

City of Bothell

# Public Education and Outreach Program

Summary Report 2012



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## Introduction

Many local and regional stormwater issues are caused by the everyday actions of people that live in, travel through, or visit our watersheds. While difficult, changing behavior is the most cost-effective programmatic solution to surface water non-point source pollution.

## Goal

The goal of the education and outreach program is to reduce or eliminate behaviors and practices that cause or contribute to adverse surface water impacts.

## Overview

The City of Bothell has chosen to utilize a social marketing strategy to illicit behavior change which has proven highly successful for Phase I jurisdictions and has been used for over forty years in the realms of social services, public safety, and disease prevention.

There are several steps to changing behavior patterns. They involve understanding the problem, education of the problem, simple and appropriate alternatives, removal of barriers to behavior change, show of benefits for applied change, cost of competing behaviors, tangible goods and services that can be derived from change, two-way communication, and goals for success.

Time, reach, and frequency of messaging also play a key role in the initial phases of establishing change. Broad outreach strategies were initiated for all target audiences in 2008 to provide understanding and awareness concerning several different water quality topics and BMPs. The goal is to give our target audiences a clear view of the abundance of water quality issues facing our community and establish a level of basic education concerning watersheds, stormwater, and the water cycle.

For 2012, 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

- City web site
- Weekly posts on City social media sites (facebook and twitter)
- Water education presentations
- City-sponsored and private events
- Volunteer events
- Bothell Green Team
- Community newsletters
- Utility vehicle signs
- Banners and signs
- Festivals and youth education events (science night and Chancellors forum)
- Online web ads
- You-tube videos
- Earned media interviews and articles

The City of Bothell will continue to utilize these outreach opportunities in 2013 and continually add new sources to ensure that messaging is received repeatedly through a variety of means.

*Examples of print, online, and in-person outreach are provided in Appendix A.*

Broad awareness outreach messaging was conducted in 2012 in accordance with the Stormwater Outreach for Regional Municipalities (STORM) coalition and the Puget Sound Starts Here (PSSH) campaign. This allowed the City to align messaging with over eighty surrounding county and city governments and provide better outreach through a combined regional message. The City of Bothell also co-chaired the STORM coalition to ensure that limited funding resources were utilized effectively and topics were applicable for smaller jurisdictions.

For 2013, The STORM group is continuing work on a Puget Sound Starts Here Phase (PSSH) II roll-out which will feature a new interactive website, new tools and outreach materials. New stakeholder support from business, State agencies and non-profit organizations affiliated with the brand will help us promote our information and add credibility to our messaging. PSSH Month was successful enough to warrant promoting again in 2013. The City will conduct outreach and awareness through a variety of means to share this messaging for May 2013. We are also working on a vehicle leak grant

with deliverables coming in April 2013 (see the Vehicle Leak section for more details).

Sub-regional outreach was conducted through the Stormwater Outreach Group (known as the SOGgies) which consists of the Cities of Bothell, Bellevue, Clyde Hill, Issaquah, Lake Forest Park, Kenmore, Kirkland, Mercer Island, Newcastle, Redmond, Seattle, Sammamish, and Shoreline. These cities chose to pool funding for sub-regional messaging and evaluation to reduce production costs and leverage resources.

*Examples of sub-regional messaging and outreach evaluation are provided in Appendix B.*

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

### Targeted Outreach Programs

#### **Natural Yard Care**

***Target audience:*** *Bothell residents with a yard in the neighborhoods south of the Sammamish including Valhalla, Bridlewood, Cherry Hill, Norway Hill, and Amber Ridge (2012)*

***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.*

Our Natural Yard Care program was tailored after effective strategies from Phase I permittee – King County. We focused our efforts on these key findings from past Bothell surveys conducted by Cascadia Consulting Group (2006):

- 63 percent of respondents were unaware that water from their lawn and pavement goes to the nearest stream and into Lake Washington.

- 37 percent of respondents admitted that they have increased or continued to use the same amount of fertilizer on their lawn.
- Businesses care about the interests of the community.
- Residents who hire out for yard services use more chemicals.

Observations learned during the 2009 Natural Yard Care Program Regional Evaluation were addressed in the 2012 outreach effort. The consultant group, Frause, which helped to create the King County Program, was used to maximize participation. City of Bothell, Geer (2011) provides details concerning this successful program effort.

This program will be offered in 2013 to the surrounding neighborhoods of Hollyhills and Pioneer Meadows. If space allows, we will also solicit participation from past registrants that were unable to attend all of the workshop sessions. We will make the following adjustments based on participant feedback and observation findings from previous workshops:

- Focus more information on native yard design and natural lawn care advice.
- Have two expeditors at the door during workshops to register participants and take names for the drawing.
- Have a grand prize of a free private consultation with a landscape designer, instead of an electric mower.
- Have more native plants for display and prize giveaway.
- Provide an additional workshop that focuses specifically on edible gardening

This program is scheduled to continue for the next year to reach all appropriate single-family neighborhoods and provide Bothell homeowners interested in the program a chance to participate, provided adequate funding is available.

Business outreach was conducted in 2012 using information from the Cascadia findings. We determined that the request to use less chemicals would need to come from the residents purchasing those services, so an outreach mailer was created which targeted known neighborhoods where landscaping companies were utilized. The response from this communication was unusually small so we weren't able to determine whether this method was effective. For this reason, more direct outreach to property owners/managers will be conducted through more efficient means.

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

## **Car Washing**

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

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

The barriers for adoption of car washing BMPs are significant and provide a unique challenge for outreach strategies. Outreach and alternatives are very subjective to local demographics; so the City of Bothell will focus on neighborhood outreach in order to spend budget funding most effectively.

The results of surveys conducted in 2009 and 2010 were beneficial in directing our outreach and helped with the incentives offered at the Bothell Riverfest events in August 2009, 2010, and 2011. Almost all people who took the survey, and were unwilling to use a commercial car wash, were willing to try a waterless car washing alternative. For this reason, 200 samples were distributed during our Riverfest events each year, along with the necessary microfiber towel applicators. A demonstration was given during the all-day events to allow residents to sample a waterless product using a city staff vehicle and view the results. This helped to reduce the perceived barriers that these products scratch paint and do not adequately clean a vehicle.

In 2012, we reviewed the evaluation information received from our recent phone survey and determined those who are washing cars at home are still using traditional methods which harm our water quality. After further discussions and consultations with experts in this field, it was determined that the culture code for this behavior is so strong that an in-depth study with a subsequent social marketing pilot strategy is needed to further this effort.

Our car washing program for 2013 will consist of in-depth conversations with the target audience to determine all known barriers and solutions to those barriers in order to move forward with a more successful effort for the next permit cycle.

## **Pet Waste**

**Target audience:** *All residential properties surrounding the Canyon Park Junior High, Stipek Park, and William Penn Park public spaces (2009-2013).*

**Goal for success:** *To reduce the amount of pet waste left in these public areas, and better understand the effectiveness of different methods of outreach concerning pet waste.*

Adoption of pet waste BMPs was based on our own research coupled with regional significant points (Cascadia Consulting Group 2004 & Elway 2009). The outreach focused on five key findings:

- Dog owners are often unaware of health dangers from pet waste and are unsure of proper disposal methods.
- Veterinary employees and vets do not discuss pet waste disposal with their clients.
- Only 20 percent of respondents recognized that improper pet waste disposal is a problem.
- Dog owners are more likely to pick up the waste while on walks than in their own yards.
- Picking up waste depended on having a bag, signs, and somewhere to dispose of it.

After visiting several sites, we selected two City parks, William Penn Park and Stipek Park, as well as the right-of-way green strips along one major residential street, 23<sup>rd</sup> Avenue SE, near the Canyon Park Junior High School, due to the regular high volumes of pet waste present. These choices were reinforced by the fact that they are all within walking distance of each other in a residential area near the center of Bothell.

Counting was initiated in March 2009 within the designated areas. Pet waste counts were tabulated under multiple designated locations for each area to ensure counting accuracy. The Parks staff often removes pet waste before maintaining each site, so timing was coordinated with the Parks Department to prevent inaccurate counts. It was determined that all counting would be conducted on the first Monday of each month to manage schedules and provide an arbitrary starting point.

In August of 2009, a pet waste target mailer was sent out to each home, including multifamily residences. A target mailing distribution list was generated using GIS data. All homes within walking distance of the target pet waste areas were included in our mailing. The mailer focused on the high levels of bacteria found in Bothell streams from regular Total Maximum Daily Load (TMDL) sampling and the potential health risk associated with the amount of pet waste found in their neighborhood. It offered an incentive for owner participation with a reminder of how important it is to pick up pet waste at home as well as in public areas.

The target parks chosen were supplied with signs, waste receptacles, and bags in 2006 to encourage adoption of this BMP. The City has been keeping track of the use of each receptacle and the number of bags used, and comparing it to the amount of waste found at these sites. Due to severe budget shortfalls, the City was no longer able to provide the bags for these parks beginning in 2011; so we created pet waste bag dispensers that residents could fill on their own, to provide a mechanism for incentive continuation and try to spur a better sense of community and responsibility in resident park users. We will continue to count through June 2013 to determine whether providing bags and dispensers has had a real effect on the amount of waste present in these target areas.

In 2010, business outreach was also conducted to determine whether the message was being reinforced to residents by our local veterinarians. A City kit was presented to the two relevant Bothell vet offices. The kit contained pet waste bags with convenient containers which clip to a dog collar or leash, stickers for garbage cans, informational posters, fact sheets for distribution (in English and Spanish), and pledges. Pledges were required to be eligible to receive pet waste bags. The vet offices were instructed to provide a sticker and pet waste bag container to anyone who would sign a pledge. One 11x17-inch color poster was given to each office for the lobby area and 15 11x17-inch posters were given to place in hallways and patient rooms. It was found that the pet waste bags were well received, but the outreach materials were not posted in examination rooms or hallways (mostly due to owners' policies concerning the posting of any material). Most professionals stated that they still did not discuss proper disposal of pet waste with their clients, but could do so in the future.

In 2011, a small intercept survey was conducted within the target neighborhoods to determine the understanding of stormwater issues

including pet waste, and doorhangers were left which discussed the importance of adopting the proper best management practices. Volunteers placed 200 storm drain markers in the area to reinforce the previous messaging.

Bothell also helped to complete a viral video called "Dog Doogity" [www.scooppoop.org](http://www.scooppoop.org), (a parody of the Blackstreet song "No Diggity") which reinforces the importance of cleaning up after your pet in public and private outdoor spaces. This video was funded as part of a grant from the Department of Ecology. The video was wildly successful and generated a long presence in the media, reaching national and international acclaim within the first month of its launch date.

Our Bacterial Pollution Control Plan (BPCP), required by our Total Maximum Daily Load (TMDL) requirements, asked us to look at adopting a pet waste ordinance to help encourage further adoption of this BMP. Staff completed a review of seventeen surrounding jurisdictions and brought those findings before Council along with an example ordinance for their approval. Council reviewed all concerns and approved its adoption in November 2011. These ordinances can be found in Chapters 6.16.011 and 8.60.240 of the Bothell Municipal Code.

In 2012, a review of the phone survey information regarding pet waste was conducted and outreach was provided specifically to vet offices, boarding services, dog walkers, dog groomers, and other professionals to utilize them as a vehicle to reinforce our existing messaging.

We also expanded our pet waste bag dispensers to community members with the pledge to keep them stocked with bags. So far, we have passed out all of the available dispensers and have a waiting list for dispensers in 2013.

Another requirement of the TMDL was to address fecal coliform from birds congregating unnaturally due to human feeding. Education staff completed signage to address this issue and placed them in key areas where the general public was known to actively feed waterfowl.

Education and outreach regarding pet waste and animal feeding will continue through 2013 in accordance with the established programs.

*Examples of dispensers, outreach tags, and signs are provided in Appendix D.*

## **Septic System Maintenance**

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

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

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 and will serve as an opening for future discussion.

Our plan for 2012, to select neighborhood door-to-door outreach and dye testing, was not conducted due to the lack of acceptable alternatives for residents once a leak was discovered. Additional information obtained by Snohomish County through a septic Ecology grant, reinforced the need to properly prepare outreach materials, incentives, alternatives, community partners, connection funding sources and delivery methods before directly engaging and testing Bothell septic users and their systems.

We plan to use 2013 to work 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 apply for loan funds to help residents obtain a low interest cost effective option to complete the necessary work within an adequate timeframe.

## **Youth Stormwater Education**

**Target audience:** *All Bothell preschool through 12<sup>th</sup> grade children attending public and private school.*

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

Several local municipalities 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. Key findings from our past focus groups and personal interviews (Cascadia Consulting Group 2004) confirmed that this type of education is necessary and a positive way to reach out to our residents:

- Clean water and habitat are important among young people.
- People do not understand “water quality.”
- People should be educated that streams are an indication of our own health.
- Pet waste focus group suggestion: reach out to residents through their children.

The City of Bothell contracted in 2012 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). In 2012, teachers were solicited electronically using a water education flyer (shown in Appendix A), and several classrooms signed up for programs reaching 2,241 Bothell students. In order to be sure that the stormwater messages were reaching the parents, a stormwater flyer and return postcard with stormwater education activities were 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 for the fall school year. This collaboration will allow us to see how the presentations are received in each of our municipalities and will provide the opportunity to compare our information to define adoption of BMPs and identify further barriers. The education program will continue in 2013 with a few additions:

- Stronger emphasis will be placed on assigning this project as homework or extra credit to encourage participation.
- A large stormwater poster or Low Impact Development (LID) poster will be offered for each classroom that receives a presentation.
- A brief announcement will be provided before each presentation expressing the importance of children giving the postcard and messaging to their parents, as well as parents visiting the City website.
- A three tiered evaluation strategy will be continued to determine student retention, understanding, and teacher satisfaction over time.

The City also became a partnering agency in 2011 for the regional Sammamish Watershed Festival. We will continue to participate May 20, 21, and 22 in 2013. The steering committee is planning to provide this all-day field trip event for over 600 4<sup>th</sup> grade students within the Sammamish River watershed. 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 E.

## **Landscaping and Buffers**

**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.

This emphasis area was originally planned to be conducted through an interlocal agreement with Snohomish County in order to utilize their existing successful program and watershed stewards. Unfortunately, due to economic constraints for the County, the City was unable to secure the Snohomish County program.

The City enlisted the help of a third party agency, Snohomish Conservation District (SCD), in 2011 to help a homeowner restore his streamside buffer, but found that SCD was uncooperative with the City. SCD prefers to remove governing bodies from the communication stream to encourage resident participation, but do not allow for City assistance or participation (even as a silent partner).

The City sought other partnerships and funding sources in 2012 to provide technical expertise to streamside homeowners and encourage further adoption of this BMP.

We were able to work with the King Conservation District in 2012 and were successfully awarded a Rose Foundation grant to provide a demonstration outreach project along Parr Creek. This project will allow us to work directly with the surrounding businesses, students, and residents concerning invasive removal and native replanting along streambanks in Bothell. All partners have high hopes for this project and what it will accomplish in 2013.

## **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 2012, vouchers were given to Bothell residents to drop off hazardous materials at the Shoreline Transfer Station free of charge. One event mailer, several flyers, two post cards, and two articles were sent to provide education and information to all residents as follows:

- Articles detailing Wastemobile dates and providing hazardous waste use, handling, and disposal information were printed in the Bothell Bylines and Bothell Reporter.
- A recycling event mailer and post card was sent to all Bothell residences offering information on every program available such as the Wastemobile dates, the Take it Back program, recycling events, 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, locations, 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.
- A final post card was sent to all multi-family residents reminding them of the final date for 2012 and encouraging them to participate in 2013.

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

We also created a game to show proper disposal of different household items called the Hazardous Home Game. The game was very successful in its first year, making several appearances at local business events, festivals, and fairs. Small revisions will be made to the game in 2013 to help guide people through the game and keep them from seeing previous participant answers.

More education on use, handling, and storage will continue in 2013 with free disposal opportunities advertised through continued mailers, articles, collections, vouchers, and educational workshops through grant funding.

Examples of outreach materials for 2012 are provided in Appendix F.

## **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 use, handling, and improper disposal which discharge to Bothell's MS4.

### 2010

Initial inquiries to all known property managers were conducted to determine which mobile carpet cleaning businesses were servicing the North Creek and Canyon Creek Business Parks. These companies were solicited for information to ensure that they understand proper waste disposal BMPs.

### 2011

Direct target outreach and education took place to all known property managers concerning proper use, transport, and disposal of hazardous material as well as information for what to do if a spill occurs.

### 2012

Snohomish County determined that mobile businesses are not motivated to do the right thing regarding proper handling and disposal BMP's, so we plan to continue educating 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.

### 2013

Outreach will continue to property managers, Home Owner Associations (HOA's), and staff to encourage residents and businesses to hire reputable contractors.

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

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

**Target audience:** Bothell businesses most likely to have a spill occurrence (restaurants, landscaping companies, auto repair and maintenance).

**Goal for success:** To reduce the amount of pollutants entering the MS4 from spills and illicit discharges.

Direct outreach and education was conducted in 2012 through the use of a Local Source Control Specialist 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 generators (medium and large quantity are already heavily regulated).

The program includes direct outreach materials coupled with face-to-face technical assistance to ensure proper understanding and compliance.

Outreach on the spill hotline number was also conducted through a wide variety of print media, utility inserts, online ads, magnets, doorhangers, and business cards.

*Examples of some Bothell outreach materials are provided in Appendix H.*

## **Vehicle Leaks**

**Target audience:** The general public who live, commute through, or visit Bothell via a motorized vehicle.

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

Bothell signed onto a Vehicle Leaks Ecology grant with King County, Snohomish County, Redmond, and Seattle as a member of the steering committee and advisory committee. This group completed the initial background research and worked to hire a consultant in order to administer the outreach plan and pilot projects designed in the social marketing strategy. Bothell is working regionally and sub-regionally to bring a pilot project to Bothell and help speed adoption of these BMP's.

## **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 in and outside of the City. 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.

A demonstration rain garden was created at the King County library in late 2009- early 2010 using grant funding for the City of Bothell. City staff partnered with the library facility staff to create a functional rain garden in front of the building, as this area experiences heavy foot traffic and is used as an outdoor classroom. Roof water runoff is transported to the garden through a highly visible pipe and is delivered to a grate in the sidewalk. The rain garden serves as a great education piece for both the City and the library. Educational signage was placed on site to increase awareness concerning stormwater pollution and LID techniques.

Our focus for 2011 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 decided to offer a workshop on LID techniques in the fall and spring at the location of our

demonstration rain garden so that the public could view a working garden, begin to understand how they function, and gather information for their own property needs.

We also conducted two site visits with Planning and Development Review staff to demonstrate how LID techniques are being designed and implemented in surrounding jurisdictions.

LID outreach in 2012 included an extensive all day training session with Capital Improvement, Planning, Development Review, Maintenance, and Site Inspection staff to ensure they adequately understand these new techniques and are comfortable enforcing their use within the City.

Workshops for residents and staff are planned for 2013 to help everyone better understand the strengths and limitations for each technique and help them determine what is best under current available site conditions.

*Example of the rain garden signage and 2012 workshop agenda is provided in Appendix I.*

## **Environmental Stewardship Actions and Opportunities**

**Target audience:** Volunteer and community groups that are interested in learning more and adopting riparian areas in need of restoration on Bothell public lands.

**Goal for success:** To complete multiple training and restoration projects throughout Bothell.

The City completed a project in 2011 called the Sammamish Streamkeepers which exchanged free, university caliber riparian and watershed education in exchange for volunteer hours to complete, maintain, and monitor a streamside restoration project. The City will continue to maintain and monitor this site through 2014 to ensure success of the project.

The City also provided 9 volunteer opportunities in 2012 to engage students, residents, and the larger community in restoration and

education efforts to provide stormwater awareness and help improve local water quality through riparian restoration and outreach.

The City will actively seek volunteer opportunities in 2013 to provide education and awareness of local water quality issues and encourage partnerships with local schools, business, community groups, organizations, Universities, and the general public to foster improved watershed stewardship.

*Examples of volunteer projects and programs are provided in Appendix J.*

### Conclusion

The City's surface water management education and outreach program is working to reduce and eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Staff are tracking outreach efforts and maintaining records of current public education and outreach activities in accordance with State requirements.

## Appendix A

# JOIN BothellCOOL<sup>2</sup>

## MARCH

### Earth Hour, March 31

Celebrate Earth Hour with a special nighttime event. Presented by the City of Bothell and UW Bothell.



## APRIL

### Natural Yard Care FREE Workshops!

Come join us and learn about natural yard care techniques from local experts. Topics will focus on building healthy soil, putting the right plant in the right place, smart watering, attractive yard design, natural lawn care, natural pest control, and NEW! Edible gardening. Workshops will take place every Wednesday in April from 7-9 p.m. at the Bothell Northshore Senior Center. For details, visit our events page on our Bothell website: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

### Second Annual Earth Day Celebration at UWB / CCC

April 19<sup>th</sup>, 2012 from 9am - 4pm  
University of Washington Bothell and  
Cascadia Community College



This year's second annual Earth Day Celebration is a joint campus event that will showcase environmental awareness and our community's and campuses' commitment to sustainable practices. Organizations from the community including the Friends of North Creek Forest, the City of Bothell's Recycling and Public Services, and many more will be in attendance. The event will also include presentations from students and staff on sustainable practices, electric vehicles including the electric S-10, and tree planting in the campus wetlands. The entire community is invited to share in the festivities and celebrate our environmental contributions to our planet.

### Recycle Event

The Spring Recycling event is coming up soon. Visit [BothellCool.org](http://BothellCool.org) for more details on this event. Voucher requests due May 18, 2012

## MAY



### Bike to Work Day

May 18<sup>th</sup>, 2012 from 6 - 9am

The City of Bothell, University of Washington Bothell, Cascadia Community College, Cascade Bicycle Club Education Foundation and Community Transit provide a Celebration Station at the UW Bothell campus (on the trail behind the North Creek Events Center). The station features refreshments, information, drawings for prizes, and fun for bikers. Bike to Work Day is a great opportunity to bike to work for one day instead of using your car.

### Watershed Festival

May 15<sup>th</sup> - 17<sup>th</sup>, 2012

The City of Bothell is partnering with other local communities to offer our students a chance to learn about our water resources at the Youth Watershed Festival. Visit our website to learn more about this great event and volunteer opportunities: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us) search "watershed festival"

### Sustainamania

May 19<sup>th</sup>, 2012 from 9am - 3pm

This is the first year for this great event. We will be providing information on Sustainable programs and services as well as information from Public Works. Come meet the Public Works Director. Talk with City staff about programs and services. This is your opportunity to have fun being sustainable. The event will feature tours, classes, food, and fun for residents of all ages. For more information visit: [sustainamania.org](http://sustainamania.org)

**Sustainamania**  
a NATIONAL PUBLIC WORKS WEEK event

# ALL SPRING

## Wastemobile

The upcoming event dates are:  
3/23–3/25, 5/11–5/13, and 6/22–6/24  
Located at: The Seattle Times Building:  
19200 120th Ave NE

For a list of the items you can and cannot bring, visit [HazWasteHelp.org](http://HazWasteHelp.org) or call the Household Hazards Line at 206.296.4692

## BOTHELLCOOL.org

Check out the new website!  
Now you can connect to all things Cool in Bothell. You are one click away from learning more about being sustainable in Bothell.

## Puget Sound Starts Here

Every year, millions of pounds of toxic chemicals are carried to Puget Sound in stormwater. The Puget Sound Starts Here campaign is working to raise awareness to protect this valuable resource.

Learn more about what you can do to help:  
[www.pugetsoundstartshere.org](http://www.pugetsoundstartshere.org)

# WATER

## Celebrate the essential.

Lately, there's been a lot of talk about getting back to what's most important—to celebrating the essential parts of our lives.

And, really, what's more essential than water? It's a vital element of our daily lives, and the original source for refreshment and hydration.

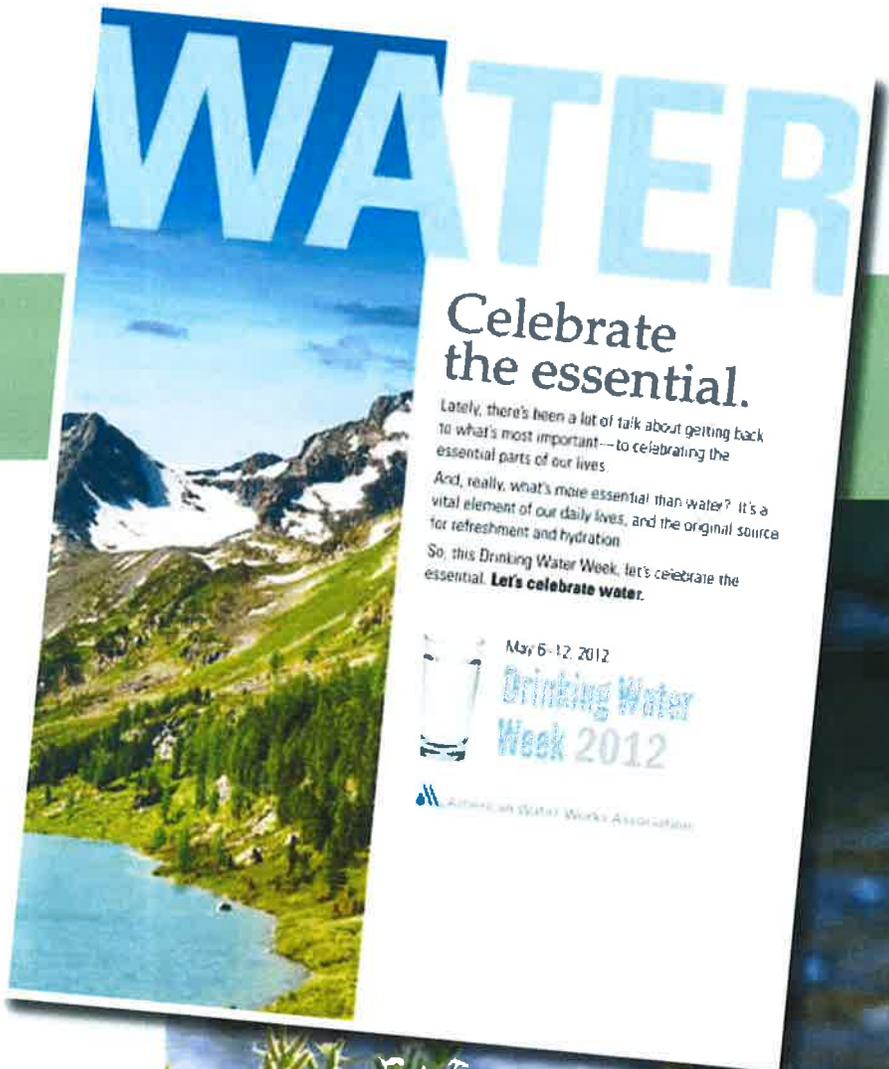
So, this Drinking Water Week, let's celebrate the essential. **Let's celebrate water.**



May 6–12, 2012

Drinking Water  
Week 2012

American Water Works Association





## PET WASTE Community Boxes

City of Bothell Parks staff have placed pet waste bag dispenser boxes in our local parks. These boxes help to remind people to pick up after their pets and allow neighbors to provide a bag for those in need. Many communities outside of Bothell have started to place these types of dispensers in their neighborhoods, and we thought Bothell residents might enjoy these as well.

Would your community be interested in placing and maintaining a community pet waste bag box in your neighborhood? To sign up for a box, please contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us) or 425-486-2768

# PLEASE LICENSE YOUR PET!

**L**icensing is required for all dogs and cats age 8 weeks and older in Bothell. Purchasing a license and attaching it to your pet's collar is one of the most important things you can do as a responsible pet owner. Displaying a current license tag on your pet's collar makes it easy for animal control officers and shelter employees to quickly locate a lost pet's owner information. It could be your pet's ticket home, and it's also the law.

Bothell's partnership with PetData makes licensing your pet easier than ever. Three different options are now available for licensing your Bothell pet – online, by mail or in person.

To license online, go to [www.PetData.com](http://www.PetData.com) and select Bothell from the customer service drop-down menu. Then click on 'Online Licensing' on the upper left side of the screen. You can license multiple pets at the same time and easily upload required documents. All major credit cards are accepted, and a small convenience fee will apply per transaction.

To license by mail, simply mail a copy of applicable documentation, along with your check payable to "City of Bothell" to Bothell Animal Licensing, C/O PetData, PO Box 141929, Irving, TX 75014. A pet may also be licensed in person at Bothell City Hall at 18305

101st Ave NE. City Hall is open Monday through Friday, 8am to 5pm. Proof of rabies vaccination is required in order to license a pet. Rabies is a deadly virus that can affect people and animals. Any mammal can get rabies. However, bats are the only animal in Washington known to carry rabies.

In other states, raccoons, skunks, foxes, and coyotes are known to carry rabies. As of this year, the state law requires that all dogs, cats, and ferrets have up-to-date rabies vaccines.



The City of Bothell encourages spaying and

neutering. Each year 6-12 million animals die in shelters simply for lack of a home. For information about low-cost spay/neuter clinics available to you, contact PAWS 425-787-2500.

License fees for sterilized pets over 6 months of age are \$30 for one year. Licenses for unsterilized pets over 6 months of age are \$60. Juvenile pets 8 weeks old to 6 months of age are eligible for a Juvenile Pet License, which is \$15 and is valid for 6 months from date of issue. For Senior Citizens age 65 or older, Bothell offers a lifetime license for pets that have been spayed or neutered. Seniors may license their altered pets for \$15 per pet (up to 3 pets). A senior pet license is good for the lifetime of the pet but must be renewed annually, at no charge.

For more information on licensing in the City of Bothell, please visit [www.petdata.com/cslbth/](http://www.petdata.com/cslbth/) or call toll-free 1-877-816-7058.

## Be Safe in the Water!

As we approach the summer months, it is essential to educate yourself and your family about water safety:

- Teach your child to swim, but remember that children shouldn't be left unsupervised around water even if they know how to swim.
- Always wear a life jacket (US Coast Guard approved) when on a lake, river or ocean while boating, water skiing, jet skiing or tubing.
- Warn your children about playing in canals or other fast moving water.
- Do not let your child play around any water such as a pool, lake or ocean without adult supervision, even if your child is a good swimmer.
- Don't allow running or rough play around the water.
- Childproof your swimming pool with a fence around your backyard and a fence that is at least 4 feet high around the pool, with a self-closing, self-latching gate.
- Learn CPR – in case an emergency ever arises. The City of Bothell Fire and E.M.S. offers several CPR classes every month. For more information, please contact (425) 486-2768 ext.4422.
- If you have any questions regarding child safety, please contact Kirsten Clemens or Lisa Allen with Bothell Fire and E.M.S. (425) 489-3364.



## Mobile Business Violations

Are you hiring painters, carpet cleaners, pressure washers, or small works contractors for your home maintenance and repair? If so, **be sure they pay close attention to where their materials, chemicals, wash water or other pollutants are deposited.** Many companies and individuals have been found washing their tools outside and letting the wash water enter our storm drains that flow directly into our local streams. This is not legal and these violations come with stiff fines and/or expensive cleanup costs. Help us protect our families, pets, and streams by keeping all polluted wash water from entering our storm drains.

When contracting for home maintenance and repair, be sure to ask contractors how they dispose of their waste. Many spills are caused by mobile businesses improperly disposing of waste which can lead to liability and safety issues for the homeowner.

Activities that commonly generate harmful waste to stormwater include:

- Painting
- Concrete Construction
- Pressure Washing
- Carpet Cleaning
- Improper Lawn Maintenance
- And many more...

Be sure any wash water from cleaning tools or washing carpet is deposited into a sink, tub, toilet, or other area that drains to the sewer. When pressure washing with chemicals, please be sure to divert the water to grass or gravel, and be sure all chemical fertilizers and pesticides are applied using manufacturers' directions.

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



## SAFE AT HOME: LATCHKEY KIDS



Many kids care for themselves after school until their parents return home from work. Being left home alone can be a great lesson in responsibility for children who are ready, but parents need to decide if their children are ready and mature enough to care for themselves without supervision. Washington State guidelines recommend that a child be at

least 10 years old before being left alone. The National SAFEKIDS Campaign recommends that no child under the age of 12 be left at home alone. Here are a few things to discuss with your child beforehand:

- Does your child know his/her full name, address, and phone number? Does your child know your full name as well, and the address and phone number of your work place, or other ways to reach you at work? (You might call every day to be sure your child has arrived home safely and that nothing at home is out of the ordinary, children appreciate the sense of security this form of supervision provides.)
- Does your child have an established routine to follow?
- Can your child use the telephone correctly, particularly when calling you, a neighbor, or emergency services (911)?
- When your child returns home from school every day, does your child know how to lock the door once inside the house? Can your child remember to call you and/or a neighbor as soon as once home, and then check in again at designated times?
- Have you instructed your child never to enter your home if a door is ajar or if a window is open or broken?
- Have you talked about what to do if someone knocks at the front door while he or she is home alone? (The best advice: your child should not open the door and should tell the person knocking that you are home but are busy and unable to answer the door.)
- Have you and your child discussed how to exit your home quickly in case of a fire? Does your child know which exits are safest, depending on the location of the fire? Does your child know what to do in case of an emergency or an earthquake, and is your child familiar with basic first aid (such as applying pressure to a cut)?

Source: American Academy of Pediatrics



## Fall is a Great Time for Planting and Lawn Preparations!

Plants installed in the fall usually outperform those installed in the late winter or spring. Save time, money, water, chemicals, and our environment by planting in early October through early December. Here's why:

- Fall soils are warm and aerated which helps plant roots grow to absorb nutrients and moisture.
- Winters are mild in the Pacific Northwest, so plants here often continue root growth through the winter and early spring. This helps them recover from the shock of transplant before they have to begin top growth and helps them weather summer drought.
- Cool, cloudy days with frequent precipitation in fall also provide ideal moisture conditions that save you from having to water or manage your new plantings.
- Fall is also a great time to naturally fertilize your lawn. Simply spread  $\frac{1}{4}$ - $\frac{1}{2}$  inch of compost over your lawn and watch how green and lively it becomes. You'll be the envy of the neighborhood!

# Join the One Less Bag Challenge.

Take the pledge and get a **FREE** recycling kit.

*Reduce, reuse, recycle and save resources.*



Make taking out the trash a little easier – take the One Less Bag Challenge. Pledge and find ways to reduce your garbage by one bag a month by recycling more basic recyclables, food scraps and food-soiled paper, reusing and wasting less.

**Why One Less Bag?** More than half of what ends up in our landfill is easily recycled. By taking the pledge, you are helping save valuable resources from going to waste and you could save money on your garbage bill by shrinking your garbage cart size.

Here are tips to get you started toward one less bag of garbage:

- Discover one new thing that you didn't know you could recycle and start recycling it.
- Put food scraps and food-soiled paper in your yard debris cart.
- Don't let one piece of paper—even food-soiled paper—hit the garbage can. Learn what goes in the recycling cart and what goes in the yard debris cart and reduce junk mail at its source.

- Choose one disposable item that you typically use (and toss!) at home and switch to a reusable alternative. Example: paper coffee cups, bottled water, cleaning wipes, or plastic storage containers and shopping bags.

For more recycling tips and information, visit [www.BothellCool.com](http://www.BothellCool.com). Prizes are offered to King County residents (including City of Bothell residents) who take the One Less Bag Challenge Pledge.



## Volunteer to be a Salmon Watcher

Witness one of the most spectacular wonders of the Northwest. Every year the adult salmon return to our rivers and streams to complete the circle of life and spawn the next generation. This return culminates in one of nature's most exciting dramas. The City of Bothell is seeking volunteers to watch this amazing process take place in our North Creek tributaries from September-December as schedules allow. This helps local scientists track the amount and distribution of adult spawning salmon and is used by policy makers and the public to improve aquatic resource management. To become a volunteer, you must attend one of several identification training events during the month of September. For more information, please contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us). Thank you for helping to improve the waters of the nation for future generations!

**Dates and Locations of Training Events** (all events take place from 7 to 9 p.m.):

- Wednesday, September 5, at Renton Community Center, Renton
- Tuesday, September 11, at Bellevue City Hall, Bellevue
- Thursday, September 13, at Woodinville City Hall, Woodinville

More information: [www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/salmon-watchers/volunteer.aspx](http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/salmon-watchers/volunteer.aspx)

## Low Impact Development At Home

Would you like to help your property, neighborhood, and the environment all at the same time? Low impact development techniques mimic the natural environment of undisturbed soils and forests that once covered this area. Diverting rainwater on your property using these techniques helps to reduce pollution and flooding while making your home more aesthetically pleasing. Here are some options for your consideration:

- **Rain Gardens:** A rain garden is a shallow planted area in your landscape where rainwater is allowed to collect and absorb back into the soil.
- **Green Roofs:** Vegetated roofs reduce costs of heating and cooling, improve local water and air quality, and reduce stormwater pollution by capturing 20% of the rain that falls on your roof.
- **Pervious Pavement:** Pervious pavement allows water to pass around and through these hard surfaces. There are three major types of pervious pavement: pervious asphalt, pervious concrete, and interlocking pavers. Your specific site conditions and needs will determine which option will work best for your sidewalk or driveway.
- **Cisterns:** Cisterns are a great way to capture water and then use it for watering or other purposes later. Cisterns come in many shapes and materials that allow homeowners the flexibility to place them where space is available. Collapsible cisterns can even be placed in crawl spaces or under decks to be hidden from view.

More information about these techniques is available at [BothellCool.org](http://BothellCool.org). Additionally, the City is working on a booklet to help Bothell homeowners and small contractors navigate these new techniques, available in 2013. Please contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us), if you are interested in receiving a booklet once they are complete.



Our community's energy needs are growing, so it's more important than ever that we use our power wisely. There are many opportunities to save both energy and money in your home or business. Whether you're building a new home, buying a new home, building an addition, or just trying to reduce your monthly energy bills, Puget Sound Energy and Snohomish County PUD can help. Learn about rebates, how to make your home more energy efficient, lighting discounts, and more.

For personalized advice, Puget Sound Energy Customers can call PSE Energy Advisor at 1.800.562.1482, Monday through Friday, 8 a.m. to 5 p.m. More information available at [PSE.com](http://PSE.com).

Snohomish County PUD customers can call the Energy Hotline at 425.783.1700 and talk to an energy specialist Monday through Friday, 8 a.m. to 5 p.m. More information available at [SnoPUD.com](http://SnoPUD.com).

## SPILL HOTLINE

Anything that enters Bothell storm drains is carried directly to the nearest lake, stream, or wetland without treatment. It is important to report spills to the City of Bothell spill hotline so damage to property and the environment can be minimized.

- **REPORT SPILLS:**  
425.806.6750 or  
[www.ci.bothell.wa.us](http://www.ci.bothell.wa.us), search "spill prevention"

During the day, the spill hotline will route you to the Surface Water Environmental Engineer and, after hours, it will send you to the Police Department non-emergency number. Please provide the nearest address of the spill for location purposes, a brief description, and any contact information, if you would like staff to follow up with you.

As a reminder, please keep all yard and automotive chemicals, paints, dirt, and debris off your driveway and out of the street to prevent pollution in our local streams, Lake Washington, and Puget Sound.

**Remember: Nothing but Rain down the Drain.**

### Dispose of Household Hazardous Waste When the Wastemobile Comes to Town

Do you have household hazardous waste that you want to get rid of? One option is to dispose of your materials when the Wastemobile comes to Bothell. The Wastemobile travels to many communities to provide household hazardous waste disposal services. More information about the schedule, what you can bring, what not to bring, and how to safely transport hazardous materials at [BothellCool.org](http://BothellCool.org).



## Bothell Fire and E.M.S. Provides HazMat Training

*Submitted by Lisa Phillips, Fire and E.M.S.*

During the Month of December, Bothell Fire and EMS provided hazardous materials operational training to Northshore and Shoreline Fire Departments. Bothell's hazmat team leader Lt. Jerry Hughes and FF/HazMat Technicians Jack Greaves and Anthony

Savino developed a realistic hydrogen sulfide suicide scenario utilizing five "victims" from the Northshore School District's Washington Network for Innovative Careers (WaNIC) program. The focus was on recognition of the problem, identification and containment of substance(s), hazmat incident command, decontamination of firefighters and civilians and lastly, transfer of victims to a Medic Unit. Nearly 100 firefighters and officers attended this 4-day course which received rave reviews from participants. Job well done, Lieutenant Hughes and Firefighters Greaves and Savino.



## Pavement Pro Ronnie Bennett Recognized for Expertise

*Submitted by Ken Garmann, Public Works*



Ronnie Bennett was recently elected to serve on the Board of Directors Northwest Pavement Management Association. As a valued City of Bothell employee, Ronnie has been the project engineer on city street rehabilitation and maintenance projects for the past six years. Ronnie has spent a considerable amount of time working with the City's pavement program, designing and implementing a broad range of products including hot mix asphalt crack sealing and roadway patching.

The Northwest Pavement Management Association fosters mutual and beneficial relationships among members as well as with allied agencies, institutions, organizations, and business firms; and promotes pavement management technology transfer, research, and education.

Congratulations to Ronnie on being elected to share your pavement expertise with this esteemed body of pavement professionals.

## More Staff Kudos!

*Janet Geer in Public Works asked for examples of staff going above and beyond and here are some of the responses. Thanks, Janet...great idea!*

"The first is **Don Ranger** and his outreach in regards to Horse Creek's potential day lighting project. He kept me and others informed and provided us with several opportunities to comment on the project. His level of engaging everyone was well received and appreciated. The second person is **Debbie Blessington**. On more than one occasion she has been instrumental in getting me information and assisting on potential violations to our surface water codes. She has always been prompt and helpful in her responses. One more, **Tim Loo** helped me on several maintenance issues, the most note worthy was his assistance in preparing the 228th St SE location for installation of the flow gage." ~*Andy Loch*

"**Janet [Geer]** is my nomination!! She consistently goes above and beyond what is required!!" ~*Kristin Terpstra*

## What Are Household Hazardous Materials?

*Submitted by the Safety Committee*

When most of us think of "hazardous materials," we picture trucks full of chemicals, factories, or dumps oozing slime. However, every home can be a warehouse of hazardous materials, containing items such as:



- Automotive fluids
- Barbecue products
- Batteries
- Health and beauty products
- Home maintenance products
- Household cleaners
- Laundry products
- Lawn and garden products
- Medicines and medical supplies
- Paints and thinner

In addition, asbestos or lead paint present in older homes, and mercury in compact fluorescent light bulbs (CFLs), may become exposed during or after a home fire.

### How Can I Make My Home Safer?

Home hazardous materials can pose serious fire, health, or environmental hazards. For these reasons, proper use, storage and disposal of hazardous materials at home is extremely important.

#### Use and Storage Tips

- Buy only the amount of product that you need to reduce the quantity of hazardous materials in storage.
- Familiarize yourself with each product, its location, and purpose.
- Follow use and storage instructions on the product's label. Mixing some products can create deadly poisonous fumes or cause fires.
- Store hazardous materials in their original containers. Changing containers is not only dangerous - it is illegal.
- Store flammable products - such as gasoline, kerosene, propane gas, and paint thinner - away from the home.
- Only fill portable gasoline containers outdoors in a well-ventilated area. Place the container on the ground to fill.
- Never store flammables in direct sunlight or near an open flame or heat source.
- Inspect storage areas regularly for leaky containers, poor ventilation, and the smell of fumes.
- Store hazardous materials out of the reach of children and pets.
- Use guardrails and safety locks on shelves and cabinets to prevent containers from tipping over or falling out, especially if you live in an earthquake-prone area.
- Wear suitable protective clothing including gloves and eyewear as recommended by the product manufacturer.

\*Information Courtesy of FEMA.



## Meet Gunnar Rybacki, Surface Water Inspector

Gunnar helps to protect our local streams by inspecting public and private storm water facilities to ensure they are maintained and functioning properly. These facilities include man-made ponds, vaults, pipes, catch basins, swales, and other storm water related structures. He often works directly with the public (HOA's, groups of individual homeowners, property managers, businesses, non-profit groups and outside agencies) to help them understand their maintenance role and bring their systems into compliance with current standards.

If you have any questions for Gunnar, feel free to email him at [gunnar.rybacki@ci.bothell.wa.us](mailto:gunnar.rybacki@ci.bothell.wa.us)

## Fire and E.M.S. Member of the First Quarter

*Submitted by Dan Johnson, Fire and E.M.S.*

Chaplain Bruce Ray was selected as the Fire and E.M.S. Department's Member of the First Quarter. The reasons cited for his nomination included:

- Chaplain Ray is always there when we need him. I have witnessed him at calls in the afternoon, evening and late at night. I have had interactions with him at the station during some of our rough times in the past. He is the example of being a servant to his fellow man and is an unsung hero in our department.
- Chaplain Ray consistently provides exceptional service to the public and Department members. We recently had several CPR calls with poor outcomes. Chaplain Ray has provided comfort and solace to the family. He has moved with the family from the scene to the station, hospital or secondary home to provide his services. His interaction with Fire and Police is always polite, helpful and vital to our organization's success.
- He takes the time to get to know the crews and the members of our department. This makes a big difference when we are on calls!
- Whether it is a citizen, a firefighter or a member of our family, Chaplain Ray is always willing to step in and to help. He is caring, thoughtful and considerate.



# Milestones April

**33 Years**

Clark Meek, Public Works

**26 Years**

Frank Havens, Police  
Todd Wilson, Fire and E.M.S.

**23 Years**

John Brand, Public Works

**20 Years**

Elmer Brown, Police

**16 Years**

Heather Craig, Police

**14 Years**

Julie Ewijk, Community Development  
JJ Gibbs, Police

**13 Years**

Bobby Buendia, Police  
Jon Caban, Police  
Tim Leith, Public Works

**11 Years**

Jeff Holbrook, Public Works  
Kirk Robinson, Fire and E.M.S.  
Joe Sherman, Executive

Matt Smith, Public Works

**7 Years**

Steve Kerzman, Police

**6 Years**

Christi Cox, Public Works  
Briana Kennedy, Finance  
Ted Stonebridge, Public Works  
Julie Welke, Public Works

**5 Years**

Jaclynn Brandenburg, Public Works  
Chris Hanna, Executive

**4 Years**

Josh Carruthers, Public Works  
Ethan Merritt, Public Works  
Aaron Pannkuk, Public Works  
Gunnar Rybacki, Public Works  
David Saarinen, Police  
Jerry Waters, Public Works  
Gretchen Zundel, Finance

**3 Years**

Clayton Campbell, Public Works

**2 Years**

Laural Cyrus, Public Works  
Joy Johnston, Executive

Please  
Welcome!



Tony Roepke  
Seasonal Maintenance  
Worker  
Public Works Department  
Began March 15



## Meet the Newest Member of our Surface Water Team

*Submitted by Janet Geer, Public Works*

Tony Benson is the new Local Source Control Specialist in the Public Works Department. His position is funded by a grant from the Department of Ecology and brings Bothell into the Local Source Control Partnership consisting of 25 regional jurisdictions.

Tony will be conducting at least 200 Local Source Control technical assistance visits to small quantity hazardous waste generators in Bothell. The goal of the Local Source Control Specialist position is to make every effort to assist these businesses in identifying options for reduction, reuse, proper disposal, and in some cases elimination of the contaminant from the business. This helps to ensure that businesses have the proper materials, contacts, and procedures to conduct their daily business and respond correctly during a spill. These businesses have the opportunity to contribute to improved water quality through proper waste management practices, spill preparedness, and awareness of daily practices and their potential impacts to storm water.

If you have any questions for Tony, feel free to email or approach him about this new and exciting position here at Bothell: [tony.benson@ci.bothell.wa.us](mailto:tony.benson@ci.bothell.wa.us)

## Meet Andy Loch, Surface Water Program Coordinator

*Submitted by Janet Geer, Public Works*



Andy has worked in the City for six years, and has almost 30 years experience as an Aquatic Ecologist in Washington State. He helps to protect our local streams by monitoring our natural systems and leading our state-required efforts for bacterial control and annual reporting. Andy also helps to investigate unidentified contaminants within our natural stream systems. Recently, he has secured grant funding to investigate the feasibility of restoring a relic side channel along the Sammamish River.

His passion is for streams and monitoring their health. Read his latest report on the health of Bothell's streams at [www.ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement/NPDESdocumentation.ashx?p=1652](http://www.ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement/NPDESdocumentation.ashx?p=1652)

When he is not at work, Andy enjoys time in the mountains locally and globally, visiting the rugged landscapes of China.

## Power Tools & Safety

*Submitted by the Safety Committee*

"Although most power tools are not complicated to operate, basic safety practices must be followed, and the tools must be kept in proper operating condition, whether they are in the hands of a professional tradesman or a beginning do-it-yourselfer. The demands of safety apply to all." — The Power Tool Institute

Please take the time to read instructions, familiarize yourself with any equipment, wear appropriate safety clothing, and get the job done without causing harm to yourself or others around you. For more information, please see the Power Tool Institute's website at [http://www.powertoolinstitute.com/pti\\_pages/safety.asp](http://www.powertoolinstitute.com/pti_pages/safety.asp)

For a quick reference on general safety around power tools, please see the last page of the Post.

## Meet Kristin Terpstra- Environmental Engineer

*Submitted by Janet Geer, Public Works*

Kristin came to Bothell three years ago with a background in land development, emphasizing stormwater site design. She puts her design experience to use providing technical assistance to citizens with drainage complaints, and supporting the Bothell Surface Water Design Manual. The largest piece of her job is to coordinate the Illicit Discharge Detection and Elimination program. The primary function of this program is to provide support and report spills to our stormwater drainage system. Kristin also coordinates the storm utility billing, and currently works with GIS and PW staff to verify and improve storm utility data in our GIS system.

In her spare time, Kristin volunteers with various organizations whose sole purpose is to directly help people. Examples include the King & Snohomish County's search and rescue teams and National Animal Assisted Crisis Response.

If you have any questions for Kristin, feel free to email her at [kristin.terpstra@ci.bothell.wa.us](mailto:kristin.terpstra@ci.bothell.wa.us)



## Document Destruction Event

*Submitted by Laura Veith, RIMC*



On Saturday, June 2, the Records and Information Management Committee (RIMC) hosted their 11<sup>th</sup> Document Destruction Event! This event has occurred every spring and fall since 2007 and has attracted a positive response and strong turnout from the community. Typically, 200-300 citizens bring their confidential records for on-site destruction. This time, almost 250 people attended the event, destroying approximately 8 tons of sensitive documents. These will all be recycled into items such as phone books and apple crates.

The event was held at the new location of the Public Works Operations Center. Response to this change was favorable and also attracted many new citizens who had not attended the event in the past.

Special thanks to RIMC members JoAnne Trudel, City Clerk; Kay Grimes, Public Works; Pam Johnson, Community Development; Mary Jo Keil, Fire & EMS; and Chris Hanna in Court for working at the event. Also thanks to Police Officer Sean Ungvarsky, who was there to answer questions about identity theft.

If you missed out on this great service, you can still attend the Document Destruction Event in the fall. So save up your sensitive records over the summer and mark your calendars to bring them in (up to two boxes or three grocery bags) on Saturday, September 15, 9 a.m. to 1:30 p.m., at PWOC. Electronic media, household batteries, and nonperishable food items for HopeLink will also be collected.



**RIM Rocks!**

**The Cool Side of Records Management!**

## Meet Janet Geer, Surface Water Program Coordinator

Submitted by Sabrina Combs, Public Works

Janet started working for the City of Bothell as an intern from UW Bothell over four years ago and successfully moved into a position as a Surface Water Program Coordinator. In this position, she leads our State-required efforts for education and outreach, as well as public participation and involvement. This includes working both locally and regionally to effectively change individual behaviors.



Regionally, Janet sits on both the Stormwater Outreach for Regional Municipalities (STORM) and Puget Sound Starts Here Steering Committees consisting of 81+ jurisdictions, the Department of Ecology, and the Puget Sound Partnership. These allow her to help shape regional messaging (TV, radio, social media, etc.) to ensure it is applicable and will resonate with our community.

Locally, she works to protect and improve our local water quality by providing education and outreach to local residents, youth, businesses, staff, and the general public. She also conducts regular volunteer projects and opportunities to improve riparian health and engage the general public in restoration. In short, she helps people understand what they can do in their daily lives to reduce stormwater pollution and protect and improve our natural systems.

In Janet's spare time she likes to support our nation and her husband, a National Guard veteran of the Iraq war, and raise their two children, Landon and Savannah. As a family, they enjoy working in their established community garden, supporting local businesses, and working on a cookbook related to eating weeds.

If you have any questions for Janet, feel free to email her at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)

## Stepping Out - or rather, Off

Submitted by Henry Simon, Police

Did you know that if I were to fall off of the roof of **1000 Second Avenue in Seattle** that I would hit the ground in 5.52 seconds, traveling at 121.024 MPH? Why would this happen you ask? Well, I am "Stepping Over the Edge" for Special Olympics this Saturday at 11 a.m. That is 43 floors for 490 feet! Since the Chief was brave enough to Polar Plunge, I decided this would be my turn. Spectators are welcome.

If you are able to help me reach my fund-raising goal, please click on the Washington State Special Olympics site:

<https://www.kintera.org/faf/donorReg/donorPledge.asp?ievent=1017570&supId=361399033>

These are great athletes and they deserve our support as much as the athletes competing in London! Please join in supporting the cause.

THANK YOU!



## Have you been hurt on the job?

Submitted by Ann Miller, Human Resources and Safety Committee Member

As a Washington worker, you are entitled to treatment from a qualified medical provider of your choice and other benefits if you are injured on the job. Under state law, you have a duty to immediately report your accident to your employer. Report your injury within 24 hours.



Report on-the-job injuries/disease to:

- Your immediate supervisor
- Human Resources at (425) 489-3437

The City is insured by the Washington State Department of Labor & Industries (L&I), Account Number 000, 607-002. For more information go to Workers Compensation Benefits: A Guide for Injured Workers

## Preparing for Fall: Tips for Your Home and Garden

Submitted by Janet Geer, Surface Water Program Coordinator, Public Works

It's the time of year to begin making fall preparations. Doing a few simple things to your yard, home, and vehicle will not only help with your long-term maintenance; it will also help keep our local streams clean! Here are a few tips for you to remember:

- **Fall is a great time for planting.** Planting in October or November allows time for root growth before it must begin putting out shoots in the spring. Sit down now and plan your garden for next year, then purchase your perennials now and plant them. By spring you will be glad you did!
- **Fall is the best time for a natural fertilizer application.** Top dress your lawn with  $\frac{1}{4}$  inch of compost this fall to encourage healthy growth. For gardens, top dressing with 2-4 inches will act as a weed barrier, will add moisture and protection, and will provide nutrients to encourage healthy growth. But be sure to keep the compost away from your plant stems so they don't rot or grow any fungus (from additional moisture).
- **Time to clean out any unused chemicals from your garage.** Fall and winter are flood season, so protect your family and property by properly disposing of unused hazardous chemicals. The waste mobile will be in Bothell on October 26-28, or you can take them to the drop stations listed here:  
<http://www.lhwmp.org/home/HHW/disposal-locations.aspx>  
[http://www1.co.snohomish.wa.us/Departments/Public\\_Works/Divisions/SolidWaste/Haz\\_Waste/Dropoffstation.htm](http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SolidWaste/Haz_Waste/Dropoffstation.htm)
- **Fall is a good time to get your vehicle checked.** Regular maintenance can add years to the life of your vehicle while ensuring you are getting the best gas mileage possible. It also helps to keep fluids from leaking from your vehicle and onto roadways, which eventually wash down a catch basin and into a stream. Save time, money and capture some peace of mind by making sure your vehicle is ready for the winter.



## Rain Gardens: Helping Stormwater One Garden at a Time

*Submitted by Janet Geer, Public Works*

Capturing stormwater onsite with a rain garden is one way to help reduce stormwater pollution, improve yard aesthetics, and help curb rising costs for increased stormwater infrastructure.

### Can rain gardens work regardless of soil conditions?

A five-year study by the U.S. Geological Survey's Wisconsin Water Science Center has confirmed that even simple, residential-style rain gardens can capture nearly 100 percent of stormwater runoff from the roof of an adjacent building. Check out their methods and conclusions:

[http://www.sustainablecitynetwork.com/topic\\_channels/water/article\\_b65fe518-3de0-11e0-82aa-00127992bc8b.html](http://www.sustainablecitynetwork.com/topic_channels/water/article_b65fe518-3de0-11e0-82aa-00127992bc8b.html)

### Want to build a rain garden in your yard?

This handbook gives great ideas on how to build rain gardens, what plant types to put in them, and what benefits they have for the community and the environment:

[http://county.wsu.edu/mason/nrs/water/Documents/Raingarden\\_handbook.pdf](http://county.wsu.edu/mason/nrs/water/Documents/Raingarden_handbook.pdf)

### Need more information and have time to watch a video?

This video is long but very informative with resident interviews and proper location, size, and soil type information for a successful rain garden: <http://www.youtube.com/watch?v=PK6tQgkuZZM>

**Questions or comments on these resources?** Contact Janet Geer at [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)



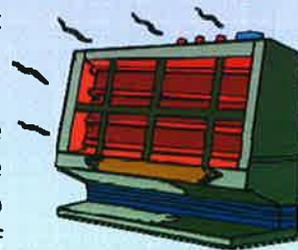
## Space Heaters

*Submitted by Clark Meek, Public Works*

It has come to the attention of the Facilities Division via Safety Committee inspections, that some of the portable heaters located under employee's desks may not have an "auto shut-down" feature should the unit tip over.

Please check whether your unit comes with this feature. If you need assistance determining whether your unit has auto shut-down, please contact Facilities for help. If your unit does not have an auto shut-down feature, you will need to replace it, within 30 days, with a unit that has this function.

**Note:** Due to power usage and safety issues, Facilities and the Safety Committee discourage the use of any personal appliances in work spaces (including space heaters, personal coffee makers, etc.). You must receive supervisor approval prior to installing any personal devices in your work space and as always, please be mindful of the safety of yourself and your fellow employees.



# Milestones – November

Information provided by Human Resources

## 19 Years

John Valentino, Police

## 18 Years

Mike Johnson, Police

## 16 Years

Nik Stroup, Public Works

## 15 Years

Dan Christman, Police

## 14 Years

Dione Thompson, Police

## 13 Years

Barry Tookey, Executive

## 12 Years

Heidi Holte, Fire and E.M.S.

## 11 Years

Brian Jackson, Fire and E.M.S.

Jeremy Wilson, Police

Lee Fowble, Fire and E.M.S.

## 7 Years

Ryan Mumma, Community Development

## 2 Years

Chris Behrens, Public Works

## 1 Year

Erik Martin, Police

Marcus Stankey, Public Works

# New Hire – Welcome!

TJ Hough, Court Administrator (photo not yet available), began on October 22

## Kudos *Submitted by Janet Geer, Surface Water Management*

The Surface Water Group would like to thank our Fire Department C shift staff and Community Development staff for contacting us concerning two water quality incidents that allowed us to minimize the damage to our local streams.

Debbie Blessington, Code Enforcement Officer, forwarded her response from Battalion Chief Krempfle to report a water quality issue stemming from a garbage fire, which occurred on Thursday, September 27 in the Green Acres Mobile Home Park. Staff was able to meet with the owner on site and instruct him on the best way to manage the damage.

Fire Lieutenant Adam Lamb contacted us to report a diesel spill on Tuesday, October 2. As a result of his prompt contact, we were able to meet with the owners onsite, inspect the system, and provide them with the proper best management practices to absorb and remove the contaminants.



## Seattle Promotes Rainwater Harvesting for Beneficial Use

*Submitted by Janet Geer, Public Works*

Wondering what the deal is with collecting rainwater? Read how Seattle is working to promote the capture and storage of rainwater for use in an urban/suburban setting: <http://www.seattle.gov/dpd/news/20080401a.asp>

Lynne Barker, City of Seattle Sustainable Communities Planner for City Green Building, explains, "Rainwater harvesting is the capture and storage of rainwater for beneficial use. Rainwater is considered the cleanest form of harvested water and can be used for toilet flushing, hose bibs, industrial applications, domestic clothes washing, irrigation, water features and other approved usages."

Rainwater harvesting can be an important green building strategy and can contribute toward credits in both the LEED™ standard and Built Green™ program. For example, rainwater harvesting can help a project achieve stormwater quality, water efficient landscaping, innovative wastewater technologies, water use reduction, and innovation in design credits in the LEED standard. For more information visit the LEED website, [www.usgbc.org](http://www.usgbc.org), and the Built Green website, [www.builtgreen.net](http://www.builtgreen.net).

Rainwater harvesting provides many benefits. It can generate savings by reducing utility fees charged for potable water use and sanitary sewer use. It protects our local water bodies such as local streams, Lake Washington, and the Puget Sound by reducing stormwater impacts during peak storm events. And, rainwater harvesting conserves water by reducing demand for potable water that is used for non-potable purposes."

Questions about rainwater re-use? Contact Janet at x4416.

## Wastemobile 2013 Dates

*Submitted by Sabrina Combs, Public Works*

It's time to mark your calendars for the 2013 Wastemobile events. The first event is March 1-March 3, which is perfect because that gives you time to put away all your holiday stuff and pull out all the material you can dispose of for free at the Wastemobile events in 2013.



The event dates are:

March 1-3  
May 10-12  
June 23-30  
August 2-4  
September 20-22  
October 25-27.

All events will take place from 10 a.m. to 5 p.m. at the Seattle Times Building, 19200 120th Ave. NE in Bothell. Go to <http://tinyurl.com/7lbklsz> for a list of accepted items. If you have questions about an item, please call 206.296.4692.

### Public Works:

- Capital Improvement Projects
- Recycling & Other Services
- Street Maintenance
- Surface Water Management
  - Contractor Developer
  - BMPs
  - Drain Rangers
  - Events
  - Monitoring Program
  - NPDES Documentation
  - Spills and Prevention
  - Stormwater
  - Inspections
  - West Nile Virus
  - What You Can Do
- Transportation
- Water/Sewer Service
- Contact Public Works
- Bothell Standards

## Surface Water Management

Surface Water Management staff work to protect and restore the physical, chemical and biotic integrity of surface water through the promotion of ecologically sound land use practices, reduction and elimination of storm water impacts, the assurance of a high performance level from current and future storm water control systems, and education and outreach opportunities to foster healthy watershed stewardship.



Photo of City Storm Drain

**To Report Illicit Discharges or Spills: If the spill is a direct hazard to human or environmental health, dial 911.** Otherwise, contact the Public Works Department at 425.806.6750 (during the day you will be routed to our Surface Water Division and after hours you will be transferred to the Police Department non-emergency number) or via our [online form](#). Thank you for being a part of our efforts to protect our ground and surface water.

Click [here](#) to view the Construction Design Standards for Stormwater

### Volunteers Needed for Environmental Project

The City, in partnership with King Conservation District, is seeking volunteers to help improve the embankments of Parr Creek in the North Creek area of Bothell.

### Surface Water Management Plan

Read about what the City is doing to help protect and restore our water quality.

## Surface Water Mgmt. Plan Citizen Input

Please take a moment to share your input

### Bothell Resident?

yes  
 no

Name:

Email:

What type of non-point source pollution do you feel is the biggest problem for the City of Bothell?

Where would you like to see our efforts focused over the next four years?

What would you think is the best way of reaching out to the general public?

How would you like to be involved in this



Home / City Services / Public Works / Surface Water Management / What You Can Do

### Public Works:

- [Contractor Developer BMPs](#)
- [Drain Rangers Events](#)
- [Monitoring Program](#)
- [NPDES Documentation](#)
- [Spills and Prevention](#)
- [Stormwater Inspections](#)
- [West Nile Virus](#)
- [What You Can Do](#)

## What You Can Do

You have the power to make a difference! By making small changes in your daily habits you can have a big impact on the health of your pets, children and environment. Here are ten ways you can help:

- Properly service and maintain your vehicle and when possible, drive less
- Properly use, store and dispose of hazardous household materials
- Reduce impervious surfaces on your property
- Scoop your pet waste, bag it, and place it in the trash
- Use a commercial car wash
- Use professional carpet cleaning, maintenance, and pressure washing services that don't dump their wash water into our storm drains
- Practice natural yard and lawn care
- Plant trees
- Properly service and maintain your septic system and drain field
- Use little to no synthetic fertilizers or pesticides

### Documents

- [Waterless Car Wash Product Comparison](#)
- [Natural Homemade Pesticides](#)
- [Rain Garden Handbook](#)
- [Yard Care in Five Easy Steps](#)

### FAQs

- View all
- [What is a rain garden?](#)
- [How do I build a rain garden?](#)
- [What is natural yard care?](#)
- [How do I practice natural yard care?](#)
- [Why use a public car wash?](#)
- [What can I do to keep my car wash fund raising event from polluting our water?](#)
- [Why should I scoop my pet waste?](#)
- [What is LID?](#)
- [Why should I maintain my vehicle?](#)
- [How do I properly dispose of hazardous materials?](#)
- [How do I dispose of my electronics?](#)



Downtown Revitalization | Businesses | Visitors | City Services | Annexation | Map & Directions | Jobs | Contact Info

## City Services

Home / City Services / Public Works / Surface Water Management / What You Can Do / Natural Yard Care

### Public Works:

- Adopt A Drain**
- Don't Feed the Birds**
- Natural Yard Care**
- Pet Waste**
- Rain Gardens**
- Septic Systems**
- Vehicle Leaks**

## Natural Yard Care

### It Feels so Good to go Natural!

Our yards are our outdoor homes: fun, beautiful, great spaces for relaxing. But in taking care of them, we often use water inefficiently, produce a lot of yard waste, and overuse chemicals that are bad for our families' health and our environment. The good news is that we can save money, time, and protect our health by making small changes in the way we care for our yards and lawns.

In our [natural yard care series](#) you will learn how to build healthy soil, plant right for your site, practice smart watering, eliminate the use of harmful pesticides, and practice natural lawn care. Starting this year, we will also have a **NEW** speaker show you how to create a beautiful edible garden! Space is limited, so contact [Janet Geer](#) to sign up today!

### Eat Your Weeds

Tired of those weeds taking over your lawn? Well if you can't beat 'em-eat 'em! Most of the troublesome weeds in your yard are edible and provide some terrific nutrients for your family.

**Did You Know?**- Dandelions have a vitamin A content higher than carrots and contain the best known source of lecithin which may reduce the risk of Alzheimers and helps support liver function.

### Eat Your Weeds Recipes



Great recipes for eating the unwanted guests in your lawn and garden



Photo from 2011 workshop

Photo of Eat Your Weeds Sweetie



Search Bothell's website:



- Public Works:**
- Adopt A Drain**
- Don't Feed the Birds**
- Natural Yard Care**
- Pet Waste**
- Rain Gardens**
- Septic Systems**
- Vehicle Leaks**

### Septic Systems

Backed up sewage or flooded drain fields are not only a smelly, messy nuisance, but they can spread diseases and contaminate our local rivers, lakes, and streams. Proper attention to the care and maintenance of your septic system can prevent problems and save the cost of repair and early replacement.

#### SEPTIC QUESTIONS: Be entered to win a FREE Septic Inspection

- I currently (check all boxes that apply):*
- Schedule regular maintenance
  - Keep bacteria working
  - Reduce sludge and scum buildup
  - Keep non-degradable materials out
  - Avoid unnecessary additives
  - Protect my septic system drainfield
  - Reduce wastewater volume
  - Heed early warning signs
  - Keep accurate records
  - Minimize runoff near septic tank and drainfield
- Please provide us with your name and address

### Tips for Proper Care and Maintenance

- View all
- Schedule Regular Maintenance**
- Keep Bacteria Working**
- Reduce Sludge and Scum Buildup**
- Avoid Non-degradable Materials Out**
- Protect Your Septic Drain field**
- Reduce Waste Water Volume**
- Heed Early Warning Signs**
- Keep Accurate Records**
- Minimize Runoff near Septic Tank and Drain Field**





**Public Works:**

- Adopt A Drain
- Don't Feed the Birds
- Natural Yard Care
- Pet Waste
- Rain Gardens
- Septic Systems
- Vehicle Leaks



\*photo of artist in Dog Doogity video

**Pet Waste**

**Dog Doogity**

Bothell is part of the Puget Sound Starts Here campaign to raise awareness about daily habits that pollute our local and regional waters. Our latest outreach effort is a great video about pet waste and Puget Sound

**Pet Waste Community Box Request**

Name

Address

How many boxes are you requesting?

Is pet waste a problem in your neighborhood?

Would you like to help with outreach?

Is there anything else you would like to tell us?

**Documents**

- Fecal Coliform DNA in North Creek
- Percentage of Fecal Coliform DNA Sources
- Ecology Pet Waste Poster
- Puget Sound Partnership Pet Waste Poster

**Sabrina Lovick Combs** likes **BothellCool's** link: 'CHRISTMAS CODE: DONATE The holidays are...'

**New Likes**

- Jessica Saavedra** last Thursday
- Gretchen Jurena Cloninger** about a week ago
- Tarah Wagner Wendel** about a month ago
- Gregory Michael Knapp** about a month ago

**Insights** | Talking about This | Reach

**Page Tips** | See All

**Ads Manager**

Now November 2012 | Joined Facebook



**BothellCool**

188 likes · 5 talking about this · 5 here here

**Like** | **Comment** | **Get More Likes**

**See Your Ad Here**

**CHRISTMAS CODE: DONATE** Check the storm drains near your home to be sure they are clear of debris and flowing properly: h...

Search Bothell's website

- Downtown Revitalization
- Businesses
- Visitors
- City Services
- Annexation
- Map & Directions
- Jobs
- Contact Info



A great place to call home.

**25 Days of a Bothell Christmas**

[Visit City Council Page](#)  
[Contact Council here...](#)



**Park at Bothell Landing Improvements Need Funding By Council Member Andy Rheume**

The Bothell City Council will soon adopt a budget that lays the blueprint for what

**2013 - 2014 City of Bothell Adopted Biennial Budget**

**Crossroads (SR 522 Re-alignment) TRAFFIC ALERT FOR 12/10-12/14: Daytime lane closures and nighttime closures of SR 522**  
[Read more: Updates](#)

**Latest News**  
 SR 522 Partial and Full Closures 12/17 - 12/21  
 December 15, 2013  
 SR 522 Partial and Full Closures 12/10 -



Check here for current and upcoming road closures...

**City of Bothell Regular Operating Hours:**  
 Monday - Friday 8 am to 5 pm

**Dawson Permit Counter Hours:**  
 Monday - Friday 9 am to 4 pm  
[Applications and Forms](#)

**Sign up to get Bothell E-News!**









Bothell City Council  
**AGENDA BILL SUMMARY**

Meeting Date: June 12, 2012

AB #10-

Action Item:                      Study Session Item: X      Special Presentation:

Subject: Study Session Item to provide a progress report on the City's National Pollutant Discharge Elimination System (NPDES) permit

Budget Impact and Source of Funds: N/A

Contact Person/Department: Don Fiene, Public Works Department Utility Manager

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**EXECUTIVE SUMMARY:**

The Surface Water Management Team, under the Utility Manager, is tasked with administering new programs, reviewing/modifying existing programs, and reporting progress for the NPDES permit, along with other stormwater related duties. This session will provide an opportunity to review past, current, and future efforts to establish, maintain, and encourage compliance with the permit.

The Utility Manager will detail requirements of the permit by section and provide an update on City progress for each major section.

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**COUNCIL PROCESS: Special Presentation**

- Presentation to Council by Don Fiene, Public Works Utility Manager

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**HISTORY:**

- January 2007, the City was issued a Phase II Western Washington Municipal Stormwater General Permit by the Department of Ecology (DOE)
- January 2009, DOE modified the permit to reflect court rulings
- January 2012, DOE issued an extension of the current permit to cover until the same permit can be issued July 2012- July 2013 to allow jurisdictions another year under the current regulations

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**RECOMMENDED ACTION:**

No action is requested for this item

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**ATTACHMENTS:**

1. NPDES Phase II permit language
2. Surface Water Management Plan for 2012
3. Stormwater Annual Report for 2011

Bothell City Council  
AGENDA STAFF REPORT

Subject: Study Session Regarding National Pollutant Discharge Elimination System (NPDES) Permit Program Update

Meeting Date: September 11, 2012

Staff Contact: Don Fiene, P.E., Public Works Department Utility Manager  
Janet Geer, Public Works Surface Water Program Coordinator

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When precipitation (stormwater) falls on most impervious surfaces (roads, driveways, roofs, sidewalks, etc.) and managed lands (farm lands) it picks up pollutants (petroleum hydrocarbons, heavy metals, oils, grease, excessive nutrients, pesticides, chemical compounds, etc.) and deposits them into the nearest lake, stream, or wetland without treatment.

Because this pollution is caused by each one of us in our daily activities it is called non-point source pollution. Stormwater is the largest contributor of pollution to our national and local systems and is listed as the major reason why Puget Sound is in trouble.

The Environmental <sup>Protection</sup> Pollution Agency put out national requirements to reduce non-point source pollution in stormwater called the National Pollutant Discharge Elimination System (NPDES). Requirements for the NPDES were passed to state agencies for adoption and enforcement.

The Washington State Department of Ecology issued a stormwater permit to every local jurisdiction, major industry, and entity over a certain size that has stormwater pipes directly discharging into local streams. This permit has requirements that must be met in order to reduce the amount of pollution entering streams. There are three types of permits issued: Phase I permits, Phase II permits, and Secondary permits.

- Government jurisdictions over 100,000 people trigger a **Phase I permit** and have the strictest requirements. Examples of Phase I's are Counties (King County, Snohomish County, etc.) and large jurisdictions (Seattle, etc.)
- Government jurisdictions under 100,000 people with regulated stormwater systems trigger a **Phase II permit**. Examples include Bothell, Kirkland, Woodinville, Redmond, Bellevue, etc.
- Large industry or large entities with stormwater systems, trigger a **Secondary permit**. Examples include UW campuses, Boeing, etc.

The stormwater permit has five major sections:

Each of the City's surface water group handle different aspects of the permit (along with other duties), but there is overlap between the major sections:

- **Public Education and Outreach**- required to provide education and outreach opportunities for different targeted groups (residents, businesses, industries, elected officials, policy makers, planning staff, and other employees of the permittee) with incentives for people to change

Agenda Staff Report

Subject: Study Session Regarding National Pollutant Discharge Elimination System (NPDES) Permit Program Update

Meeting Date: September 11, 2012

Staff Contact: Don Fiene, P.E., Public Works Department Utility Manager  
Janet Geer, Public Works Surface Water Program Coordinator

their behaviors. The City is required to address 14 different specific sources of pollution. Some of this pollution includes pet waste, car washing, vehicle leaks, pesticide and fertilizer application, etc.

- **Public Involvement and Participation-** required to educate people regarding the City's progress on the permit and attempt to receive comments from the public through a variety of outreach mechanisms and media outlets.
- **Illicit Discharge Detection and Elimination-IDDE-**required to seek out sources of pollution in stormwater and eliminate them.
- **Controlling Runoff from New Development, Redevelopment, and Construction Sites-**required to reduce and eliminate sources of pollution from business, development, and maintenance.
- **Pollution Prevention and Operation and Maintenance for Municipal Operations-**required to analyze all operations and maintenance for the City and try to reduce as much pollution from these activities as possible.

#### **Monitoring**

The city is required to conduct water sampling in order to determine the current state of the City's streams and monitor trends over time. An overabundance of fecal matter being present in our streams is another potential health risk. For this reason, we are required to monitor our fecal counts on a monthly basis and conduct different outreach and awareness activities to try and reduce these sources.

## Appendix B

Apr 20, 2012 (9)

...going green

**\$5 off any purchase \$25 or more**  
**\$10 off any purchase \$50 or more**

Visit us today for more information and to reserve your spot!

**ECO Cartridge Store**

**Come 'Get your Goat On' at Sustainamania**

It's time to get your goat on! The City of Bothell is proud to announce the return of Sustainamania, a fun and educational event for the whole family. This year's event will be held on Saturday, May 19th from 9am to 3pm at the Bothell Community Center. The event is free and open to all ages. Sustainamania is a great opportunity for families to learn about sustainable living and to have fun at the same time. The event will feature a variety of activities, including a scavenger hunt, a recycling station, and a composting demonstration. There will also be a raffle and a chance to win a goat. Sustainamania is a great way to spend a day with your family and to learn about sustainable living. For more information, visit [www.sustainamania.org](http://www.sustainamania.org).

**Protect Our Streams**

**THIS DRAINS HERE**

**Puget Sound Starts Here Big**

**BothellCOOL MAY EVENTS**

**Sustainamania**  
 Saturday, May 19th from 9am - 3pm

FREE event for all ages. Come learn about living more sustainably in your community. 100+ raffle prizes will be given away to the first 100 people at the event (one per family).

More details at [sustainamania.org](http://sustainamania.org)

**Upcoming Wastemobile Dates:**  
 May 11-13 and June 22-24 from 10am - 4pm  
 Electronic items will also be accepted on July 27-29, Aug 31, Sept 2, and Oct 26-28

The events are at the **Seattle Times Building** (19200 - 120th Ave NE, Bothell)

Visit [bothellcool.org](http://bothellcool.org), email [Recycled@bothellbothell.com](mailto:Recycled@bothellbothell.com), or call 935-4863-768 for more details.

Remember, Waste Management has curbside used motor oil and electronics collection, visit [www.waste.com/bothell](http://www.waste.com/bothell) for more info.

**Puget Sound Starts Here**  
 announce a night at the Mariners game Mariners vs. Minnesota Twins on Saturday, May 5th at 6:10pm. For discount tickets go to [www.mariners.com/pugetfound](http://www.mariners.com/pugetfound).

**Event Volunteers Wanted**  
 for Spring and Summer Events. If you are interested, go to [bothellcool.org](http://bothellcool.org) and click on "Volunteers".

**This information is provided from the City of Bothell and funding is provided in part by grants from the King County Solid Waste Division, the Local Hazardous Waste Management Program in King County.**

May 4, 2012 (3)

www.bothell-reporter.com - www.bothell-reporter.com

# UW-Bothell, city of Bothell to benefit from stimulus plan

The federal budget stimulus plan is a lifeline for the city of Bothell and the University of Washington-Bothell campus. The stimulus plan provides funding for a variety of projects, including the construction of a new library building, the renovation of the city's water treatment plant, and the purchase of a new fire truck. The stimulus plan also provides funding for the construction of a new parking garage for the city and the renovation of the city's water treatment plant. The stimulus plan also provides funding for the construction of a new parking garage for the city and the renovation of the city's water treatment plant.

**Sustainamania**  
 A fun filled FREE event for people of all ages.  
 Come learn about how you can be more sustainably everyday.

**Brought to you by**

City of Bothell, City of Woodinville, and grants from King County Solid Waste Division, Local Hazardous Waste Management Program and WA Department of Ecology Coordinated Prevention Grants

**Thank You Sponsors!**

**Chinook Book**

**In Harmony**

**WWM**

**Acacia Memorial Park & Funeral Home**  
 14951 Bothell Way NE  
 Seattle, WA 98155  
 206-362-5525

**Memorial Day Service**  
 Monday, May 28, 2012 11:00 AM

**Puget Sound Starts Here**

**THIS DRAINS HERE**





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BELLEVUE BOTHELL KENMORE KIRKLAND REDMOND SHORELINE

**Stormwater Runoff:  
Awareness, Attitudes and Behavior**

April 2012

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***ELWAY RESEARCH, INC.***



## **Stormwater Runoff: Awareness, Attitudes and Behavior**

April 2012

### **INTRODUCTION**

This report summarizes the results of a telephone survey, conducted on behalf of the cities of Bellevue, Bothell, Kenmore, Kirkland, Redmond and Shoreline, to assess resident awareness, attitudes and behavior relative to stormwater runoff. The survey was designed to allow the cities to compare current thinking and behavior to that measured in a baseline survey conducted in Bellevue, Redmond and Shoreline in 2005.

In total, some 2030 randomly-selected adult heads of household were interviewed by telephone between March 19-27, 2012. A separate sample was drawn for each of the six cities, so in essence, this project was six surveys utilizing the same questionnaire.

The survey was administered by Elway Research, Inc. The questionnaire was designed in collaboration with representatives of each of the participating cities. Survey respondents were asked about:

- Concern about water pollution and awareness of contributions to local water pollution – particularly stormwater runoff;
- Yard care practices;
- Vehicle maintenance;
- Pet waste;

Demographic information was also collected so as to compare and contrast answers. The demographic analysis is presented as bullet points on the graphs.

This report includes Key Findings, followed by graphs depicting the results to each question by city. The Key Findings and the demographic analysis are based on the combined sample of 2030. Thus, for example, differences noted between income categories refer to the income categories across all the cities. The combined analysis thus makes the tacit assumption that people in similar demographic categories would give similar answers regardless of which city they live in. The combined data were statistically weighted to bring each city's sample into proportion of the combined population of the six cities.

Individual sets of crosstabulation tables for each city have been provided under separate cover.

## RESPONDENT PROFILE

In interpreting these findings, it is important to keep in mind the characteristics of the people actually interviewed. This table presents a demographic profile of the 2030 respondents in the survey and the profile of the sample in each of the participating cities.

**Note:** Here and throughout this report, percentages may not add to 100%, due to rounding.

### Demographic Profile by City

	TOTAL N=2030	BELLVUE N=276	BOTHELL N=400	KENMORE N=275	KIRKLAND N=400	REDMOND N=275	SHORELINE N=408
<b>GENDER:</b>							
Male	48	50	46	45	49	47	50
Female	52	50	54	55	51	53	50
<b>AGE:</b>							
18-35	10	7	9	9	12	11	10
36-50	27	26	26	28	23	35	25
51-64	38	41	39	38	40	32	39
65+	25	26	26	26	25	23	26
<b>YRS IN CITY</b>							
3 or less	8	6	9	8	12	4	5
4-9 yrs	15	11	15	19	13	18	15
10-20 yrs	30	33	31	30	25	32	31
20+	47	50	46	42	50	45	48
<b>HOME</b>							
Own	87	88	86	86	86	90	87
Rent:	13	12	14	14	14	10	13
<b>EDUCATION</b>							
High School	10	6	13	8	11	7	13
Some College	26	16	29	28	25	24	29
College Degree	40	47	39	40	36	42	37
Post Grad	24	30	20	23	27	25	21
<b>INCOME:</b>							
\$50,000 or less	16	10	20	19	13	13	21
\$50 to \$75,000	16	15	18	17	17	11	19
\$75 to \$100,000	17	15	16	13	17	19	18
\$100 to \$125,000	12	16	10	12	13	14	9
Over \$125,000	16	22	15	14	18	18	11
No Answer	23	22	22	25	24	24	22



## YARD CARE

- ◆ **3 in 4 who have yard or garden maintain it themselves**
- ◆ **Low use of toxic products reported**
  - Half said they look for the least toxic products when shopping
  - 2 in 3 report using organic fertilizer
  - 2 in 3 never use pesticides (only 3% use them regularly)
  - Half never use weed killer (only 5% use it regularly)

## PET WASTE

- ◆ **More than 1 in 3 (37%) of households in survey had a dog**
- ◆ **Most pick up waste regularly**
  - 8 in 10 always pick up on walks
  - 3 in 4 pick up at least weekly in yards (44% daily)
- ◆ **3 in 4 who pick up waste deposit it in trash**

## VEHICLE MAINTENANCE

- ◆ **95% of respondents owned at least one vehicle**
- ◆ **Half wash cars at home, 1 in 5 at least every other month**
  - Half of home car washers wash on paved area that runs to drain
- ◆ **About 1 in 6 change oil at home**
  - About 1 in 10 of those dispose of used oil improperly
- ◆ **Most (6 in 10) said they “always” check for leaks**
  - 3 in 4 would use absorbent material or pad to soak up leak
  - 9 in 10 said they would get a leak checked “immediately” if they noticed one
  - Expense was the largest barrier to acting immediately
- ◆ **Various incentives to fix leak immediately moderately effective**
  - Extending the life of the vehicle rated “very effective” by 62%
  - Knowing how to fix the leak themselves rated very effective by 55%
  - Knowing of damage to Puget Sound rated very effective by 46%

# SUMMARY

This section presents a summary analysis of the combined findings. That is, the data from the six city samples are combined into a single dataset. The data were statistically weighted by city to bring each city's sample into its proportion of the combined population six participating cities.

## AWARENESS

### **21% named water pollution or runoff as the most important environmental issue facing their city**

- Water pollution was the most-mentioned issue in this open-ended question.
- There were no significant differences between demographic categories.

### **38% were aware of water pollution problems in local waterways**

- Those who said runoff was a significant polluter were twice as likely as those who did not to say they were aware of local water pollution (47% vs. 22%).
- Women were slightly more aware than men (41% vs. 35%).
- Awareness generally went up with education (27% of those with high school educations; 42% of those with graduate school).
- Homeowners were more aware than renters (40% vs. 28%).
- Awareness generally went up with income (33% of those under \$50,000 vs. 44% of those over \$100,000).

### **37% believed that their actions had a significant impact on the health of local waters**

- Those who perceived local water pollution were more likely to say they had a significant impact on it than those unaware of pollution (43% vs. 34%)
- Those who thought runoff was a significant polluter were more than twice as likely as those who did not think so to believe they have a significant impact on local water quality (46% vs. 20%)
- Women were more likely to say "significant" than men (43% vs. 31%).
- Those with post graduate educations were somewhat more likely than those with less formal education (43% vs. 36%).
- Belief in significant personal impact went up with income (from 34% under \$75,000 to 42% over \$100,000).

- Those who said that runoff is generally harmful were much more likely than those who did not believe so to say each source does significant harm.
- Women were more likely than men to rate it as significant.
- The youngest respondents (under 35) were more likely than the oldest (over 65) to rate it as significant – although there was not a straight line relationship between rated significant and age. And power washing runoff was the exception.

## **YARD CARE**

Most respondents were aware of the adverse environmental effects of yard chemicals – they were the top-rated source of water pollution in this survey. Although very few used weed killers and pesticides regularly, significant proportions of yard owners some times used these products.

### **73% of those who had a yard said they maintained it (at least partially) themselves.**

- Yard owners were no more or less likely to rate pesticides and fertilizer as a significant source of water pollution than were non yard owners.

#### **Those who maintained their own yard at least partially:**

- Were more likely than those who hired it done to use weed killer - 52% vs. 37% (although 11% of those who hired did not know);
- Were more likely to use organic fertilizer - 70% vs. 53% (although 17% of those who hired did not know);
- There was no significant difference in the use of pesticides between those who maintained their own yard and those who hired it done.

### **34% cleaned hard surfaces (driveways, decks, patios) with hose, power washer or cleaning fluid at least some time.**

## **PET WASTE**

Picking up pet waste was generally seen as the right thing to do. It is not particularly related to perceptions of water pollution. Pet waste was rated near the bottom of neighborhood threats to water quality. And there was no difference between dog owners and non-owners in rating the significance of pet waste as a contribution to local water pollution. Nevertheless, the large majority of area dog owners generally know what they are supposed to do about pet waste and do it.



**91% said they would get a leak checked “right away” if they noticed one.**

- Of those who would “watch to see if it got worse,” 34% cited potential expense as the main reason to delay
- Another 35% said either that “a small leak it doesn’t really hurt anything (18%), or “it would be more trouble than it is worth” (16%) - reflecting the belief that oil leaks are not a significant pollution source.

**A number of incentives show some promise in getting people to move quickly to repair oil leaks**

Although the proportion of vehicle owners who wait to fix fluid leaks is small, some information appears to have potential to reduce the number even further.

62% said knowing that fixing the leak would extend the life of the vehicle would be “very effective in motivating you to fix a fluid leak on your vehicle right away”;

53% said the same of knowing how to fix the leak themselves;

47% said if they were told that that oil leaks eventually drain into local creeks, lakes and Puget Sound, that would be a very effective motivator;

36% said a discount on the repair works would be very effective; and

34% said it would be very effective to know that keeping fluid leaks off the streets will make them safer to drive on.

**POTENTIAL MITIGATION BEHAVIOR**

At the end of the interview, respondents were read a list of potential efforts to mitigate water pollution. They were all things that individuals could do. To reduce the “halo effect” of having respondents give the desired answer, the series was introduced with this statement: “Some people think the things we have been talking about are effective at protecting water quality. Others say they are mostly for show or to make people feel better – they do not really do much for water quality. As I read this list, I’d like you to tell me if you think that each of these things is very effective, somewhat effective or not really effective at protecting water quality.”

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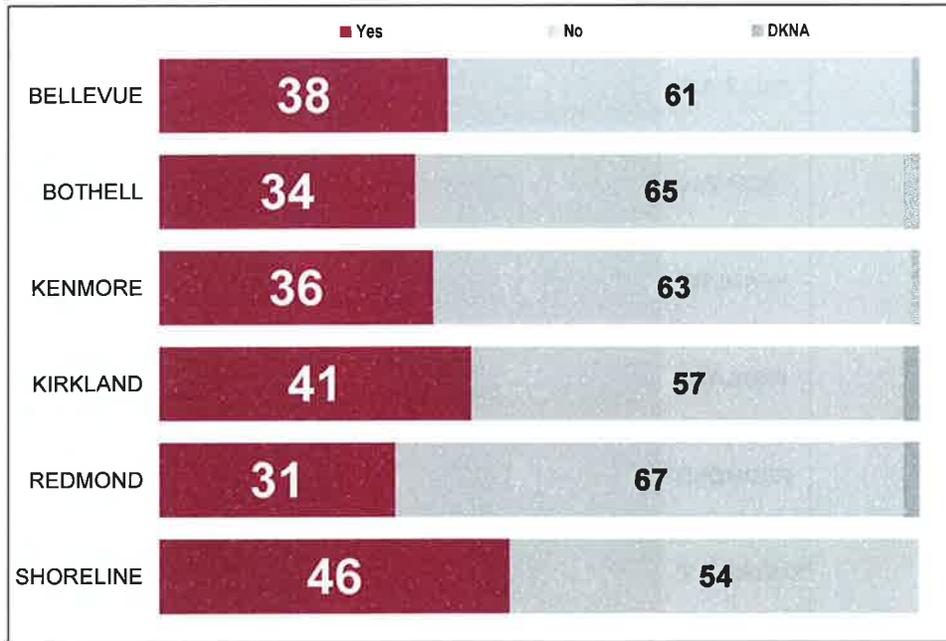
# COMPARATIVE FINDINGS

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**The graphs in the following section present a comparison of the findings from each survey question by the six participating cities**

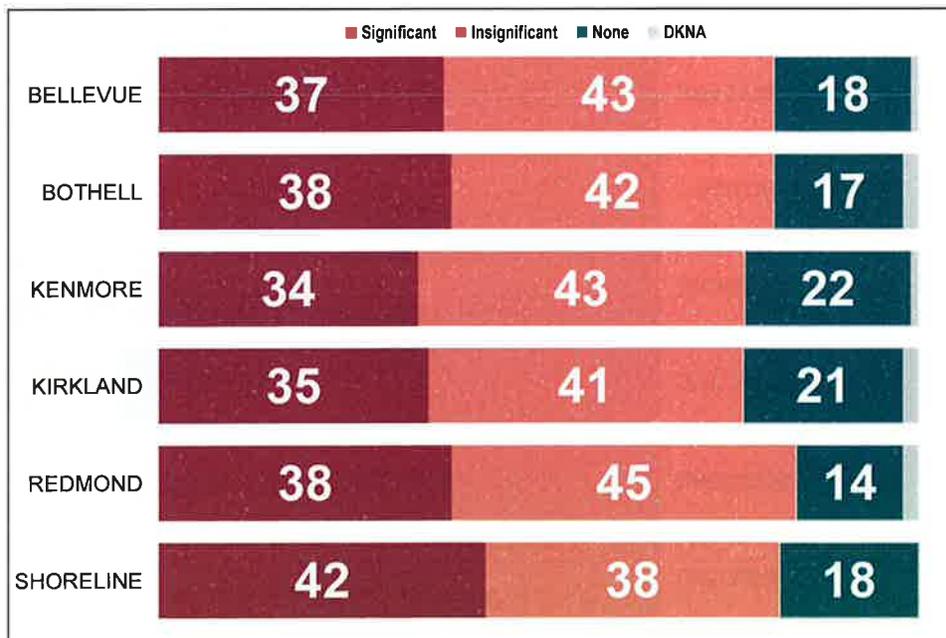
## **LOCAL WATER POLLUTION:**

### **Yet Most Unaware of Local Water Pollution Problems**



Q2: Are you aware of any water pollution problems in local waterways – like streams, rivers or lakes?

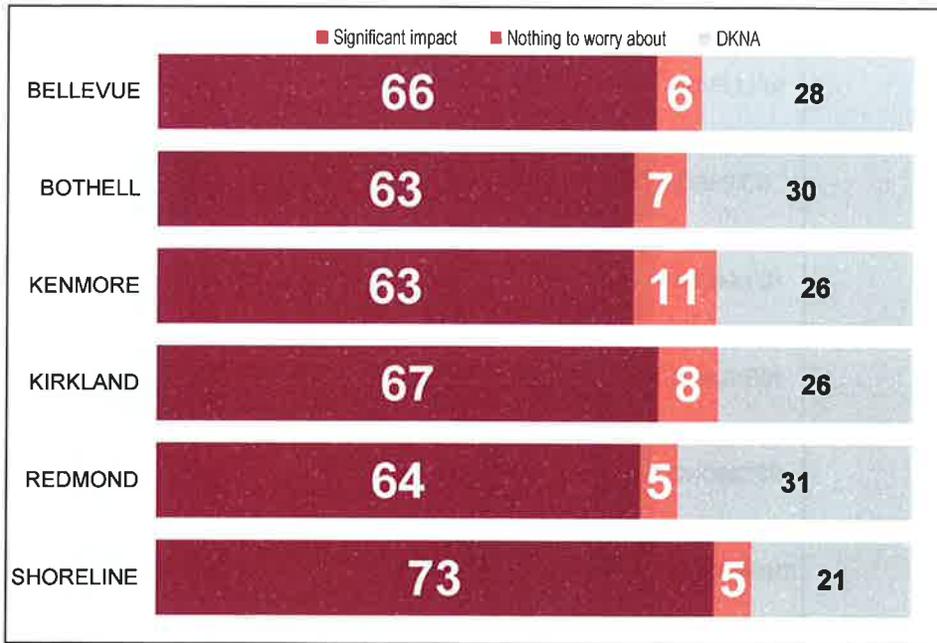
### **Split On Personal Impact**



Q3: To what degree do you believe that actions you and your family take affect the health of local streams, lakes, and rivers?

## **STORMWATER RUNOFF**

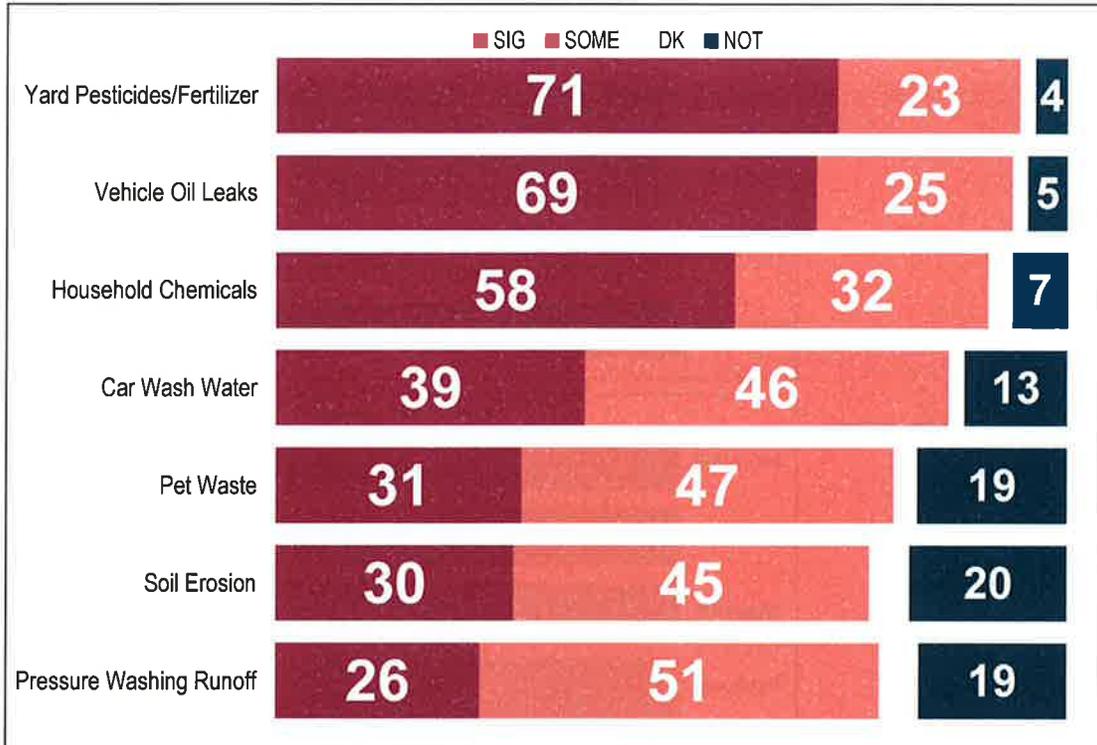
### **2/3 Think Runoff Has Significant Harmful Impact on Local Waterways**



Q5: Which of the following views is closest to your own opinion

- A) Stormwater runoff has a significant harmful effect on water quality in local streams, lakes and rivers.
- B) Stormwater runoff is part of the natural way of things. Any harm to water quality from stormwater is not enough to worry about.

**CONTRIBUTIONS TO LOCAL WATER POLLUTION:**  
**Chemicals, Pesticides, Oil Seen As Most Harmful**  
**(combined data)**



Q7A: As I read a list of things that can get washed into lakes, streams and Puget Sound, tell me how much you think that contributes to local water pollution..

- Pesticides and fertilizers from yards
- Oil leaks from cars and trucks
- Cleaning fluids and other household chemicals that are improperly stored or disposed of
- Soapy water from washing cars on pavement
- Pet waste left on the ground
- Soil erosion from exposed soil
- Run off water from pressure washing

**◆ This graph displays the responses from the combined sample of 2030**

- . The data are weighted by city size
- . The city-by-city comparisons are on the following pages

## **CONTRIBUTIONS TO LOCAL WATER POLLUTION:**

**Soapy water from washing cars on pavement**



**Pet waste left on the ground**

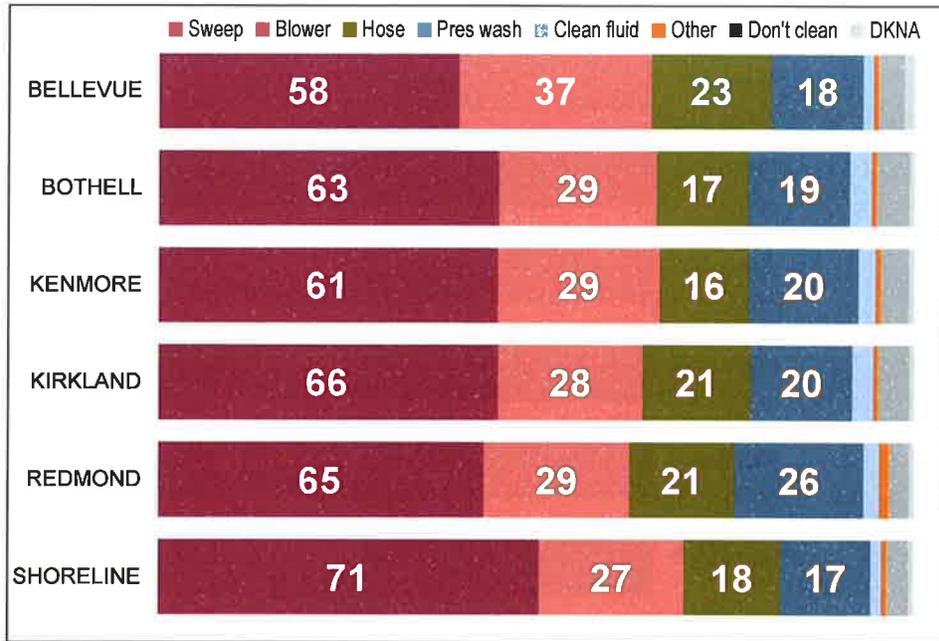


**Soil erosion from exposed soil**



## YARD CARE

### Most Sweep Outdoor Surfaces



Q8 When you clean places like your driveway, walkways, patio or deck, do you typically...)

- sweep those areas
- use a blower
- hose them down
- pressure wash them
- use a cleaning fluid
- other (specify)
- don't have/don't clean those areas

## YARD CARE

### Most Weed Killer at Least “Once in a While”

Q11A: I am going to read a list of products that people sometimes use on their yards and gardens. During a typical growing season would you say you used this regularly, once in a while, or never:



### Most Use Organic or Slow Release Fertilizer

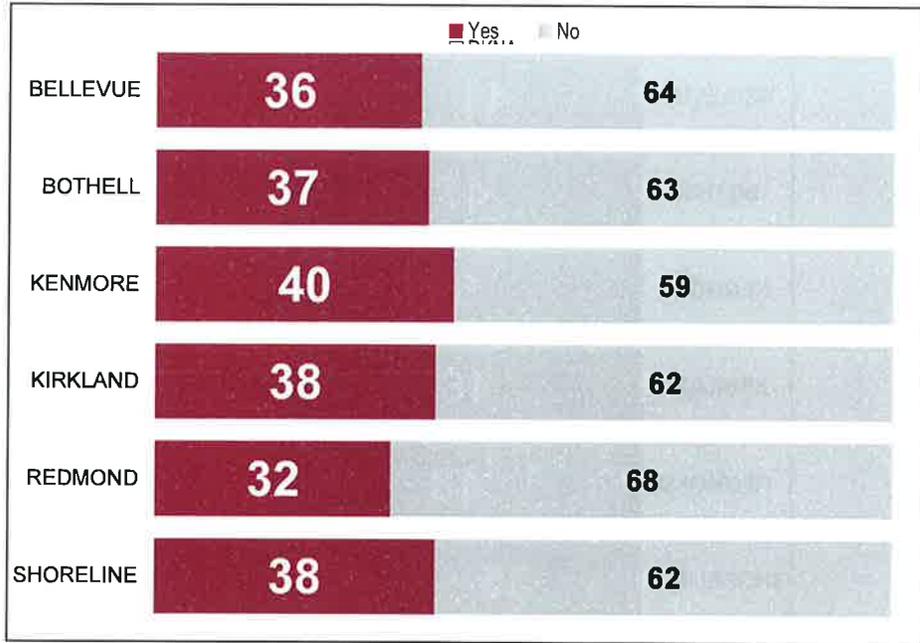


### Pesticides, insecticides, or fungicides.

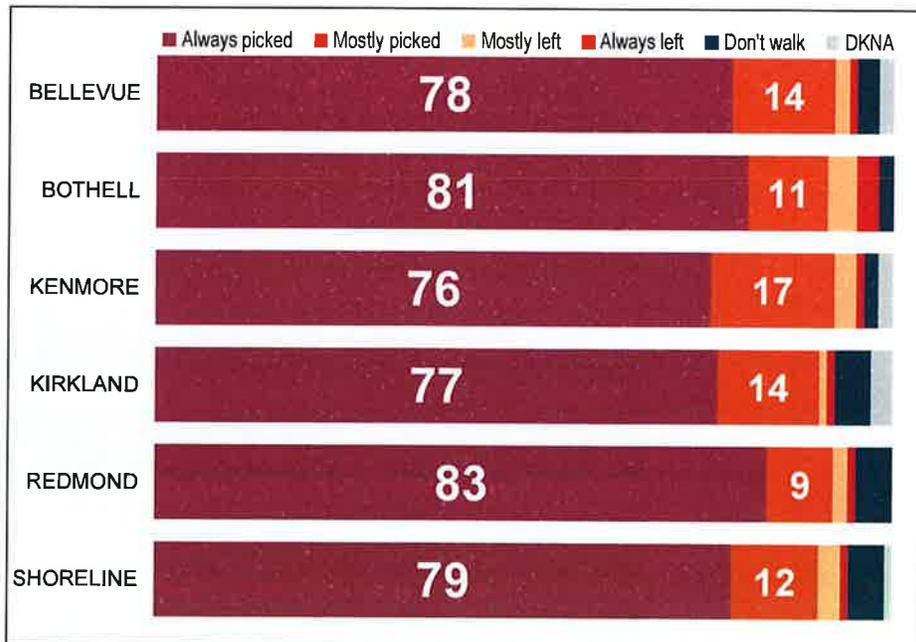


## PET WASTE

### More than 1 in 3 households have a dog



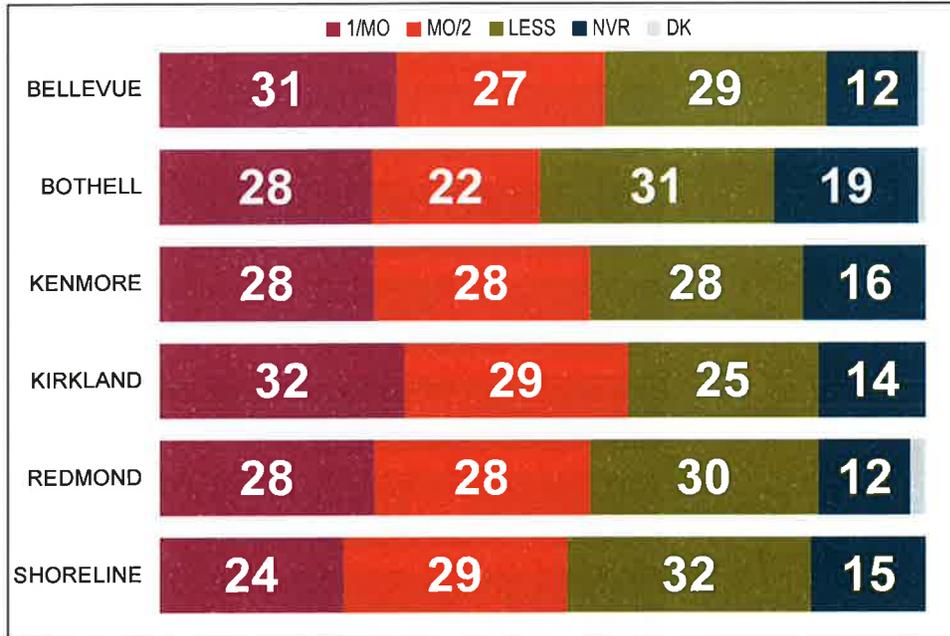
### 8 in 10 always pick up dog waste on street



Q14: When the dog is out for a walk, how is the dog waste dealt with

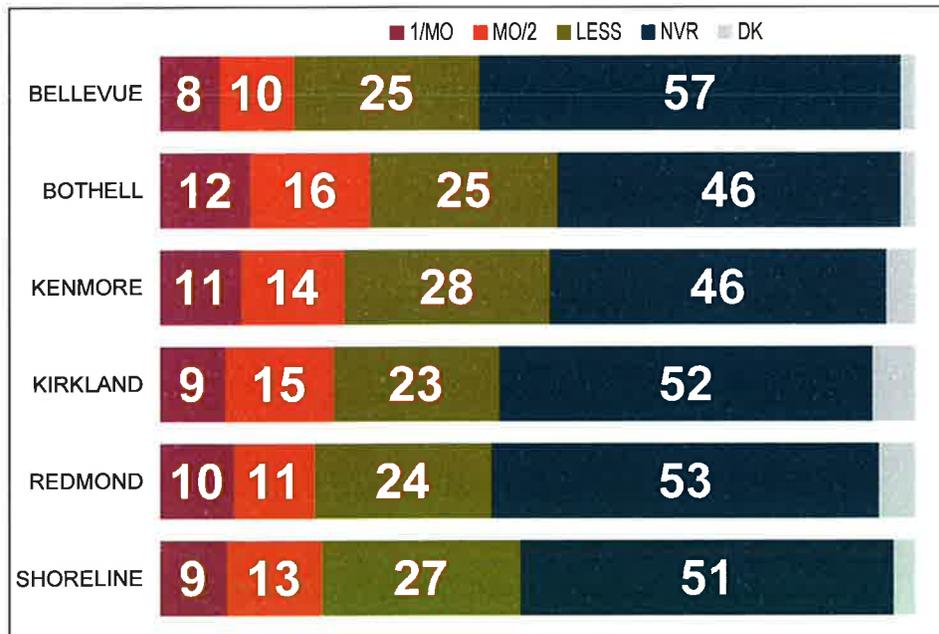
## CAR WASHING

### 8+ in 10 Use Commercial Car Wash



Q17A: Let's talk about the vehicles at your home. When it comes to washing vehicles, how often do you wash the car at a car wash

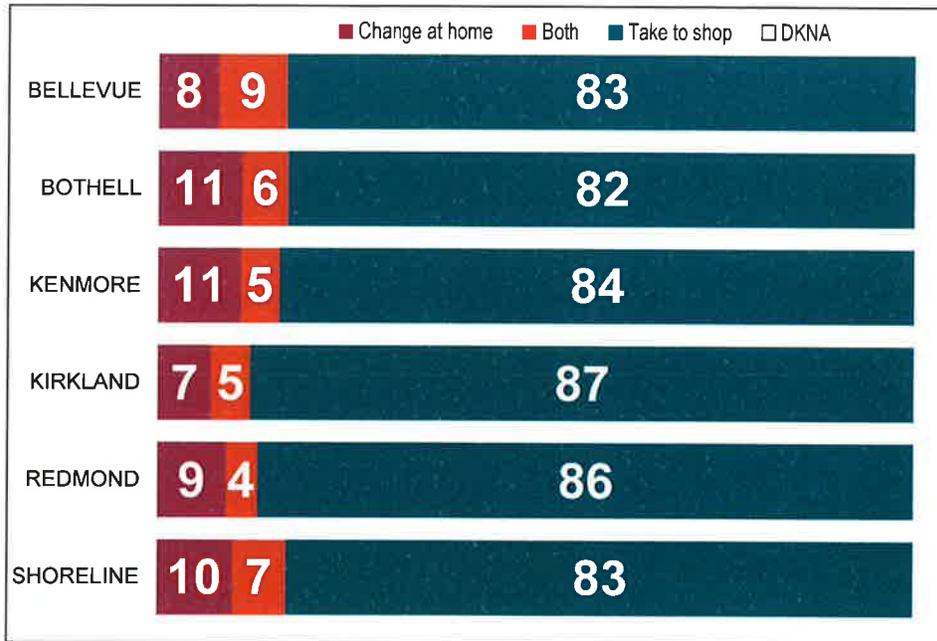
### Just under half wash vehicles at home – About half of those at least every other month



Q17B: Let's talk about the vehicles at your home. When it comes to washing vehicles, how often do you wash the car at home?

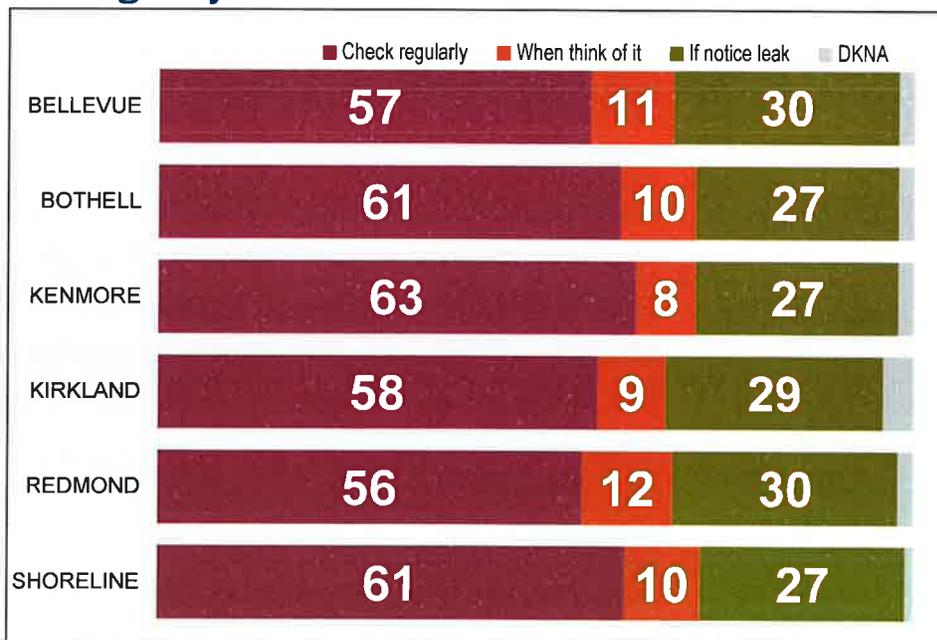
## FLUID LEAKS

### Almost All Have Oil Changed At Shop



Q18: When it comes to changing the motor oil, anti-freeze or other fluids, do you or someone else in your household typically do it at home, or are the vehicles taken to a service shop for that?

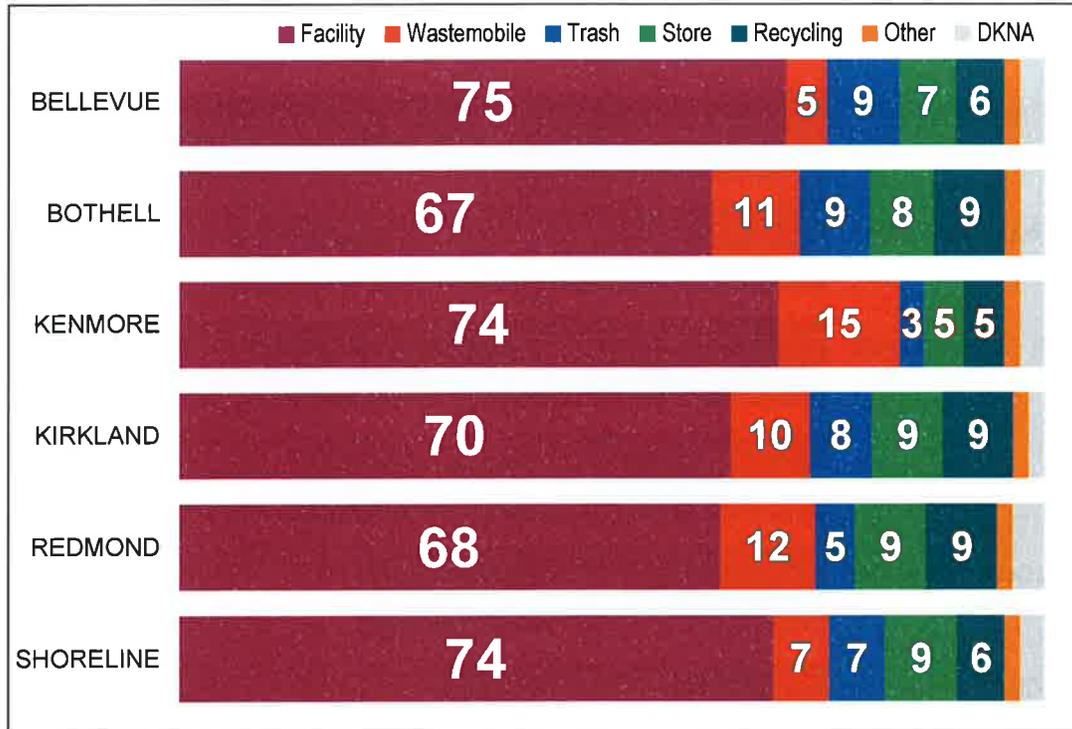
### 6 in 10 Check Regularly For Leaks



Q19: What about oil or fluid leaks? Which of the following best describes you?

## HOUSEHOLD CHEMICALS

### 8 in 10 Dispose of Household Chemicals at Hazmat Facility or Wastemobile



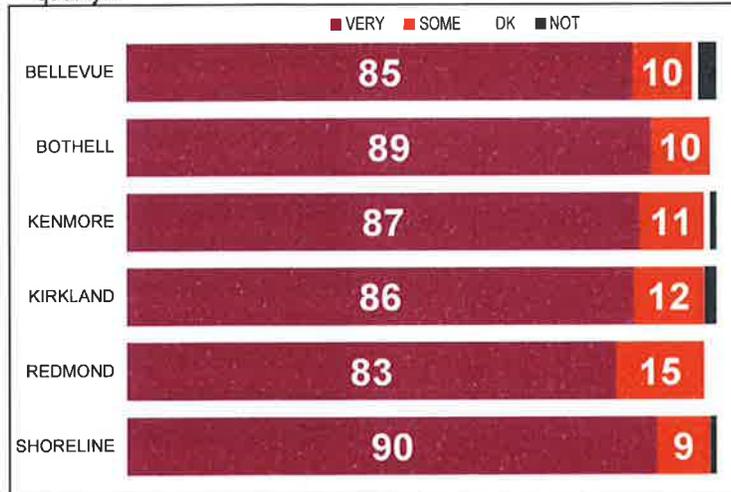
Q22: What does your household typically do with products that may contain hazardous materials, such as cleaning fluids, paint and other household hazardous waste to a collection facility??

## **MEASURES TO PROTECT WATER QUALITY**

Q23: I'd like you to tell me if you think that each of these things is very effective, somewhat effective or not really effective at protecting water quality.:

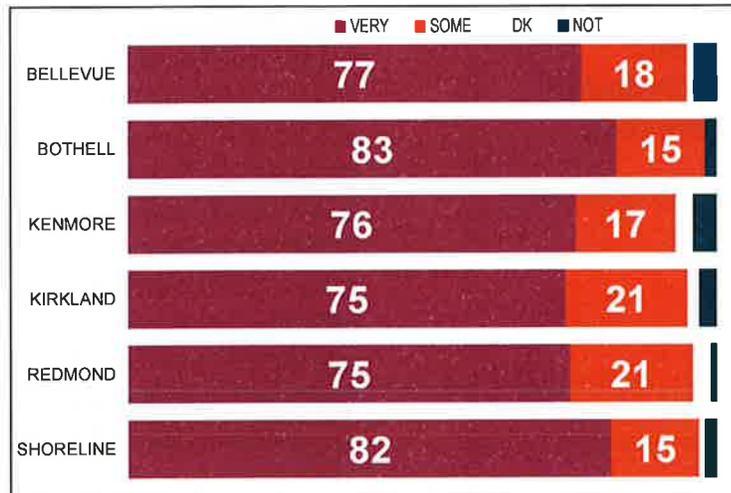
### **Disposing of Household Chemicals: 8 in 10 Rated as Very Effective**

Taking cleaning fluids, paint and other household hazardous waste to a collection facility



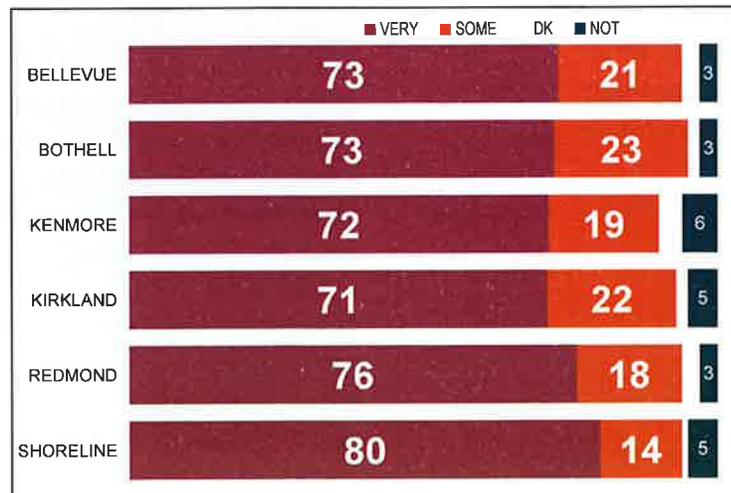
### **Repairing Vehicle Leaks: 3 in 4 Rated as Very Effective**

Repairing leaks on vehicles.



### **Reducing Use of Yard Chemicals: 7 in 10 Rated as Very Effective**

Reducing chemical use in your yard.



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# DISCUSSION

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Water quality is important to local residents, if often taken for granted. Water quality issues were the single most-mentioned category of response when respondents were asked, in an open-ended question at the beginning of the interview, to name the most important environmental issue in their city: 20% cited something having to do with water quality, including 4% who specifically mentioned runoff.

Consistent with previous studies, this survey found residents of north King County cities to be generally aware of the negative effects of stormwater runoff on local water quality: two-thirds of all respondents said that stormwater runoff has a “significant harmful effect” on local water quality. Two-thirds were aware that stormwater runoff ends up in local streams, although fewer than 3 in 10 said it ends up in Puget Sound.

Appreciation of the immediacy of the problem, however, is not as high as recognition of the relationship between runoff and water quality in the abstract. Just 4 in 10 respondents were aware of any pollution problems in local waters, and 4 in 10 believed that their household had any “significant impact” on local water quality, although only 20% thought they had “no impact.”

These levels of awareness are important because they are significantly related to pertinent attitudes and behavior. Response to the question about the significance of stormwater harm was correlated to the response of 36 of the 42 substantive questions in this survey. Response to the personal impact question was related to 34 of the 42 substantive questions. That is to say, respondents who thought that runoff has a significant harmful effect and those who believe that have a personal impact on runoff were significantly more likely to engage in the target behaviors in almost every case than those who lacked that awareness.

Recognition of a problem is related to acceptance of solutions and taking of action. The contributors to pollution perceived as the greatest threat were chemical: pesticides, cleaning fluids, vehicle leaks. At the bottom of the list were pet waste, car wash water, soil erosion and power washing. It is no coincidence that the target behaviors most likely to be reported were those having to do with chemicals: relatively small minorities use pesticides and 8 in 10 report properly disposing of household hazardous waste, and nearly everyone checks for fluid leaks under their vehicles.

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# APPENDIX

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4. When it rains, a lot of water runs off of roofs, driveways, parking lots, and streets. As you understand it, where does that water go?

**DO NOT READ**

1. GOES DOWN STORM DRAIN / INTO STORM DRAIN SYSTEM
2. DOWN DRAIN (NOT "STORM DRAIN")
3. SEWER
4. DOWN THE STREET
5. CATCH BASIN / TROUGH
6. SOAKS INTO GROUND
7. SITS IN PUDDLES / PONDS
8. PUGET SOUND
9. CREEKS / STREAMS / RIVERS / LAKES
10. OTHER> \_\_\_\_\_
11. DK/NA

**4.1. IF CODES 1-7: Where does it end up eventually?**

**DO NOT READ**

1. NEAREST WATER / CREEKS / STREAMS / RIVERS / LAKES
2. PUGET SOUND
3. OTHER
4. DK/NA

5. Which of the following views is closest to your own opinion about the impact of stormwater.

- A. Stormwater runoff has a significant harmful effect on water quality in local streams, lakes and rivers.
- B. Stormwater runoff is part of the natural way of things. Any harm to water quality from stormwater is not enough to worry about.
- C. DK/NA

6. To the best of your knowledge, is runoff water in <CITY> treated before it goes back into local waters? Or is runoff water not treated?

1. TREATED
2. NOT TREATED
3. MIX / BOTH / SOME IS SOME IS NOT
4. DK/NA

**6.1. IF TREATED Where does it go for treatment?**

**DO NOT READ**

1. SEWER
2. VAULT (HELD IN)
3. POND / HOLDING POND
4. FILTER
5. TREATMENT CENTER
6. OTHER> \_\_\_\_\_
7. DK/NA

**ROTATE**

REG ONCE NEVER DK

- A. Weed killers, like weed and feed type products .....1.....2.....3.....4
- B. Organic or slow release fertilizer.....1.....2.....3.....4
- C. Pesticides, insecticides or fungicides.....1.....2.....3.....4

**12.** When you shop for yard and garden care products do you most often buy products that:

1. Will work the best
2. Are least expensive
3. Are least toxic
4. [DEPENDS]
5. DK/NA

**PET WASTE**

**13.** My next question is about pets. Do you have a pet dog or dogs?

1. YES
2. NO → **SKIP TO Q17**
3. DK/NA → **SKIP TO Q17**

**14.** When the dog is out for a walk, how is the dog waste dealt with? Would you say the waste is ...

1. Picked up every time
2. Picked up most of the time
3. Left on the ground most of the time
4. Always left on the ground
5. [DON'T WALK THE DOG]
6. [DON'T KNOW]

**15.** How about dog waste in the yard at home? Is waste in the yard...

1. Left on the ground
2. Cleaned up daily
3. Cleaned up weekly
4. Every couple of weeks
5. Once a month or so
6. Less than once a month
7. DON'T KNOW
8. DON'T HAVE A YARD

20. If your vehicle leaked or spilled oil or antifreeze onto your driveway, which of the following would you most likely do:

- 1. Hose it off
- 2. Put an absorbent pad under the leak to soak it up
- 3. Put some absorbent material on the puddle
- 4. Probably not do anything
- 5. [OTHER]
- 6. [DK/NA]

21. If you noticed a leak, would you...

- 1. Get it checked right away or →SKIP TO Q22
- 2. Watch to see if it got worse
- 3. DK/NA

21.1. IF WAIT: Here are some reasons we have heard about why people do not always fix an oil like right away. Which comes closest to your thinking?

- 1. It could be expensive
- 2. A small leak doesn't really hurt anything
- 3. It would be more trouble than it is worth
- 4. I am not sure where I could take it to be fixed
- 5. [OTHER] > \_\_\_\_\_
- 6. [DK/NA]

21.2. IF WAIT: I am going to list some things that may or may not motivate you to fix a fluid leak on your vehicle right away. As I read each one, tell me whether that would be Very Effective, Somewhat or Probably Not Effective in motivating you to fix a fluid leak on your vehicle right away. The first one is...

**ROTATE A-D (READ E LAST)**

VERY    SOME    NOT    DK

- A. If you were offered a discount at a shop to have a leak fixed .....1.....2.....3.....4
- B. If you knew that it will extend the life of your vehicle .....1.....2.....3.....4
- C. If you knew how to fix the leak yourself.....1.....2.....3.....4
- D. If you were told that keeping fluid leaks off the streets will make them safer to drive on .....1.....2.....3.....4
- E. If you were told that oil leaks eventually drain into local creeks, lakes and Puget Sound.....1.....2.....3.....4

**26.** Do you own or rent the place in which you live?

1. OWN
2. RENT
3. DK/NA

**27.** What is the last year of schooling you completed?

1. High school or less
2. Some college or technical school
3. 4-yr college degree
4. Post graduate school
5. NA

**28.** Finally, I am going to list four broad categories. Just stop me when I get to the category that best describes your approximate household income - before taxes - for this year.

**ROTATE TOP/BOTTOM**

1. \$50,000 or less
2. \$50 to 75,000
3. \$75 to \$100,000
4. \$100-125,000
5. Over \$125,000
6. [DO NOT READ: NO ANSWER]

Thank you very much. You have been very helpful. **[RECORD GENDER]**

## Appendix C



**NATURAL  
YARD CARE  
NEIGHBORHOODS**

Natural Yard Design is taking root in Bothell's Sammamish neighborhoods, and we'd love to have you join us. It's free!

An attractive yard that fits your lifestyle... Inviting, functional outdoor spaces... Gardens that are designed for easy maintenance... A sustainable living environment that is safe for your family, pets and community... These are goals that many of us aspire to. Natural Yard Design can help you get there—whether you're starting from scratch or planning a complete yard overhaul.

The Natural Yard Design program is a series of four free workshops brought to you by King County and the City of Bothell through a great grant opportunity. We'll have design tips to help make the most of your yard—big or small, flat or hilly. Along the way, you'll learn about controlling pests without toxic pesticides or herbicides, building healthy soil, practicing smart watering and natural lawn care, and designing with plants. We'll answer your tough questions and offer advice from some of the Puget Sound's most notable experts.

As a Natural Yard Design workshop participant, you'll receive:

- **expert advice** about natural yard design from local landscape and gardening professionals,
- a **yard care kit** loaded with materials and resources to design a beautiful yard that's healthy and safe; and
- a chance to win natural yard care products, including a **free personal yard consultation** with a landscape architect.

We have an exciting line-up of workshops where you'll get the dirt on how to design your yard. Check out the attached Natural Yard Care Workshop Schedule for dates and details!

*Space is limited, so reserve your seat now.* Our registration deadline is **March 30**. Remember, each week we will randomly draw from the names of everyone present for great natural yard care prizes.

A beautiful, healthy yard that is your own personal haven. Interested? To sign up, call Janet Geer at 425-486-2768 or email [Janet.Geer@ci.bothell.wa.us](mailto:Janet.Geer@ci.bothell.wa.us).

Sincerely,



Janet Geer  
City of Bothell

**Puget Sound**  
**Starts Here.org**





Thank you  
for  
Registering



Thank you for registering for our  
Natural Yard Care Workshops!

- April 4 | Garden Design & Healthy Soil
- April 11 | Smart Watering & Natural Pest Control
- April 18 | Designing with Plants & Edible Gardening
- April 25 | Designing a Natural Lawn & Questions with Prize Giveaway



City of Bothell  
Public Works  
9654 NE 182nd Street  
Bothell, WA 98011

Time? 7-9 p.m.

Where? Bothell Northshore Senior Center  
10201 East Riverside Drive, Bothell

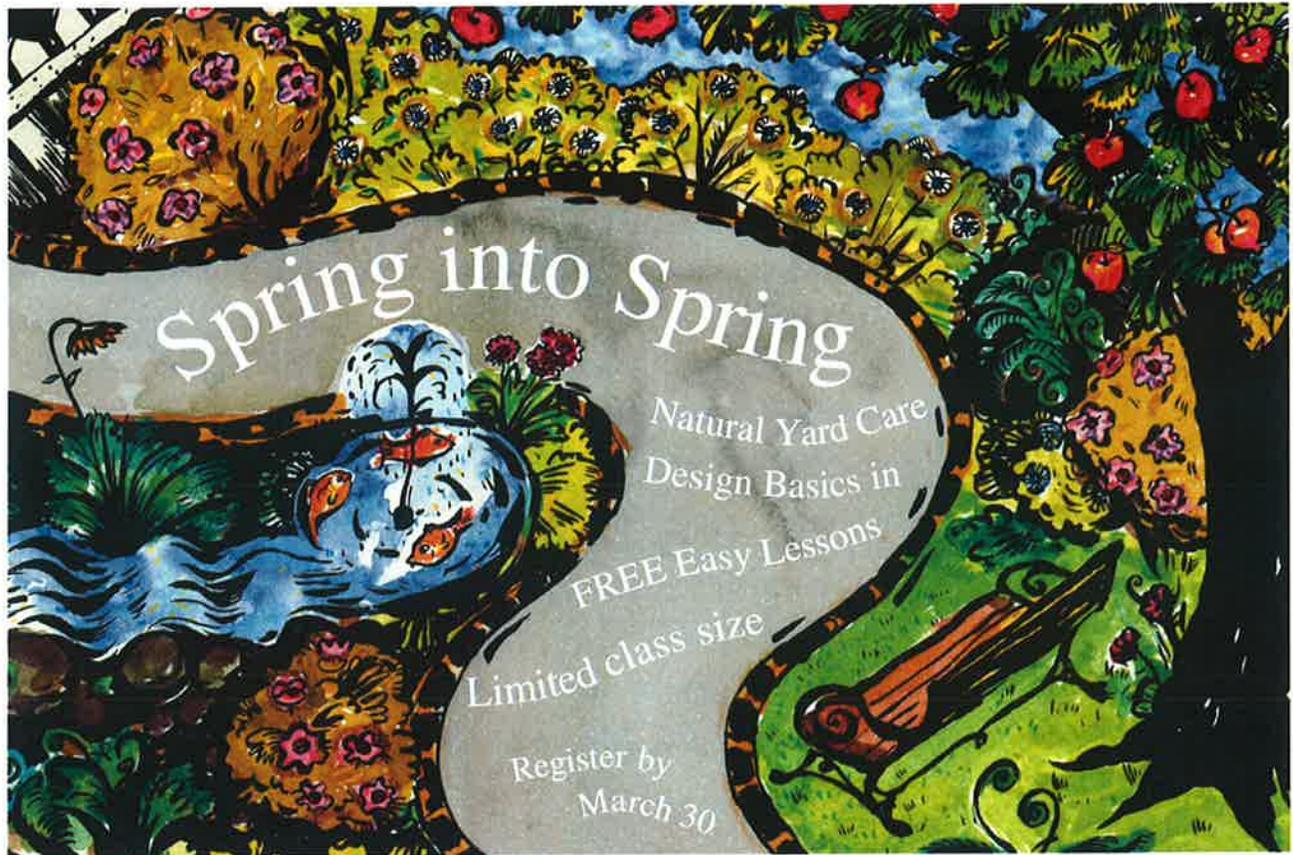
Questions? Contact Janet Geer:

425-486-2768    janet.geer@ci.bothell.wa.us

This program is brought to you by:

We'll see you there!





## Free workshops

How to design a beautiful yard the natural yard care way.

- Hear advice from local experts
- Access useful information and resources
- Enter to win great yard care products

- 1 Wednesday, April 4  
Garden Design & Growing Healthy Soil
- 2 Wednesday, April 11  
Smart Watering & Natural Pest Control
- 3 Wednesday, April 18  
Designing with Plants & Edible Gardening
- 4 Wednesday, April 25  
Designing a Natural Lawn & Questions with Prize Giveaway

To register, contact:  
Janet Geer at 425-486-2768 or [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)

Workshop details:  
Time: 7-9 p.m.  
Location: Bothell Northshore Senior Center  
10201 East Riverside Dr., Bothell



City of Bothell  
Public Works  
9654 NE 182nd Street  
Bothell, WA 98011

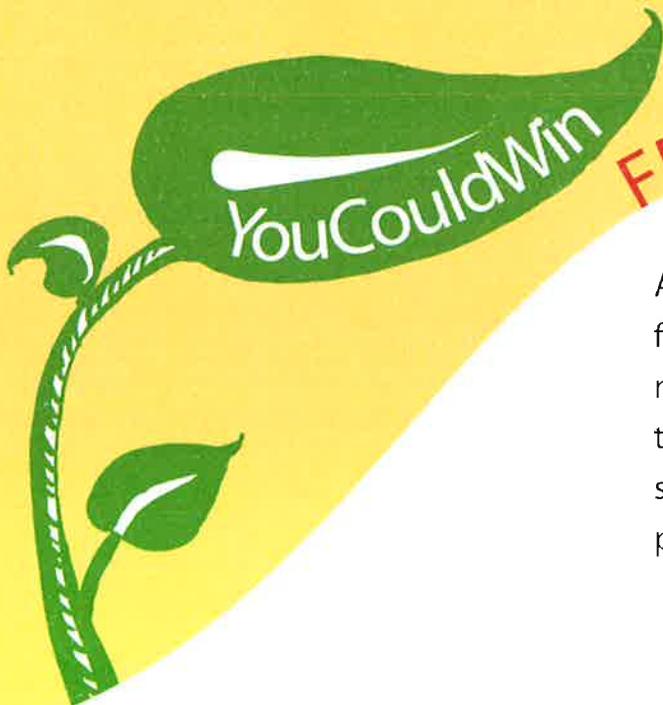
This program is brought to you by:





Spring into Spring

with  
Natural Yard Care  
Design  
Workshops



FREE Yard Care Products...

At each workshop we'll randomly draw from the names of everyone present for great natural yard care products featured during the programs. Earn an entry at every workshop you attend for the final drawing to win a professional lawn and garden consultation!

**NATURAL  
YARD CARE**  
NEIGHBORHOODS

# 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! Each workshop is open to the public, so anyone may attend.

### Workshop 1: Garden Design & Growing Healthy Soil

Wednesday, April 4, 7-9 p.m.

Any beautiful landscape starts with good design. Landscape Architect, Doug Rice, will share professional advice and resources to get you started with Garden Design. Lisa Taylor of Seattle Tilth will also discuss the importance of Growing Healthy Soil. You'll learn how to improve your yard's soil and grow more attractive, robust plants by mulching, composting, and top dressing.

### Workshop 2: Smart Watering & Natural Pest Control

Wednesday, April 11, 7-9 p.m.

Watering expert Greg Butler, owner of Design of the Times, presents a session on how to use less water in your yard and garden. In his Smart Watering presentation, you'll learn tips about different watering methods, irrigation, and mulching. Dan Corum from Woodland Park Zoo will provide an entertaining presentation on Natural Pest Control. Hear his professional secrets, collected during years of working with the Zoo, Seattle Public Utilities, and the Organic Recycling Council.

### Workshop 3: Designing with Plants & Edible Gardening

Wednesday, April 18, 7-9 p.m.

Designing with Plants is presented by Greg Rabourn of King County and co-host of Yard Talk on KCTV. This segment offers natural yard design options that don't rely exclusively on having a lot of lawn. Greg will help you choose beautiful plants that thrive in your yard's soil and sun conditions. Emily Bishton from Green Light Gardening will present Edible Gardening. You'll learn to grow your own delicious and healthy fruits, vegetables, and herbs while avoiding problems like plant disease. Her practical tips will help you succeed in feeding your family right out of the garden.

### Workshop 4: Natural Lawn Care

Wednesday, April 25, 7-9 p.m.

Ladd Smith from In Harmony Sustainable Landscapes will present Designing a Natural Lawn. He'll discuss mulch mowing, slow-release fertilizers and other ways to help you grow a beautiful, healthy lawn. He will also be on hand to answer questions you have about your specific site conditions.

**You could win free natural yard care products and services!** 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! A drawing of all names will be conducted on the last evening for a FREE professional consultation, you must be present to win!

**Location:** Bothell Northshore Senior Center, 10201 East Riverside Drive, Bothell

**To register, or with questions about any of our workshops, contact:** Janet Geer 425-486-2768 or [janet.geer@ci.bothell.wa.us](mailto:janet.geer@ci.bothell.wa.us)

This program is brought to you by:



City of Bothell

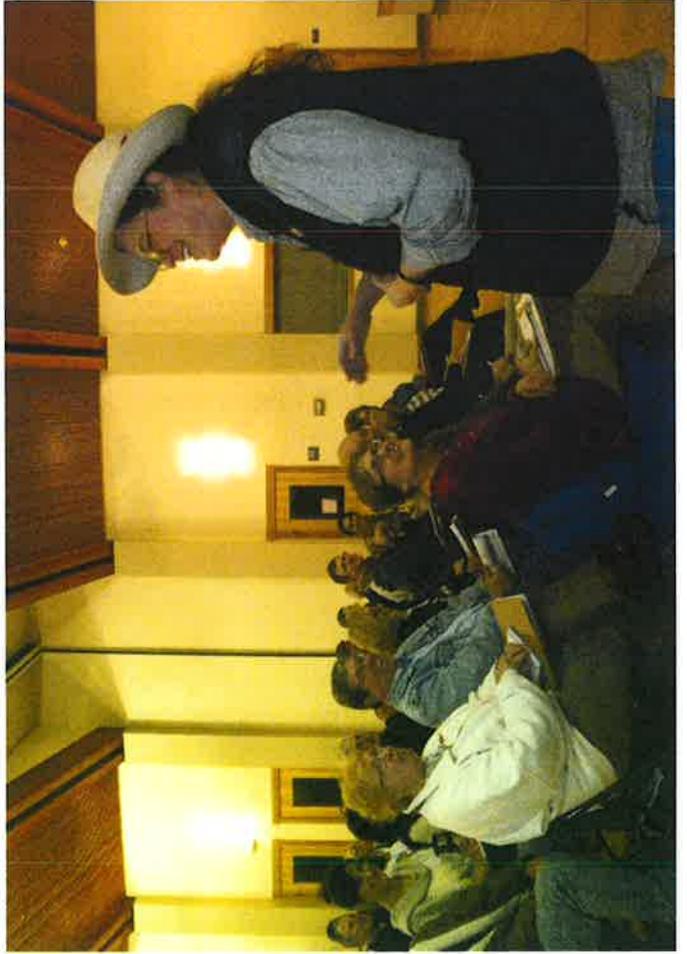


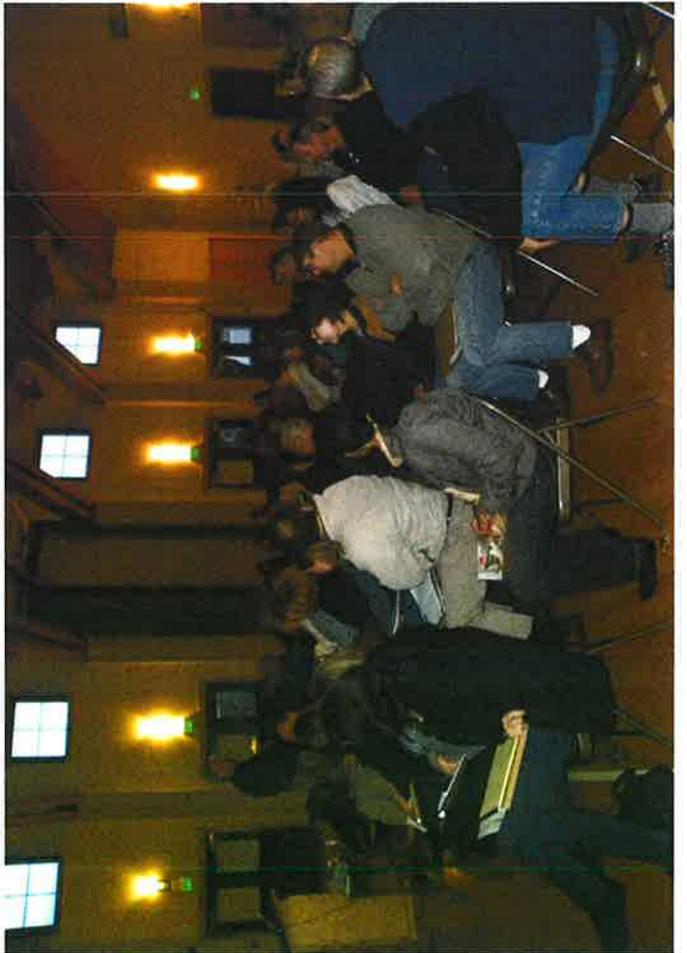
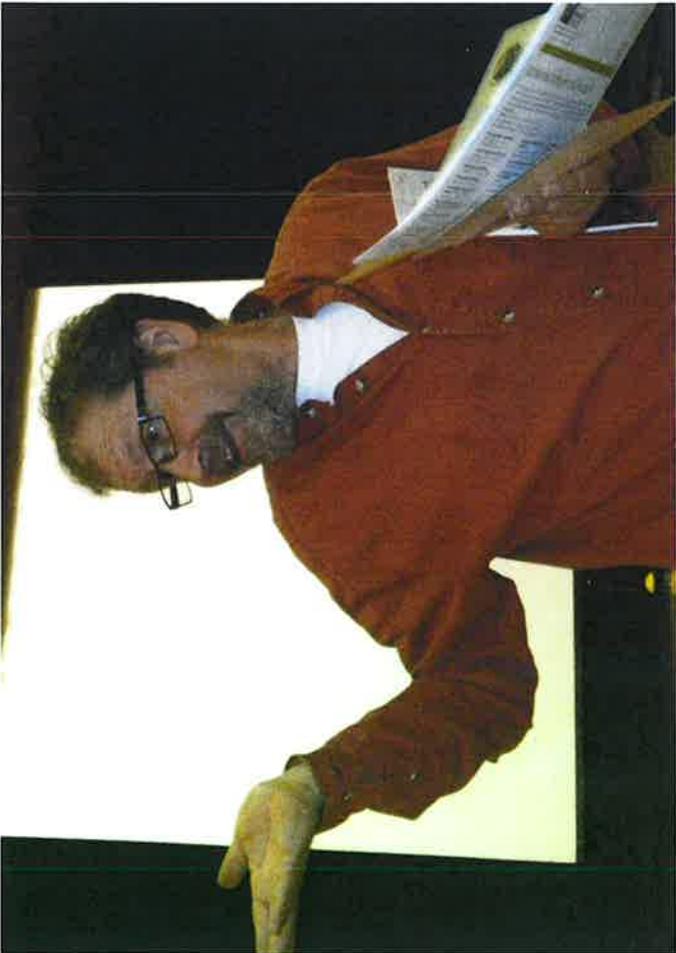
King County



Local Hazardous Waste Management Program in King County, Washington







## Appendix D

It's easy to properly dispose of pet waste! Landfills are designed to safely handle pet waste. Yards are not. Protect your family, your pets, and the quality of nearby streams by scooping dog poop when on walks and from your yard.

Apply the **We Scoop** sticker to your garbage can to show that you are a caring and responsible dog owner.



This dispenser is provided to you by:  
City of Bothell

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Apply the **We Scoop** sticker to your garbage can to show that you are a caring and responsible dog owner.



This dispenser is provided to you by:  
City of Bothell





### WHY SHOULDN'T WE FEED THE BIRDS?

Bread and similar products such as crackers, chips, donuts and popcorn offer little nutritional value for ducks, geese, and other birds.

In fact, bread is the equivalent to junk food for the birds, and too much bread can lead to excessive weight and malnutrition as well as a host of other issues.

### PLEASE DON'T FEED THE BIRDS




#### FEEDING BIRDS CAN LEAD TO PROBLEMS...

<p><b>Duckling Malnutrition</b></p> <p>In an area where birds are regularly fed bread, babies will not receive adequate nutrition for proper growth and development. Furthermore, because birds will naturally seek out an easy food source such as human handouts, babies will not learn to forage for natural foods as easily.</p>	<p><b>Overcrowding</b></p> <p>When an easy food source is abundant, ducks and other waterfowl will lay more eggs and the pond or lake will become overcrowded. This causes a more difficult time for the birds to seek out healthier food sources and increases the likelihood of territorial aggression.</p>	<p><b>Pollution</b></p> <p>When ducks and geese are unnaturally gathered in a feeding area, such as a park or public space, their waste can create a pollution problem on the ground and in our water. Two watersheds in Bothell are currently listed as impaired due to the amount of fecal matter present in our streams. This bacteria makes human contact with the water a health risk.</p>	<p><b>Disease</b></p> <p>Feeding ducks breed can increase the spread of disease in two ways. First, a concentrated area of birds leads to greater infection, and second, birds easily harbor bacteria responsible for numerous diseases, including avian influenza. Second, overly bread can cause waterfowl, a fatal disease, which can be transmitted to humans.</p>	<p><b>Unwanted Pests</b></p> <p>Rotting supplies of food leftover from waterfowl will attract other unwelcome pests such as rats, mice and insects. These pests can also harbor additional diseases that can be dangerous to humans.</p>	<p><b>Loss of Natural Behavior</b></p> <p>When birds become accustomed to handouts, they lose their natural fear of humans and may become accustomed to being fed. This loss of fear can cause other dangers, such as a willingness to step over fences or into busy roads in order to reach their feed. There is also some evidence that regular handouts can interrupt the birds' natural migration.</p>	<p><b>Habitat Degradation</b></p> <p>Feeding waterfowl can lead to severe habitat degradation. Providing food regularly attracts concentrations of waterfowl beyond what the natural ecosystem can support. Large concentrations of waterfowl can over-vegetate natural areas, cause major erosion problems, and can create an unsightly mess.</p>
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 City of Bothell

For more information: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)



Information provided in cooperation of National Waterfowl Conservation Association and WDFW

## Appendix E

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*

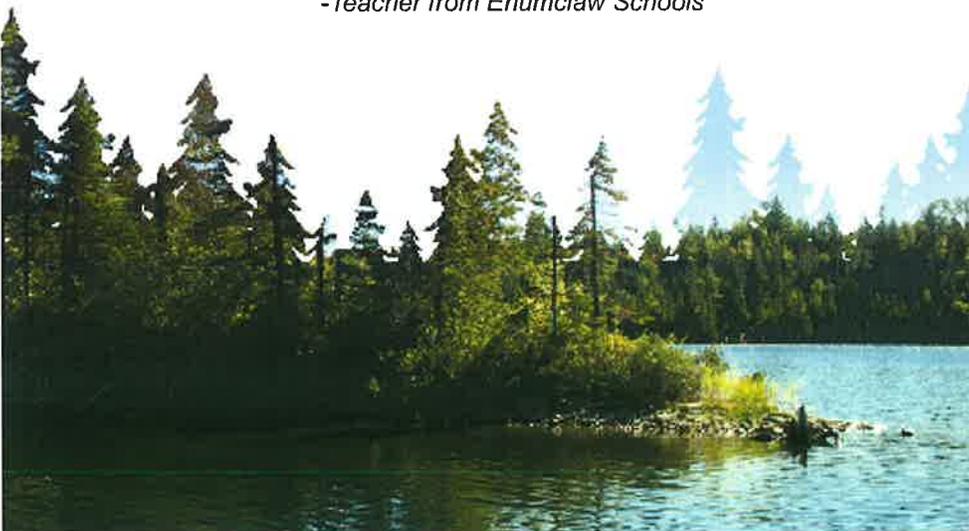
***"I really enjoyed both presentations we had this year. They tied in beautifully as the introductions to the science units we had planned. I especially enjoyed the fact that the kids were out using our own wetland area behind our school to examine the trees and wetland facets."***

*- 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.



## **Enviroscape** (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 EnviroScape®.  
EnviroScape is a patented product (No. 5,427,530) located at [enviroscales.com](http://enviroscales.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: **KCD**  
King Conservation District

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.

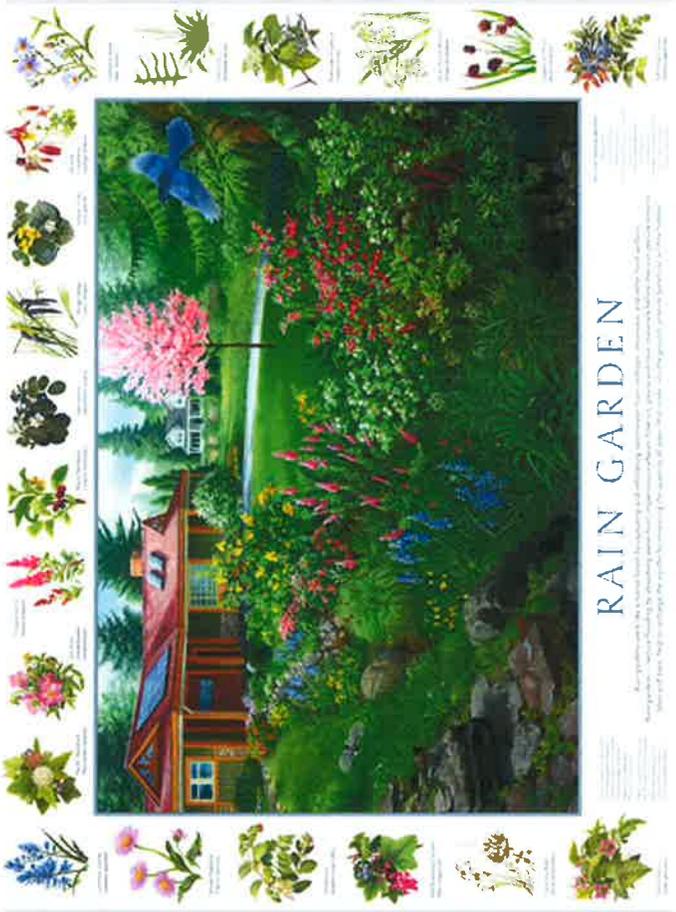
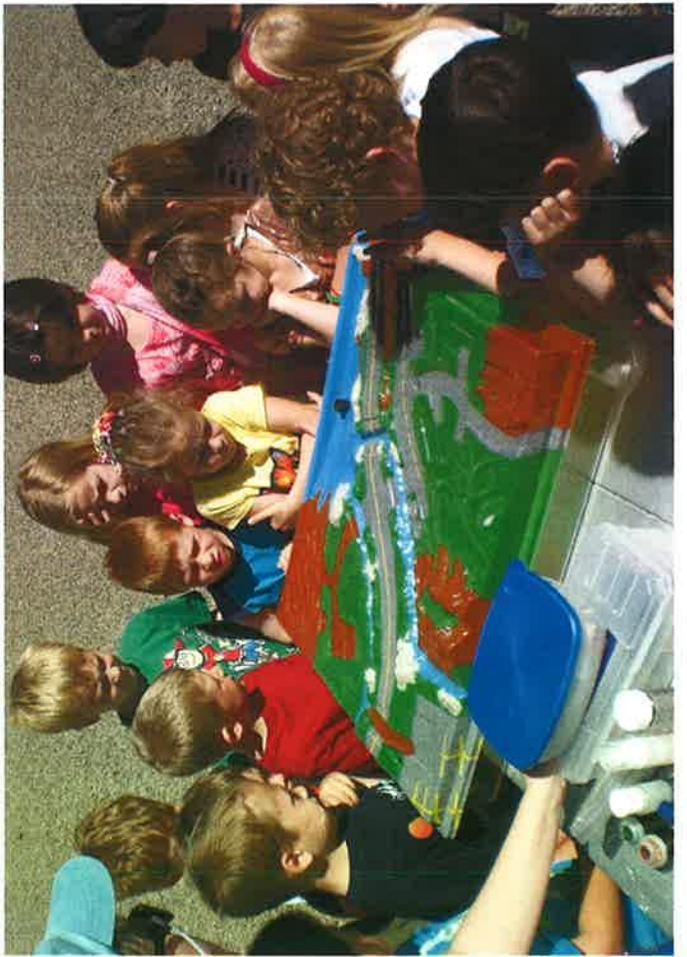
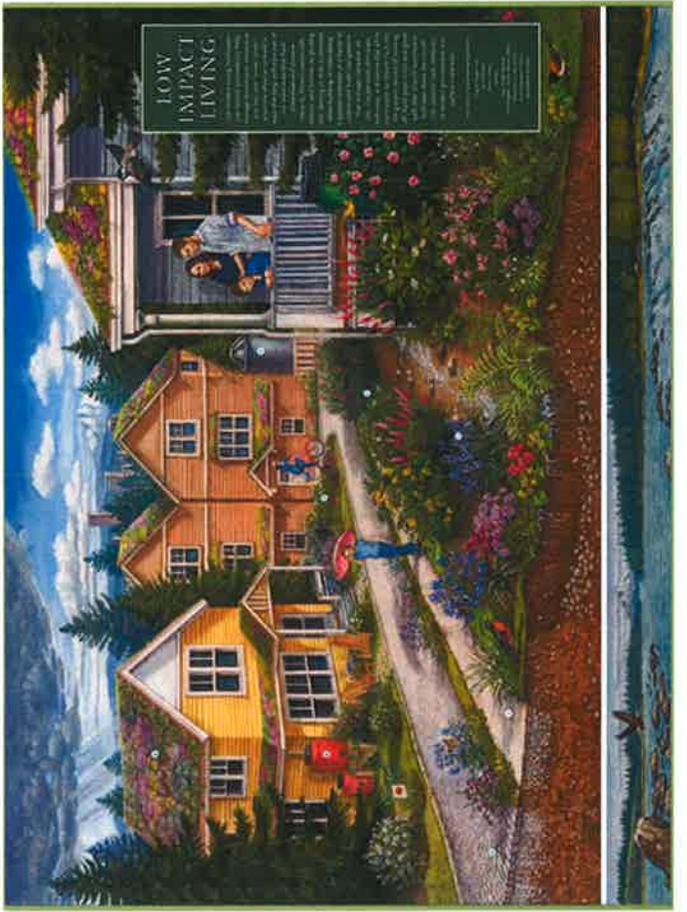
I \_\_\_\_\_ (your name)

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)





# ***Evaluation Results***

## ***for the City of Bothell***

### ***Water Education Programs 2012***

***By Nature Vision, Inc.***

#### ***Description and Purpose:***

The City of Bothell's Youth Water Education/Conservation Program continues to nurture a culture of sustainability in Bothell in regards to stormwater quality and conservation of water resources. Students who participate in these workshops learn how natural water systems work to keep our water healthy, and what people can do to be good stewards of our watershed. This report presents the results from the third year of evaluating these programs.

#### ***Evaluation Goals:***

The evaluation program was designed to measure:

1. **Student Retention:** To evaluate the retention of lessons in students' minds short-term and long-term (after 3 months).
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.
3. **Agency Goals:** To evaluate how we can more directly meet agency goals within NPDES permit and budget parameters.

#### ***Methods Employed by Goal:***

**Goal 1 – Student Retention:** Retention of lessons in the minds of students is obviously a desired outcome for a culture of sustainability for water resources to thrive in Bothell. Both short-term and longer term retention parameters will be measured for this project. For the purposes of this program, we seek to get information about the effectiveness of:

same survey immediately following the presentation.. Survey questions asked will be phrased and presented to be attractive to elementary students and each question will relate back to key workshop messages. Survey answers are designed to be true/false, yes/no answers, or short essay format. Presenter staff bring in all survey materials needed for ease of the teacher. Answers will be collected and compiled by the main evaluator as part of the bi-annual report. This technique needs to be used early on in the school year to facilitate the Method 3 Follow-up Survey.

*Method 3 - Follow-up Survey:* This method will be a repeat of the questions in the Select Classroom Survey but done about 3 months after the initial survey to test long-term retention. Ideally, students would be tracked over their childhood and then reviewed for behaviors practiced once they were adult consumers, but that is beyond the scope of this process at this time. However, since it is generally accepted that short-term memory lasts about two weeks to a month in most people's brains re-surveying at 3 months would indicate with some certainty whether or not the encoded lessons have remained in the minds of the students at all past the short-term memory time span.

*Note on Retrievability:* Scientists believe that long-term behavior retrievability may be guided by a few major factors, such as practice, promise, and connection to value. Presenters employ techniques in the overall program that encourage long-term retention and sustainable life-style practice, such as:

- programming to encourage continuing use of the desired behaviors through student action projects that last most of the school year,
- having students make a pledge at some point during the presentation, and
- using props, anecdotes, and metaphors that illicit a positive emotional value response from students (like seeing live animals).

*Method 4 - Student Letters Analysis:* This method will gauge content retention for students. Many teachers like to have students write thank you letters to the City for sponsoring the program. These student letters can tell us much about what students learned if the evaluator takes the time to analyze them.

Presenters will leave a short instruction sheet with teachers encouraging them to send thank-you letters, the address to which letters can be sent, and a few leading questions for students to write about in the letters. Once the letters are received by the evaluator, they will be reviewed and analyzed for specific criteria. Each time a student shows content competency in a letter, a tick mark will be entered by the evaluator. For example, if a student writes that he/she learned that storm drains lead directly to streams, then that information will be noted. Each class's tick marks will be counted and summarized the bi-annual report.

Dear Nature Vision,

I've enjoyed your in-class programs for fourth grade regarding the environment for several years. The instructors are always knowledgeable, and positive with the students. Please continue the classes. It is so rare to have programs come into our schools that are free. Thank you so much for these opportunities! The children love them, and they do learn a lot that is passed on to the home.

Celia Wilson

On May 30, 2012, at 1:01 PM, Nature Vision wrote:

Dear Teacher(s),

We'd like to give you an opportunity to evaluate the following program(s), presented to your class:

### **Westhill Elementary**

#### **Carly Epler**

**22-May-12 Enviroscope**

**Naturalist: Moira**

**23-May-12 Wetland Filters**

**Naturalist: Melani**

#### **Celia Wilson**

**22-May-12 Enviroscope**

**Naturalist: Moira**

**23-May-12 Wetland Filters**

**Naturalist: Melani**

#### **Mikey Trexel**

**22-May-12 Enviroscope**

**Naturalist: Moira**

**23-May-12 Wetland Filters**

**Naturalist: Melani**

*Note:* Teachers do not have the time and therefore will not respond to more than 3-5 easy questions on the email survey.

*Method 6 – Select Follow-up Phone Conversations:* The teachers of the classrooms that participated in the select classroom survey will be called and asked for their direct feedback on the program. This sampling method, using real-time voice to voice connection, will give us deeper information than the post-workshop email alone. Teachers' suggestions will be included in the bi-annual report.

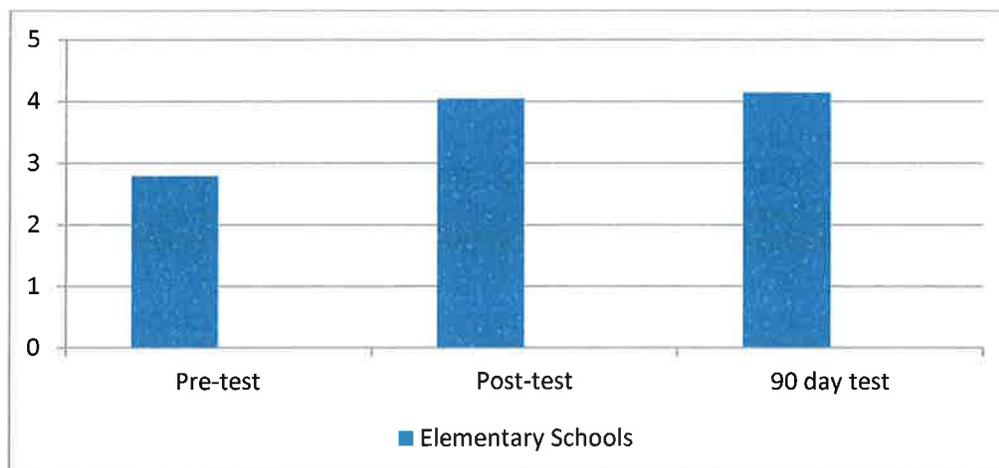


Figure 1

Pre-and Post survey classes were selected based on what programs were scheduled for the winter/spring that would allow us to get 90 day retention data back before the end of the school year, as well as which teachers were okay with having their classes evaluated and were most likely to send in the long term results and letters. Some teachers ask that we do not evaluate their classes based on having many individual education plans or special needs students.

Elementary school students sent 21 thank you letters with an average of 10.0 points per letter. Drawings of key facts were tallied as points. The “silent moment” evaluation of elementary school students resulted in an average of 5.8 fingers per student counted.

**Blue Teams** formed in 2 elementary classes and 1 middle school and participated in Blue Team projects in the Fall of 2011. Data was not available for the December report so we are reporting it here. The Blue Team survey results showed that the students had an average score of 1.95 out of 5 on the survey prior to the workshop and an average score of 2.95 out of 5 immediately following the workshop and an average score of 3.45 out of 5 on the long term survey. Students sent 26 letters with an average of 8.4 points per letter. Drawings of key facts were tallied as points. The “silent moment” evaluation of the blue team students resulted in an average of 5.9 fingers per student counted.

Blue Teams formed in 2 elementary classes and participated in Blue Teams from January-June 2012. No data is available for them at this time; we are waiting for teachers to send us the pre/post surveys.

**Teacher satisfaction results were** in an essay format and are reported as such. All of the teachers responded positively to the survey email and also stated that they would like to have the respective program again.

## **Survey Questions**

### **Enviroscape *PRE* Survey**

Circle the correct answer

- 1) Most if our water pollution comes from:      a) Factories                      b) Individual people
  
- 2) The best way to deal with pet waste (like dog poop) is to:  
a) Bury it  
b) Pick it up in a plastic bag and throw it in the garbage  
c) Put it in your garden to fertilize it
  
- 3) Using fertilizer on your lawn often helps to keep our Watershed Healthy.  
True  
False
  
- 4) Water that goes into a storm drain is cleaned before reaching Puget Sound.  
True  
False
  
- 5) List 5 ways you can help keep water in our rivers, lakes, streams and Puget Sound healthy

### **Enviroscape *POST* Survey**

Circle the correct answer

- 1) Most if our water pollution comes from:      a) Factories                      b) Individual people
  
- 2) The best way to deal with pet waste (like dog poop) is to:  
a) Bury it  
b) Pick it up in a plastic bag and throw it in the garbage  
c) Put it in your garden to fertilize it
  
- 3) Using fertilizer on your lawn often helps to keep our Watershed Healthy.  
True  
False
  
- 4) Water that goes into a storm drain is cleaned before reaching Puget Sound.  
True  
False
  
- 5) List 5 ways you can help keep water in our rivers, lakes, streams and Puget Sound healthy:

### **Wetland Filters *POST-Survey***

Circle or fill in the correct answer

- 1) List the 3 main characteristics of a Wetland
  
- 2) The presence of animals is what defines a Wetland            True            False
- 3) A Wetland is an Ecosystem            True            False
- 4) Wetlands help to protect water in our Watersheds            True            False
- 5) List 5 pollutants that a wetland can help to filter out of water.

- 1) List 5 pollutants that a wetland can help to filter out of water.

### **Wetland Filters *90 DAY Survey***

Circle or fill in the correct answer

- 1) List the 3 main characteristics of a Wetland
  
- 2) The presence of animals is what defines a Wetland            True            False
- 3) A Wetland is an Ecosystem            True            False
- 4) Wetlands help to protect water in our Watersheds            True            False
- 5) List 5 pollutants that a wetland can help to filter out of water.

## Water Cycle B *POST Survey*

Circle 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          collection          evaporation          condensation

4) The water we have on the earth now is millions of years old.          True          False

5) Extra water sometimes comes to Earth from outer space, and adds to what we have now.

True          False

6) We need to conserve our water resources so people, plants and animals all have enough.

True          False

## Salmon Cycles *PRE Survey*

Circle the correct answer

1) Circle the names of the salmon that live in our area:

King      Chinook      Chum      Sockeye      Golden      Coho      Pink

2) A female salmon can lay up to how many eggs?

1      10      100      1,000      2,000-4,000

3) Salmon hatch in fresh water, swim to the ocean, then return to the same fresh water to spawn.      True      False

4) Everything that goes into a storm drain goes where?

Away.

To a water treatment plant where it is cleaned.

Directly into a nearby body of water, like a river, lake or stream.

5) Which words below describe the parts of the salmon cycle?

egg      fry      alevin      oceanic      smolt      herring

## Salmon Cycles **90 DAY Survey**

Circle the correct answer

1) Circle the names of the salmon that live in our area:

King      Chinook      Chum      Sockeye      Golden      Coho      Pink

2) A female salmon can lay up to how many eggs?

1      10      100      1,000      2,000-4,000

3) Salmon hatch in fresh water, swim to the ocean, then return to the same fresh water to spawn.      True      False

4) Everything that goes into a storm drain goes where?

Away.

To a water treatment plant where it is cleaned.

Directly into a nearby body of water, like a river, lake or stream.

5) Which words below describe the parts of the salmon cycle?

egg      fry      alevin      oceanic      smolt      herring

18th Annual

# SAMMAMISH WATERSHED FESTIVAL

**May 15 -17, 2012**  
**10:00 am - 1:30 pm**

**NEW LOCATION in 2012!**

**Brightwater Education Center**  
**Woodinville, WA**

Come celebrate the Sammamish Watershed Festival and discover the importance of water in our lives! The Festival will be held in a new location in 2012: The Brightwater Education Center! We will begin with a short opening assembly in the center. Your students will then move through a number of interactive educational stations to learn about water and watersheds. Join us for these fun and exciting activities:

- ✧ Sample pond water and find awesome water critters!
- ✧ Find out why salmon need trees and trees need salmon!
- ✧ Discover how wetlands act like giant sponges!
- ✧ Haul water the way the pioneers did!
- ✧ Study a watershed model that shows how pollution moves with water!
- ✧ Run a recycling race to test your recycling skills!
- ✧ Go "shopping" for less toxic household products!

***FREE OF CHARGE***  
***to students in fourth grade***  
***classrooms in the Lake***  
***Washington, Issaquah and***  
***Northshore School Districts!***



***The Festival is sponsored***  
***by government agencies,***  
***water utilities and private***  
***organizations that care***  
***about our water supply and***  
***healthy watersheds.***





## Appendix F



## 2013 Final Roving Wastemobile Schedule

	2013 Dates	City	Address	Zip	Location
1	3/1 - 3/3	Bothell (1)	19200 120th Ave NE, Bothell	98011	Seattle Times
2	3/15 - 3/17	Covington (1)	16735 SE 272nd St, Covington	98042	Fred Meyer
3	3/22 - 3/24	Burien	14300 1st Ave S.	98168	Fred Meyer
4	4/5 - 4/7	Redmond (1)	17777 NE 76th St., Redmond	98052	Home Depot
5	4/19 - 4/21	Vashon	17001 107th Ave SW	98070	Tjomsland Gravel Pit
6	4/26 - 4/28	Des Moines	22307 Dock St., Des Moines	98198	Des Moines Marina
7	5/10 - 5/12	Bothell (2)	19200 120th Ave NE, Bothell	98011	Seattle Times
8	5/24 - 5/26	Kirkland	12221 120th Ave. NE, Kirkland	98034	Fred Meyer
9	6/7 - 6/9	Enumclaw	45224 284th Ave SE	98022	Enumclaw Expo Center
10	6/14 - 6/16	Covington (2)	16735 SE 272nd St, Covington	98042	Fred Meyer
11	6/28 - 6/30	Bothell (3)	19200 120th Ave NE, Bothell	98011	Seattle Times
12	7/12 - 7/14	Snoqualmie	39801 SE Park St., Snoqualmie	98065	Snoqualmie Elem. School
13	7/26 - 7/28	Redmond (2)	17777 NE 76th St.	98052	Home Depot
14	8/2 - 8/4	Bothell (4)	19200 120th Ave NE, Bothell	98011	Seattle Times
15	8/9 - 8/11	Sammamish	400 228th Ave NE	98074	Eastlake HS
16	8/23 - 8/25	Renton	365 Renton Center Way	98057	Fred Meyer
17	9/6 - 9/8	Covington (3)	16735 SE 272nd St, Covington	98042	Fred Meyer
18	9/20 - 9/22	Bothell (5)	19200 120th Ave NE	98011	Seattle Times
19	10/4 - 10/6	Redmond (3)	17777 NE 76th St.	98052	Home Depot
20	10/18 - 10/20	Duvall	14020 Main St NE, Duvall	98019	Safeway
21	10/25 - 10/27	Bothell (6)	19200 120th Ave NE	98011	Seattle Times

(1) David Uti - Site Manager 206 817-4779      (2) Bridget Kelly - Contract Manager 206 510-0867

## WASTEMOBILE COMING TO BOTHELL

### SAVE THE DATE



## 2013 Wastemobile Events!

March 1-3, May 10-12, June 28-30

August 2-4, September 20-22 & October 25-27

10 a.m. to 5 p.m.

Seattle Times Building  
19200 120th Ave. NE, Bothell

For details about this event and future Bothell Wastemobile dates, visit  
[HazWasteHelp.org](http://HazWasteHelp.org) and click "Wastemobile"

For more recycling information, visit [bothellcool.org](http://bothellcool.org)  
and click "Recycling"

**Alternate Formats Available**  
Voice: 425.486.2768 or TTY Relay: 711



## YOUR GUIDE TO HAZARDOUS WASTE

### Some examples of hazardous products are:

Automotive or cleaning supplies (see label), home improvement products (yard chemicals, varnish, adhesives, etc.), pesticides, and synthetic fertilizers.

For a complete list, visit [bothellcool.org](http://bothellcool.org) and click "Recycling."

### How do I dispose of household hazardous waste?

You can take your unwanted household hazardous products to a hazardous waste facility, or utilize one of the six Wastemobile opportunities listed on the front of this card.

For more information on this and other options, please visit:

[HazWasteHelp.org](http://HazWasteHelp.org) and click "Wastemobile"  
or call 206.296.4692 or 888.TOXICED (869.4233)

**WASTEMOBILE COMING TO BOTHELL**

**SAVE THE DATE**



## **2013 Wastemobile Events!**

March 1-3 • May 10-12 • June 28-30

August 2-4 • September 20-22, & October 25-27 • 10 a.m. to 5 p.m.

Seattle Times Building • 19200 120th Ave. NE • Bothell

For more Recycling information, visit  
[bothellcool.org](http://bothellcool.org) and click “Recycling”

For details about this event and future Bothell Wastemobile dates, visit  
[HazWasteHelp.org](http://HazWasteHelp.org) and click “Wastemobile” or  
call (206) 296-4692 or 1.888.TOXICED (869.4233)

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.

**OK YES TAKE THESE PRODUCTS TO A HOUSEHOLD HAZARDOUS WASTE SITE**  
Limit: 50 gallons per customer per day; no container over 5 gallons

- Household Cleaners
- Lawn & Garden Products
- Oil-based Paints, Thinners & Stains  
No Latex
- Batteries: Household & Vehicle  
Limit: 5 car batteries
- Flammable Liquids  
Limit: up to 30 gallons of gasoline
- Automotive Products
- Household Products
- Hobby Supplies
- Antifreeze
- Used & Unused Motor Oil
- Pool & Spa Supplies
- Road Flares

**NO THESE PRODUCTS ARE NOT ACCEPTED**

CALL HOUSEHOLD HAZARDOUS LINE AT 206-296-4692 FOR DISPOSAL OPTIONS

- Ammunition
- Fireworks
- Marine Flares
- Explosives
- Latex Paint  
(Empty paint cans OK to toss in trash with lid off)
- Medical Sharps (needles)
- Asbestos Containing Materials

CALL KING COUNTY SOLID WASTE AT 1-800-325-6165, EXT. 6-4486

CALL PUGET SOUND CLEAN AIR AGENCY AT 206-343-8800

CALL 1-800-RECYCLE OR GO TO [www.TakeItBackNetwork.org](http://www.TakeItBackNetwork.org)

- Televisions & Computer Monitors, Electronics
- Mercury-Containing Thermometers, Thermostats, Fluorescent Tubes and Bulbs (up to 10 tubes and bulbs)

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>FACTORIA HOUSEHOLD HAZARDOUS WASTE DROP-OFF SERVICE</b> 13800 SE 32nd Street, Bellevue, WA 98005</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>WEEKLY AUBURN SUPERMALL WASTEMOBILE HAZARDOUS WASTE DROP-OFF SERVICE</b> At the NW corner off of SuperMall Way of SuperMall Way sports to Sports Authority.</p>

**Plan ahead! Please note when facilities are open. Call for holiday schedule.**

	SUN	MON	TUES	WED	THUR	FRI	SAT
<b>NORTH SEATTLE:</b> Open 9:30 a.m. - 4:30 p.m. FACTORIA: 9 a.m. - 5 p.m.	CLOSED						
<b>SOUTH SEATTLE:</b> Open 9:30 a.m. - 4:30 p.m. FACTORIA: 9 a.m. - 5 p.m.	CLOSED						
<b>AUBURN WASTEMOBILE:</b> <a href="http://www.hazwaste.org/home/HHW/disposal-locations.aspx#auburn">www.hazwaste.org/home/HHW/disposal-locations.aspx#auburn</a>	CLOSED						
For more info, about Wastemobile drop-off sites in other King County cities: <a href="http://www.hazwaste.org/home/HHW/wastemobile.aspx">www.hazwaste.org/home/HHW/wastemobile.aspx</a> or call 206-296-4692, 1-888-TOXIC ED							
<b>AUBURN SUPERMALL WASTEMOBILE:</b> Open weekly Saturday and Sunday from 10:00 a.m. - 5:00 p.m.							

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

Household Hazardous Products:

For information visit [www.hazwaste.org/home/HHW/hhw.aspx](http://www.hazwaste.org/home/HHW/hhw.aspx)

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:  
206-684-3000 [www.seattle.gov/util/services](http://www.seattle.gov/util/services)

Local Hazardous Waste Management Program in King County, Washington

Revised December 2011  
Printed on recycled paper.  
Recycled

Alternate formats available

206-296-4692 or TTY relay 711

VC 166-112, 4/07/2011/5/11/2011 3:44 PM

# City of Bothell Launches New Hazardous Education Game

By Sabrina Combs, City of Bothell, [Sabrina.Combs@ci.bothell.wa.us](mailto:Sabrina.Combs@ci.bothell.wa.us)

City of Bothell staffers Sabrina Combs, Recycling and Public Services Projects Administrator and Janet Geer, Surface Water Program Coordinator, wanted a more interactive way to engage the public at Bothell’s annual Riverfest. A simple brainstorming session created the concept for a Hazardous Home Game to interactively educate the public on what to do with items when they have finished using them.

Janet’s dad, Frank Geer, a retired Hydraulics Engineer, took the concept from drawing board to reality. The game is designed to be reusable and adaptable, and portable. The category titles (e.g. garbage, sewer, wastemobile) are on hooks, and can be easily changed out by simply printing new titles on card stock. The categories (lists of items like expired medicine, phone books, household batteries) are color coded to match neon balls and can be changed out with the simple modification of categories and a reprint on a color plotter.

The player gets a colored neon ball, corresponding to one of six categories of potential hazardous or solid waste items. The player needs to match the category with one of the six tubes representing different methods of disposal.

Tony Benson, Local Source Control Specialist, tested the game at a business park event. “We had some minor tweaks but it worked well”, said Tony. The game officially launched at Riverfest on Sunday, August 26, with over 200 enthusiastic players.

This game is played alongside a table with informational resources for the program elements highlighted. Players walk away with information and tools to help them do a better job in the future. But the best part is that it’s an enjoyable way to remind the public of where they should take the items to properly dispose of or recycle them.



This game addressed one of the Public Works staff’s central goals--Help identify where more education is needed.

The City of Bothell Public Works staff appreciates King County Public Health staffer Paul Shallow for working with us to fund the creation of the game with Local Hazardous Waste Management Grant funds.



## Appendix G



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 wastewater 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 wastewater 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*

## Additional Information

### Online Resources:

**City of Bothell Surface Water Management Division**  
<http://ci.bothell.wa.us/CityServices/PublicWorks/SurfaceWaterManagement.ashx>

**Bothell Municipal Code**  
<http://www.codepublishing.com/wa/bothell/>

**Department of Ecology Stormwater Management Manual**  
<http://www.ecy.wa.gov/programs/wq/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.ryback@ci.bothell.wa.us](mailto:gunnar.ryback@ci.bothell.wa.us)



Above: Pond is cleaned and able to hold water as designed

## Appendix H



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** 



Whatever enters Bothell storm drains goes directly to the nearest lake, stream, or wetland without treatment

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# 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

# 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.



City of Bothell

**Only Rain Down the Storm Drain**  
**NO grease, NO dirt, NO garbage, NO wash water!**



## TAKE A MOMENT AND BE REWARDED!

As Bothell residents, we value your opinion concerning our efforts to reduce water pollution and improve our stream health. We complete a report each year which describes our past efforts and discusses our future goals for the coming year. Soon, we will be working on our next version and would value any input.

**To participate visit: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us) and search "Surface Water Management"**  City of Bothell

Read our current plan and provide any comments in the webpage comment box. Be sure to provide your name and address if you would like to receive a FREE gift for your efforts.

Thank you for taking the time to strengthen our program and help protect our water!

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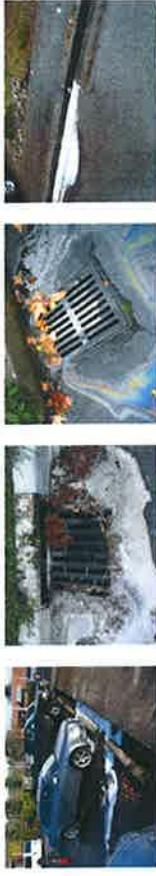
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*Nothing But RAIN Down The Drain*



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**Puget Sound Starts Here**  [org](http://www.pugetsoundstarts.org)

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## **Appendix I**

# Rain Gardens...

## Why are Rain Gardens important?

Rainwater picks up pollutants as it flows over hard surfaces such as rooftops, driveways and compacted soils. These pollutants, such as gasoline, motor oil and pesticides, are then carried through storm drains directly into our local rivers, lakes and streams. When rainwater is allowed to soak into the ground through a Rain Garden, some of these toxic materials are removed by plant and animal microorganisms living in the soil.

## Why build a Rain Garden?

- Increases your property's curb appeal and beautifies your neighborhood
- Saves money when compared with other stormwater control options
- Helps reduce localized flooding in your neighborhood
- Improves the water quality of our local lakes, rivers and streams
- Helps protect and reduce erosion in neighboring streams and rivers that can damage salmon habitat
- Helps recharge local groundwater supplies

## Why use recycled materials?

Reusing materials in your Rain Garden benefits the environment and your community. Compost, soils, bark mulch and garden stones are just a few ideas for easily obtained recycled materials used in this garden. The garden also includes several other recycled items such as a decorative drainage grate, an Orcaboard™ lumber sign post made from recycled milk jugs, and a repurposed bench.

## For more information

Take a brochure with you or visit the Rain Garden page on our City Web site: [www.ci.bothell.wa.us](http://www.ci.bothell.wa.us)

# beautify your landscape and help protect our waterways

## What is a Rain Garden?

A Rain Garden is a shallow planted area in the landscape where rain water is allowed to collect and absorb back into the soil. A Rain Garden mimics the natural environment of the undisturbed soils and forests that once covered the Puget Sound area.



1 Redwing Blackbird



2 Western Tanager



3 Rose Hips



4 Spotted Towhee



5 Golden-crowned Kinglet



6 Blue Jay



7 Black-chinned Nuthatch



8 Blue Jay



9 White-bellied Nuthatch



10 Blue Jay



11 Junco Sparrow



12 White-bellied Nuthatch



13 Green Heron



14 White-bellied Nuthatch



15 Black-chinned Nuthatch



16 Common Nighthawk



17 White-bellied Nuthatch



18 Black-chinned Nuthatch

## Why Native Plants?

In a Rain Garden, plant roots and soil organisms work together to help absorb and clean rainwater runoff.

Using native plants is best because they are naturally adapted to local pests and periods of wet and dry weather, and can thrive without the use of fertilizers or pesticides. Native plants also create habitats for local birds, butterflies and beneficial insects by providing food and shelter.

## Recognition:

This project would not have been completed without funding provided by:  
 King County Waste Reduction and Recycling Grant  
 King County Local Hazardous Waste Management Program in King County Grant

This project was made possible through the help and support of the following agencies:  
 King County In-Harmony Program  
 City of Bothell  
 In Harmony Sustainable Landscapes





## Low Impact Development Workshop for the City of Bothell

Wednesday, April 4<sup>th</sup>, 2012

**9:00- 9:30**      **Welcome and Introduction to LID**

*Kimberlie Gridley, WSU Puyallup, Low Impact Development Program Coordinator*

**9:30-10:00**      **Regulations in Bothell**

*Kristin Terpstra P.E. and Dave Phelps P.E.- Stormwater Engineers*

---

**10:00-10:15**      **Break**

---

**Break Out Sessions:**

**10:15-11:15**      **Design Considerations for Planning and Drainage** (Planners, Engineers, Review)

*Alice Lancaster, Herrera*

**OR**

**10:15-11:15**      **Maintenance and Inspection of LID** (Inspectors and Maintenance Staff)

*Drena Donofrio, Seattle Public Utilities*

---

**11:15**              **Break**

---

**11:30- 12:30**      **Poor Infiltration Considerations and Lessons Learned**

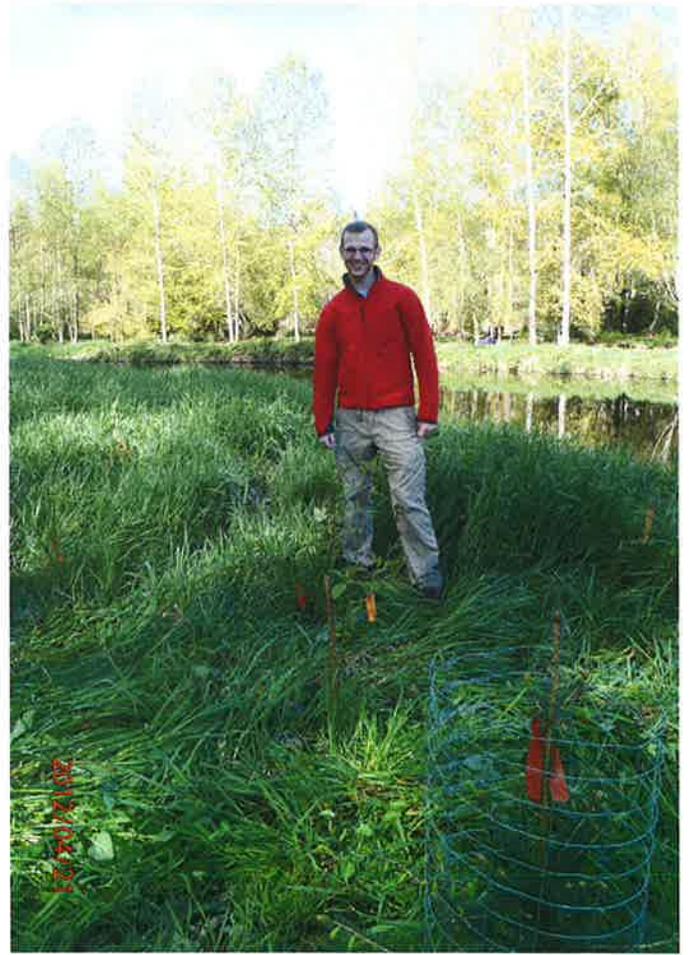
*Robin Kirschbaum, HDR*

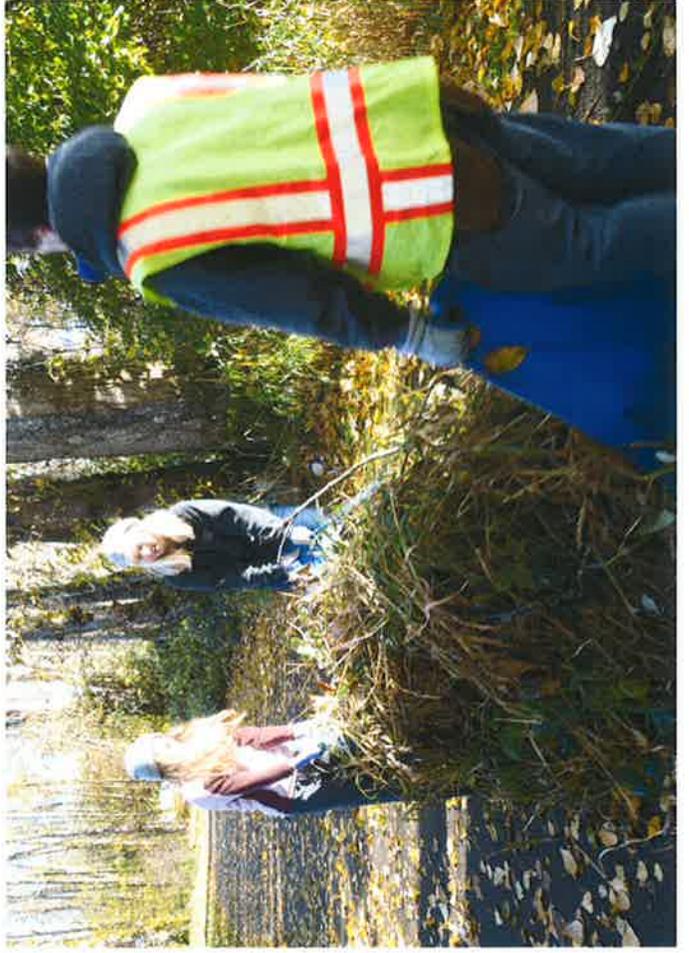
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*\*Coffee, tea, and lunch will be provided during the discussion*

## Appendix J







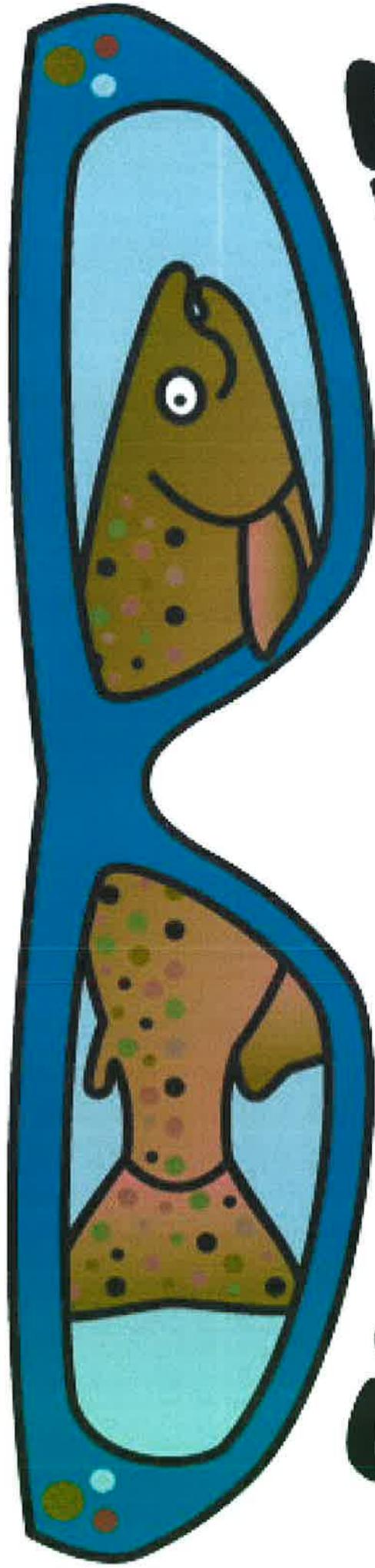


This drains to a creek and then to Puget Sound

**Puget Sound**

**Starts Here**

**BE A**



**SALMON WATCHER**