Sound region, each of which employs different outreach and education methods.

Grant funding support, toward Natural Yard Care baseline or pre-evaluation and at-workshop questionnaires, from December 2013 through January 2015, will enable our resources to focus on post-workshop performance evaluation and regional program comparison. With this, we may discern the public outreach and education approaches most effective in promoting the adoption of Natural Yard Care best management practices and provide the most meaningful return on investment. Evaluation findings will be used to direct successive Natural Yard Care program delivery across Snohomish County and be available to guide other jurisdictions that wish to replicate the program best practices.

Specific to this GROSS funding opportunity, we are committing a city staff member to serve on an ad hoc Natural Yard Care Advisory Committee, coordinating 2014 program implementation and evaluation. We are also committing our prorated portion of post implementation evaluation costs, payable in FY 2015.

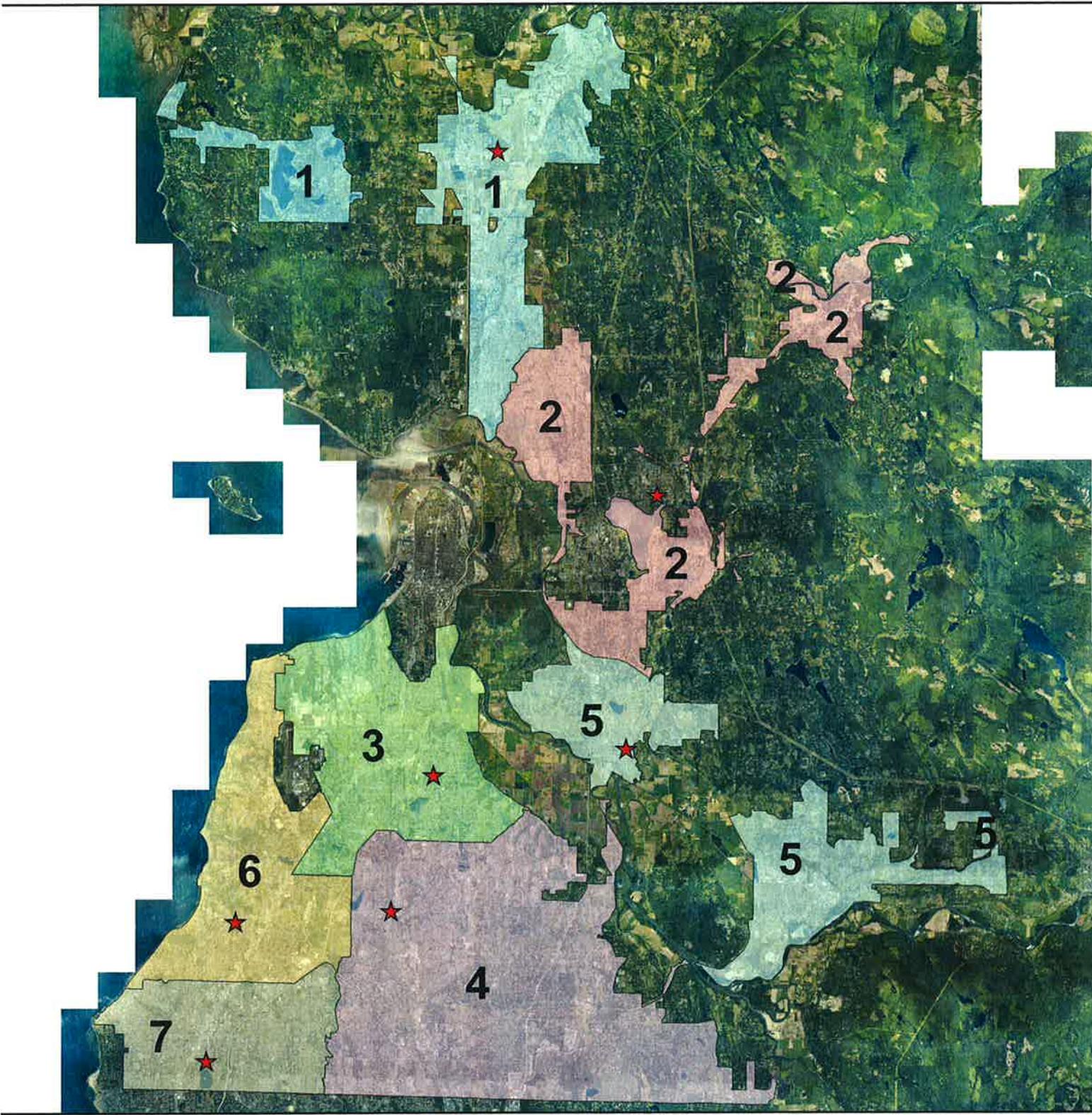
Working together and pooling our resources, we look forward to inspiring our residents to adopt Natural Yard Care behaviors that help to improve the quality of our Puget Sound waters. We hope our joint GROSS Grant application is funded by Ecology and look forward to working together on the Natural Yare Care program.

Regards,

A handwritten signature in black ink that reads "Don Fiene". The signature is written in a cursive, flowing style.

Don Fiene P.E., Utility Manager

9654 NE 182nd St.  
Bothell, WA 98011  
425.486.2768  
[www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



## Natural Yard Care Target Areas

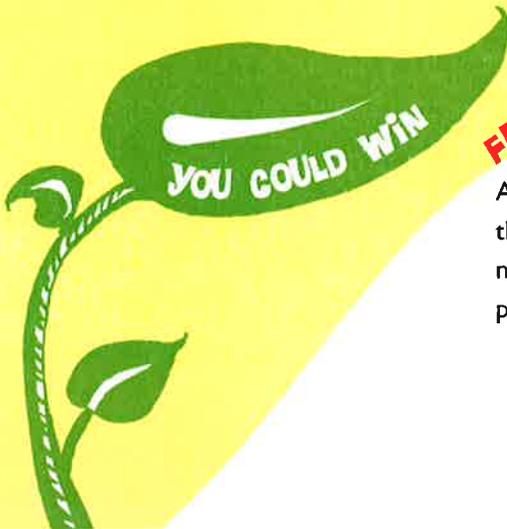
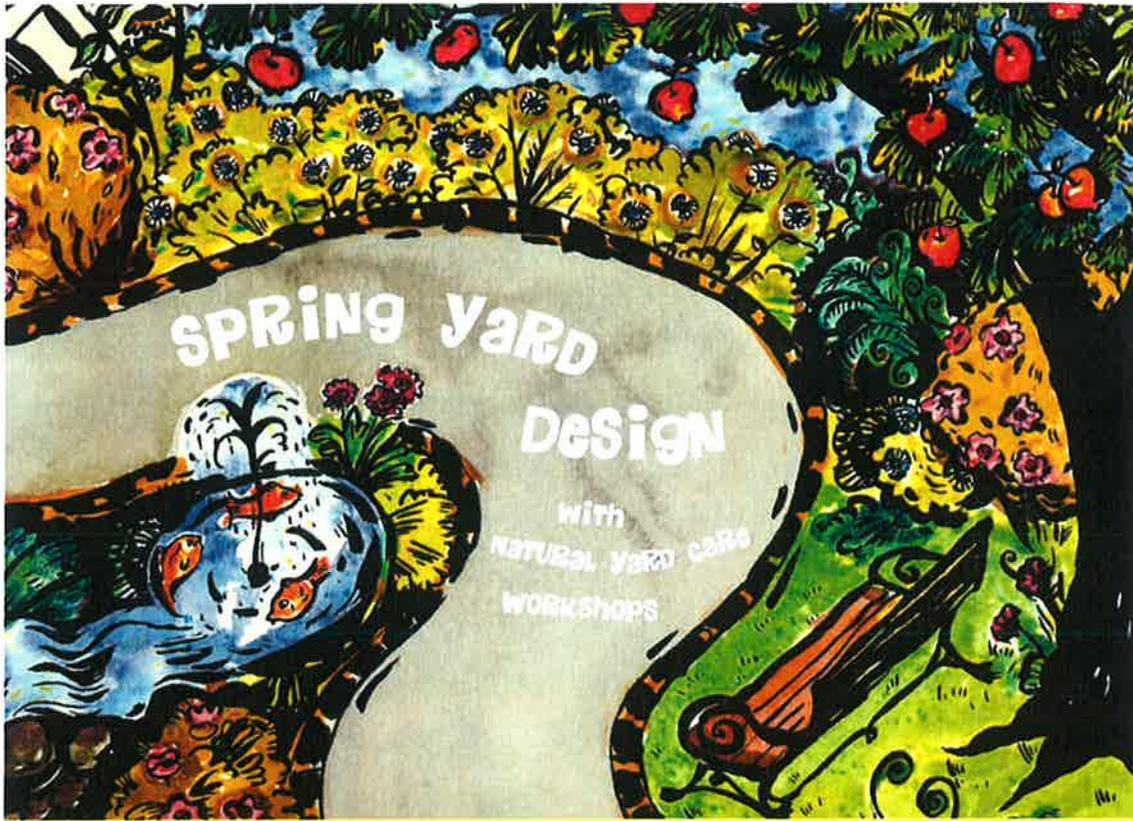
- |   |   |
|---|---|
|  Arlington, NW Marysville, Seven Lakes and County UGA |  Snohomish, Monroe, County UGA             |
|  Granite Falls, SE Marysville, County UGA             |  Mukilteo, Edmonds, Lynnwood, County UGA   |
|  Everett, County UGA                                  |  Lynnwood, MLT, Brier, Edmonds, County UGA |
|  Mill Creek, Bothell, South County and County UGA     |  Workshop Locations                        |

  
**Snohomish County**  
 PUBLIC WORKS  
 SURFACE WATER MANAGEMENT  
 (425) 388-3464

This map is a representation of the information provided in the accompanying report. It is not intended to be used as a legal document. The information is provided for informational purposes only. The user assumes all responsibility for the use of this information.



**FREE YARD CARE PRODUCTS...**

At each workshop we'll randomly draw from the names of everyone present for great natural yard care products during the programs.



PRSR1 STD  
U.S.  
POSTAGE PAID  
Everett, WA  
Permit Number 593

Snohomish County  
Public Works  
Surface Water Management  
3000 Rockefeller Ave., M/S 607  
Everett, WA 98201

# NATURAL YARD CARE WORKSHOP SCHEDULE

## MARK YOUR CALENDARS!

Our workshops teach you how easy and rewarding natural yard care can be.  
They're fun, informative and FREE.

### Workshop 1: Lawn Care & Smart Watering

Wednesday, May 7, 7-9 pm

Enjoy a thicker, healthier lawn with less moss and fewer weeds. Ladd Smith, In Harmony Sustainable Landscapes, will show you how to use natural lawn care methods that work. The second half of the evening is brimming with water-saving techniques to keep plants healthy and water bills low in our dry summer, wet winter climate. You'll learn tips for different watering methods, irrigation and mulching.

### Workshop 2: Right Plant, Right Place & Growing Healthy Soil, Composting

Wednesday, May 14, 7-9 pm

Discover proven, easy-care plants with year-round interest for your yard. Landscape Designer Jessi Bloom will show how to select the right plants for your site and how to give them a good start. Knowing healthy soil is the key to a healthy, robust and low-maintenance yard and garden. Lisa Taylor of Seattle Tilth shares how to grow healthy soil and take advantage of yard trimming for compost and mulch.

### Workshop 3: Sustainable Garden Design & Natural Pest, Weed and Disease Control

Wednesday, May 21, 7-9 pm

This is a great time to plan a garden. Emily Bishton, Landscape Designer, shares design tips and techniques for creating a healthy, beautiful and sustainable low-maintenance garden. Emily will also share keys to success for controlling common garden challenges and how to prevent them before they start. Discover how to deal with common and pesky garden challenges naturally.



At each workshop we will randomly draw from the names of everyone present for great natural yard care prizes. Enter for a chance to win at every workshop you attend!  
(Must be present to win.)

**Location:** North Creek Presbyterian Church, Fellowship Hall  
621 164th St SE, Mill Creek, WA 98012

**To Register:** [www.workshop.surfacewater.info](http://www.workshop.surfacewater.info)

**Questions?** contact Kathryn, 425-923-9870 or  
[kathryn@snohomishcd.org](mailto:kathryn@snohomishcd.org)

Interpreter and translation services for non-English speakers and accommodations for persons with disabilities are available upon request. Call Kathryn at 425-923-9870. For questions regarding Public Works' Title VI Program, contact our Title VI Coordinator via email at [spw-tit6ev@snooco.org](mailto:spw-tit6ev@snooco.org), or phone 425-388-6860. Hearing/speech impaired call 711.

A solicitud, se dispone de servicios de intérprete y traducción para personas que no hablan inglés y acomodaciones para las personas con discapacidades. Llame a Call Kathryn at 425-923-9870. Para preguntas concernientes al Programa del Título VI de Obras Públicas, póngase en contacto con nuestro Coordinador del Título VI mediante correo electrónico a [spw-tit6ev@snooco.org](mailto:spw-tit6ev@snooco.org), o llame por teléfono al 425-388-6860. Las personas con deficiencia auditiva o del habla, llamen al 711.

This program is brought to you by:



- City of Bothell
- City of Mill Creek
- Snohomish County



# SPRING YARD DESIGN

NATURAL YARD DESIGN  
BASICS IN  
THREE EASY LESSONS

LIMITED CLASS SIZE  
REGISTER  
TODAY!

# FREE WORKSHOPS

## HOW TO DESIGN A BEAUTIFUL YARD THE NATURAL YARD CARE WAY.

7:00-9:00 each night

To register: [www.workshop.surfacewater.info](http://www.workshop.surfacewater.info)  
Limited class size. Register today!

**1** **Wednesday, May 7**  
Lawn Care  
Smart Watering

**2** **Wednesday, May 14**  
Right Plant, Right Place  
Growing Healthy Soil, Composting

**3** **Wednesday, May 21**  
Sustainable Garden Design  
Natural Pest, Weed & Disease Control

**Location:** North Creek Presbyterian Church, Fellowship Hall  
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Interpreter and translation services for non-English speakers and accommodations for persons with disabilities are available upon request. Call Kathryn at 425-923-9870. For questions regarding Public Works' Title VI Program, contact our Title VI Coordinator via email at [spw-titlevi@snoco.org](mailto:spw-titlevi@snoco.org), or phone 425-388-6660. Hearing/speech impaired call 711.

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Partially funded by Washington State Department of Ecology

This program is brought to you by:



**Snohomish County**

**Public Works**

Surface Water Management  
3000 Rockefeller Ave., MS 607  
Everett, WA 98201

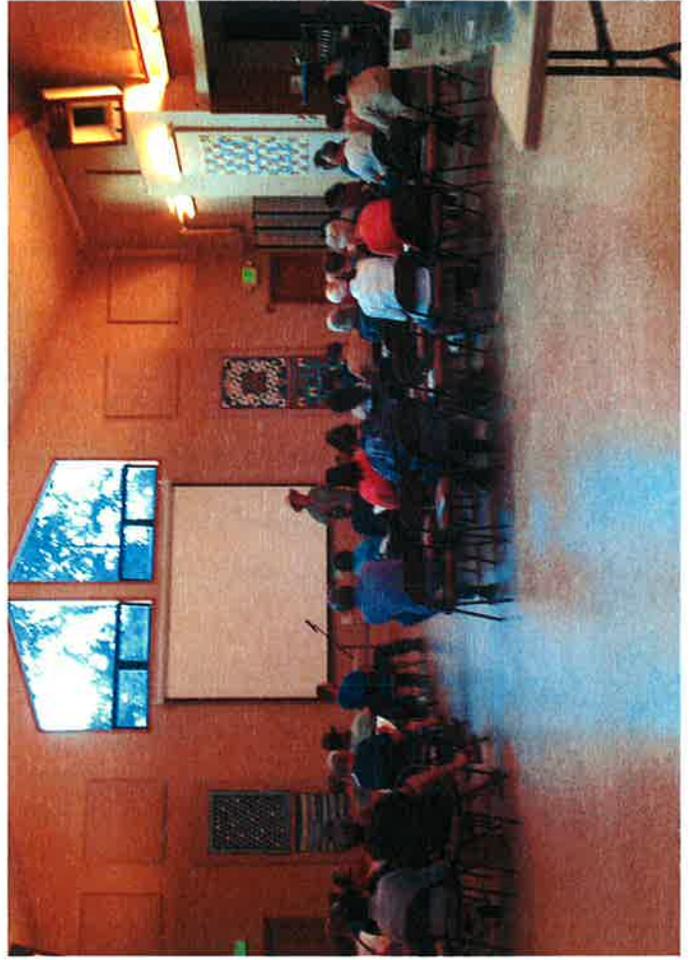


**NATURAL  
YARD CARE  
NEIGHBORHOODS**

WASHINGTON STATE UNIVERSITY  
& EXTENSION

City of Bothell  
City of Mill Creek

PRSRT STD  
U.S.  
POSTAGE PAID  
Everett, WA  
Permit Number 593



## Appendix D



**Full Circle Environmental, Inc.**  
3111 37<sup>th</sup> Place South • Seattle, WA 98144  
Phone: 206-723-0528 • Fax: 206-723-2452  
[www.fullcircleenvironmental.com](http://www.fullcircleenvironmental.com)

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**CITY OF BOTHELL**  
***CAR WASHING RESEARCH, EDUCATION & OUTREACH PROGRAM***  
**FINAL REPORT**  
**DECEMBER 2014**

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**Prepared by:**

David Stitzhal, President  
Full Circle Environmental, Inc.

Janet Geer, Surface Water Program Coordinator  
City of Bothell Surface Water Management

**Contributor:**

Erin Hislop, Senior Associate  
Triangle Associates, Inc.

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## EXECUTIVE SUMMARY

Polluted stormwater runoff is the number one source of pollution in local streams and Puget Sound. Much of the pollution is caused by the everyday actions of people that live in, travel through, or conduct business in our area. One current behavior contributing to stormwater pollution is home car washing that allows wash water to drain to streets and storm drains, and eventually to streams and surface water. In order to properly address this source of pollution, the City chose to conduct research to determine the magnitude of the issue in Bothell, the current practices and attitudes of its residents towards this behavior, and appropriate next steps to address this issue. From our initial background and past assessments, we identified three main goals for this project;

1. Determine the level of pollutants entering local streams annually from improper home car washing.
2. Determine an understanding into the motivations and behaviors of home car washers, with the intent of shifting their behavior toward increased use of commercial car washes and safer home car washing techniques.
3. Determine next steps for Bothell's car washing program to maximize residents' adoption of the identified Best Management Practices (BMPs).

A scope of work was created and executed to achieve each of the three goals:

Goal 1- Runoff Volume Modeling: The project team undertook baseline modeling of the volume of home-generated car wash runoff currently entering the City's streams and waterways. Using conservative assumptions the model states that 2,329,017 gallons of contaminated home car wash runoff reach Bothell's waterways each year.

Goal 2- Residential Survey: Findings from our online survey generally supported the data inputs used in the runoff generation model. Major points include:

- 88% of respondents have two or more cars in their household
- 70% of respondents wash their cars at least six times per year
- 56% wash their cars at home on an impervious surface

Comments from survey respondents indicate that washing happens far more frequently in the summer months.

Goal 2- Focus Group Investigations: We recruited focus group participants from Bothell residents who reported they sometimes wash their cars at home and sometimes use a commercial car wash. Findings from our focus group session include:

- While participants were also open to changing their behavior accordingly, most acknowledged that they are unlikely to use tools and approaches that require

more time and effort (such as wash water diversion through sand bags and absorbent socks, or dumping of collected wash water into a sanitary sewer.)

- Participants seem generally open to increasing their use of commercial car washes, particularly if the facilities can be made more convenient through increased locations within the City, and increased quality of existing operations (existing facilities were perceived to often be in disrepair).
- Some participants also indicated a willingness to increase their use of commercial car washes if a trustworthy third-party, such as a branded car dealership or the car manufacturer, could attest that the location would be safe for their car's paint and finish.

### Goal 3- Recommendations Based on Findings:

Discussed in more detail below, top recommendations include the following:

- Provide messaging to residents regarding best times and reasons to use a commercial car wash (e.g. choose quality car washes, incorporate into existing errands to save time and increase convenience, go when lines will likely be shortest, etc.).
- Provide incentives and rewards to increase long-term behavior change (e.g. car wash coupons).
- Incorporate community-based social marketing techniques. Examples include:
  - Spotlighting City leaders who visibly use safer car washing techniques
  - Posting yard signs on neighborhood leaders' properties
  - Engaging respected groups in creating high profile storm drain murals
  - Creating a Green HOA certification
  - Having City staff implement car washing BMPs with all fleet vehicles
- Share results of focus group with existing local commercial car washes and encourage operational changes to attract more customers.
- Communicate the focus group results, and the potential for an expanded car wash market within Bothell, to commercial car wash entrepreneurs to potentially increase number of car wash locations in the City.
- Provide guidance to residents on car washing BMPs that are safe for their cars as well as the environment.
- Utilize auto parts store and dealership channels to distribute information.
- Rerun the June, 2014 online survey and Elway survey to identify long-term behavior change as well as provide a qualitative evaluation of changing attitudes and opinions.

## **INTRODUCTION**



When it rains, most of the water in our area flows over hard surfaces (like roads, roofs, parking lots, driveways, sidewalks, etc.) and into the nearest storm drain or ditch, which then connects into the nearest pond, stream, or wetland. As this stormwater flows it picks up harmful pollutants we have left behind. Sometimes the pollution is something you can see, like trash, oil, soap, and dirt. Other times you can't see the pollution at all, like chemicals, bacteria, pesticides, and fertilizers. Polluted stormwater runoff is the number one source of pollution in local streams and Puget Sound. Much of the pollution is caused by the everyday actions of people that live in, travel through, or conduct business in our area. Because these pollutants come from our everyday activities, changing daily habits is more economically and environmentally effective than trying to clean up these pollutants after they've reached our streams. The City of Bothell is mandated under the National Pollutant Discharge Elimination System (NPDES) permit, to establish an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. One current behavior that contributes to stormwater pollution is home car washing that allows the wash water to drain to streets and storm drains. The number one Best Management Practice (BMP) listed to prevent this source of pollution is to use a commercial car wash. For those that can't use a commercial car wash for various reasons (vehicle size, physical constraints, economic constraints, location constraints, etc.) the Department of Ecology has allowed soil infiltration, such as washing your car on the lawn, as an acceptable alternative.

In order to effectively address this source of pollution, the City chose to conduct research to determine the magnitude of the issue in Bothell, the current practices and attitudes of its residents towards this behavior, and the appropriate next steps for this program. This report summarizes the research findings and recommends appropriate next steps.

## **BACKGROUND**

The Environmental Protection Agency (EPA), Department of Ecology (Ecology), and stormwater professionals throughout the Puget Sound region have identified improper vehicle maintenance as a significant contributing source of stormwater contamination (Department of Ecology, 2011). Additionally, toxicity monitoring from the National Oceanic and Atmospheric Administration (NOAA) and Ecology have detected Polycyclic Aromatic Hydrocarbons (PAHs), heavy metals, and other contaminants known to come from personal vehicle maintenance at levels that cause severe deformation and subsequent death in juvenile fish species. These pollutants have also been shown to

cause pre-spawn mortality in adult Coho salmon, which are listed as an endangered species under the Endangered Species Act (ESA) (Incardona, J.P et al, 2013). For vehicle washing, the predetermined BMPs for this pollution source are:

- Use a commercial car wash where the water is recycled and sent to the sanitary sewer.
- Allow the wash water to infiltrate into the soil.

In past Bothell surveys, before this current effort, half of the survey respondents admitted to washing their cars at home, with half of that group allowing the wash water to drain to streets/storm drains. (This equates to roughly 10,250 residents.) We suspected this number was actually much higher since the previous questions didn't ask whether they used both a commercial car wash AND also washed their car at home. Also previously, over 70% also listed that they washed their vehicles at least every other month.

The reported barriers to using a commercial car wash consisted of the following:

- Cost - price for a commercial wash was too high
- Access - most commercial facilities don't accommodate large vehicles, handicapped vehicles, or are in disrepair
- Convenience - many located outside of Bothell and too far away from home
- Trust - many respondents don't trust the equipment to not scratch their paint or damage their vehicles
- Time - amount of time to drive to a facility, wait, and then drive home was longer than washing it at home
- Physical - some stated they were unable to wash their vehicles either because larger or handicap-equipped vehicles couldn't be accommodated by commercial car washes, or the respondent couldn't physically manage a self-serve commercial car wash.

Over the course of five years, various methods were attempted to change residents' car washing behaviors, including car wash coupons and giving away waterless car washing products, to standard education efforts and enforcement. It was determined that a cohesive effort was needed to determine the scope of the problem (is it worth our time to continue pursuing this BMP?), what people were willing to do (would they adopt new BMPs or agree to use a commercial facility?), and what our next steps should be going forward (what is the best use of our time and resources?).

**PURPOSE & METHODOLOGY**

The research and outreach for this effort was aimed at gaining greater understanding about the motivations and behaviors of home car washers, with the intent of shifting their behavior toward increased use of self-serve and drive-through commercial car washes, rather than home car washes, and when home car washing was undertaken, use of safer home car washing techniques.

The four major components of this research and outreach are fully discussed in separate sections below. The following is a summary of each research and outreach component and the City’s rationale for using each component:

PROJECT COMPONENT	COMPONENT SUMMARY AND RATIONALE
<p>Runoff Generation Modeling</p> 	<p>In an effort to identify the scale of the issue, the City developed a Car Wash Runoff Generation Model for estimating what volume of home car wash wastewater Bothell residents are currently generating. Using existing models, with adjustments for local conditions, a working model has been established which can provide baseline volumes against which future volumes may be compared, following outreach interventions.</p>
<p>Fire Station Coordination</p> 	<p>The City felt it was important to “walk the talk” by role modeling the desired car washing behavior for the Bothell residents whom the City is asking to change their behavior. Specifically, some local fire stations, due to a combination of historical and physical on-site factors, were washing fire trucks and letting polluted wash water filled with petrochemicals, heavy metals, soap suds, and other contaminants flow directly into storm drains that led directly to local streams and lakes. Through the creative and collaborative efforts of the Public Works Department and the Fire Department, water diversion options were identified and are being implemented.</p>

<p>Residential Survey</p> 	<p>The City developed an online survey to gather baseline, factual information as well as subjective input from Bothell residents. Participants were solicited through a utility bill insert, resulting in 425 respondents. (See Appendix for survey questions and summary data tables.) Findings were used to inform the Car Wash Runoff Generation Model, mentioned above, and to guide the City in developing messaging, outreach tools and behavior change approaches. Survey results were also used to structure the focus group, detailed below.</p>
<p>Focus Group</p> 	<p>The City designed and implemented a focus group comprised of Bothell residents who indicated in the online survey that they sometimes wash their cars at home and sometimes use a commercial car wash. A focus group was used to allow deeper exploration of data and themes uncovered by both the Runoff Generation Model and the online survey. The focus group also allowed discussion of environmentally-preferable home car washing options.</p>

**CAR WASH RUNOFF GENERATION MODELING**

Petroleum products, metals, toxins and the soap surfactants themselves typically flow from car washing in residential driveways and curbs to storm drains, which then flow directly to lakes and streams. Even when diluted, car wash runoff has documented harmful impacts on fish and other aquatic life (Car Wash Enterprises, 2007).

Given the potential environmental threat, the City elected to estimate the volume of car wash runoff reaching the stormwater system. The Model, developed by the consultant team and the City (available in Excel format) provides a conservative, subjective estimate that can inform the scale and type of interventions the City may choose to undertake – including policy, programmatic, enforcement, and educational activities.

Based on the baseline scenario assumptions, factors and variables incorporated in the model, we estimate Bothell residents who wash their car(s) at home discharge 2,329,017 gallons of contaminated car wash water runoff to streams each year. For perspective, this is roughly equivalent to 1.1 bathtubs of car wash water per resident per year.

The Excel Model used to estimate Bothell's home car washing wastewater volume is based on similar research undertaken by other jurisdictions (See Attachment A - Excel Model, Notes and Sources). In order to create a model specifically tailored to Bothell's circumstances, variable values were selected and key assumptions were made to best match the model to the City's actual conditions. The following are key assumptions used in the model (See Attachment B - Summary Report: Car Wash Impact Model).

Model Assumptions:

- Households are used in the Model, rather than population, to best match the statistically significant survey data from 2012 survey (Elway Research, 2012).
- According to the Elway Research, 2012 results, the number of washers at home did not include washers that wash **both** at home and at a car wash. Therefore this data input, and the resulting estimate of car wash runoff, are conservatively low.
- For the current Model the conservative figure of five washes per year per car is used. Given the high number of multi-family residents in Bothell, who are assumed to wash their own cars less often due to location constraints and rental rules, the model errs on the side of less frequent washing. This approach allows the result to be a generous minimum estimate rather than a cautious maximum estimate. (In other words, if anything, the Model underestimates polluted runoff.)
- This model assumes that all impervious surfaces near homes drain to streams.
- For this model, and based on results of the City's online survey and focus group, the assumption is that most car washes happen during the summer months, so the "five washes per year" likely all happen when stream volumes are lowest, and environmental impact is highest due to concentrations of harmful chemicals.
- The model averages vehicles per person and vehicles per household. The number used for this factor is an estimate built by averaging two approaches.

Approach one: light vehicles per person, .87 (<http://www.energy.gov/eere/vehicles/fact-573-june-1-2009-vehicles-capita-state> ) multiplied by 2.4 people per household (<http://www.wsdot.wa.gov/planning/wtp/datalibrary/population/numberofhouseholds.htm>), resulting in 2.09 cars per household.

Approach two: household vehicle ownership (Oak Ridge National Laboratory Transportation Energy Data Book Chapter 8, Table 8.5: <http://cta.ornl.gov/data/chapter8.shtml> ) applied to Bothell's population, resulting in 1.7 cars per household.

The average then is 1.89 cars per household.  $[(.87*2.4)+(1.7)]/2$

- Two variables comprise the factor for total hose flow volume – gallons per minute, and minutes per car wash. Both are open for interpretation. Though the current factor is based on the Sources listed in the Model, other estimates for these variables could be considered for future iterations of this model.
- This model does not account for evaporation of runoff during car washing. Evaporation volume is likely minimal. Furthermore, soaps, metals, and petrochemical residue would remain on impervious surfaces and be present to be washed to streams during future runoff events.
- Research sources used to build the Model indicate that in likely real world, at-stream dilutions, the runoff from home car washes will have significant mortality and other health impacts on fish and aquatic life in streams it reaches. This is particularly true in summer months when car washing activity is high and stream volumes are low, resulting in higher contaminant concentrations.

The data derived from this Model can be used to inform the scale and type of interventions the City may choose to address the home car wash runoff currently contaminating Bothell’s surface water, flora and fauna. Various actions can be taken and fall roughly into the following categories:

- policy guidance (e.g. rules and regulations governing home car washing)
- programmatic activities (e.g. recruiting new automatic and self-serve car washes to the City and asking for repair of existing facilities)
- enforcement (e.g. patrolling and citing)
- educational activities (providing alternative car washing techniques and incentives for using commercial facilities)

Once the City has taken steps to change residential behavior, the inputs to the Model can be updated through research and survey work, and subsequent iterations of the Model can be used to document change in targeted behaviors as well as in the volume of runoff reaching surface waters.

## **RESIDENTIAL SURVEY DEVELOPMENT AND FINDINGS**

The City employed an online survey advertised to Bothell residents through a mailing included in two utility billings. Residents were invited to visit an online SurveyMonkey link to complete a survey exploring home car washing habits. Respondents were asked a series of questions, offered a “thank you” gift comprised of existing City BMP related give-aways, and asked if they were open to participating in an in-person focus group.

Key findings from the survey shown in Attachment D include:

- 88% of respondents have two or more cars in their household; 30% have three or more cars.
- 70% of respondents wash their cars six times per year or more. 36% wash their cars once or twice per month. Comments associated with this portion of the survey indicate that washing happens far more frequently in the summer.
- Of 425 respondents, 28% wash their cars exclusively at home, with the vast majority of this group washing their cars in the driveway or street. 42% of respondents use commercial car washes. 28% indicate using both commercial car washes and washing cars at home. This means 56% wash their cars at home at least some of the time.
- Respondents reported many places to have a car washed commercially, such as car dealerships, garages, gas stations, airport parking, charity car washes, etc.
- Convenience was listed as respondents' main consideration for choosing where to wash their cars by a factor of 2.28 to 1 over cost. The third highest ranking was quality, followed by a near tie for time and environmental impact.

## **FOCUS GROUP DISCUSSIONS**

A focus group session was conducted with Bothell residents on Tuesday, September 23, 2014 from 6:30 p.m. – 8:30 p.m. on behalf of the City of Bothell. The primary objective was to explore attitudes, motivations, and behaviors about home car washing and use of drive-through and self-serve commercial car washes in the context of improving local water quality. Residents were asked, in sequence, about their home car washing habits, their knowledge of best management practices for environmental protection, and factors influencing their use of commercial car washes.

### **Methodology**

The group included eight men and three women recruited through follow-up to an online survey. (As noted above, the survey was advertised to Bothell residents through a mailing included in the Bothell Bridge publication and two utility billings.) Survey respondents who indicated they sometimes wash their cars at home and sometimes use a commercial facility and were willing to participate in a focus group session were recruited for possible participation in the focus group. (Residents who only wash their cars at home were deemed too unlikely to change their behavior toward commercial car wash use. Residents who reported only using commercial car washes were not contributing to polluted stormwater runoff, and were therefore not a target for this study.)

All attendees shared that they live in single-family homes. One lived outside City limits, but is covered by City services. They came from diverse neighborhoods, including Camden Highlands II, Conifer View, Holly Hills, Maywood Hills, North Creek, Stipek Park, Wedge, West Hill and Woodridge at North Creek.

Findings from the focus group are bulleted below. (See Attachment C - Bothell Focus Group Annotated Agenda for exact questions and more in-depth details.)

- Attendees generally agreed they were fair-weather home car washers, tending to wash two to three times per summer on nice warm days, and much less throughout the rest of the year.
- Some remarked that they wash their car less, having learned about the environmental impacts of home car washing through composting workshops, tours provided at local fish hatcheries, and other educational channels. One respondent mentioned that he now focuses on keeping the windshield and other glass clean for safety reasons, and washes the car's exterior less.
- Multiple participants shared that they pay more attention and think twice about washing their car in the driveway or on the street if they see a storm drain that has been marked or stenciled with the reminder of where the outfall drains to (e.g. "Drains to Stream").
- In general the group's overall initial response was positive to the array of tools presented that can help home car washers collect and divert polluted car wash water away from surface water. One respondent commented that he had never thought about simply diverting the water to be captured, and that this approach made so much common sense he thought he would definitely consider, and likely adopt, the practice.



However, as the discussion was allowed to continue amongst the group, the tone changed rather quickly as concerns about practicality were raised, and once people pictured what it would actually take to implement use of the socks, shop vacuums, sand bags and other suggested equipment. Their concerns included the hassle and weight of transporting buckets of water to the lawn, the sanitary sewer or a utility sink. People also raised the issue of finding a place to dry the devices, and to store them between washes. Also of concern was the added time required to set up, use, and store the equipment, not to mention dispose of collected water. One participant said if he had a utility sink he would be willing to use some of the presented tools, but without one it would be too difficult. However, most agreed that they would be unlikely to actually put regular use of the tools into action. Interestingly, there was general agreement with one person's comment that new housing codes in Bothell should

include a requirement that garages have a drain plumbed to the sanitary sewer to allow for appropriate and easy capturing of wash water.

- The first comments in response to the question of what has influenced participants to use commercial car washes on the occasions when they have used such facilities, revolved around time. It can take time to wash a car at home, noted a few respondents, and when opportunities to conveniently use a commercial facility arise, they are worth taking advantage of.
- A few respondents agreed with the participant comment that they were sometimes prompted to use a commercial car wash when the interior needed a little more cleaning power than their home vacuum could handle. Still, most noted that in general, when using a commercial car wash, they typically only had the exterior cleaned and did not buy the package that included the interior service.
- Some focus group participants also shared concerns about the safety of commercial drive-through car washes. Specifically they noted that it would be useful to have a statement from auto manufacturers, or from a trusted third-party like Consumer Reports, that could clarify concerns about quality, effectiveness, and safety concerns regarding wax products, brushless versus brush car washes, and sealants.
- The facilitators discussed the misnomer of “biodegradable” and “environmentally friendly” soap, citing issues of the absence of labeling standards, the ‘ride-along’ factor of soaps bringing petrochemicals and other harmful chemicals into wash water, and the fact that any soap will have a negative impact on mucous membranes of many aquatic species. Two or three participants in the room were aware of these issues. The remainder were visibly surprised, but seemed to quickly absorb the impact. Said one respondent, “What you [the facilitator] just said about biodegradable, that’s a real game changer for me and I really thank you for that. I’ve learned a lot out of that information. Thank you.”

## **FINDINGS AND RECOMMENDATIONS**

In addition to the findings summarized above under specific project components, as well as in the interim Effluent Model Report and the Focus Group Report submitted to the City, the items below should be underscored as key take-aways from the City’s overall 2014 activity focusing on home care washing behavior.

**Messaging** to encourage residents to expand use of commercial car washes should emphasize saving **time**, and should recommend finding **quality** car washes, and going at a **convenient** time when lines will be short. Messaging would also benefit from suggesting that residents “errand-chain” by getting their car washed when they are running errands near a commercial car wash, or when they need to have their cars vacuumed in anticipation of out of town guests or a special occasion.

**Incentives and rewards**, particularly car wash coupons, continue to be very popular, and clearly drive people to use commercial car washes. In all likelihood, encouraging commercial car wash use through distribution of coupons increases overall habit building and moves residents slowly away from home car washing habits. Community-based social marketing research has clearly shown that in situations where benefits from a given behavior change are low (as is the case with switching from home to commercial car washing) and where barriers are high (in this case due to cost, convenience, concerns about quality, etc.) then incentives and rewards are far more effective in achieving changes in behavior than are tools and equipment or education.

**Community-based social marketing** research has also demonstrated that when attempting to influence behavior change and other social marketing activities, where the goal is ultimately a cultural shift, it is important to create a **public perception of shifting norms**. Given people's propensity to conform toward what they perceive as mainstream behavior, we must create a new sense of what is "normal." This "visible norming" generates acceptance and shifts the norm of behavior toward the desired practice. A classic example is the setting out of recycling carts where residents are more likely to put recycling out for pick-up if their neighbors do.

To engage this tool we first must identify the behavior we wish to see, the messages and practices we feel will move behavior in that direction, and the **visible markers** that will create in the community a sense that the desired behavior is the norm. For



example, we might **spotlight City leaders** who are visibly seeking alternatives to washing their cars in their driveways. Similarly, **yard signs** that advocate for safe car washing can be strategically placed in the yards of **civic and neighborhood leaders**, such as block watch captains, Homeowner Association Presidents, religious leaders, elected officials, etc. Engaging the fire station,

Eagle Scouts and other visible, respected entities could also prove useful. Eagle Scouts or school groups could, for example, be engaged in creating high profile **storm drain murals** that then get local coverage in PTA newsletters, as well as recognition from City Council, etc. The City might even leverage high school student community service hour requirements. Similarly, an entire **Green Homeowner's Association package** could be assembled, which includes guidance for and recognition of protective car washing behavior, including yard signs, window clings, car wash coupons and best practices guidelines.

Also in the context of community norming, the City may want to consider targeting their own fleet and other local fleets to involve them both in implementing best management practices as well as in helping educate the public. This could include such fleets as rental cars, car dealership lots, mobile car washers, school buses, plumbers and other vehicle-intensive commercial enterprises located in Bothell. The concept here is not only to encourage proper washing for these fleets, but also to engage these fleets in visibly promoting their behavior and encouraging Bothell residents to follow suit with their own vehicles. (For example, in the 1990's many programs used bumper stickers on high-profile local fleets to raise awareness about the use and safety of re-refined motor oil.)



Ultimately, to build long-term behavior change toward increased use of commercial car washes, there will need to be more car washes near Bothell, and the car washes will need to be of sufficiently-high perceived quality to attract and retain customers. Even existing car washes near Bothell are often perceived to be of low quality and in disrepair. The City might consider working with local car washes to share relevant results of the focus group, and to encourage operational changes that could attract additional customers. (One focus group participant suggested the City provide a list of car washes that are safe for the environment and protect the car from damage; arguably the City would be challenged to play such an arbiter role.) The City should also consider working with entrepreneurs and existing car wash businesses to expand the number of car washes available to Bothell residents. (This may require involvement of economic development staff and permit staff.)

For residents who continue to wash their cars at home, the City could provide guidance for how to best care for their car at the same time that they protect the environment. One recommendation emerging from the focus group was the notion of keeping windshields and other window surfaces clean for safety reasons, but minimizing cleaning of other car surfaces.

One way to distribute information to target audiences is to utilize auto parts store channels, perhaps by partnering with local O'Reilly's or NAPA Auto Parts stores. (The operational notion here is that customers of auto parts stores are more likely to be home car washers. This could be tested through in-store surveys, with data compared to the City's website survey and the regional Elway Poll undertaken for Bothell and other cities.

Specifically, the information could be handed out via **bag-stuffers**, or the City could use a variation of the “**jug stickers**” being used in the City of Bellevue to distribute information about proper used oil behavior. The stickers – which would be placed on every case or every five quart jug of oil – could direct customers to a website that offers information on home and commercial car washing (and perhaps even offers a commercial car wash coupon).



Other **outreach tools** the City may consider include the following:

- Leverage the Bothell Cool2 Newsletter – and other City communication channels, such as event tabling – to include general information, local testimonials, access to carwash coupons, etc. Such efforts should be tied into the social norming activities noted above.
- Utilize the City’s website to include testimonials of residents who wash their cars safely at home, or have switched to using commercial car washes. Have them post “selfies” of desired behavior to a dedicated web page; generally leverage the power of visuals and social media. Also consider using “journaling” activity – piloted by Snohomish County, Waste Management, and Recology Cleanscapes for their multi-family audience – in which participants were encouraged to share online their experience with requested behavior changes.

Should the City choose to go the route of **direct enforcement** regarding home car washing, staff may want to draw lessons from -- and investigate outreach efforts pertaining to – **land-use restrictions in different private property contexts**, such as ranch country, agricultural lands, or wetlands. (Note, however, that this approach is not specifically recommended given survey and focus group responses, and comments expressing concern about government overreach.)

With regard to **future evaluation**, the City should consider following up on the June, 2014 online survey (see Residential Survey, above). The survey could be fielded again, perhaps after City interventions, and the **results compared to the first survey**. This could help **identify long-term behavior change as well as provide a subjective assessment of changing attitudes and opinions**. This could be done in tandem with running the Runoff Model again, with updated inputs. (Similarly, if the regional **Elway Poll is fielded again** and generates new data on frequency of home car washing, that figure can also be plugged in to the Runoff Model to track longitudinal change in Bothell.)

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## **ATTACHMENTS**

- A- Car Wash Impact Model
- B- Car Wash Impact Model Final Summary Report
- C- Bothell Focus Group Annotated Agenda
- D- Bothell Responses to Online Survey
- E- Utility Mailer

ATTACHMENT A- Car Wash Impact Model



**CITY OF BOTHELL  
 MODEL TO ESTIMATE ENVIRONMENTAL IMPACTS  
 FROM HOME CAR WASHING**

**BACKGROUND**

The City of Bothell is interested in estimating the environmental impacts from home car washing. This information will inform and type of interventions the City may choose to undertake -- including policy, programmatic, enforcement and education. The model below is based on similar research undertaken by other jurisdictions, and provides estimates for the volume of effluent, as well as possible stream loading. Assumptions, implications and caveats are presented in the footnotes below the spreadsheet.

**MODEL**

<b>METRIC</b>	<b>DATA</b>	<b>NOTES</b>	<b>SOURCES</b>
Households in Bothell	17,035	1	Source #7:
Percent of homes with home car washers	47%	2	Source #6: P. 10.
Frequency of washes per year	5	3	Source #6: P. 5.
Cars per household	1.89	9	See note 9
Percent on paved area	57%	4	Source #6: P. 10.
Washes per year at home on pavement	43,127	5	Calculation w/in Model
Gallons of fresh water per car wash	50	6	Calculation w/in Model
Gallons per minute	2.5	7	Source #1 & Source #5

	Minutes per car wash	20	7	Source #1 & Source #5
Gallons of detergent per car wash (16 ml)	0.004	10	Source #2:	
Gallons of water to mix detergent per car wa	4	4	Source #2:	
Gallons of total effluent per car wash	54.004		Calculation w/in Model	
<b>Gallons of effluent/ year on pavement &amp; stre</b>	<b>2,329,017</b>	8	Calculation w/in Model	

This is the equivalent of over 46,000 full bathtubs per year, or over 1.1 bathtubs of water per Bothell resident per year.

Note that Source 2 and Source 4 indicate that at likely real world, at-stream dilutions, the run-off from home car washes will significant mortality and other health impacts on fish and aquatic life in streams reached by the run-off. This is particularly true in summer months when car washing activity is high and stream volumes are low, resulting in higher contaminant concentrations.

### NOTES

- Households are used here, rather than population, to best match the statistically significant survey data from Elway Research "Stormwater Runoff..." under Sources). We also assume that all impervious surfaces near homes drain to streams.
- The Elway Research Poll's number of washers at home did not include washers that wash both at home and at a car wash. This data input is conservatively low.
- According to the "Stormwater Runoff" survey, 20% of car washers wash their car at least every other month. At its most significant calculation, this would be six times per year. Other sources consulted include "Characterization of Runoff..." and "Residential Washwater..." , both referenced below. The first study utilizes a referenced study (Hardwick, Lake Sammamish Watershed Water Quality Survey; Water & Land Resources Div., King County, 1997) that estimates the frequency of residential car washing in the Sound Region as once every two weeks. It does not give a sense of whether this is a year-round figure or just during high season. This would be 26 washes per year, which seems extraordinarily high.

The latter study also does not provide clarity on whether the car wash frequency reported was year-round or not; it estimates that 73% of car washers wash their cars between 6 and 36 times per year. For this Model we chosen to use the conservative figure of five washes per year so that our result will be a robust minimum estimate rather than maximum estimate. In this instance, and throughout this model, we have erred on the side of conservative assumptions so that outcome is as verifiable and replicable as possible. We have also made the assumption that most car washes happen during summer months, so the "5 washes per year" figure we are using likely all happen when stream volumes are lowest, and environmental impact is highest due to concentrations of harmful chemicals. (See also Note 5. re. the Federal Way estimate of car washes

4 This number can be tracked over time through subsequent Elway Research polls, which can help demonstrate whether target behaviors are changing over time.

5 This figure is calculated by multiplying the above five variables. Another approach would be to rely upon vehicle registrations. The 2014 estimated statewide passenger vehicle registrations per capita figure is: .92 based on WA Office of Financial Management: (<http://www.ofm.wa.gov/budget/info/Feb12transpovol3.pdf>). This allows the following alternative calculation, similar to the Federal Way Model: .92 reg's./ capita \* 41,440 pop. \* 6 washes \* 54.004 gal's/wash \* 47% home washers \* 57% pavement washers = 3,309,463 total gallons effluent/ year on pavement. This figure is somewhat comparable to this model's determination.

Note that Federal Way has used a calculation relying on vehicle registrations [See below]. That model has been run below in this spreadsheet based on Source 4. The results for Bothell are 17 times higher than this model would predict. This is primarily due to Federal Way's much higher estimate of the frequency of car washing at 21 washes/ person/ year.

6 This metric is calculated by multiplying the two variables below it.

7 These two variables are open for interpretation. Though based on the Sources listed, other estimates for these variables exist, and these are clearly important variables that have considerable impact on the overall outcome of the model based on their scale. The City may choose to perform a sensitivity analysis on these variables by running the analysis brackets of higher and lower estimates for these variables.

Variations can include the rate of water flow in the hose, and whether the hose has an auto shut-off handle.

It is also important to note that this metric will have an impact on soap and petrochemical dilution, and will therefore effect estimates for stream impacts.

Note that the Federal Way and Kitsap High School sources both use an estimate of 20 gallons of water used per vehicle wash assuming a low flow nozzle [p.8 and p.6, respectively]. The Kitsap County Public Works study uses a figure of 5 to 30 gallons. The Puget Sound Car Wash Association fact sheet estimates between 80 and 140 gallons of water are used for a home car wash. The average, unrestricted garden hose delivers approximately 5 gpm, and if we assume a 20 minute car wash with the hose continuously running, that would result in 100 gallons of water per car wash. We will use a figure of 2.5 gallons per minute compromise between an restricted and unrestricted hose. While that estimate may be on the high side, we feel it is most accurate for Bothell's purposes.

8 This model does not account for evaporation of run-off during car washing. Not only is evaporation likely minimal, and made by other conservative assumptions in this model, but soap and petrochemical residue would remain on the impervious surface.

washed to stream during subsequent rain events.

9 This is a rough estimate based on the average of two approaches. First, light vehicles per person, .87 (<http://www.energy.gov/eere/vehicles/fact-573-june-1-2009-vehicles-capita-state>) multiplied by 2.4 people per household (<http://www.wsdot.wa.gov/planning/wtp/datalibrary/population/numberofhouseholds.htm>). Second, household vehicle ownership (Oak Ridge National Laboratory Transportation Energy Data Book Chapter 8, Table 8.5 <http://cta.ornl.gov/data/chapter8.shtml>) applied to Bothell's population, resulting in 1.7 cars per HH. The average then is 1.89 cars/ HH.  $[ = ( (.87 * 2.4) + (1.7) ) / 2 ]$

# This is the ratio per the product instruction sheet.

**SOURCES**

- 1 Characterization of Runoff from Charity Carwashes in the Dyes Inlet Watershed; Kitsap High School Science Department; Bill Wilson, Science Teacher.
- 2 Practical Fish Toxicity Test Report; Environmental Partners, Inc.; March, 2007
- 3 Puget Sound Car Wash Association, 10 Facts About Professional Car Washing and Water Consumption
- 4 Residential Car Washwater Monitoring Study; City of Federal Way Public Works Department, Surface Water Management Division, September 2009.
- 5 Runoff from Fundraiser Car Washing: A Situational Analysis; Kitsap County Public Works Surface Water & Stormwater Management Program; Kirschbaum and Fohh; S
- 6 Stormwater Runoff: Awareness, Attitudes and Behavior; April 2012; Prepared for Cities of Bellevue, Bothell, Kenmore, Kirkland, Redmond & Shoreline by Elway Resea
- 7 United States Census: <http://quickfacts.census.gov/qfd/states/53/5307380.html> plus annexation figures from J. Geer, City of Bothell.

**FEDERAL WAY MODEL**

Bothell car washes/ year draining to stream 43,462

Based on: Bothell Registered Vehicles \* 38% "driveway car washers

Car Wash Frequency	Percent of Home Car Washers	Number of Bothell Driveway Washes	Annual Bothell Driveway Car Washes	Car washes per year per segment of 100 people
Once per week	11%	4,781	248,604	572
2 or 3 times per month	27%	11,735	422,453	972
Once per month	32%	13,908	166,895	384
Every other month	14%	6,085	36,508	84
2 or 3 times per year	13%	5,650	16,950	39
Once per year	3%	1,304	1,304	3
Total Annual car washes draining to stream		43,462	892,715	2,054
				Washes/ person per year
				20.54

ATTACHMENT B- Car Wash Impact Model Final Summary Report



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## **Summary Report Car Wash Impact Model**

**\*\* Draft 7-23-14 \*\***

### **Background**

Under the National Pollution Discharge Elimination System (NPDES) permit, the City of Bothell is required to establish an education and outreach program with regard to surface water protection to affect behavior change for multiple target audiences and their associated Best Management Practices (BMPs). Fundamental to establishing such a program is first establishing metrics for targeted activities believed to have a negative impact on surface water in Bothell.

One such threat to surface water environmental health is run-off from residential car washing. Petroleum products, metals, toxins and the soap surfactants themselves typically flow from residential driveways and curbs to storm sewers, which then flow directly to lakes and streams. Even when diluted, car wash effluent has documented deleterious impacts on fish and other aquatic life. (See for example, *Practical Fish Toxicity Test Report*, Project No. 08404.1; Environmental Partners, Inc.; March, 2007.)

Given the potential environmental threat, the City elected to estimate the volume of car wash effluent potentially reaching the storm water system. The Model described in this report, and available in Excel format, provides a conservative, actionable estimate that can inform the scale and type of interventions the City may choose to undertake – including policy, programmatic, enforcement and educational activities.

## **Overview of Findings**

Using the base scenario assumptions, factors and variables outlined below (and incorporated in the Excel Model), we estimate that home car washing residents of Bothell discharge 2,329,017 gallons of wastewater effluent to streams each year. For perspective, this is roughly equivalent to 1.1 bathtubs of car wash water per resident per year. (JANET: WE COULD INCLUDE SOME LANGUAGE HERE REGARDING THE TOXIC LOADING ESTIMATED IN ONE OF OUR RESEARCH DOCUMENTS.)

## **Discussion of Model Variables and Assumptions**

The Excel Model used to estimate Bothell's home car washing wastewater volume is based on similar research undertaken by other jurisdictions. (Sources are referenced in the Excel Model under *Notes* and *Sources*.) In order to create a model specifically tailored to Bothell's circumstances, variable values were selected and key assumptions were made to best match the model to the City's actual conditions.

The following sections are intended to provide background about the variables chosen and assumptions made. (When relevant, the discussion below notes the Footnote Number from the Excel Model that corresponds to the variable being discussed. Please refer to the model itself for detailed calculations and complete footnotes and references.)

### Household versus Population (Note #1)

Households are used in the Model, rather than population, to best match the statistically significant survey data from: *Stormwater Runoff: Awareness, Attitudes and Behavior*, April 2012; Prepared for Cities of Bellevue, Bothell, Kenmore, Kirkland, Redmond & Shoreline by Elway Research, Inc.

(We assume that all impervious surfaces near homes drain to streams.)

### Percent of Home Car Washers (Note #2)

The Elway Research Poll's number of washers at home did not include washers that wash both at home and at a car wash. Therefore this data input, and the resulting estimate of car wash effluent, are conservatively low.

#### Frequency of Home Car Washing

According to the "Stormwater Runoff" survey, 20% of car washers wash their car at least every other month. At its most simple calculation, this would be six times per year. Other sources consulted include "Characterization of Runoff from Charity Carwashes in the Dyes Inlet Watershed; Kitsap High School Science Department; Bill Wilson, Science Teacher" and "Residential Car Washwater Monitoring Study; City of Federal Way Public Works Department, Surface Water Management Division, September 2009", both referenced in the Model.

The first study utilizes a referenced study (Hardwick, Lake Sammamish Watershed Water Quality Survey; Water & Land Resources Div., King County, 1997) that estimates the frequency of residential car washing in the Puget Sound Region as once every two weeks. It does not give a sense of whether this is a year-round figure or just during high season. This would be 26 washes per year, which seems extraordinarily high.

Similarly, the latter study does not provide clarity on whether the car wash frequency reported was year-round or not; it estimates that 73% of car washers wash their cars between 6 and 36 times per year.

For this Model we have chosen to use the conservative figure of five washes per year per car. Given the high number of multi-family residents in Bothell -- whom we assume to wash their own cars less often due to location constraints and rental rules -- we chose to err on the side of less frequent washing. This approach allows our result to be a robust minimum estimate rather than a weak maximum estimate. In this instance, and throughout this model, we have erred on the side of conservative assumptions so the model's outcome is as verifiable and replicable as

possible. (We have also made the assumption that most car washes happen during the summer months, so the "5 washes per year" likely all happen when stream volumes are lowest, and environmental impact is highest due to concentrations of harmful chemicals.)

For additional comparison, see also the Federal Way Model – included at the end of the Excel Model -- that estimates the number of car washes per person per year for Bothell to be over 20.

#### Frequency of Home Car Washing on Impervious Surfaces (Note #4)

This number, identified via the Elway Poll, could be tracked over time through subsequent surveys and polls. Such longitudinal data can help demonstrate whether targeted behaviors are changing over time.

#### Averaging vehicles per person and vehicles per household (Note #9)

The number used for this factor is an estimate built by averaging two approaches. Approach one: light vehicles per person, .87 (<http://www.energy.gov/eere/vehicles/fact-573-june-1-2009-vehicles-capita-state> ) multiplied by 2.4 people per household (<http://www.wsdot.wa.gov/planning/wtp/datalibrary/population/numberofhouseholds.htm>), resulting in 2.09 cars per HH.

Approach two: household vehicle ownership (Oak Ridge National Laboratory Transportation Energy Data Book Chapter 8, Table 8.5: <http://cta.ornl.gov/data/chapter8.shtml> ) applied to Bothell's population, resulting in 1.7 cars per HH.

The average then is 1.89 cars/ HH.  $[(.87*2.4)+(1.7)]/2$

#### Total washes per year based on model versus vehicle registrations (Note #5)

The Model calculates the total washes per year by multiplying five variables, as outlined in the Model spreadsheet: Households in Bothell, Percent of homes with

home car washers, frequency of washes per year, cars per household, percent of washes on paved areas.

Another approach would be to rely upon vehicle registrations: The 2014 estimated statewide passenger vehicle registrations per capita figure is: .92 based on WA Office of Financial Management:

(<http://www.ofm.wa.gov/budget/info/Feb12transpovol3.pdf>). This allows the following alternative calculation, similar to the Federal Way Model: .92 reg's./ capita \* 41,440 pop. \* 6 washes/yr\* 54.004 gal's/wash \* 47% home washers \* 57% pavement washers = 3,309,463 total gallons effluent/ year on pavement & streams. This figure, at 42% higher than the City's Model, is somewhat comparable to this model's determination.

However, as noted above, Federal Way has used a calculation relying on vehicle registrations. The results for total wastewater when adjusted for Bothell are 17 times higher than this model would predict. This is primarily due to Federal Way's much higher estimate of the frequency of car washing at 21 washes/ person/ year.

#### Water Use per Home Car Wash Estimates of Hose Flow Rates (Note #6 and #7)

The two variables that make up this factor – gallons per minute, and minutes per car wash -- are open for interpretation. Though based on the Sources listed, other estimates for these variables could be considered for future iterations of this model.

#### Accounting for Evaporation (Note #8)

This model does not account for evaporation of run-off during car washing. Evaporation volume is likely minimal. Furthermore, soaps, metals and petrochemical residue would remain on impervious surfaces and be available to be washed to streams during future run-off events.

(Note that Source 2 and Source 4 in the Model indicate that at likely real world, at-stream dilutions, the run-off from home car washes will have significant mortality

and other health impacts on fish and aquatic life in streams reached by the run-off. This is particularly true in summer months when car washing activity is high and stream volumes are low, resulting in higher contaminant concentrations.)

## **Conclusions**

The data derived from this Model can be used to inform the scale and type of interventions the City may choose to address home car wash effluent contaminating surface water, flora and fauna. Various actions can be taken and fall roughly into the following categories: policy guidance (e.g. rules and regulations governing home car washing), programmatic activities (e.g. recruiting new automatic and self-serve car washes to the City), enforcement (e.g. patrolling and citing) and educational activities (providing alternative car washing techniques).

Once the City has taken steps to change residential behavior, the inputs to the Model can be updated through research and survey work, and subsequent iterations of the Model can be used to document change in targeted behaviors as well as in the volume of effluent reaching surface waters.

(Note that the City undertook a survey in June, 2014 of self-selected respondents identified through a utility mailing. While the resulting data on car washing behavior was not incorporated in this Model, the on-line survey could be re-run in the future – after City interventions – and the data could be compared internally between the first and second surveys to identify behavior change. Additionally, the survey data could provide a good companion data set to compare to the Excel Model.)

ATTACHMENT C- Bothell Focus Group Annotated Agenda



**CITY OF BOTHELL**

**HOME CARWASHING BEST PRACTICES FOCUS GROUP  
## September 2014**

**ANNOTATED AGENDA v.3**

**OFFICIAL WELCOME (6:45 – 6:50; Invited start time 6:30) [5 minutes]**

Janet:

*Hello and Welcome! I'm Janet Geer, Surface Water Program Coordinator for the City of Bothell. We truly appreciate each one of you taking time out of your busy lives to provide input to the City. The topic tonight is home car washing. Each of you in this room has indicated that you have washed cars at home and at automated car wash facilities in the past. Car washing is an important part of American culture. The City's concern is that we now recognize improper home car washing can have significant negative impacts on our streams, lakes and wildlife. Our aim tonight is to learn more about what people do now, and what they may be willing to do in the future.*

*It is very important that we get your honest feedback and your constructive input. For that reason, I'm going to leave the room and place you in the capable hands of my consultant team, David Stitzhal and Erin Hislop, to lead you through a structured conversation that we hope will give you the chance to provide your best, and your honest, thinking on this topic.*

*I will stay through general introductions in case any quick questions arise at the beginning and will then slip out. Then, I will return at the end to answer any questions and provide you with a special gift. Again, on behalf of the City of Bothell, thank you for your time and your input. Welcome.*

**LOGISTICAL WELCOME (6:50 – 6:55) [5 minutes]**

David:

- ★Go around to get everyone's name, neighborhood and their first car.
- ★Bathrooms
- ★We are recording so we can capture key points. (Please sign the release allowing use of non-identifying quotes. No attributions will be made.)
- ★Active facilitation to ensure everyone is heard, and no one dominates. I will generally call on raised hands, but let's not shy away from some open, free-flowing conversation.
- ★Erin will weigh in regularly, keep us on time, and will help dig deeper into key questions.
- ★Provide general timeline for the evening; consider putting it on the wall.
- ★Again, please be honest, constructive, thoughtful and talkative.

**FACILITATED DISCUSSION (6:55 – 8:30)**

David:

Q.1: Let's start really broadly. Please share a bit about what happens when you wash your car at home. Do you have a favorite hose or shammy cloth? Do the kids or grandkids help? Where do you do the washing? **(6:55 – 7:15)** [20 minutes]

Probes for activity:

- ★ Site location
- ★ Products used
- ★ Hose practices
- ★ Frequency per car
- ★ Equipment

Probes for purpose (why):

- ★ General cleaning
- ★ Tree sap
- ★ Construction dust
- ★ Camping
- ★ Frequency ?

Probes for experience:

- ★ Benefits
- ★ Drawbacks
- ★ Convenience factor
- ★ Cost factor
- ★ Fun
- ★ Vehicle protection

Q.2: What ideas do you have for helping to make sure that washing your car at home can protect our streams? These can be approaches that you already use, or that you think might work but haven't tried. **(7:15 – 7:25)** [10 minutes]

Q.3: There are a few techniques that can be used when washing your car at home that help protect our streams. I will outline a few of these for you, and then we can talk about them. **(7:25 – 7:45)** [20 minutes]

Provide visuals/ graphics, and describe use:

- ★ Lawn/ yard parking
- ★ Divert to lawn/ yard
  - Sandbags
  - Two-by-four in plastic
- ★ Divert to capture/ shop vac
  - Sock / waddle
  - Sandbags
  - Two-by-four in plastic

Open for general discussion.

Probes as needed:

- ★ What first impressions do you have of these approaches?
- ★ Would you consider using any of these techniques? (Probe: Always/ Sometimes/ Never)
- ★ If cost wasn't an issue.....
- ★ If convenience wasn't an issue.....
- ★ If you were given one of these tools.....
- ★ What can you imagine would motivate you to use any of these techniques?
- ★ Do you think you would use these approaches regularly? Consistently?
- ★ Are there any incentives that would result in your relying on these car washing techniques. (Probe: free kits, clear instructions, regulations, fines, financial incentives.)

Q.4: Thinking about those times when you decide to use a commercial drive-through or self-serve car wash, what would you say influences your decision? **(7:45 – 7:55)** [10 minutes]

Probe as needed: season, weather, level of dirt, cost, car type, location.  
 Probe as needed: distinguish between drive-through and self-serve.

Q.5: What would you say keeps you from using a commercial car wash more often?  
**(7:55 – 8:00)** [5 minutes]

Probe: What does convenience mean to you? (open-ended question/ discussion)  
 Probe as needed: convenience, cost, location, car safety

Q.6: What advantages, if any, do you see to washing your car at a commercial car wash?  
**(8:00 – 8:05)** [5 minutes]

Probe as needed: convenience, time, value

Q7: If you wanted to encourage your fellow Bothell residents to use commercial car washes instead of washing their cars at home, what do you think would motivate them?  
**(8:05 – 8:10)** [5 minutes]

Probe as needed and explore responses: communication about regulations, how-to information, fines

Q8: Would you like to see more commercial car wash locations come to Bothell? (8:10 – 8:20) [10 minutes]

Probes:

- a. If the City had more commercial car wash locations, would you always use a commercial car wash to wash your car?
- b. Are you thinking about self-serve or drive-through car washes, or either?
- c. How close does a commercial car wash need to be to your home for you to agree to use it consistently?
  - i. Within less than a mile
  - ii. Within 5 miles
  - iii. Within 10 miles
  - iv. Other
- d. How much money are you willing to pay for a commercial car wash?
  - i. Less than \$5
  - ii. Up to \$5
  - iii. Up to \$10
  - iv. I'm not willing to pay for a commercial car wash
  - v. Other
- e. Should the City recruit additional commercial car washes in Bothell?

Q.9: Before coming in today, did you know that home car washing, even with biodegradable soaps, hurts streams and wildlife? (8:20 – 8:25) [5 minutes]

**IF TIME PERMITS,**

Q.10: Has anything you've heard this evening moved you toward washing your car at home less often, or using a commercial car wash more often? (8:?? – 8:??)

**BRING JANET BACK INTO THE ROOM AT THIS TIME (or she will enter at 8:28 if not retrieved)**

Q.11: Is there anything else you would like to share, or convey to the City, on this topic? (8:?? – 8:??)

### **MATERIALS LIST – TO GET IN ADVANCE**

- Release form for using recording.
- White board/ easel and markers
- Tablets and pens
- Blue tape
- Recorder
- Entrance Door Sign
- Janet business cards
- Large pictures of alternative home washing options/ methods
- One-pager of alternative home washing options (to hand out at end)
- Packet/ bucket of BMP tools and other City swag

### **MATERIALS LIST – TO SET UP DAY-OF**

- Entrance Door Sign
- Water pitchers
- White board/ easel and markers
- Tablets and pens
- Recorder
- Janet business cards
- Have swag buckets available for easy distribution

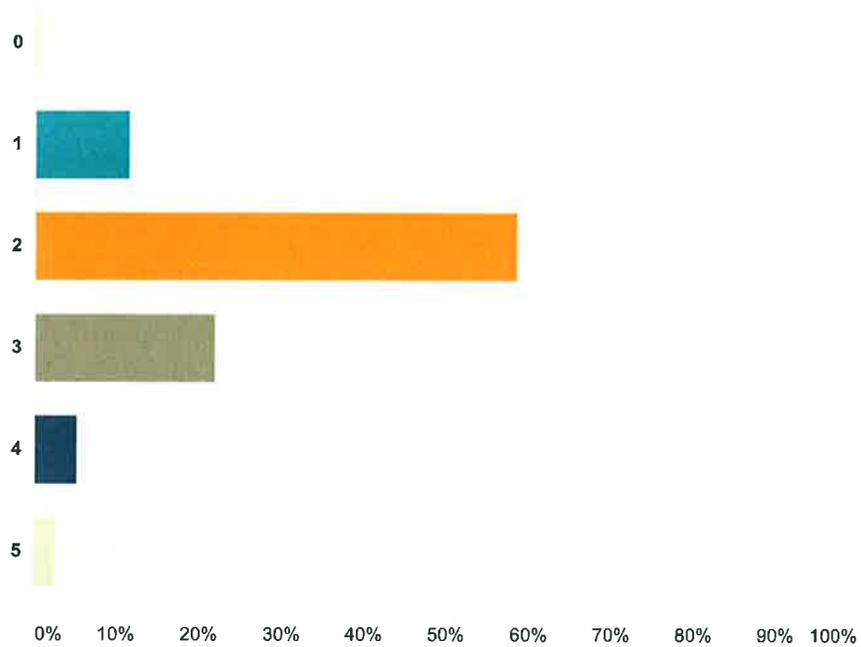
**ATTACHMENT D- Bothell Responses to Online Survey**

**Note: Responses provided through Question 7 due to space constraints. The full response document is available from the City.**

## Bothell Residential Car Washing Survey

### Q1 1. How many cars do you keep at your home?

Answered: 425 Skipped: 0



Answer Choices	Responses	
0	0.24%	1
1	11.53%	49
2	58.59%	249
3	21.88%	93
4	5.18%	22
5	2.59%	11
<b>Total</b>		<b>425</b>

#	Comments:	Date
1	We hope to stay with one car if at all possible (saves money, feels good) – the walkability of Bothell and the close proximity to the bike trails makes this very likely!	8/29/2014 1:23 PM
2	One vehicle of the three goes off to school with college age son for part of the year	8/6/2014 7:30 PM
3	1 of these is a motorcycle	7/7/2014 7:14 PM
4	5 was the highest number... We have 6. All running and registered. :)	6/17/2014 11:02 AM
5	2 are classics which will never see a car wash	6/11/2014 9:24 AM
6	Plus two motorcyles	6/10/2014 11:21 AM
7	We often loan our truck to our friend in Redmond. We have it here in Bothell about 1/2 the time.	6/5/2014 2:28 PM

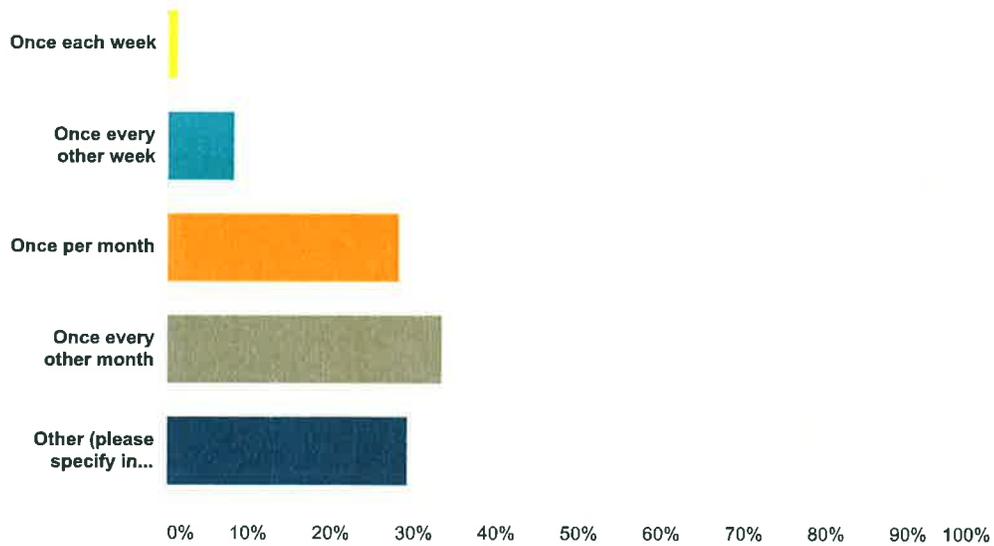
## Bothell Residential Car Washing Survey

8	Truck, compac, suv	6/2/2014 8:06 AM
9	Unless you count toy cars...	5/28/2014 7:37 AM
10	I is not running and will be donated. One is collectible, lives in the garage and is driven about 5 times a year. We have washed them in more than a year.Maybe longer	5/24/2014 5:45 PM

## Bothell Residential Car Washing Survey

### Q2 2. How many times, on average, do you wash your car(s)?

Answered: 422 Skipped: 3



Answer Choices	Responses	
Once each week	1.18%	5
Once every other week	8.06%	34
Once per month	28.20%	119
Once every other month	33.41%	141
Other (please specify in comments box)	29.15%	123
<b>Total</b>		<b>422</b>

#	Comments:	Date
1	2-3 times a year	9/3/2014 4:27 PM
2	Once a year at most.	9/2/2014 12:22 PM
3	Not a priority right now.	8/29/2014 1:24 PM
4	2 times a year	8/27/2014 7:52 PM
5	Not very often	8/23/2014 3:44 PM
6	Once per year	8/18/2014 9:15 AM
7	when needed.	8/17/2014 9:48 PM
8	3 times a year	8/17/2014 6:54 PM
9	Once a year	8/14/2014 7:06 PM
10	I go to the carwash	8/12/2014 9:59 AM
11	About two times/year	8/11/2014 9:10 PM

## Bothell Residential Car Washing Survey

12	Dealership washes at time of oil change.	8/11/2014 8:59 PM
13	every 4 months	8/10/2014 11:38 PM
14	Once per quarter	8/10/2014 8:24 PM
15	Once a year	8/10/2014 7:15 PM
16	2-3 times per year.	8/10/2014 5:11 PM
17	We wash one of our cars once per month for work purposes. The other 2 cars are washed about once every 3 or 4 months.	8/10/2014 8:37 AM
18	Randomly	8/9/2014 4:41 PM
19	Maybe 3-6 times per year, mostly in the summer time.	8/9/2014 8:30 AM
20	Only a couple times a year	8/8/2014 4:32 PM
21	Only 2 cars are washed once per month. The other cars are washed once a year.	8/8/2014 1:25 PM
22	Twice a year	8/8/2014 11:16 AM
23	4 per year each car	8/8/2014 10:15 AM
24	As needed, or maybe once every 3-6 months	8/7/2014 2:42 PM
25	Once a year	8/7/2014 1:20 PM
26	3-4 times per year	8/6/2014 1:10 PM
27	Once every 6 months. Maybe.	8/5/2014 5:25 PM
28	2x/year	8/5/2014 2:30 PM
29	A few times a year - especially after the 4th of July	8/5/2014 1:42 PM
30	2 of the cars once every 4-6 months; one car once a month	8/5/2014 10:38 AM
31	2-3 times per year	8/5/2014 9:53 AM
32	Every 3+months	7/14/2014 11:26 AM
33	have access to wash car at work, so washing at home is not consistent. Possibly, every few months for one or 2 cars.	7/9/2014 2:36 PM
34	Once a season.	7/8/2014 9:31 AM
35	Every few months	7/7/2014 9:37 PM
36	Almost never	7/7/2014 9:14 PM
37	Once every 3 months	7/7/2014 8:48 PM
38	Pickup once per year, Motorcycle every other week, 2 cars every other month	7/7/2014 7:16 PM
39	I haven't washed my car in over a year. The rain washes it for me!	7/7/2014 3:16 PM
40	Maybe once a year.	7/7/2014 2:09 PM
41	Not very often, once every 3 months or so.	7/7/2014 1:36 PM
42	I used to wash it about 4 times a year, but living in an apartment I am lucky to wash it once a year.	7/7/2014 1:05 PM
43	Rarely. Maybe twice a year.	7/7/2014 12:55 PM
44	Can't afford it. Only when it rains :)	7/7/2014 12:44 PM
45	4 times a year.	7/7/2014 12:08 PM
46	generally once or twice a month, only when needed though.	7/7/2014 11:52 AM
47	twice a year	7/7/2014 11:05 AM
48	4 times a year	7/7/2014 10:46 AM

## Bothell Residential Car Washing Survey

49	2 x year	7/7/2014 10:35 AM
50	maybe twice a year	7/5/2014 12:21 PM
51	Maybe once a year.	7/3/2014 12:21 PM
52	Once every 6 months	6/26/2014 2:04 PM
53	Every 3 months	6/25/2014 10:56 PM
54	Rarely	6/25/2014 8:53 PM
55	few times a year	6/24/2014 10:23 PM
56	4 times yearly	6/20/2014 6:40 PM
57	It depends on the season. During the summer it's once a week but during the winter it's a little less often. But we love to keep our cars nice and clean!	6/17/2014 11:04 AM
58	twice a year	6/16/2014 10:26 AM
59	two to three times per year	6/15/2014 2:57 PM
60	almost never	6/11/2014 4:54 PM
61	dry wipe with treated chenille wand clean windows with Windex	6/11/2014 11:09 AM
62	2x a year at home...the other times at the dealer	6/9/2014 3:43 PM
63	Once in 6 months	6/8/2014 10:04 PM
64	3 times a year	6/7/2014 11:36 AM
65	Once every 3 or 4 months	6/7/2014 10:55 AM
66	1 car is washed once a month and 1 car is washed 2-3 times PER YEAR.	6/7/2014 6:53 AM
67	3 months +/-	6/6/2014 5:34 PM
68	I wash the cars every 2 months in the Spring to late Fall. In the Winter, the hoses are put away and the faucets are wrapped to protect against freezing.	6/6/2014 12:39 PM
69	maybe 2 times each year at most	6/5/2014 9:14 AM
70	once a year	6/4/2014 9:05 PM
71	Get my car wash with my car oil change appointment, (every four or six months).	6/3/2014 11:02 PM
72	more like once a year	6/2/2014 12:50 PM
73	Probably once every 3 months on average, more in the summer, less the rest of the year.	6/1/2014 11:37 PM
74	Or less	6/1/2014 7:59 PM
75	One car is outside and gets "washed" by the rain. The other car (in the garage) is lucky to be washed once per year.	6/1/2014 7:44 PM
76	2 - 3 times a year per car	6/1/2014 11:44 AM
77	Maybe once a qtr	6/1/2014 8:40 AM
78	About every 3 months	5/31/2014 10:46 PM
79	I tend to wash each car 1-3 times per year. So that varies.	5/31/2014 11:35 AM
80	Once every 6 months	5/31/2014 10:17 AM
81	Every 3 mos	5/30/2014 9:49 AM
82	3-4 times a year	5/30/2014 8:46 AM
83	Once in 3 months	5/29/2014 4:59 PM
84	Once every three months.	5/29/2014 3:29 PM

## Bothell Residential Car Washing Survey

85	Only in the summer	5/29/2014 4:39 AM
86	Once every 3 months	5/29/2014 4:08 AM
87	Between 2 to 3 times a year.	5/28/2014 11:18 PM
88	Once every other month for each car.	5/28/2014 11:09 PM
89	Once or twice a year!	5/28/2014 6:10 PM
90	Twice per year!	5/28/2014 11:46 AM
91	Every 3 or 4 months.	5/28/2014 10:43 AM
92	Maybe twice a year	5/28/2014 10:28 AM
93	Couple times a year	5/28/2014 9:58 AM
94	Maybe 4 times/year - depends on how dirty they get	5/28/2014 8:02 AM
95	Once a year, whether it needs it or not.	5/28/2014 7:38 AM
96	2 -3 times a year	5/27/2014 7:48 PM
97	Once or twice a year at home	5/27/2014 7:33 PM
98	3 or 4 times during the summer, and only once or twice fall through spring	5/27/2014 6:41 PM
99	When it looks really awful or I just happen to be close to the 76 station with the car wash..	5/27/2014 5:27 PM
100	Once or twice a year	5/27/2014 5:15 PM
101	Several times per year	5/27/2014 2:55 PM
102	1x every 3 months	5/27/2014 2:20 PM
103	Every 4 months.	5/27/2014 1:22 PM
104	We don't wash our car very often unless it needs it.	5/27/2014 12:22 PM
105	Once or twice a year.	5/27/2014 9:40 AM
106	about once every 3 months, but not all cars	5/27/2014 8:16 AM
107	3 to 4 months, or more	5/27/2014 12:43 AM
108	Never	5/26/2014 9:02 PM
109	Never wash it at home. I take it to the car wash.	5/26/2014 6:14 PM
110	One every 3-4 months	5/26/2014 5:58 PM
111	Twice a year	5/26/2014 4:50 PM
112	2-4 times per year	5/26/2014 2:15 PM
113	Once a year	5/26/2014 1:46 PM
114	Maybe once or twice a year.	5/26/2014 1:09 PM
115	Usually never during the rainy season of October through April. Then during May through September, probably only when it's very sunny weeks at a time.	5/26/2014 10:38 AM
116	2-3 Times per year	5/25/2014 7:46 PM
117	Twice per year	5/25/2014 6:50 PM
118	once every 3-4 months	5/25/2014 6:17 PM
119	once every six months	5/25/2014 2:14 PM
120	3 or 4 times per year	5/25/2014 10:17 AM
121	Once every few months	5/25/2014 8:28 AM

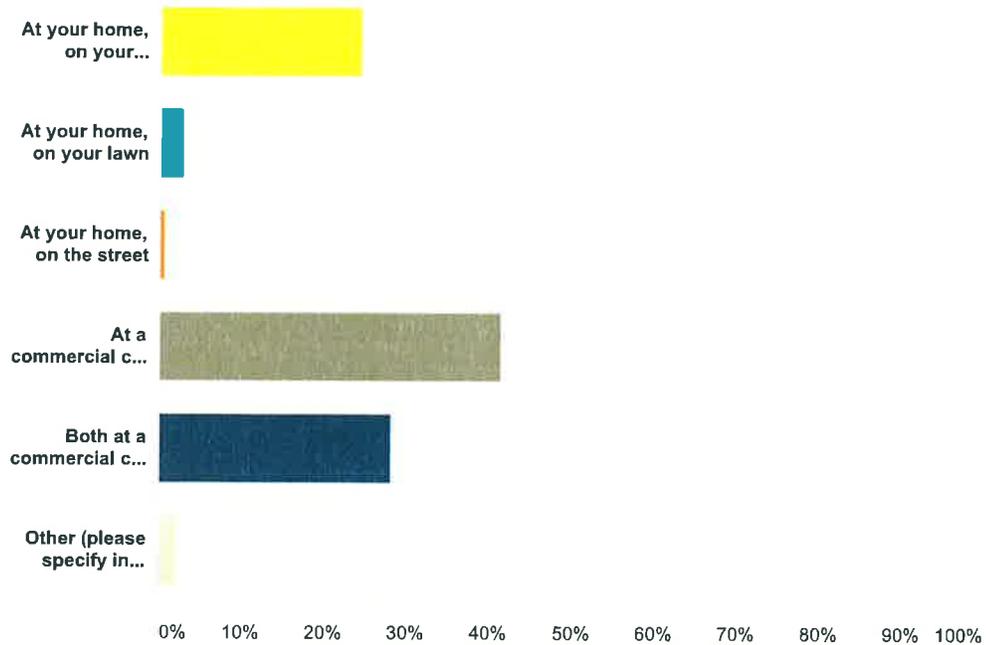
## Bothell Residential Car Washing Survey

122	every 3 months	5/24/2014 10:31 PM
123	once a quarter	5/24/2014 10:10 PM
124	Rarely, maybe once every 4-6 months	5/24/2014 8:34 PM
125	Only a few times a year, and at a car wash that is local in Bothell, never at home.	5/24/2014 7:24 PM
126	Once or twice a year	5/24/2014 5:45 PM
127	Twice a year, maybe!	5/24/2014 5:44 PM
128	One car I wash every couple of weeks, and only in the spring and summer months. The other vehicle I might wash once a year if that.	5/24/2014 4:29 PM
129	3 to 4 times per year	5/24/2014 3:36 PM
130	once every three months	5/24/2014 3:35 PM
131	Rarely	5/24/2014 2:07 PM
132	Once every 6 months	5/24/2014 1:44 PM

## Bothell Residential Car Washing Survey

### Q3 3. Where do you most often wash your car(s)?

Answered: 421 Skipped: 4



Answer Choices	Responses	
At your home, on your driveway	24.47%	103
At your home, on your lawn	2.85%	12
At your home, on the street	0.71%	3
At a commercial car wash (automated or self-serve)	41.57%	175
Both at a commercial car wash and at home	28.27%	119
Other (please specify in comments box)	2.14%	9
<b>Total</b>		<b>421</b>

#	Comments:	Date
1	What is a "valid format" if this one is "invalid"?	8/23/2014 3:48 PM
2	Dealership washes at time of service.	8/11/2014 9:00 PM
3	1 car is washed in the driveway and the other is at a commercial car wash.	8/8/2014 1:26 PM
4	one car is washed in a commercial car wash. The other two are washed in our gravel driveway	8/8/2014 10:36 AM
5	At the dealership when we get oil change, or Lexus dealership in Bellevue has free carwash anytime.	8/5/2014 10:34 PM
6	In the driveway at home.	7/9/2014 2:37 PM
7	At home, we wash on the lawn	7/7/2014 1:01 PM

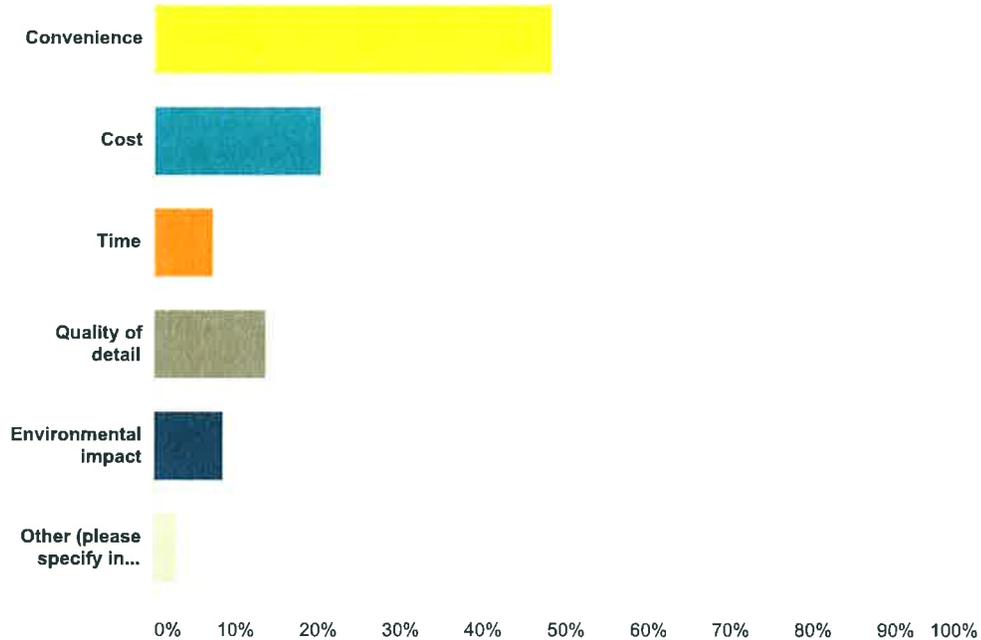
## Bothell Residential Car Washing Survey

8	Our driveway drains onto our lawn.	6/17/2014 11:08 AM
9	a friends home, on gravel, doesn't drain unto street	6/11/2014 4:55 PM
10	in our carport	6/11/2014 11:10 AM
11	I do not have a lawn in my front yard and no access to the back yard big enough for my vehicles	6/11/2014 9:25 AM
12	In the winter I wash my cars at a commercial car wash only.	6/10/2014 11:23 AM
13	dealer	6/9/2014 3:44 PM
14	SudsCity Carwash in Kenmore. It is environmentally friendly	6/9/2014 6:49 AM
15	1 car at commercial wash the 2-3 times per year washed car is done so in the driveway.	6/7/2014 6:53 AM
16	About 2 or 3 times a year we wash a car at home. Most of the time we go to a carwash.	6/5/2014 2:29 PM
17	Compac and truck at home in gravel driveway and apron. SUV at commercial car wash	6/2/2014 8:08 AM
18	I get free car washes at the gas station next to my work	5/30/2014 1:10 PM
19	But often need to wash more at home bcz car still dirty	5/30/2014 9:50 AM
20	Brown bear car wash and drive way equally	5/28/2014 11:10 PM
21	I use WallyPark at the airport or fundraisers in the Bothell area (usually at gas stations)	5/27/2014 5:16 PM
22	Usually Brown Bear (location varies) or Rose Hill Car Wash (Kirkland)	5/26/2014 8:24 PM
23	At home I wash on the lawn	5/25/2014 9:39 AM
24	Depends on the season (winter vs summer) is different	5/25/2014 6:59 AM
25	On our driveway, which drains to our lawn	5/24/2014 1:45 PM

## Bothell Residential Car Washing Survey

### Q4 4. When choosing where to wash your car(s), what is your main consideration?

Answered: 421 Skipped: 4



Answer Choices	Responses	
Convenience	48.22%	203
Cost	20.19%	85
Time	7.13%	30
Quality of detail	13.54%	57
Environmental impact	8.31%	35
Other (please specify in comments box)	2.61%	11
<b>Total</b>		<b>421</b>

#	Comments:	Date
1	Cost, Convenience, and environmental impact	8/23/2014 3:49 PM
2	Commercial car washes will damage my radio antenna.	8/10/2014 11:39 PM
3	With availability of time at a premium, the commercial car wash is most often the necessary choice. If finer cleaning/detailing is needed, however, the vehicles are cleaned at home. All interior cleaning is done at home, as well.	8/6/2014 7:30 PM
4	Turtles	8/5/2014 4:42 PM
5	Cost , time	7/7/2014 11:14 PM

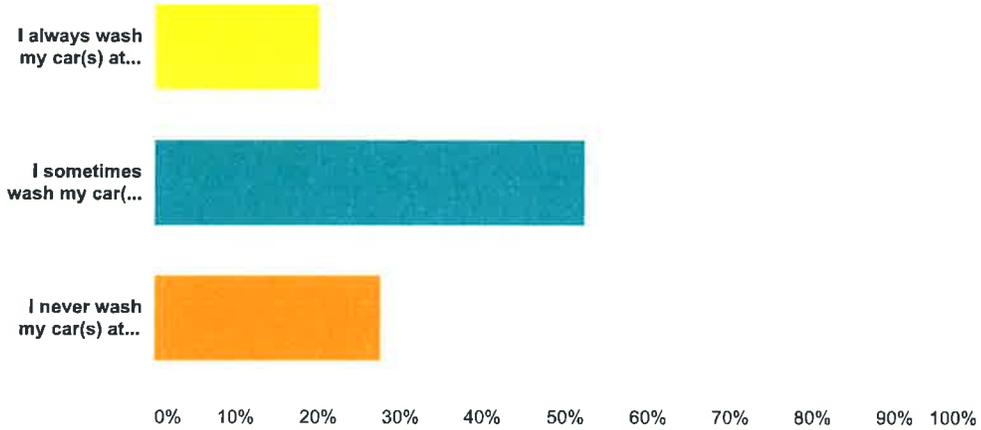
## Bothell Residential Car Washing Survey

6	It's cheaper to pay a commercial car wash business than to pay the extra Water & Sewer charges to the City of Bothell	6/15/2014 2:59 PM
7	good lighting is a requirement	6/11/2014 9:26 AM
8	How cold it is outdoors.	6/10/2014 11:24 AM
9	Convenience and cost	6/7/2014 1:52 PM
10	automatic car wash can damage the paint on the car so i wash it at home	6/7/2014 8:45 AM
11	I cannot afford to take it to a car wash	6/4/2014 9:25 AM
12	It's really the Cost vs Quality. I look for good quality car wash for a decent price. I don't need the most expensive car wash, and I don't necessary want the cheapest either.	6/1/2014 11:38 PM
13	Non-brush car wash	5/31/2014 10:47 PM
14	Both convenience and environmental impact	5/28/2014 6:16 PM
15	and cost too	5/27/2014 11:01 AM
16	hand-wash only, no brushes	5/27/2014 9:28 AM
17	Using the water to water the grass.	5/24/2014 5:44 PM

# Bothell Residential Car Washing Survey

## Q5 5. Do you ever wash your car(s) at home?

Answered: 421 Skipped: 4



### Answer Choices

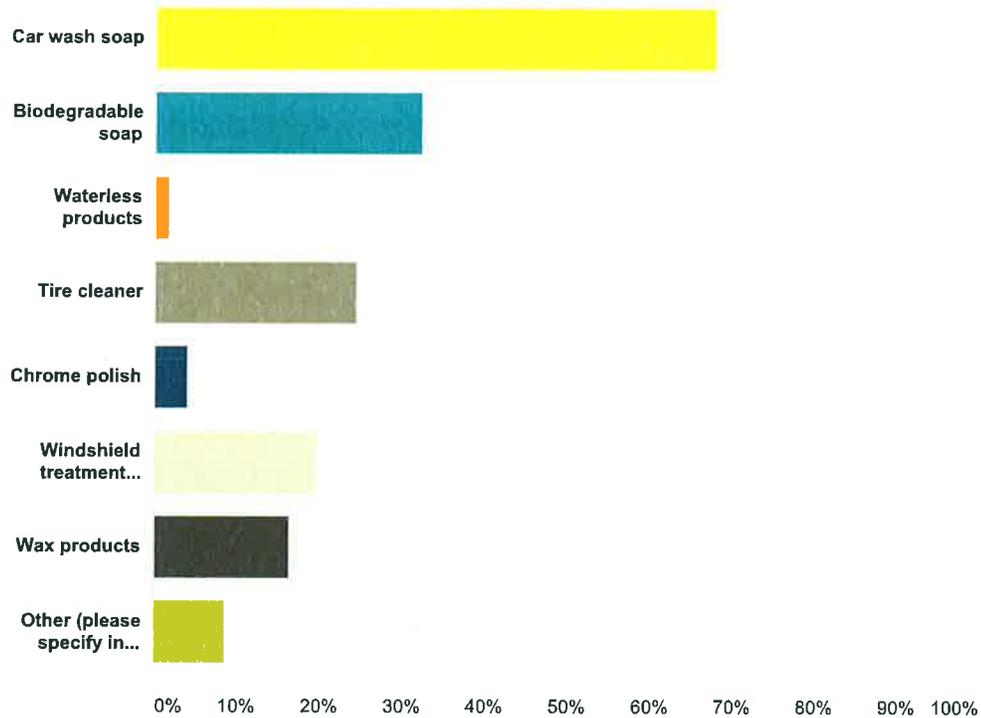
### Responses

I always wash my car(s) at home	19.95%	84
I sometimes wash my car(s) at home	52.49%	221
I never wash my car(s) at home	27.55%	116
<b>Total</b>		<b>421</b>

## Bothell Residential Car Washing Survey

### Q6 6. If you typically wash your car(s) at your home, what products do you most often use? Check all that apply.

Answered: 306 Skipped: 119



Answer Choices	Responses	
Car wash soap	67.97%	208
Biodegradable soap	32.35%	99
Waterless products	1.63%	5
Tire cleaner	24.51%	75
Chrome polish	3.92%	12
Windshield treatment products	19.61%	60
Wax products	16.34%	50
Other (please specify in comments box)	8.50%	26
<b>Total Respondents: 306</b>		

#	Comments:	Date
1	Sometimes a small amount of dishwasher soap. Many times I wash car with Windex in the garage, this method usually lasts a year and there is no waste that goes into the storm drain in the street.	9/2/2014 12:28 PM
2	Dish Soap	8/27/2014 7:53 PM

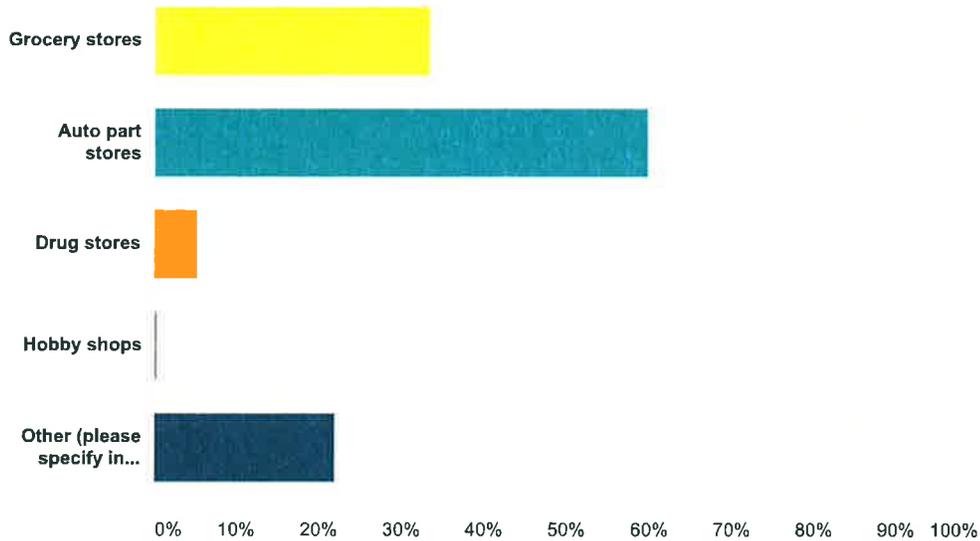
## Bothell Residential Car Washing Survey

3	Woolite	8/11/2014 9:13 PM
4	Wash with water only prior to waxing (paste wax).	8/11/2014 9:01 PM
5	"Dawn" dish soap	8/10/2014 11:40 AM
6	Simple Green	8/10/2014 5:12 PM
7	Dish soap	8/9/2014 4:42 PM
8	Dawn dishwashing detergent.	8/8/2014 1:28 PM
9	dish soap	8/7/2014 10:54 AM
10	Two of our vehicles were dealer-treated with a protective coating. Special soap and wax were provided for these by the dealer at time of sale. A commercially available specialized car soap is used for the third.	8/6/2014 7:30 PM
11	Dawn dish washing soap.	7/7/2014 10:39 PM
12	dish soap	7/3/2014 12:22 PM
13	Leather cleaner	6/28/2014 9:41 AM
14	dishwasher	6/20/2014 6:42 PM
15	Grigots professional products wash soap, tire cleaner, wax products and detail products	6/11/2014 9:56 AM
16	Mothers and Grioch products	6/11/2014 9:26 AM
17	Dish Soap	6/6/2014 7:56 AM
18	I typically do not wash my car at home. Only occasionally.	6/1/2014 8:42 AM
19	Dawn Dish Detergent	5/31/2014 1:42 PM
20	No product used	5/31/2014 9:25 AM
21	I use a German car shampoo which is (allegedly) made from biodegradable sugar-based components. I do a home wash and wax maybe once per year.	5/29/2014 4:10 AM
22	Often, just water in a pail, but if I have tough spots, I may use wax products. I think that I just bought a car wash soap recently, but had forgotten about it.	5/28/2014 11:13 PM
23	Dishwashing liquid soap	5/28/2014 6:13 PM
24	Dish washing detergent	5/28/2014 10:00 AM
25	only water from pressure washer	5/28/2014 8:25 AM
26	Dishwashing liquid	5/27/2014 1:23 PM
27	Dawn liquid dish soap	5/26/2014 4:51 PM
28	I don't typically wash at home....	5/25/2014 8:30 PM
29	Windex	5/25/2014 7:47 PM
30	wheel cleaner	5/25/2014 5:41 PM
31	rarely wash at home with Costco's environmentally friendly dish soap	5/24/2014 10:11 PM
32	just water	5/24/2014 3:37 PM

## Bothell Residential Car Washing Survey

### Q7 7. Where do you purchase products to wash your car(s) at home? Check all that apply

Answered: 305 Skipped: 120



Answer Choices	Responses	Count
Grocery stores	33.44%	102
Auto part stores	60.00%	183
Drug stores	5.25%	16
Hobby shops	0.33%	1
Other (please specify in comments box)	21.97%	67
<b>Total Respondents: 305</b>		

#	Comments:	Date
1	Kitchen detergent	9/3/2014 4:28 PM
2	Costco	9/2/2014 12:29 PM
3	Costco	8/29/2014 6:06 PM
4	home depot	8/23/2014 9:05 AM
5	costco	8/17/2014 11:09 AM
6	Target	8/13/2014 10:17 AM
7	Online	8/11/2014 10:17 PM
8	Wherever it is the cheapest.	8/7/2014 2:43 PM
9	Please see earlier comments concerning type of soap	8/6/2014 7:32 PM
10	Walmart	7/8/2014 9:36 AM

## Bothell Residential Car Washing Survey

11	Costco	7/7/2014 9:39 PM
12	Department stores like Fred Meyer or Target.	7/7/2014 2:12 PM
13	Home Depot	7/7/2014 1:18 PM
14	Borrow from my dad	7/7/2014 1:02 PM
15	Hardware Stores	7/7/2014 10:21 AM
16	Costco, Amazon	6/28/2014 9:43 AM
17	Make my own	6/28/2014 8:20 AM
18	Costco	6/25/2014 10:58 PM
19	Costco - Meguiars Car Wash or 3M Wholesale (who makes Meguiars)	6/17/2014 11:13 AM
20	Costco	6/16/2014 1:42 PM
21	Internet	6/15/2014 1:32 PM
22	Amazon	6/13/2014 4:12 PM
23	Grigots	6/11/2014 9:56 AM
24	Costco	6/8/2014 11:13 AM
25	Target	6/7/2014 10:56 AM
26	Fred Meyer or on-line	6/7/2014 6:54 AM
27	Online	6/4/2014 7:57 PM
28	Costco	6/3/2014 2:04 PM
29	Simple Green from Costco & products from Toyota dealer	6/2/2014 1:14 PM
30	costco	6/1/2014 9:15 PM
31	I dont know...	6/1/2014 8:42 AM
32	amazon	5/31/2014 3:30 PM
33	I do not purchase products specifically for washing my car. I use dish detergent.	5/31/2014 1:42 PM
34	None	5/31/2014 9:26 AM
35	Home Depot	5/30/2014 3:07 PM
36	Amazon	5/30/2014 9:34 AM
37	Online	5/30/2014 8:50 AM
38	Mail order	5/29/2014 4:11 AM
39	Griot's Garage catalog	5/28/2014 9:23 PM
40	Target	5/28/2014 8:32 AM
41	Target	5/27/2014 7:49 PM
42	Griott's Garage	5/27/2014 4:02 PM
43	Target	5/26/2014 10:39 AM
44	auto detailing store online	5/25/2014 6:18 PM
45	Big Box stores	5/25/2014 7:50 AM
46	Costco	5/24/2014 10:12 PM
47	big box stores	5/24/2014 5:46 PM
48	just water	5/24/2014 3:37 PM

## Bothell Residential Car Washing Survey

49

I don't remember since I last bought car soap a really long time ago

5/24/2014 2:56 PM

## Bothell Residential Car Washing Survey

### Q8 Please share the name(s) of the specific stores you purchase car washing products.

Answered: 136 Skipped: 289

#	Responses	Date
1	O'Reilly Auto Parts	9/7/2014 4:09 PM
2	Costco	9/2/2014 12:29 PM
3	Napa Auto Parts	8/29/2014 6:06 PM
4	Napa Target	8/29/2014 4:09 PM
5	home depot, target	8/23/2014 9:05 AM
6	O'Reilly's	8/21/2014 4:29 PM
7	Fred Meyer	8/17/2014 9:51 PM
8	O'Reillys AutoZone	8/17/2014 8:13 PM
9	PCC	8/14/2014 10:08 PM
10	O'Riley Auto Parts Target	8/13/2014 10:17 AM
11	NAPA, Mothers, GRIOT's garage	8/11/2014 10:17 PM
12	Costco	8/11/2014 9:13 PM
13	O'Reilly	8/11/2014 9:02 PM
14	Costco	8/10/2014 5:13 PM
15	O'Rielly	8/10/2014 3:37 PM
16	Costco	8/10/2014 1:36 PM
17	Target, Costco	8/9/2014 5:28 PM
18	Griot's, O'Reilly	8/8/2014 8:11 AM
19	Target	8/7/2014 10:36 AM
20	O'Reilly Auto Parts	8/6/2014 7:32 PM
21	Costco, Fred Meyer	8/6/2014 11:41 AM
22	Costco, Home Depot	8/5/2014 6:22 PM
23	Target. O'Reilly's. AutoZone	8/5/2014 5:26 PM
24	Autozone	8/5/2014 4:43 PM
25	Reilly's	8/5/2014 12:28 PM
26	O'Reilly's automotive, Fred Meyer	8/5/2014 12:26 PM
27	Griot's	8/5/2014 11:50 AM
28	O'Reilleys	8/5/2014 11:19 AM
29	Costco	8/5/2014 9:56 AM
30	Target O'Reilly's auto parts	7/14/2014 11:28 AM
31	Walmart	7/8/2014 9:36 AM
32	Fred Meyer, Costco	7/7/2014 10:40 PM

## Bothell Residential Car Washing Survey

33	Fred Meyer, Walmart, O'Reilly	7/7/2014 9:55 PM
34	Costco	7/7/2014 9:39 PM
35	Fred Meyers	7/7/2014 9:23 PM
36	O'Reilly and Safeway	7/7/2014 9:18 PM
37	Target, O'reilly	7/7/2014 8:51 PM
38	Target	7/7/2014 3:57 PM
39	Safeway or O'Reilly's	7/7/2014 3:18 PM
40	Fred Meyer, Target	7/7/2014 2:12 PM
41	Safeway	7/7/2014 1:18 PM
42	zip wax	7/7/2014 1:09 PM
43	O'Brien's	7/7/2014 1:06 PM
44	fred meyer	7/7/2014 12:39 PM
45	Auto Zone, Whole Foods	7/7/2014 12:33 PM
46	AutoZone and Fred Meyer	7/7/2014 12:10 PM
47	O'Reillys	7/7/2014 11:54 AM
48	Fred Meyer Napa	7/7/2014 11:06 AM
49	Dr Bronners from Azure Standard	7/7/2014 10:48 AM
50	O'Reilly	7/7/2014 10:38 AM
51	Costco Home Depot	7/7/2014 10:21 AM
52	Fred Meyer	7/7/2014 10:17 AM
53	Costco	6/29/2014 9:51 AM
54	O'Reilly, Costco, Amazon	6/28/2014 9:43 AM
55	O'Reillys	6/25/2014 8:54 PM
56	trader joes	6/24/2014 5:47 PM
57	O'Reily Auto Parts	6/18/2014 8:10 PM
58	Costco or 3M Wholesale.	6/17/2014 11:13 AM
59	Costco	6/17/2014 9:10 AM
60	Shucks	6/16/2014 1:42 PM
61	o'reillys, napa	6/16/2014 10:32 AM
62	O'Riely Auto Parts	6/15/2014 5:12 PM
63	Amazon	6/15/2014 1:32 PM
64	Amazon	6/13/2014 4:12 PM
65	o'reilly	6/11/2014 11:11 AM
66	Grigots	6/11/2014 9:56 AM
67	Grioch and online	6/11/2014 9:27 AM
68	Costco	6/9/2014 4:21 PM
69	Whole Foods, QFC	6/9/2014 3:45 PM
70	Rite Aid and O'Reilly	6/7/2014 1:53 PM

## Bothell Residential Car Washing Survey

71	Target, Fred Meyer	6/7/2014 10:56 AM
72	Fred Meyer, O'Reillys	6/7/2014 8:46 AM
73	Fred Meyer or on-line	6/7/2014 6:54 AM
74	RiteAid, Walgreens, Bartells	6/6/2014 12:41 PM
75	O'Reilly's	6/5/2014 7:01 AM
76	Griots Garage	6/4/2014 7:57 PM
77	Costco	6/4/2014 7:29 PM
78	Costco, Fred Meyer	6/3/2014 2:04 PM
79	Fred Meyer, O'Reilly's	6/3/2014 9:07 AM
80	Fred Meyer	6/2/2014 3:44 PM
81	Costco TOK - Toyota dealership	6/2/2014 1:14 PM
82	homedepot or loews	6/2/2014 12:51 PM
83	O,Reilly	6/2/2014 8:10 AM
84	Target, Walmart, Rite Aid or Walgreens	6/1/2014 3:10 PM
85	griots garage, autogeek.com, amazon	6/1/2014 8:45 AM
86	NAPA	5/31/2014 6:08 PM
87	costco	5/31/2014 3:47 PM
88	Costco O'Reileys	5/31/2014 11:36 AM
89	O'Reiley in Bothell	5/30/2014 7:08 PM
90	Zip	5/30/2014 4:51 PM
91	Fred Meyer Costco	5/30/2014 2:28 PM
92	Top Foods	5/30/2014 1:11 PM
93	Oreilly	5/30/2014 9:51 AM
94	Through Amazon.com	5/30/2014 8:50 AM
95	Orielly's	5/29/2014 5:09 PM
96	Meguires car soap	5/29/2014 2:15 PM
97	O'Reilly Auto	5/29/2014 1:38 PM
98	store.carcareonline.com	5/29/2014 4:11 AM
99	Oreilly Auto Parts	5/28/2014 11:21 PM
100	Griot's Garage catalog	5/28/2014 9:23 PM
101	O'Reilly's (formerly Schucks Auto Parts)	5/28/2014 6:59 PM
102	Fred Meyer Target	5/28/2014 4:56 PM
103	Napa	5/28/2014 4:36 PM
104	Earth Friendly brand dish washing soap or doc bronners.	5/28/2014 12:18 PM
105	Rite Aid, QFC or Fred Meyer	5/28/2014 10:45 AM
106	O'Reilly Auto Parts	5/27/2014 10:13 PM
107	Costco, Amazon.com	5/27/2014 8:12 PM
108	Online via Griott's Garage	5/27/2014 4:02 PM

## Bothell Residential Car Washing Survey

109	Walmart, Costco	5/27/2014 11:03 AM
110	Groitts	5/27/2014 9:30 AM
111	Armour All	5/26/2014 8:16 PM
112	O'Reilly Auto Parts	5/26/2014 6:42 PM
113	Bartell Drugs or Rite Aid	5/26/2014 4:52 PM
114	O'Rielys	5/26/2014 3:11 PM
115	Auto Zone	5/26/2014 2:16 PM
116	McGuire, RainX	5/26/2014 10:39 AM
117	Reilly's	5/25/2014 8:50 PM
118	Costco	5/25/2014 6:55 PM
119	O'Reilly	5/25/2014 5:42 PM
120	Fred Meyer	5/25/2014 2:16 PM
121	O'reilly	5/25/2014 9:40 AM
122	Costco	5/25/2014 8:55 AM
123	Top Foods, Albertsons	5/25/2014 8:29 AM
124	Fred Meyers	5/25/2014 8:20 AM
125	Costco, Home Depot	5/25/2014 7:50 AM
126	O'Reilly's Auto Parts windshield cleaner, Griots Garage Car Wash Products: Car Wash Soap, Tire Cleaner	5/25/2014 7:18 AM
127	Costco	5/24/2014 10:12 PM
128	qfc, walgeens	5/24/2014 8:40 PM
129	Turtle Wax	5/24/2014 5:47 PM
130	Target, Walmart	5/24/2014 5:46 PM
131	Target	5/24/2014 3:57 PM
132	Costco	5/24/2014 3:37 PM
133	QFC	5/24/2014 3:36 PM
134	Napa or Oriellys. Sometimes Costco	5/24/2014 3:28 PM
135	I don't remember	5/24/2014 2:56 PM
136	Dawn from QFC or Target	5/24/2014 1:46 PM

ATTACHMENT E- Utility Mailer

# TAKE A MOMENT AND BE REWARDED!

As Bothell residents we value your opinion and would really like to know about your current car washing practices.

To participate in this short, anonymous survey, please type the following link into your browser:

[www.surveymonkey.com/s/BothellCarWashingSurvey](http://www.surveymonkey.com/s/BothellCarWashingSurvey)

Enter your answers, then choose which **FREE** item you would like to receive as a “thank you” for your time and input.



City of Bothell

For every survey completed by you and your neighbors, the City will also plant a native sapling in our community.

We really appreciate you taking the time to provide your input!

# TAKE A MOMENT AND BE REWARDED!

As Bothell residents we value your opinion and would really like to know about your current car washing practices.

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Enter your answers, then choose which **FREE** item you would like to receive as a “thank you” for your time and input.



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## Appendix E

# GOT POOP?

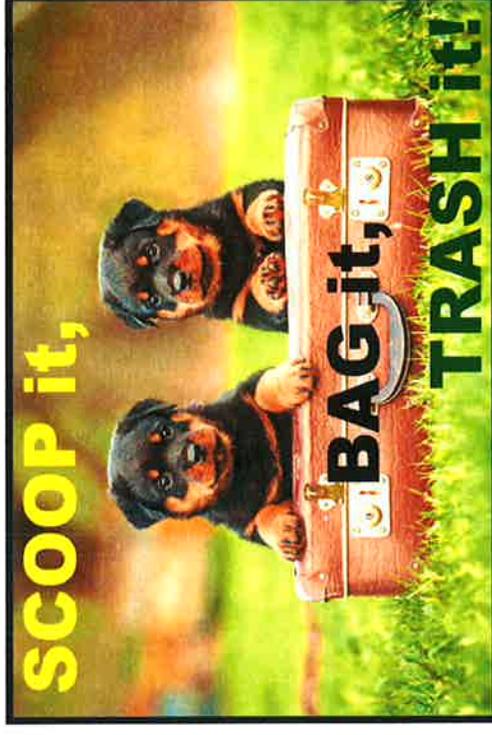
For the safety of everyone sharing this space, be sure to leash your dog and pick up after them.

## IT'S THE LAW!

Leaving your pet waste on public or private property could land you a \$250 fine per violation.

(BMC 6.16.011 and 8.60.240)

This area is patrolled by City of Bothell's Animal Control Officer.



Questions? [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



# FOLLOW THE LAW!

For the safety of everyone sharing this space, be a responsible pet owner:

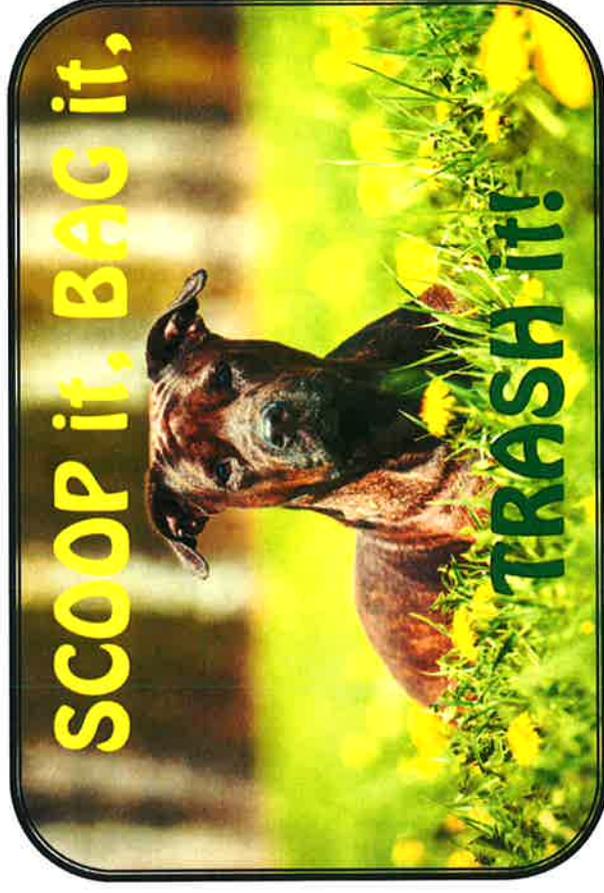
Leash your dog and pick up after them.



## Did you Know?

You could be fined up to \$ 250 per violation for leaving your pet waste on public or private property. That's money that could be spent on dog treats!

(BMC 6.16.011 and 6.60.240)



Questions? [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

# **IT'S THE LAW**

For the safety of everyone sharing this space, be sure to

**LEASH YOUR DOG**

and

**PICK UP AFTER THEM**

Leaving your pet waste on public OR private property is against the law and subject to a \$250 fine per violation

**(BMC 6.16.011 and 8.60.240)**

*This area is patrolled by City of Bothell's Animal Control Officer*

## Pet Waste Found in Your Area!

This is not a citation

Dog poop is more than just an icky nuisance, it's full of bacteria like Giardia and Ecoli that can make people sick.



What's more, when it rains, the waste is washed into our storm drains and is carried into the nearest stream making the water unsafe to swim or play in.

### DID YOU KNOW?

It's against the law! According to BMC 6.16.011 and 8.60.240, it is unlawful to leave your pet waste on public or private property. You can be fined up to \$250 per violation.

**Do the Right Thing**  
Scoop it, Bag it,  
Place it in the trash

Questions?

Animal Control Officer 425.486.1254

Surface Water (Janet Geer) 425.486.2768

## Puget Sound Starts Here

### Did you know?

City of Bothell storm drains do not connect to the sewer system. Anything that enters a storm drain flows directly to the nearest lake, stream, or wetland without treatment. This is why it's so important to keep all pollutants out of our storm water system.

The pollution comes from our every day activities and can only be prevented by changing our habits.

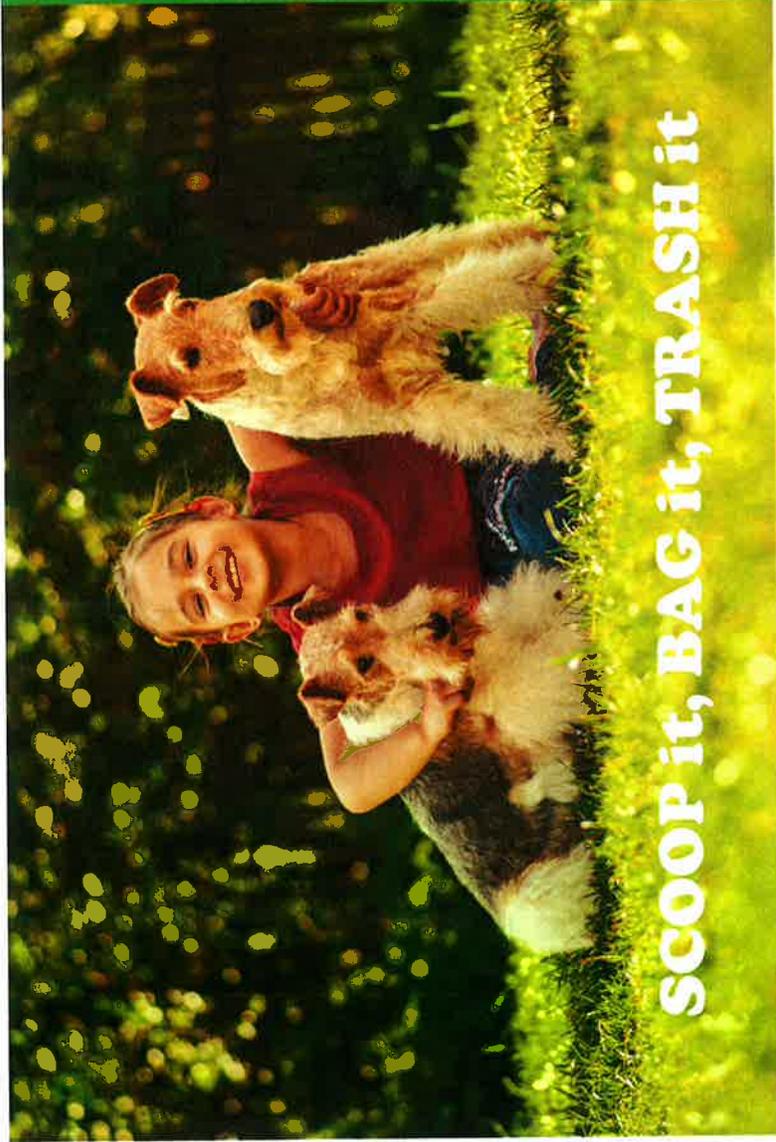


Here are some ways you can help:

- Don't use synthetic pesticides and fertilizers
- Use a commercial car wash
- Check your vehicle for leaks
- Properly dispose of pet waste
- Dispose of paint, solvents and household hazardous chemicals at proper facilities



City of Bothell



**SCOOP it, BAG it, TRASH it**

# **DOG POOP IS NOT FERTILIZER!!**

For the safety of everyone sharing this space, be sure to leash your dog and pick up after them.

## **IT'S THE LAW!**

Leaving your pet waste on public **or** private property could land you a \$250 fine per violation (BMC 6.16.011 and 8.60.240)

*This area is patrolled by the City of Bothell's Animal Control Officer*

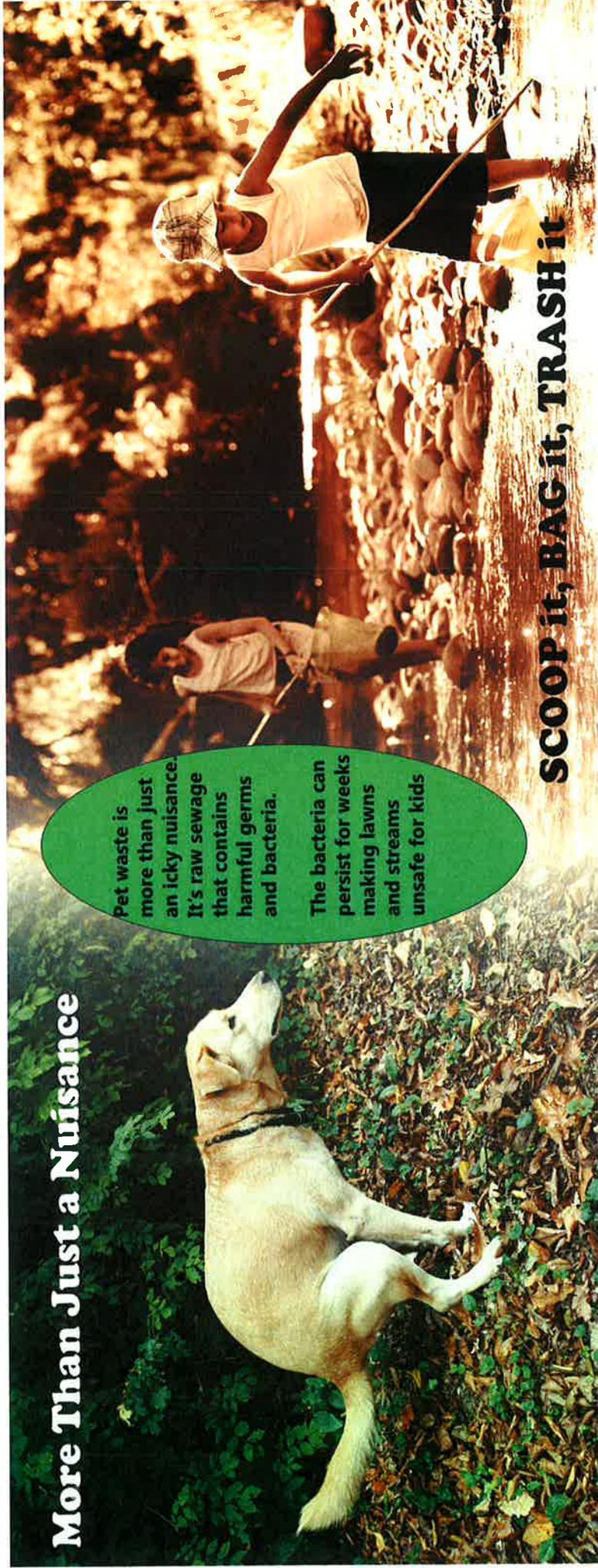
Questions? [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

## More Than Just a Nuisance

Pet waste is more than just an icky nuisance. It's raw sewage that contains harmful germs and bacteria.

The bacteria can persist for weeks making lawns and streams unsafe for kids

**SCOOP it, BAG it, TRASH it**





**SCOOP it, BAG it, TRASH it**

**From Field to Stream**

Pet waste contains harmful bacteria that is carried to our streams when it rains. For the safety of everyone sharing this space, please remember to

**Leash Your Dog and Clean Up After Them**

**It's The Law!**  
Leaving your pet waste on public or private property could mean a \$250 fine for you (BMC 6.16.011, 8.60.240)

*This area is patrolled by the City of Bothell's Animal Control Officer*

Questions? [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

**It's The LAW**

# Please **DO NOT** Feed the Ducks



## FEEDING THEM CAUSES:

- . Poor Nutrition
- . Spread of Disease
- . Unnatural Behavior
- . Water Pollution
- . Overcrowding
- . Duckling Malnutrition
- . Delayed Migration
- . Habitat Degradation

## WHAT DO THEY EAT NATURALLY?

- . Worms
- . Plant Matter
- . Roots
- . Dragonflies
- . Crustaceans
- . Aquatic Vegetation
- . Moths
- . Flies
- . Beetles
- . Seeds



City of Bothell™

## Keep Wildlife Wild

To learn more, visit: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

## 6.16.011 Animal waste. SHARE

---

It shall be unlawful for any person to:

- A. Allow animal feces to accumulate in any open private area, run, pen, shelter, or yard where animals are harbored or fail to remove and properly dispose of animal feces from such areas at least once every 24 hours, unless such areas are subject to treatment with all reasonable best management practices, per BMC 18.04.260(D), so as to prevent polluted drainage waters from entering the surface or storm water system of the city.
- B. Fail to remove fecal matter deposited by an animal under his or her ownership or control on public property or the private property of another before leaving the immediate area where the fecal matter was deposited.
- C. Fail to have in his or her immediate possession an appropriately sized bag to be used for the removal of animal feces when accompanying an animal on public property or private property of another.

Provided, however, that subsection A of this section may be enforced only as a secondary action when an animal control or law enforcement officer is investigating another suspected civil or criminal violation related to the private property. (Ord. 2077 § 1, 2011).

## 8.60.240 Pets in park facilities. SHARE

---

- A. Dogs, pets or domestic animals are not permitted on any designated swimming beach, sports fields, picnic or play areas in any Bothell park or in any building unless specifically permitted by posting; provided, that this section shall not apply to the use of a trained animal by a disabled person.
- B. In permissible areas, dogs or other pets or domestic animals must be kept on a leash no greater than 15 feet in length, and under control at all times.
- C. Any person whose dog or other pet is in any Bothell park shall be responsible for the conduct of the animal and for removing feces deposited by such animal from the park area.
- D. No person shall allow his or her dog or other pet or domestic animal to bite or in any way molest or annoy park visitors. No person shall permit his or her dog or other pet or domestic animal to bark continuously or otherwise disturb the peace and tranquility of the park.
- E. Horses shall be permitted only in Bothell parks that are specifically designated and posted to permit such activity. Horses shall not be permitted in any designated swimming area, campground, or picnic area. No person shall allow a horse or other animal to stand unattended or insecurely tied. No person shall ride any horse or other animal in such a manner that endangers or would be likely to endanger persons or property. (Ord. 2094 § 1 (Exh. A), 2012; Ord. 2077 § 2, 2011; Ord. 1835 § 1, 2000; Ord. 1277 § 1, 1987).

## Appendix F

A Utility Partner for

# WATER EDUCATION



The City of Bothell Surface Water Division of Public Works offers several fun and exciting classroom presentations in local schools to help students explore the fascinating world of water. All presentations are tailored to our region and are offered free of charge. An experienced naturalist from Nature Vision, Inc., a company that spawned from the King County Nature Connection program, will conduct each class. This program was the recipient of the Environmental Education Association of Washington's Award of Excellence.

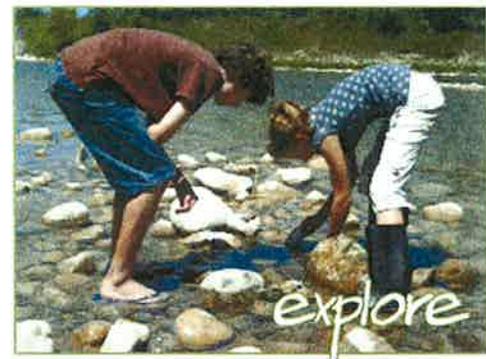
provided  
**FREE**  
to your  
classroom

*"The in-class presentation was excellent. It was just the right amount of "teacher-talk", interactive communication and activities. It was fast-paced and the kids were totally engaged."*

*-Teacher from Juanita Elementary School*

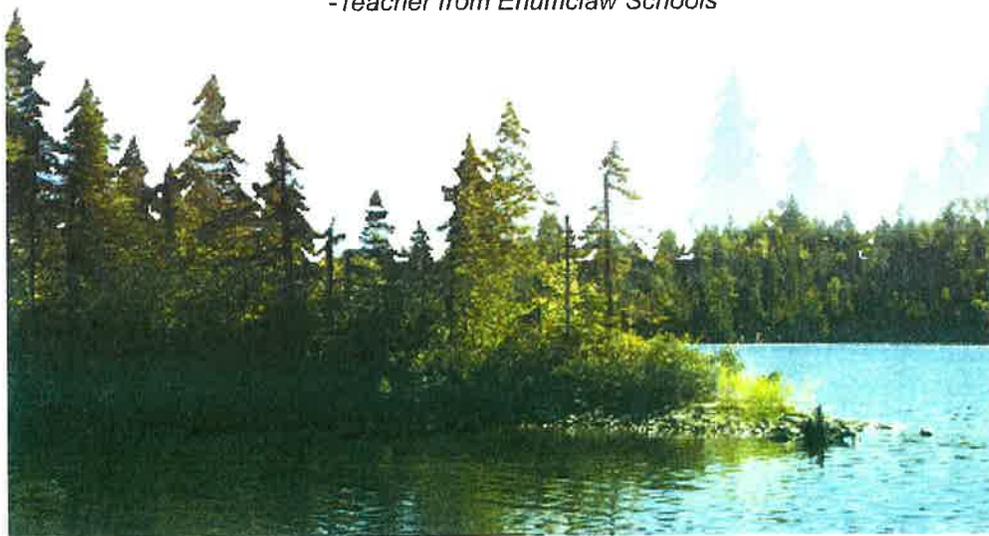
*"I really enjoyed both presentations we had this year. They tied in beautifully as the introductions to the science units we had planned. I especially enjoyed the fact that the kids were out using our own wetland area behind our school to examine the trees and wetland facets."*

*- Teacher from Peter Kirk Elementary School*



*"The Nature Vision class went extremely well. The students learned so much about the environment around us, and actually started to take care of the environment by asking parents to recycle and planning a neighborhood clean up day."*

*-Teacher from Enumclaw Schools*



# PROGRAMS OFFERED



## **Water Cycle** (Grades K-4)

Students will learn the stages of the water cycle and play the role of a water molecule as it travels through the cycle. Discussion will include the function of watersheds and our local water supply.



## **Salmon Cycle** (Grades 3-6)

Discover the connection between salmon, people, and the water we share. Students will explore water quality issues and why healthy salmon habitat is good for people too!

## **Wetland Wildlife** (Grades K-6)

Wetlands are important to both people and wildlife. This program introduces students to the plants and animals who are part of this important ecosystem.

## **Wetland Filters** (Grades 3-6)

Wetlands clean our water like our kidneys clean our blood. Students will participate in a demonstration of how wetlands keep our water clean.



## **Enviroscope** (Grades 5-6)

Students will work with a table-top model of a typical community and learn how the choices we make in everyday life affect our water quality

## **Water Connection Field Trip** (Grades 2-6)

Classes visit a local water site (lake, stream, pond, or wetland) and are guided through the process of dipping and sorting aquatic bugs to test the water quality. Older students may also participate in further water quality studies by taking the water temperature, pH, and dissolved oxygen.



Photo provided by Enviroscope®. Enviroscope is a patented product (No. 5,427,530) located at [enviroscapes.com](http://enviroscapes.com).



City of Bothell™

## **Get Started!**

To schedule a program, please contact Nature Vision at [info@naturevision.org](mailto:info@naturevision.org) or call (425) 836-2697.

If you have any questions regarding programs or other services offered, please contact your Bothell Storm/Surface Water Coordinator, **Janet Geer**, at (425) 486-2768.

## **Additional Resources**

[PugetSoundStartsHere.org](http://PugetSoundStartsHere.org)  
Learn about how you can help heal Puget Sound.

[KingCounty.gov/Salmon](http://KingCounty.gov/Salmon)  
Find additional salmon information online.

**Janet Geer - City of Bothell**  
Contact Janet for environmental community service and stewardship opportunities.  
(425) 486-2768 or [Janet.Geer@ci.bothell.wa.us](mailto:Janet.Geer@ci.bothell.wa.us).



# Water Education Learning Materials and Take Home Activity

Thanks so much for having a water education presentation in your classroom! We would like to ensure that your students get as much as possible out of these presentations. In order to achieve this, we would like to offer you some materials to extend the learning experience:

**Flyers for your students to take home** (*electronic and hard copy*)

This flyer will provide your students' families with information about water pollution and offers resources to learn more about this important issue.



**Postcard with instructions for a take-home activity to be completed online.**

We created an online activity which will give students the opportunity to share what they have learned with an adult in their household and to explore water pollution issues around their home. Students will return the signed postcard to you when they have completed the activity. To encourage participation, please consider assigning this as extra credit or homework.



We really appreciate your participation, and hope that these efforts help strengthen the program!





# STORM DRAINS FLOW TO OUR WATERWAYS WITHOUT TREATMENT

The Washington State Department of Ecology estimates that each year millions of pounds of toxic pollutants flow into our streams, our lakes, our rivers, and then into Puget Sound.

Stormwater that runs off paved roads and driveways, rooftops, yards and other developed land is a major source of this pollution.

**Our streams are in trouble. Puget Sound is in trouble. We are the solution, and we can do something about it.**



**We can leave a legacy of clean, healthy water for our kids by taking some simple steps:**



Taking our car to a commercial car wash and fixing leaking auto fluids.



Scooping the poop, bagging it, and tossing it in the trash (not the yard waste bin.)



Using pesticides sparingly, if at all, and using compost instead of fertilizer.



Using nontoxic cleaners in and around your home when possible. Purchasing only what you need to minimize storage of toxic chemicals.

Learn more by going to: **Puget Sound Starts Here**

Presentations are sponsored by:



Visit Bothell's Surface Water page to answer our stormwater questions and receive credit:  
[www.bothell.wa.us](http://www.bothell.wa.us)



*Howdy Drain Ranger,*

*Now that you've been deputized, we have an assignment for you and a trusty sidekick (adult in your home) to complete.*

*In this assignment, we will ask you to investigate potential sources of water pollution that can be found around your home.*

1. Go to **<http://www.ci.bothell.wa.us>** and search for "drain rangers"
2. Complete all of the questions in the assignment listed on the page
3. Click "submit" when you are finished
4. Fill out the other side of this postcard and return it to your teacher.

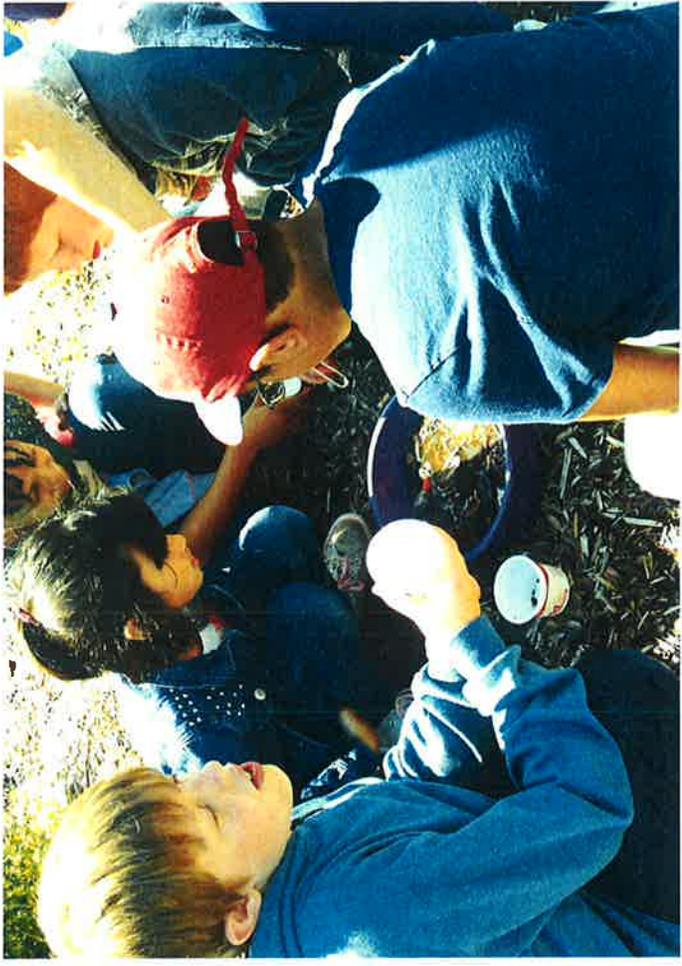
I \_\_\_\_\_ (your name)

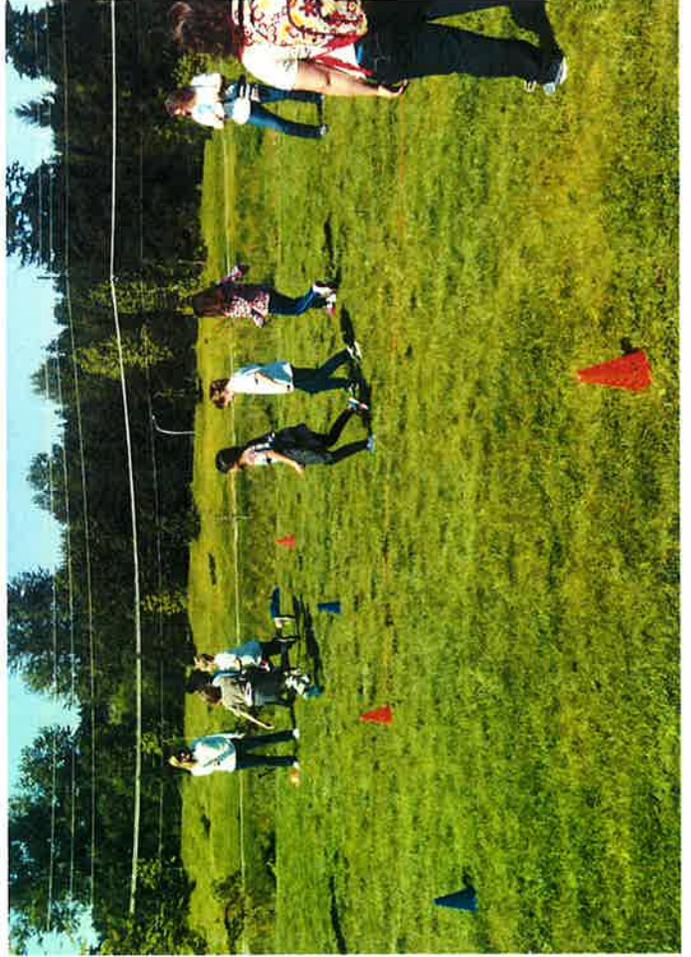
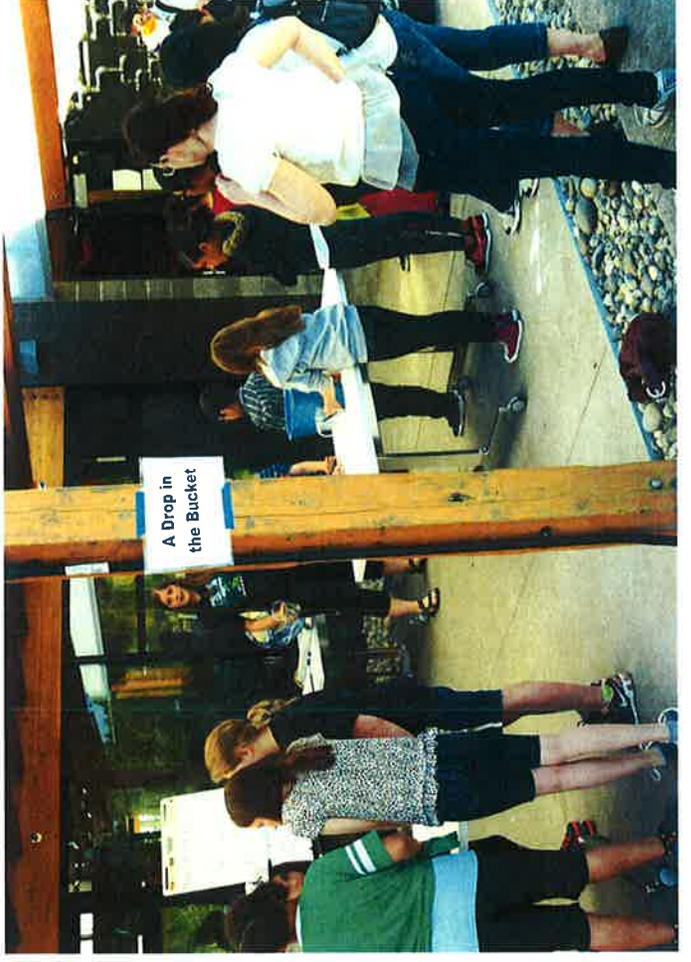
have completed and submitted the stormwater assignment listed at this address:

***<http://www.ci.bothell.wa.us>***

as part of our water educational presentation.

\_\_\_\_\_ (adult signature)





# ***Final Evaluation Results for the City of Bothell Water Quality Education Programs 2014***

## **Description and Purpose**

The City of Bothell's Water Quality Education Program continues to educate students about pollution prevention, stormwater quality, and watershed ecosystem health. Students who participate in these workshops learn how natural water systems keep our water healthy, how human built water systems interact with these natural systems, and what we can all do to be good stewards of our watershed. This program is helping to create awareness and foster sustainable practices and behaviors in the City of Bothell.

This report presents the results from the fifth year of evaluating these programs as outlined in the Evaluation Methods and Procedures document presented at the January 2010 Review Team meeting. Instead of using the finger counting metric this year to measure short term student knowledge, we now look at the results of specific question on each survey given to allow for more complete and relevant data. This change was agreed upon in September 2013.

## **Evaluation Goals and Methods**

The evaluation was designed to measure:

**Goal 1: Student Retention:** To evaluate the retention of lessons in short-term and long-term student memory (short term immediately following the lessons, long term after 90 days).

- Method 1- select classroom surveys
- Method 2- follow-up surveys after 90 days when applicable
- Method 3- student letter analysis
- Method 4- select student responses to essay questions

**Goal 2: Teacher Satisfaction:** To evaluate how the program is received by teachers, i.e. are the workshops helping teachers meet state and local education standards and therefore desired by teachers as a teaching resource.

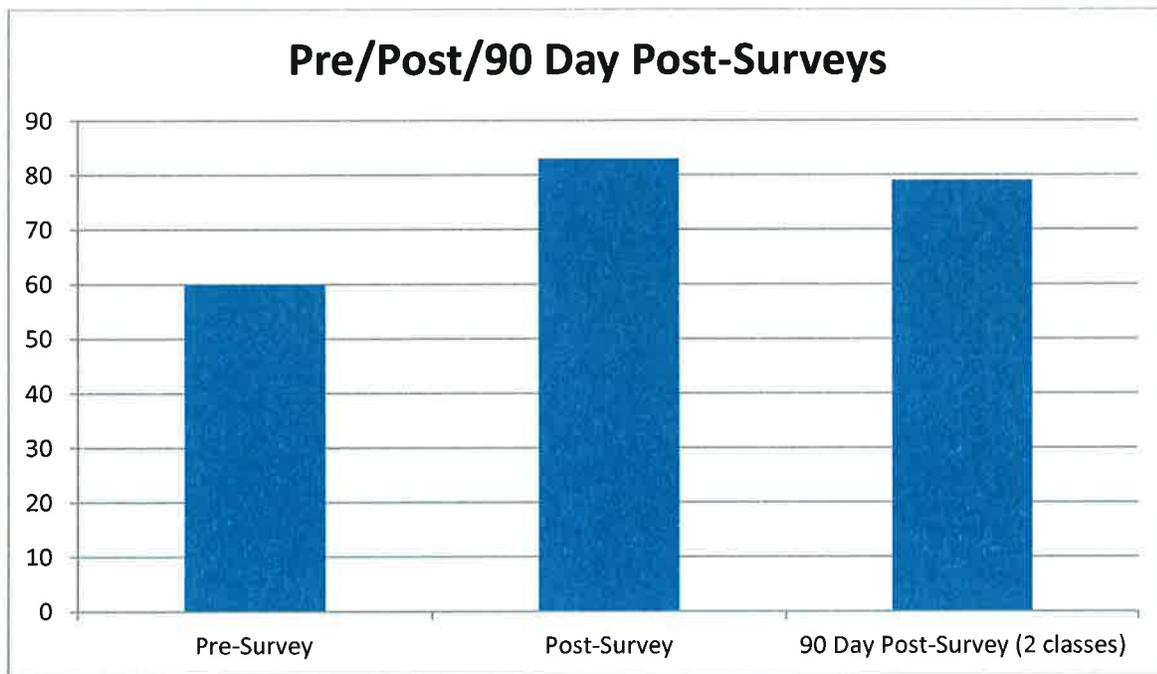
- Method 5- post workshop email survey

**Goal 3: Agency Goals Met:** To evaluate how we can more directly meet agency goals within NPDES permit and budget parameters.

- Method 6- classroom observations (done by City of Bothell, not included in this report)

## Results

**The 5 question classroom evaluation surveys** given before and after each workshop showed significant short-term retention of key facts by students at the elementary school level. Significant is defined as a 10 point or greater spread between pre and post-surveys. Twenty-one elementary level classes of students participated in the surveys. The survey results showed that the 455 students who participated had an average score of 60% on the survey prior to the workshop (pre-survey). The 455 students that participated in the post-survey had an average score of 83% immediately following the workshop. The average long term retention score was 79% for the 57 students who took the follow up post-survey 90 days later. We would have liked to receive more long term data, but teachers explained again that they did not have time to complete the long term survey with their students due to school common core standard demands. We may receive more data for the fall programs that we will send at a later date. No surveys were completed at the middle school level as none registered during the survey period.



**Elementary school students sent 26 thank you letters with an average of 5.5 key points per letter.**

### Select student responses to questions

Further examination of specific survey questions yielded mostly significant results as well. These results are presented below. For fill-in questions, results were compiled by the number of students that responded the same way. For example, if a student response to *How can we help keep water in our rivers, lakes, streams and the Puget Sound healthy?* is *Pick up after your*

dog 10 students, that means that 10 students responded to this question in the same way in the class or combined classes. Many students list multiple options on fill-in questions.

**1/17 Wetland Ecosystems (Wetland Wildlife) Crystal Springs Elementary 2<sup>nd</sup> grade, Tami Palmer, Kristina Blackburn, Tammy Fassett, Leinani Manabat, Jane Weiss. These questions below are the combined result of all 5 classes:**

*Pre-survey*

Question #1: Students realize that wetlands are an important habitat for many animals

# Students: 85/89

Percent: 95.5%

*Post-Survey*

Question #1: Students realize that wetlands are an important habitat for many animals

# Students: 88/89

Percent: 98.9%

*Pre-survey*

Question #4: Students understand that wetlands help keep our water clean

# Students: 48/89

Percent: 53.9%

*Post-Survey*

Question #4: Students understand that wetlands help keep our water clean

# Students: 69/89

Percent: 77.5%

Question # 5 *Post Survey*: Students suggested the following reasons as to why Wetlands are important (there were very few comments on the pre-survey):

- They help animals/good for animals 14 students
- They give life to animals 1 student
- They make good homes/habitat 6 students
- Food/water/shelter 17 students
- They have many trees that give us oxygen 1 student
- They give birds rest during long trips 4 students
- They are important for animals 1 student
- They keep our water clean 14 students
- So they could help the city/world 5 students
- It has food/water for animals 4 students
- Wetlands help keep the air clean 1 student
- We will have more water 4 students
- Wetlands have space for animals 1 student

- They hold water 1 student
- "Hummingbirds, migrate" 1 student
- Many animals use wetlands 3 students
- Wetlands are helpful to animals for shelter 3 students
- "Wetlands are important because the plants clean up the water" 3 student
- For plants that need a lot of water 1 student
- For animals to drink 2 students
- Wetlands have food for animals (and for us) 5 students
- "Wetlands are important for beavers because they can build shelter" 1 student
- Give homes to birds 1 student
- Wetlands help us 1 student

**2/25 Water Cycle B, Crystal Springs Elementary, 3<sup>rd</sup> grade Alison Castro**

Question#5 *Post Survey*: Students suggested the following to help keep water healthy (there were very few comments on the pre-survey):

- No garbage/littering ("in the water/stream") 15 students
- No human food in the water 1 student
- Don't waste water 5 students
- Picking up/cleaning up trash/litter 5 students
- Don't pollute ("rivers") 8 students
- No oil in the water/try not to spill gas 5 students
- Recycle 3 students
- Don't use pesticides 1 student
- Don't use herbicides 1 student
- Pick up after your pet 12 students
- Keep it clear 1 student
- Keep it clean 8 students
- Don't put sand/dirt in the water 1 student
- Wash your car on the grass 2 students
- Don't cut down trees 1 student
- Wash your car at a car wash 1 student
- Check if your car is leaking 1 student
- Use reusable water bottles 1 student
- Don't wash your car near lakes or rivers 1 student
- Help take care of the animals that live in the water 1 student
- Put rocks in your sink because the germs from the water will come off 1 student
- Don't wait too long with the water running/turn off water 1 student

- Help clean animals that get coated in oil spills 1 student
- Don't pee on plants 1 student
- Keep nature alive 1 student
- Tell people to try to keep the water clean 1 student
- Don't bring your dogs to the park too much 1 student

### **3/4 Water Cycle B, Shelton View Elementary, 4th Grade, Carol Siccardi**

#### **Post Survey**

Question#5 *Post Survey*: Students suggested the following to help keep water healthy (there were very few comments on the pre-survey):

- Don't litter 14 students
- Pick up litter 1 student
- Clean up oil/keep oil out of the water 11 students
- Don't put chemicals/pollution/soap down storm drains 9 students
- Don't pollute 4 students
- Don't wash your car in your driveway/street 2 students
- Reuse water 1 student
- Take your car to a car wash 16 students
- Use fewer chemicals 5 students
- Drive less 5 students
- Don't dump chemicals ("in the ocean") 6 students
- Don't put harmful gases into the air 1 student

#### **90 Day Post Survey**

Question #5 Students suggested the following to help keep water healthy:

- Prevent oil spills ("in the ocean") 2 students
- Don't pollute 1 student
- Don't put chemicals in the water/sea 8 students
- Keep it clean 1 student
- Don't put pollution down the storm drain 8 students
- Don't leave faucets on 3 students
- Keep animals out of the water 1 student
- Don't put drugs (medicines) in rivers 1 student
- Don't pollute the water/ air 11 students
- Don't litter 9 students
- Recycle 11 students
- Don't destroy wetlands 2 students
- Only put stuff that belongs in the toilet, in the toilet 2 students
- Don't wash your car at home/in the street 2 students

- Go to a car wash 8 students
- Don't wash your car near a storm drain 1 students
- Don't waste water/use it when you need it 7 students
- Take shorter showers 2 students
- Get toilets that don't use very much water 1 student
- Don't make dirty water go down the storm drain 1 student
- Use less water/use it wisely/conserves water 5 students

*More comments on the 90 day-post survey may indicate that the teacher went over the lesson material again with her class and potentially integrated messaging into their curriculum.*

### **3/4 Water Cycle B, Shelton View Elementary, 4<sup>th</sup> grade Jan Clements**

Question #5 *Post Survey*: Students suggested the following to help keep water healthy (there were very few comments on the pre-survey):

- Don't litter 12 students
- Pick up litter 2 students
- Clean up oil/keep oil out of the water 2 students
- Don't put chemicals/pollution/soap down storm drains 6 students
- Don't pollute 2 students
- Don't wash your car in your driveway 1 student
- Don't waste water/use water wisely 8 students
- Use less water 5 students
- Use water for drinking 2 students
- Recycle/reuse 2 students
- Clean the water 1 student
- Don't change oil on the street 1 student
- Don't use toilets on boats 3 students

### **3/24 Wetland Filters, Canyon Creek Elementary, 6<sup>th</sup> grade, Chris Brush, Rodeen Peterson, C Cox, Christine Baumgartner. *These questions below are the combined result of all 4 classes:***

#### *Pre-survey*

Question #3: Students understand that a wetland is an ecosystem

# Students: 93/98

Percent: 94.9%

#### *Post-survey*

Question #3: Students understand that a wetland is an ecosystem

# Students: 97/98

Percent: 99%

**Question #5 *Post Survey*: Students had the following suggestions to help keep**

**wetlands healthy** (there were very few comments on the pre-survey)

- Pick up after your pet 26 students
- Clean up/prevent oil spills/make sure car isn't leaking 8 students
- Walk/bike instead of drive 7 students
- Carpool 2 students
- Don't litter/prevent waste 52 students
- Pick up litter/trash 26 students
- Talk to people about not littering 1 student
- Save/conserve water 8 students
- Recycle, reduce, reuse 31 students
- Fix gas/oil leaks 4 students
- Don't use fertilizer/chemicals 2 students
- Stop destroying them ("for land/buildings") 2 students
- Drive your car less 8 students
- Don't disturb wetlands/take things from them, leave no trace 14 students
- Don't disturb/harm/feed animals 7 students
- Don't put other things in the toilet besides toilet 2 students
- Pick weeds yourself 1 student
- Don't hunt near wetlands 1 student
- Don't walk on/disturb plants 6 students
- Don't use harsh chemicals/soap on cars near storm drains 2 students
- Wash your car on the lawn/grass/gravel 9 students
- Throw dead pets (I assume fish...) in the trash not the toilet 1 student
- Wash your car at the car wash 9 students
- Wash your car without soap 1 student
- Don't harm animals 1 student
- Maintain your vehicle 2 student
- Don't dump soda onto the ground 1 student
- Plant plants 2 students
- Don't wash cars on the street 1 student

**5/5 Water Supply, Canyon Park Junior High, 7<sup>th</sup> Grade, Jennifer Shibayama, Haakon Aasan (2 classes). *These questions below are the combined result of all 3 classes:***

*Pre-Survey*

Question 1: Students understood that water is a finite resource

# Students: 52/62

Percent: 83.9%

*Post Survey*

Question 1: Students understood that water is a finite resource

# Students: 62/62

Percent: 100%

**Question #5 Post-Survey: Students had the following suggestion for conserving water (there were very few comments on the pre-survey):**

- Turn the tap /sink off when you're done/don't run water 24 students
- Turn off hoses 1 student
- Collect rain water/rain catchers 3 students
- Take showers not baths/no baths 7 students
- Take shorter showers 37 students
- Don't spill water everywhere/be careful 2 students
- Don't take more than you can drink 5 students
- Turn the water off when brushing your teeth 11 students
- Reuse water/bottled water 3 students
- Don't waste water/use it efficiently 16 students
- Go to a car wash 1 student
- Use less water ("while washing hands") 5 students
- Water plants with extra water 1 student
- "If it's brown flush it down, if it's yellow let it mellow" fewer flushes 4 student
- Let the rain water the plants 1 student
- Make sure the sink isn't dripping 3 students
- Don't pollute the water 3 students
- Take baths instead of showers 1 student
- Fill dishwasher/washing machines to full 3 students
- Only use what you need 1 student
- Don't turn the water on really high 2 students
- Water the lawn less 1 student
- Reuse water cups so they don't have to go in the dishwasher 1 student

**5/6 Water Supply, Canyon Park Junior High, 7<sup>th</sup> Grade, Jennifer Shibayama (2 classes), Haakon Aasan. *These questions below are the combined result of all 3 classes:***

*Pre-Survey*

Question 1: Students understood that water is a finite resource

# Students: 46/65

Percent: 70.8%

*Post Survey*

Question 1: Students understood that water is a finite resource

# Students: 65/65

Percent: 100%

**Question #5 Post-Survey: Students had the following suggestion for conserving water (there were very few comments on the pre-survey):**

- Turn the tap /sink off when you're done/don't run water 32 students
- Fewer water activities 2 students
- Take showers not baths/no baths 2 students
- Take shorter showers 55 students
- Don't take more than you can drink 2 students
- Turn the water off when brushing your teeth 3 students
- Don't waste water/use it efficiently/use what's needed 24 students
- Drink all the water you get 6 students
- Go to a car wash 1 student
- Use less water ("for plants") 10 students
- Water plants with extra water 2 students
- "If it's brown flush it down, if it's yellow let it mellow" fewer flushes 4 students
- Make sure the sink isn't dripping/check for leaking pipes 9 students
- Don't pollute the water 5 students
- Fill dishwasher/washing machines to full 3 students
- Water the lawn/plants less/at good times 19 students
- Nozzles on hoses 8 students
- Keep lakes, rivers and streams clean 1 student
- Recycle 1 student
- Use less when cleaning dishes/efficient dishwashing 2 students
- Use sprinklers when needed 2 students
- Don't wash your car in the road 2 students
- Use bath tub water to water plants 1 student
- Fill the sink and handwash dishes 1 student
- Fewer laundry loads per day 1 student
- Wear clothes more than once 1 student
- Turn the shower off when shampooing/conditioning your hair 1 student
- Get toilets that use less water 1 student

Question #4: Students understand that wetlands help keep our water clean.

*Pre-survey:*

# students: 10/19

Percentage: 53%

*Post-survey:*

# students: 14/19

Percentage: 74%

**Question #5 Post-Survey: Students suggested the following reasons as to why wetlands are important (There were very few comments on the pre-surveys)**

- Wetlands provide water for animals 2 students
- Wetlands filter water 4 students
- Wetlands prevent floods 3 students
- Wetlands are a habitat 3 students
- Wetlands provide food 1 student
- Wetlands are important for animals 6 students
- Wetlands provide resources 1 student

**10/21 Wetland Wildlife, Shelton View Elementary 3<sup>rd</sup> grade, Zehrung**

Question #4 Students understand that wetland help keep our water clean.

*Pre-survey:*

# students: 15/27

Percentage: 56%

*Post-survey:*

# students: 26/27

Percentage: 96%

**Question #5 Post-Survey: Students suggested the following reasons as to why wetlands are important (There were very few comments on the pre-surveys)**

- Wetlands keep animals alive 8 students
- Wetlands are habitat 7 students
- Wetlands help frogs 1 student
- Wetlands prevent floods 1 student
- Wetlands clean water 9 students
- Wetlands give us plants that help us 6 students
- Wetlands provide food 5 students
- Wetlands keep animals cool 1 student
- Wetlands provide shelter 1 student
- Wetlands help the ecosystem 1 student
- Wetlands provide cool experiences 1 student

## Teacher Satisfaction Results 2014

Teacher satisfaction results/evaluations are all in an essay format and are reported as such. Teachers that responded to the survey email were very positive.

*Annie did a great job. For the last hour on Friday, she had my second graders riveted! That is a true compliment!*

*They enjoyed Annie, the activity, and the lesson...We can't wait for the program to return next year.*

*Thank you,*

-Jane Weiss, Crystal Springs Elementary

*We have thoroughly enjoyed your programs! Claire was patient and knew her material!!!! Thanks!*

-Larisa Martin, Crystal Springs Elementary

Were there any improvements you would like to suggest? *No improvements at this time.*

Would you like to see these programs in your school next year? *Yes!*

*My class is studying ecosystems for sustainability and environmental science. The presentation was particularly helpful in learning about how humans can affect the ecosystem and the role that salmon play in a healthy ecosystem.*

This education program was paid for by

City of Bothell – Sno Would you encourage them to fund this program next year? *Yes!*

*Thank you,*

-Jan Clements, Shelton View Elementary

## Blue Team Summary and Evaluation Results

The three 6<sup>th</sup> grade classes at Maywood Hills Elementary participated in a Blue Team project. The students learned how pollution can spread throughout a watershed and the importance of maintaining a healthy watershed ecosystem. They also learned about the role that native plants play in an ecosystem and the challenges those plants have with the introduction of invasive species. The field trip was at the newly acquired North Creek Forest City of Bothell Park to see how human choices can have a positive impact on an ecosystem (as a trial with Friends of North Creek Forest, as a pilot requested by the Bothell education project manager). The students culminated their project by removing over 20 large bags of Himalayan Blackberry from their school grounds. Students and teacher alike were amazed by how big of an impact we can make when we work towards a common goal and become stewards of our community.

Blue Team surveys of 71 students in 3 classes at Maywood Hills Elementary showed an average score of 75% on the pre-survey. Teachers had spent time reviewing topics they thought we might cover before we began with the teams, despite being asked not to. It is great that these teachers show such enthusiasm for the subject matter. These classes had 75 students who took the post-survey approximately 20 days later and obtained an 87.10% average score. The Blue teams took place in the spring so there was no opportunity for 90 day post surveys. These classes had quite a few students with major behavioral and testing challenges, so their teachers mentioned that they were not surprised that the spread between pre and post surveys was not larger.

Further examination of specific Blue Team survey questions yielded significant results. The data from these classes was combined.

**Question #4: Students understand that only RAIN is okay to go down the storm drain**

*Pre-survey*

# Students: 38/71

Percent: 53.5%

*Post-survey*

# Students: 59/75

Percent: 78.7%

**Question #5 *Post-Survey*: Students had the following suggestions for how they can help keep water in our rivers, lakes, streams and Puget Sound clean and healthy on the post survey (they had very few ideas on the pre-survey).**

- Don't litter ("in the rivers" "beaches") 43 students
- Help out/volunteer with community service 2 students
- Don't let soap (waste/trash and other liquids, "bags") go down the storm drain 16 students
- Pick up trash/litter ("in our ecosystem") 14 students
- Don't put oil in the water 3 students
- Recycle and throw garbage in the garbage can 4 students
- Everyone can help clean our ecosystem 1 student
- Do not pee or poop in the lake 1 student
- Use less water/conserve water 2 students
- Take shorter showers 1 student
- Be careful what you put down your sink 1 student
- Pull/remove invasive plants/weeds ("especially noxious ones") 4 students
- Don't hurt/kill animals/fish 2 students
- If you find something in the wild, leave it alone 1 student
- Wash cars in the backyard/on grass 5 students
- Use ecofriendly soap 1 student
- "Tell others about what happens to stuff that goes down the storm drain so they help" 2 students

- "Keep oil contained in a bucket instead of just putting it down the drain" 1 student
- Clean up pet waste 4 students
- Clean/take care of our watershed (I didn't include this statement in the above stats) 3 students
- Stop oil spills/don't spill oil 3 students
- "Put up a bunch of 'No Dumping' signs" 1 student
- Wash your car at the car wash 9 students
- Don't wash your car near a storm drain 1 student
- "Don't wash cars on the street because the soap can wash into the oceans" 1 student
- Do not use poison (pesticides) to kill insects 1 student
- "Save ecosystems (don't cut down trees/remove plants)" 1 student
- Plant native plants or trees 2 students
- Don't use harsh lawn chemicals/fertilizer/herbicides/use less 4 students
- No motor vehicles on rivers/lakes/streams 1 student
- Keep garbage out of the gutters 1 student
- "We can also make an effort of cleaning it ourselves" 1 student
- Don't put your aquatic fish in lakes, rivers or oceans 3 students
- Don't let your pet go into wetlands 1 student
- Ride a bike or walk instead of driving 1 student
- "Make a statement or have a speech about the good and bad to throwing things in the water" 1 student
- Don't go in rivers 1 student

## **Blue Team Teacher Evaluations**

*Chuck was amazing, he was so great with my Special Ed/Autistic students, he made it a fun learning experience. I think the program was super because of Chuck.*

*It was hard to hear the docents at the work site off of 405. An amplifying system would be a huge help! We enjoyed the stations, it was just hard to hear.*

*Thanks!*

-Jennifer Cassarino, Maywood Hills Elementary

(This is yet another reason teaching at the North Creek Forest is something that should wait)

## **Discussion**

This fifth year of evaluating the City of Bothell Water Quality Education Programs has shown the programs to be effective in helping students learn about and understand stormwater quality, pollution prevention, how natural water systems work, and human interactions with these water systems. Additionally, students have learned best management practices to help keep our watershed healthy alongside their families and friends.

The short term retention of the key messages and concepts is on par with previous results, but pre surveys results are higher than in past years. This may be a result of students receiving more programming from the City of Bothell, and teachers integrating messages into their curriculum.

The student thank you letters show impressive reiteration of key messages, even if there were not many. We hear from teachers that many of the students have taken the messages they learned from programs and translated the information into direct practices. These students have many ideas about actions they can and are taking to maintain and improve the health of their watershed.

Repetition of the key messages in schools each year is a more effective way to help students develop a desired culture of sustainability for our watershed. We believe this is a result of students taking classes with us year to year as they progress through grade levels, and schools getting more on-board with integration of environmental education. Students who participate in these classes as they progress through elementary and secondary education have a stronger knowledge base to begin with, so we can take them much further in their learning.

## Appendix: Surveys

### Wetland Wildlife Survey

Circle or fill in the correct answer

- 1) Wetlands are an important habitat for many animals. True False
- 2) Some birds use wetlands for rest stops while flying long distances. True False
- 3) Circle the things animals can find in a wetland.  
Water Food Shelter
- 4) Wetlands help keep our water clean. True False
- 5) List 2 or more reasons wetland are important.

### Water Cycle B Survey

Circle or fill in the correct answer

- 1) Circle the forms we can find water in  
Solid Liquid Rocks Gas
- 2) Nature cleans and recycles water for us again and again. True False
- 3) Circle the main parts of the water cycle  
precipitation accumulation/collection evaporation condensation
- 4) The water we have on the earth now is millions of years old. True False
- 5) List 3 or more ways you can help keep water healthy.

### Wetland Filters Survey

Circle or fill in the correct answer

- 1) Circle the 3 characteristics that all wetlands have in common.  
animals hydric soil rocks hydrophyte plants water sand

- 2) Wetlands help maintain healthy water. True False
- 3) A wetland is an ecosystem. True False
- 4) Describe or draw and label how a wetland filters water.
- 5) List 3 things you can do to help keep wetlands healthy.

### **Water Supply Survey**

Circle/fill in the correct answer:

- 1) Water is a:
  - a) Finite resource (limited by what is available)
  - b) Infinite resource (unlimited)
- 2) What is the source of your drinking water supply?
  - a) Cedar River
  - b) Tolt River
- 3) An aquifer is
  - a. underground water
  - b. a lake
  - c. a river
- 4) During times of peak water usage, our water supply may be lower than the demand
  - a. True
  - b. False
- 5) List 5 ways you can conserve (save) water.

## Appendix G

A product is hazardous if the label says: **CAUTION-WARNING-DANGER-POISON**

## WHAT TO DO WITH

# UNWANTED HOUSEHOLD HAZARDOUS PRODUCTS

All these products are hazardous and do not go in the garbage.  
Empty containers may go in the garbage—except propane tanks.

	
<p><b>YES TAKE THESE PRODUCTS TO A HOUSEHOLD HAZARDOUS WASTE SITE</b> Limit: 50 gallons per customer per day; no container over 6 gallons</p>	<p><b>NO THESE PRODUCTS ARE NOT ACCEPTED</b> CALL HOUSEHOLD HAZARDS LINE AT 206-296-4692 FOR DISPOSAL OPTIONS</p>
<p><b>Household Cleaners</b> </p> <p><b>Lawn &amp; Garden Products</b> </p> <p><b>Oil-based Paints, Thinners &amp; Stains</b> No Latex </p> <p><b>Hobby Supplies</b> </p>	<p><b>Ammunition</b> </p> <p><b>Marine Flares</b> </p> <p><b>Explosives</b> </p> <p><b>Latex Paint</b> (Empty paint cans OK to toss in trash with lid off) </p>
<p><b>Automotive Products</b> </p> <p><b>Batteries: Household &amp; Vehicle</b> Limit: 5 car batteries </p> <p><b>Antifreeze</b> </p>	<p><b>Medical Sharps (needles)</b> </p> <p><b>CALL KING COUNTY SOLID WASTE AT 1-800-325-6165, EXT. 6-4466</b></p>
<p><b>Flammable Liquids</b> Limit: up to 30 gallons of gasoline </p> <p><b>Used &amp; Unused Motor Oil</b> </p> <p><b>Propane, Butane</b> </p> <p><b>Solvents</b> </p>	<p><b>CALL PUBET SOUND CLEAN AIR AGENCY AT 206-343-8800</b></p> <p><b>Asbestos Containing Materials</b> </p>
<p><b>Pool &amp; Spa Supplies</b> </p> <p><b>Mercury-Containing Thermometers, Thermostats, Fluorescent Tubes and Bulbs (up to 10 tubes and bulbs)</b> </p>	<p><b>CALL 1-800-RECYCLE OR GO TO www.TakeItBackNetwork.org</b></p> <p><b>Televisions &amp; Computer Monitors, Electronics</b> </p>

For more information call the Household Hazards Line Monday - Friday, 9 a.m. to 4:30 p.m., except holidays At 206-296-4692 or 1-888-TOXIC ED (869-4233).

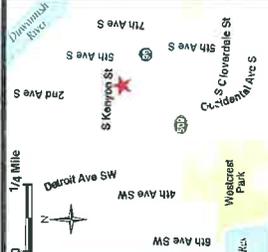
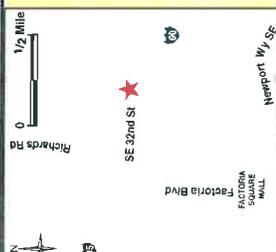
Interpreters available. Please be patient while we locate an interpreter.

Or visit [www.HazWasteHelp.org](http://www.HazWasteHelp.org)

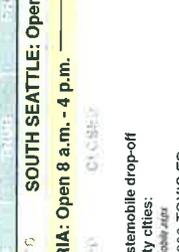
There is no fee for hazardous waste disposal. It is paid for in your utility bills.

## WHERE DO I BRING MY HAZARDOUS PRODUCTS?

If you live in King County you can use any of these facilities. Disposal service is paid for in your utility bills, use it!

 <p><b>NORTH SEATTLE HOUSEHOLD HAZARDOUS WASTE FACILITY</b> 12550 Stone Ave North, Seattle, WA 98133</p>	 <p><b>SOUTH SEATTLE HOUSEHOLD HAZARDOUS WASTE FACILITY</b> South Transfer Station's Gate 3 8105 Fifth Ave South, Seattle, WA 98108</p>
 <p><b>FACTORIA HOUSEHOLD HAZARDOUS WASTE DROP-OFF SERVICE</b> 13800 SE 32nd Street, Bellevue, WA 98005</p>	 <p><b>WEEKLY AUBURN SUPERMALL HAZARDOUS WASTE DROP-OFF SERVICE</b> At the NW corner off of SuperMall Way next to Sports Authority.</p>

Plan ahead! Please note when facilities are open. Call for holiday schedule.

 <p><b>AUBURN SUPERMALL HAZARDOUS WASTE DROP-OFF SERVICE</b> www.thwrp.org/home/HHW/hhw/wastemobile.php#Auburn</p>	 <p><b>SOUTH SEATTLE</b> FACTORY: Open 9:30 a.m. - 4:30 p.m. FACTORY: 9 a.m. - 5 p.m. FACTORIA: Open 8 a.m. - 4 p.m.</p>
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For more information call the Household Hazards Line Monday-Friday 9 a.m. to 4:30 p.m., except holidays at 206-296-4692 or 1-888-TOXIC ED.

Interpreters available. Please be patient while we locate an interpreter.

Or visit [www.HazWasteHelp.org](http://www.HazWasteHelp.org)

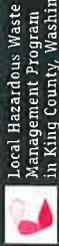
For poison emergencies call:

WASHINGTON POISON CENTER 1-800-222-1222

Questions about trash?

King County Solid Waste Information Line: 206-296-4466 or 1-800-325-6165, Ext. 6-4466  
[www.kingcounty.gov/solidwaste](http://www.kingcounty.gov/solidwaste)  
Seattle Public Utilities Customer Service: 206-884-3000 [www.seattle.gov/util/services](http://www.seattle.gov/util/services)

Household Hazardous Products:  
For information visit: [www.thwrp.org/home/HHW/hhw.aspx](http://www.thwrp.org/home/HHW/hhw.aspx)



Revised February 2011  
Printed on recycled paper  
Please Recycle

Alternate formats available

206-296-4692 or TTY relay 711

VS File: 1112-56-002 Rev. 02/11/11 3:11 PM 3/11/11 3:11 PM

**WASTEMOBILE** Coming to Bothell

Save the Date  
**2014 Wastemobile EVENTS**

Feb 28 - March 2 • May 9-11  
 June 27-29 • Aug 1- 3  
 Sept 19-21 • Oct 24-26

10 am to 5 pm  
 Seattle Times Building  
 19200 - 120th Ave NE, Bothell

For details about this event and a list of items to bring to the event visit [HazWasteHelp.org](http://HazWasteHelp.org) and click "Wastemobile" or call 1.888.TOXICED(869.4233)

For more recycling information, visit: [bothellcool.org](http://bothellcool.org) and click "Recycling"




Alternate Formats Available Voice: 425.486.2768 or TTY Relay: 711

**What to Bring, What Not to Bring**

**YES TAKE THESE PRODUCTS TO A HOUSEHOLD HAZARDOUS WASTE SITE**

- Alkaline Batteries
- Aerosol Cans (if not empty)
- Antifreeze
- Automobile Products (antifreeze, brake fluid, gear oil, oil filter); do not mix motor oil with other oil or automotive fluids
- Automobile Batteries (don't mix with other)
- Brake Fluid
- Furniture Stain
- Gasoline (if you're pouring back)
- Glue, Instant Glue, Rubber Cement
- Household Batteries (alkaline and rechargeable)
- Household Cleaners
- Hobby Chemicals
- Lawn, Garden, or Home Plant
- Hand Killer
- Mercury-Containing Thermometers, Thermocouples, Fluorescent Lights (up to 10 tubes and ballasts)
- Motor Oil (new, used, synthetic, used, used and synthetic)
- Motor Oil (if you're pouring back)
- Oil-Based Paint
- Pesticides
- Fragrance Items
- Double-Ended Spray Paint
- Swimming Pool & Spa Supplies
- Thinner & Other Solvents

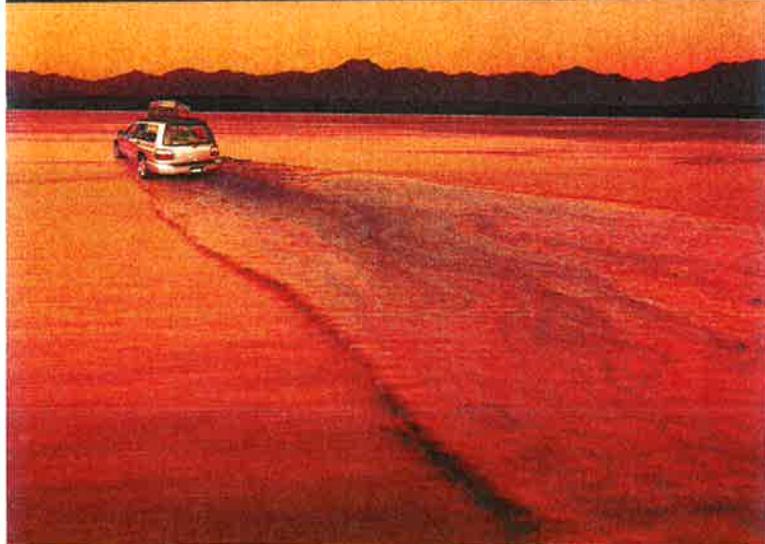
**NO THESE PRODUCTS ARE NOT ACCEPTED**

- Aerosol Cans (empty)
- Acetone
- Bikes, Motorbikes, Scooter
- Carling Oil
- Computers - Computer Monitors
- Contaminated Soil
- Electronics
- Empty Containers - Empty Paint Cans
- Explosives - Fireworks
- Garbage - Latex Paint
- Light Bulbs (incandescent and fluorescent)
- Inflators - Medical Sharps
- Medical Waste
- Pests & Rodents
- Radiometric Waste
- Spills & Debris
- Solvents - Thinners
- Tires

**Containers of household hazardous waste over 5 gallons - Call 206-261-6674 for a waste diversion.**

For details about this event and a list of items to bring to the event visit [HazWasteHelp.org](http://HazWasteHelp.org) and click "Wastemobile" or call 1.888.TOXICED(869.4233)

Is that oil leak harming  
more than your car ?



## **FIX VEHICLE LEAKS RIGHT AWAY**

*More than 7 million quarts of motor oil enter Puget Sound each year, washing into storm drains from roadways, driveways, and parking lots.*



Puget Sound   
**Starts Here**.org

## Additional Information

### Online Resources:

**City of Bothell Surface Water Management Division**  
<http://ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement.aspx>

**Bothell Municipal Code**  
<http://www.codepublishing.com/wa/bothell/>

**Department of Ecology Stormwater Management Manual**  
<http://www.ecy.wa.gov/programs/wa/stormwater/manual.html>

**King County Surface Water Design Manual Appendix A**  
<http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/surface-water-design-manual/appendix-a.pdf>

### Contact Information:

City of Bothell  
 Public Works Department  
 9654 NE 182nd Street  
 Bothell, WA 98011  
 Phone: 425.486.2768  
 Fax: 425.806.6898

# Surface Water Inspection Program



City of Bothell™

## Program Overview

The goal of the Inspection Program is to protect and restore our local water resources by ensuring a high performance level from current and future stormwater systems.



Left: clean control structure

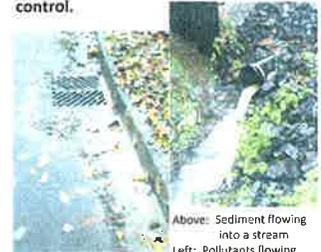
Above: Bothell neighborhood

This effort can reduce flooding and polluted runoff from reaching our streams, rivers, wetlands and Puget Sound.

Remember,

**Puget Sound Starts Here**

Without regular maintenance and inspection, your system can become compromised, allowing water to be directly discharged into local streams without sediment and pollution control.



Above: Sediment flowing into a stream  
 Left: Pollutants flowing into a storm

An unmaintained system can cause flooding on your property and those around you, resulting in costly damage or loss.



Above: flooding of the downtown area  
 Right: flooding in North Creek Business Park

## Together we can help keep our lakes, rivers, streams, and Puget Sound clean

### Common Questions

#### Q What is a stormwater system?

A stormwater system is any part of an engineered drainage system that collects rain water. Examples include detention ponds, underground vaults, swales, and catchbasins.



#### Q Why do I need an inspection?

To ensure your system is functioning properly and to keep us in compliance with federal, state, and local regulations.



#### Q Why should I maintain my system?

In Bothell, these facilities protect your property from flooding and drain directly into our lakes, rivers, and streams without treatment. This means that any pollutants in the water can cause many problems for our local community and can make contact with the water a health risk. In addition, according to BMC 18.04.270, owners are required to maintain their system semi-annually.



Above: Catchbasin in great need of repair, cleaning, and scheduled maintenance

#### Q How often will I need to have my system cleaned?

Maintenance will depend on the type of system in your care and the surrounding conditions in your community. Establishing a maintenance schedule is the best way to ensure your system is functioning properly.



#### Q What should I do if my system needs maintenance?

First, you will need to get one or more cost estimates for required maintenance and repair work. A list of licensed contractors is provided for your convenience. Then, you will need to choose a contractor, schedule the work, and finally you will need to return the work order to us once everything is complete.

#### Q How much time will I have to complete the work?

You will typically have 30 days after you receive the work order. Extensions can be granted if written proof of intent is submitted within the 30 day timeframe. Failure to comply with these requirements can be subject to civil penalties described in BMC 11.20.010.



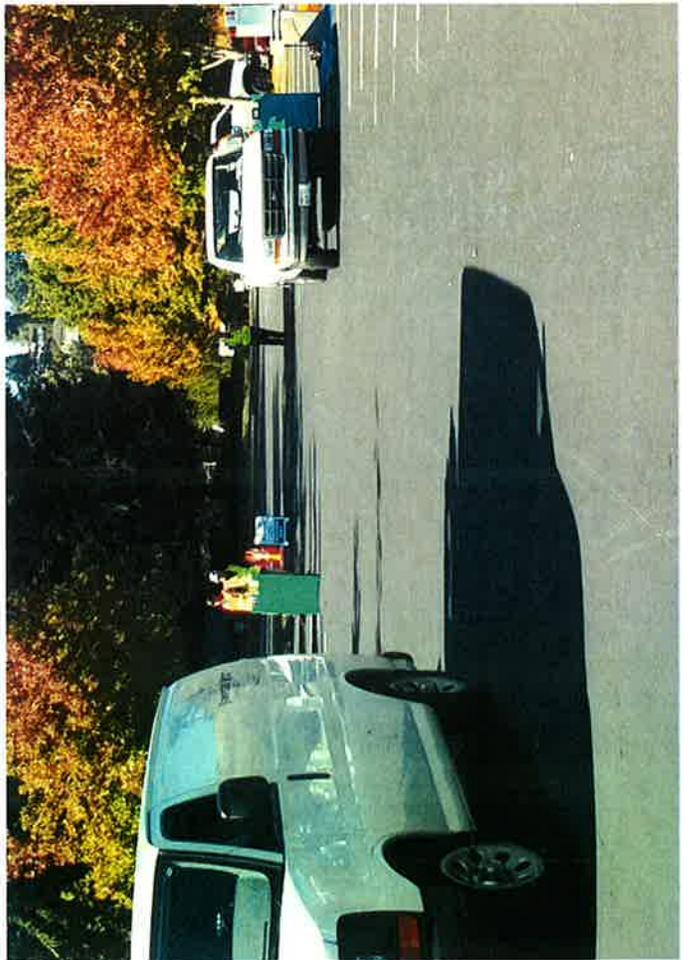
Above: Pond is overgrown and unable to function

#### Q What information do I need to provide to the City?

The City needs to have current contact information for the lead property owner, manager, or homeowners association president who represents all affected parties. The information needs to include full name, address, phone number, and email. This information can be updated by sending an email to: [gunnar.rybacki@ci.bothell.wa.us](mailto:gunnar.rybacki@ci.bothell.wa.us)



Above: Pond is cleaned and able to hold water as designed



## Appendix H



DID YOU KNOW?

Anything that enters our storm drains goes directly into the nearest lake, stream, or wetland without treatment.

When maintaining or remodeling your home or business, please be sure to dispose of all washwater properly.

These high polluting activities can include:

- carpet cleaning
- painting
- pressure washing
- concrete work
- vehicle maintenance
- chemical pesticide/fertilizer use

City of Bothell  
Public Works Department  
9654 NE 182nd Street  
Bothell, WA 98011



Wastewater from cleaning equipment, carpets, and rinsing paint brushes contains harmful substances, regardless of the type of paint or cleansers used. Please be sure to rinse all equipment and deposit all washwater into a sink or toilet.

Pressure washing chemicals are also harmful and not allowed in storm drains.

Please feel free to contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) for personal consultation or HOA presentation on this topic.

*Remember, Nothing but Rain Down  
the Storm Drain*

## Appendix I

# SPILL RESPONSE PROCEDURES



City of Bothell

1



Make sure everyone is safe and the area is clear of people and traffic.

Call **9-1-1** if there are injuries or immediate danger.

2



**425-806-6750**  
**SPILL HOTLINE**

Call the City of Bothell Spill Hotline.

4



Stop the source and deploy spill kit materials to protect the storm drains.

5



A vendor may need to be called if the spill is significant. See "Spill Book" for vendor list.

3



Open your spill kit and wear personal protective equipment.

6



Clean up used spill materials and dispose of properly. Double bag garbage if they're not over saturated. Some hazardous materials may require a waste vendor.



City of Bothell™



THIS PROJECT HAS BEEN FUNDED WHOLLY OR IN PART BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDER ASSISTANCE AGREEMENT PC001201-01 TO WASHINGTON DEPARTMENT OF ECOLOGY. THE CONTENTS OF THIS DOCUMENT DO NOT NECESSARILY REFLECT THE VIEWS AND POLICIES OF THE ENVIRONMENTAL PROTECTION AGENCY, NOR DOES MENTION OF TRADE NAMES OR COMMERCIAL PRODUCTS CONSTITUTE ENDORSEMENT OR RECOMMENDATION FOR USE.



Whatever enters  
Bothell storm drains  
goes directly to the  
nearest lake,  
stream, or wetland  
without treatment

*Nothing But Rain  
Down The Drain*

REPORT SPILLS TO OUR **HOTLINE: 425-806-6750** 



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# We Keep it Clean Using the 4Cs



Yes ✓

## Cover

Cover outdoor work and storage areas



No ✗



Yes ✓

## Capture

Capture fluids before they run to the drain



No ✗



Yes ✓

## Clean

Clean up spills before they reach the drain



No ✗



Yes ✓

## Contain

Contain stored fluids to capture leaks



No ✗

## Only Rain Down the Drain

No Oil • No Suds • No Paint • No Chemicals  
Even small amounts can pollute our waterways

This project was funded by a grant provided by  
Washington State Department of Ecology

# OUR RESTAURANT KEEPS IT CLEAN

## DUMPSTER

Properly dispose of garbage and sweep any debris around dumpster.



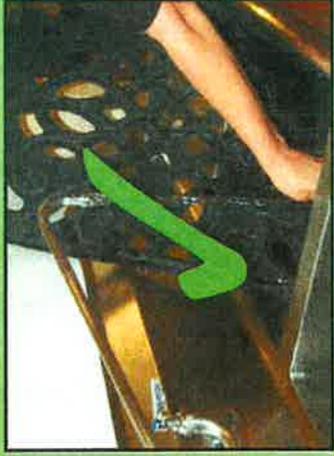
## HOOD VENTS

Wash all hood vents in a combination sink, mop sink, or dishwasher.



## MATS

Wash all kitchen floor mats indoors near a floor drain or utility sink.



## WASH WATER

Dispose of all washwater in a utility sink or indoor floor drain.



**Only Rain Down the Storm Drain**  
**NO grease, NO dirt, NO garbage, NO wash water!**



# Pollution Found in Your Area!

This is not a citation

This is to inform you that City of Bothell staff found the following pollutants in the storm system in your area. This storm system leads directly to:

- Oil
- Antifreeze/transmission fluid
- Paint
- Solvent/degreaser
- Cooking grease
- Detergent
- Home Improvement Waste (concrete, mortar, etc.)
- Pet waste
- Yard Waste
- Excessive dirt and gravel
- Trash
- Construction debris
- Pesticides/fertilizers
- Other \_\_\_\_\_



*Remember, Only Rain  
Down the Drain*



## Report Spills:

Reporting spills right away helps us to minimize the damage to ourselves and our natural systems. Please call us as soon as possible if you see or smell something in your storm drains.

**425-806-6750**

# Puget Sound Starts Here

## Did you know?

City of Bothell storm drains do not connect to the sewer system, so anything that enters the storm drain passes directly to the nearest pond, river, or wetland without treatment. This is why it's so important to keep all pollutants out of our storm water system.

The pollution comes from our every day activities and can only be prevented by changing our habits. Here are some tips to keep the water clean that leaves your property:

- Use little to no synthetic pesticides and fertilizers
- Use a commercial car wash
- Sweep yard debris rather than hosing down areas
- Properly maintain your vehicle
- Properly dispose of pet waste
- Properly use, store, and dispose of household hazardous chemicals
- Reduce impervious surfaces on your property
- Report any discharges

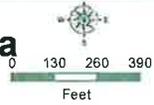


**Call the  
Spill Hotline  
425-806-6750**

## Appendix J



# Queensborough Watershed LID Mailing Area December 2013

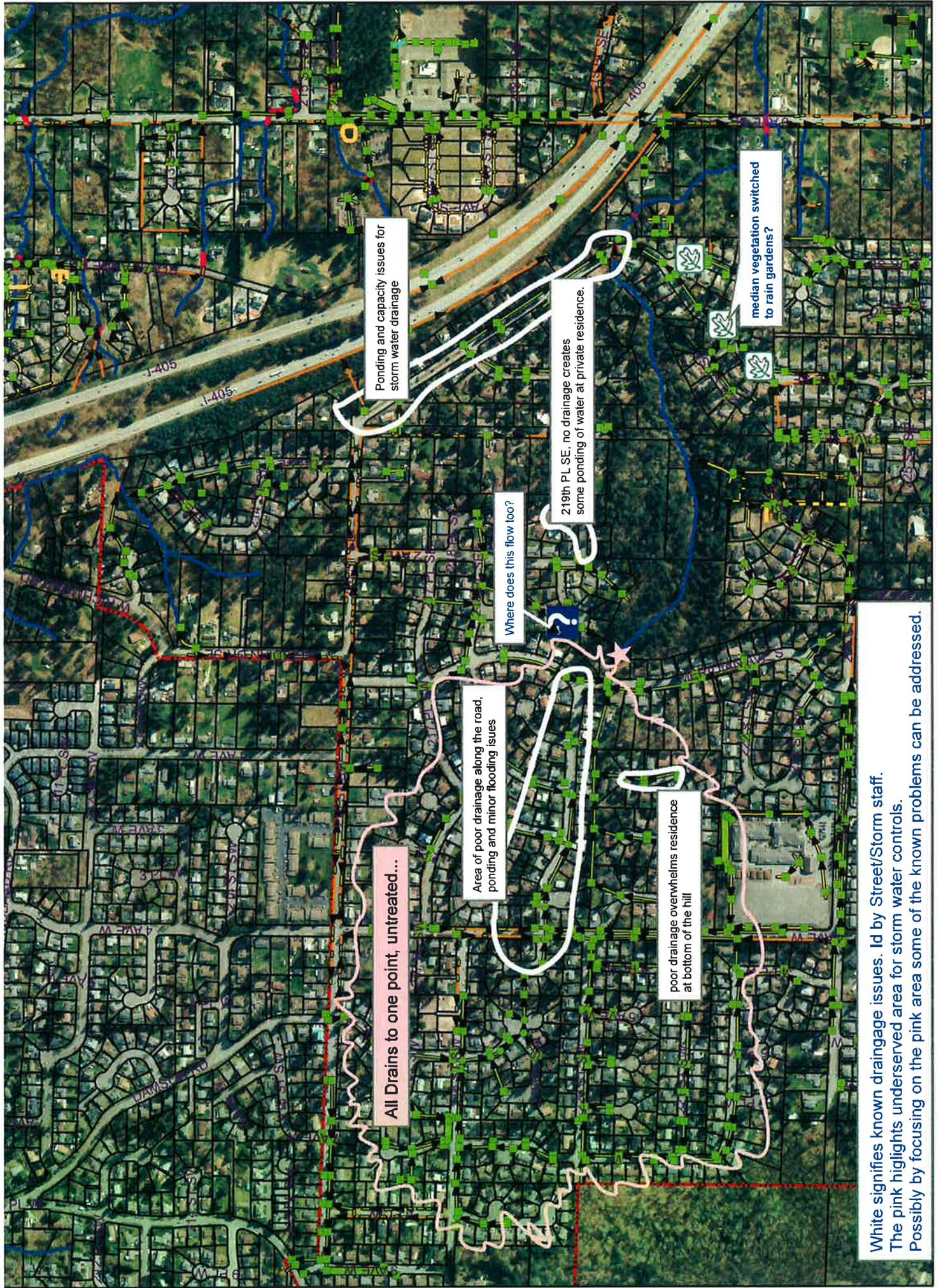


The City of Bothell delivers the data (map) in an AS-IS condition. GIS data (maps) are produced by the City of Bothell for internal purposes. No representation or guarantee is made concerning the accuracy, currency, or completeness of the information provided.

Created 12/11/13 by Christi Cox



City of Bothell



All Drains to one point, untreated...

Ponding and capacity issues for storm water drainage

219th PL SE, no drainage creates some ponding of water at private residence.

Where does this flow too?

Area of poor drainage along the road, ponding and minor flooding issues

poor drainage overwhelms residence at bottom of the hill

median vegetation switched to rain gardens?

White signifies known drainage issues. Id by Street/Storm staff.  
 The pink highlights underserved area for storm water controls.  
 Possibly by focusing on the pink area some of the known problems can be addressed.



**FREE**

expert advice and  
financial assistance

Join us for a free workshop to learn about installing projects that can help you prevent flooding while increasing your property value.

**Tuesday, February 18  
6:30–8:30 p.m.  
Hilton Garden Inn  
Island Ballroom  
Bothell**

**Projects coming to  
your neighborhood  
this February**

This free workshop is sponsored by City of Bothell and Snohomish Conservation District as part of a cooperative effort to improve water quality and reduce flooding.

Snohomish Conservation District  
528 91st Ave NE, Suite A  
Lake Stevens, WA 98258

**These workshops will explain the different and exciting options available to you and your neighborhood. Join us to learn more about how these options will help slow water leaving your property while adding aesthetic and financial value.**

- Are you interested in installing a rain garden, permeable pavement, rain barrels or cisterns on your property?
- Learn how you can apply for funding to help pay for these projects while receiving free technical assistance.

**When:** Tuesday, February 18  
**Time:** 6:30–8:30 p.m.  
**Where:** Hilton Garden Inn  
Island Ballroom  
22600 Bothell-Everett Hwy,  
Bothell  
**RSVP:** [bothell.eventbrite.com](http://bothell.eventbrite.com)

*Snacks and refreshments will be provided.*



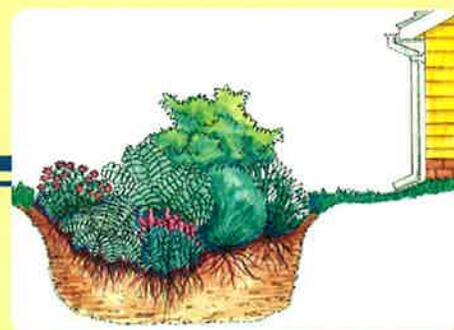
*Project made possible through funding from the Department of Ecology*

# Come and talk with City of Bothell and Snohomish Conservation District staff about the results from the Queensborough stormwater study!

## Oct. 22, 4:30 - 6 p.m.

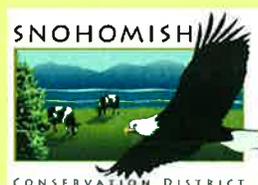
Find us at the tent in front of 21705 2nd Ave. W, Bothell!

Join us for this informal meet & greet to learn about the results of stormwater project research that has happened in your neighborhood over the last year, and plans for action in the future. Tea and light refreshments will be served.



Contact Kate with Questions:

[kate@snohomishcd.org](mailto:kate@snohomishcd.org)  
425-377-7004



City of Bothell™

# Queensborough Neighborhood Low Impact Development (LID) Project Update

Thank you for participating in our LID feasibility design study in the Queensborough neighborhood. Our research is now complete and led us to the following conclusions:

- 1) Unfortunately, we are not able to move forward with LID projects in your neighborhood, for several reasons:
  - Numerous design challenges ranging from glacial till soils and high groundwater levels in some areas would not allow for the needed amount of water infiltration.
  - Proximity to utilities severely limited where we could locate LID techniques such as pervious pavement and rain gardens.
  - Some sites were feasible for LID installations but proved impractical due to their placement in back or side yards for demonstration, future inspection, and maintenance by the City.
  
- 2) You are still welcome to move forward with putting in LID, such as rain gardens, on your property. The Snohomish Conservation District (SCD) has offered to assist you with appropriate improvements by providing some funding, installation, and maintenance support.

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## Next Steps

Your neighborhood will be evaluated by the City for future stormwater projects and prioritized based on a set of criteria. Once we complete a draft of our Storm and Surface Water Master Plan, we will host an open house in early 2015 to discuss the plan and the efforts ahead of us.

We will follow up with you in the coming weeks to discuss your project and your prospects going forward. It was our pleasure to work with you, and we are happy to answer any questions you have. Here is contact information for the City and SCD.

Agency	Staff	Email	Phone	Reason to Contact
City of Bothell	Andy Loch	andy.loch@ci.bothell.wa.us	425.486.2768 x4415	General LID feasibility study questions
	Kristin Terpstra	kristin.terpstra@ci.bothell.wa.us	425.486.2768 x4463	Neighborhood drainage issues & questions
	Dave Phelps	dave.phelps@ci.bothell.wa.us	425.486.2768 x4468	Right-of-way connection questions
Snohomish Conservation District	Kate Riley	kate@snohomishcd.org	425.377.7004	General grant & project planning questions
	Derek Hann	derek@snohomishcd.org	425.355.5634	Specific project design & planning questions

