

CITY OF SHORELINE SURFACE WATER UTILITY



2018 Annual Report

THE CITY OF SHORELINE Surface Water Utility manages the public stormwater drainage system to reduce flooding, comply with environmental regulations, and prevent pollution of our streams, lakes, and Puget Sound. Each year, we work hard to reduce flooding and environmental risks from stormwater by inspecting and cleaning pipes, storm drains, streets, and ditches. We install drainage improvement projects and innovative stormwater treatment solutions like rain gardens and filter vaults. We also promote activities that create cleaner, healthier natural water bodies in the community.

This report provides a review of the work we accomplished in 2018, and an update on our 2019 budget, rates, and projects. It also provides ways that you can get involved to help us protect clean water habitat in our streams, lakes, and Puget Sound. In 2018, we updated our Surface Water Master Plan, which guides our programs and projects over the next ten years. This master plan called for a “proactive” management strategy and set level of service targets for each of our programs. This report highlights several of these measures for each service area. To learn more, please visit our website at: shorelinewa.gov/surfacewater.

WHAT IS STORMWATER?

When rain falls on hard surfaces in our city like streets, parking lots, rooftops, or driveways, it runs off into a system of drains, pipes, and other features. This runoff is called ‘stormwater.’ Stormwater in Shoreline is not treated, but empties directly into local streams, lakes, and Puget Sound.



PHOTO: The detention pond at Cromwell Park manages stormwater naturally, using wetland habitat to store and filter runoff from the surrounding neighborhood.



PHOTO: Wildlife, like this seal pup at Richmond Beach, depend on clean water habitat in streams, lakes, and Puget Sound.

138

MILES OF STORMWATER PIPES

7,539

STORM DRAINS

16

STORMWATER PONDS

48,506

SQUARE FEET OF RAIN GARDENS



SURFACE WATER UTILITY



We inspect and maintain our public stormwater system to ensure it is safe and effective at preventing flooding and pollution. Street sweeping helps prevent flooding and keeps pollutants, like oil, trash and heavy metals, from entering the environment.



Eight drainage improvement projects were completed around the city in 2018. These projects solved local flooding and drainage problems in response to resident input and system planning efforts. A map of project locations can be found on page four of this report.

MANAGING SURFACE WATER IMPACTS

We work to manage the impact of stormwater on public health, safety, and the environment. Annual inspection and maintenance programs, such as street sweeping, pipe repair, and cleaning storm drains, ensure our system prevents flooding and pollution from stormwater. We also monitor the water quality in our streams, lakes and swimming beaches to ensure these natural water bodies are safe for wildlife and recreation.



2,167

MAINTENANCE WORK ORDERS completed in 2018.

75%

completed as scheduled



688

TONS OF DEBRIS removed by street sweeping in 2018.

\$102

per lane mile swept



1,064

STORM DRAINS cleaned to remove dirt, debris and trash.

100%

within required schedule

PROVIDING CONSISTENT & EQUITABLE SERVICE

We are committed to providing consistent, equitable service to Shoreline residents at a reasonable cost, within current rates and budget. Each year, the Utility responds to service requests from residents for drainage, flooding, and water quality issues. We repair and improve our stormwater system using input from residents around the city. Project locations are also chosen based on an analysis of our stormwater system in each area of the city, known as basin plans.



167

SERVICE REQUESTS from residents for drainage issues, flooding, or water quality.

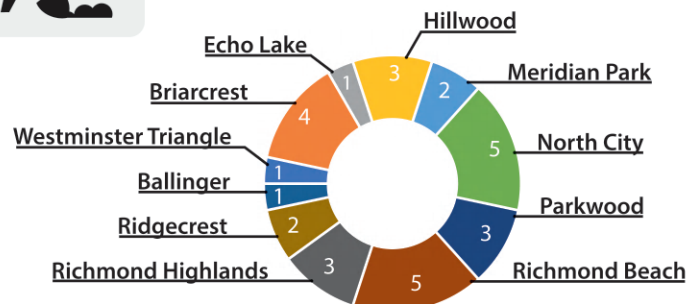
99%

responded to



30

SMALL REPAIRS to the City storm water system completed in 2018:



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ENGAGING THE COMMUNITY

Whether attending community events, or reaching out via citywide mailings, web, and digital media, we are committed to engage in transparent public communications and outreach. We work with residents, businesses, and school groups to help improve water quality for wildlife and recreation. Through our Adopt A Drain, Storm Drain Marking, and Soak It Up Rebate programs, we offer opportunities for residents to get involved in protecting water quality.



13

RAIN GARDENS and native vegetation landscaping rebates issued in 2018.

9,988

square feet treated



75

OUTREACH MESSAGES

Published in 2018 in print, web and social media.

99%

of households reached



32

VOLUNTEERS ENGAGED

in the 2018 Adopt A Drain and Storm Drain Marking programs.

206

drains marked by volunteers



Staff provided interactive education presentations and displays for over 1,100 residents at 10 community events in 2018, including neighborhood meetings, Northwest SolarFest and Earth Day Every Day.

PROTECTING THE ENVIRONMENT

Each year, we work hard to protect and improve the water quality of the city's streams and lakes. State law requires the Surface Water Utility to reduce the environmental impact of stormwater runoff. By inspecting public and private stormwater systems, performing regular maintenance, responding to spills, and providing public education opportunities, we work to meet these requirements and protect the health of our natural waterbodies for wildlife and recreation.



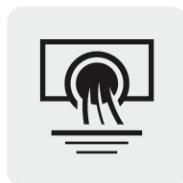
70

PRIVATE FACILITIES

inspected for pollution or maintenance issues in 2018.

96%

of facilities in compliance

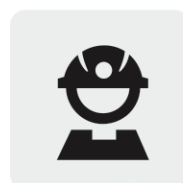


26

SPILLS and illicit discharges responded to and cleaned up by staff in 2018.

65

calls to City spill hotline



5,461

CITY STORMWATER ASSETS

inspected for maintenance or pollution issues in 2018.

100%

within required schedule



In 2018, the Utility inspected over 5,400 assets to meet state law requirements and ensure our stormwater system is effective at reducing environmental risks such as flooding and pollution, helping to protect clean water for wildlife and recreation.

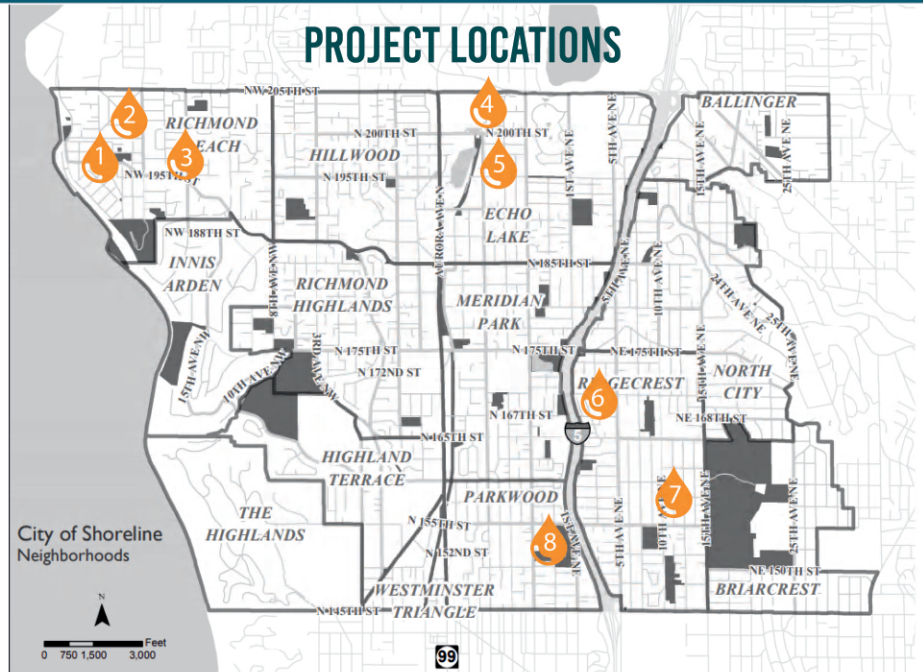
IMPROVING OUR INFRASTRUCTURE

EACH YEAR, the Utility prioritizes and completes repair and drainage improvement projects around the City to improve our stormwater system. Larger projects are coordinated as part of the City's overall Capital Improvement Plan. Detailed information regarding construction impacts is distributed to impacted areas and available online at: shorelinewa.gov/projects.

COMPLETED PROJECTS

2018

- 1. NW 194th Place and 25th Avenue NW:**
Drainage ditch replaced with new pipe
- 2. Near 2112 NW 199th Street:**
New pipe and shoulder paving
- 3. 15th Avenue NW south of NW 198th Street:**
New pipe, catch basin, and asphalt berm
- 4. N 200th Street east of Ashworth Avenue N:**
New pipe and catch basin
- 5. Near 19625 Ashworth Avenue N:**
New catch basin and asphalt swale
- 6. 2nd Avenue NE north of NE 167th Street:**
New pipe, catch basins, and infiltration pipe gallery
- 7. 11th Avenue NE north of NE 155th Street:**
New pipe, catch basins, and infiltration pipe gallery
- 8. Corliss Avenue N and N 150th Street:**
New pipe, catch basins, and rehabilitated drainage swale



UPCOMING PROJECTS

2019

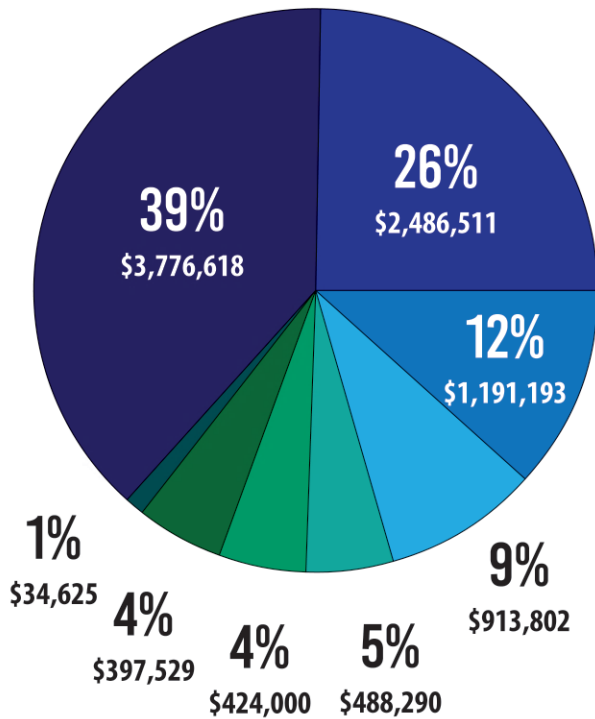
- System Capacity Modeling Study:** Study to model the City's surface water system capacity and prioritize basins for improvements
- Climate Impacts and Resiliency Study:** Study to analyze the impact of climate change on City infrastructure and recommend improvements
- Pump Station Misc Improvements:** Design of project to make building, site, and online data gathering improvements at pump stations throughout the city
- 10th Ave NE Stormwater Improvements:** Pre-design of project to improve roadside drainage ditches using infiltration facilities
- 25th Avenue NE Flood Reduction and NE 195th Street Culvert Replacement Design:** Design project to reduce localized flooding along roadway
- NE 148th Street Infiltration Facilities:** Design of infiltration facilities to improve local drainage and protect water quality in Littles Creek
- Hidden Lake Dam Removal:** Design phase for removal of dam, replacement of culvert and restoration of Boeing Creek

2020

- Pump Station Misc Improvements:** Project to make building, site, and online data gathering improvements at pump stations throughout the city
- 2020 CIPP Pipe Lining Project:** Design and construction of project to rehabilitate pipes around the city utilizing trenchless pipe repair methods
- M-1 Dam Channel Rehabilitation Project:** Project to repair erosion upstream of the dam and improve the channel environment to prevent future damage
- Hidden Lake Dam Removal:** Continued design for dam removal, culvert replacement, and creek restoration. Dam removal scheduled to begin in 2021.

PLANNING FOR THE FUTURE

2019-2020 BUDGET



- CAPITAL PROJECTS: \$3,776,618**
Funding to design and build stormwater system improvement projects
- PROGRAM STAFF: \$2,486,511**
Salaries and benefits for all Utility maintenance, inspection and program staff
- REPAIRS AND MAINTENANCE: \$1,191,193**
On-call and annual maintenance and repair work performed by Utility staff or contractors
- DEBT SERVICE: \$913,802**
Payments on bonds collected to fund capital improvement projects
- INTERGOVERNMENTAL SERVICES: \$488,290**
Services provided by King County and Washington State such as laboratory and billing services
- PROFESSIONAL SERVICES: \$424,000**
Consulting support services for plans and studies, program development, and water quality monitoring
- CITY OVERHEAD: \$397,529**
Overhead for City support staff, such as fleet and facilities, legal, and information technology, etc.
- EDUCATION AND OUTREACH: \$34,625**
Includes funding for informational mailings, rain garden rebates, and public education campaigns

SURFACE WATER MANAGEMENT FEES

Surface water management fees (SWM fees) are collected annually from properties in Shoreline to pay for the Utility's services. SWM Fees are set as part of the City's annual budget each November, and are collected by King County along with your property taxes in two installments, on April 30 and October 31 of each year. The rates for 2019 are listed below and are based on the amount of hard surfaces on each property.

2019 SWM FEE RATES

CATEGORY	% HARD SURFACE	SWM FEE	UNIT
Single-Family Home	N/A	\$246.55	Per Parcel
Very Light	0% - 10%	\$246.55	Per Parcel
Light	>10% - 20%	\$572.62	Per Acre
Moderate	>20% - 45%	\$1,82.97	Per Acre
Moderately Heavy	>45% - 65%	\$2,294.35	Per Acre
Very Heavy	>65% - 85%	\$2,906.72	Per Acre

MASTER PLAN UPDATE

In 2018, the City updated the Surface Water Master Plan to address drainage and water quality challenges associated with growth, new regulations, and aging infrastructure. The 2018 master plan will guide the Utility's programs, operations and projects over the next five to ten years. Based on resident input from open houses and surveys, the 2018 plan implements a "proactive" strategy to better manage flooding, reduce environmental pollution, and meet updated environmental regulations. For more information and to read the full plan, visit the City's website at: shorelinewa.gov/surfacewater.

PROTECTING WATER QUALITY

WILDLIFE LIKE SALMON AND ORCA depend on having clean water in lakes, streams, and Puget Sound. Storm drains in Shoreline lead directly to these natural water bodies without treatment. That means any oil, pet waste, and lawn care chemicals we leave on our roads, driveways, parking lots, and lawns can cause water pollution and harm wildlife.

Fortunately, you can help soak up run off and keep it clean. Taking these simple, every day actions can help protect clean water habitat for wildlife like salmon, orca, shelfish, and more. Learn more at: pugetsoundstartshere.org.



PHOTO CREDIT: Mike Charest

TAKE ACTION FOR CLEAN WATER



Help protect clean water in local streams by installing "No Dumping" medallions on storm drains in your neighborhood. Last year, volunteers marked over 200 storm drains around the city! Contact us at (206) 801-2455 to request a kit.

PRACTICE NATURAL YARD CARE

Natural yard care practices, like using compost and mulch and limiting fertilizer use, can help protect our community and wildlife. Excess fertilizers and pesticides end up in streams, lakes, and Puget Sound when it rains where they harm marine wildlife.

BAG AND TRASH PET WASTE

Pet waste is raw sewage. When left on the ground, it can spread disease and lead to high bacteria levels in our lakes and streams, which can close them for recreation and harm wildlife. The trash is the safest place for pet waste. Whether at home or on a walk, responsible dog owners bag their pet's waste and throw it in the trash.

BUILD A RAIN GARDEN

These attractive landscape features act as natural filters, helping soak up runoff and cleaning it. They also improve drainage, create habitat, and add beauty to your yard.

USE A COMMERCIAL CAR WASH

Washing your car in the street or driveway causes soapy, dirty water to enter streams, lakes, and Puget Sound where it harms wildlife and contributes to swimming beach closures. Use a commercial car wash instead, where the water is filtered and recycled!

ONLY RAIN DOWN STORM DRAINS

REPORT SPILLS OR DUMPING

Spills happen - help us find them and clean them up! Nothing but rain water should be allowed to enter storm drains. If you see anything that is not rain water entering an outdoor drain please call the City's **24/7 Customer Response Hotline at (206) 801-2700**.



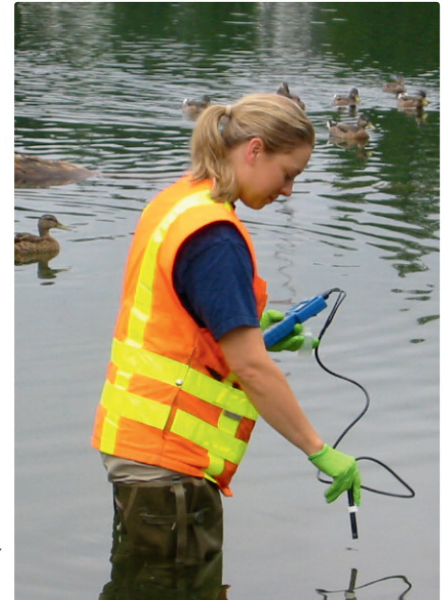
FOR FUTURE GENERATIONS

WATER QUALITY MONITORING

Utility staff monitor the overall water quality of the four major streams in Shoreline throughout the year. We also monitor swimming beaches at Echo and Hidden lakes during the summer for the health and safety of swimmers and pets. In 2018, no water quality warnings were issued for Echo or Hidden lakes. Water quality in our streams is measured using a Water Quality Index (WQI) score. The WQI is a unitless number from 1-100, where a higher WQI score indicates better water quality. The data for October 2017 through March 2018 show that several of Shoreline's streams are listed as "high concern" due to factors like high bacteria, nutrient, and sediment levels, and low dissolved oxygen levels.

Creek	WQI Score	Status
Boeing Creek	73	Moderate Concern
McAleer Creek	60-63	Moderate Concern
Thornton Creek	1-51	High Concern
Storm Creek	20	High Concern

PHOTO: Utility staff monitoring Echo Lake. There were no water quality warnings issued for either Hidden Lake or Echo Lake in 2018.



SOAK IT UP REBATE PROGRAM

REBATES OFFERED FOR RAIN GARDENS AND NATIVE VEGETATION LANDSCAPING

The Utility provides rebates of up to \$2,000 for property owners to enhance their yard with a rain garden or native vegetation landscape. These attractive, natural filters soak up the rain, protect water quality, and beautify your property. Over 40 properties in Shoreline have participated in the program since 2014. 2018 program info is shown below. Rebates are provided on a first-come, first-served basis each year. To schedule a free site consultation, call us at (206) 801-2455 or visit: shorelinewa.gov/soakitup.



13 PROJECTS INSTALLED

9,988 SQUARE FEET TREATED

\$19,976 IN REBATES

\$1,536 AVERAGE REBATE



PHOTO: 2016 Native Vegetation Landscaping Project in the Hillwood neighborhood



17500 Midvale Avenue N
Shoreline, WA 98133-4921

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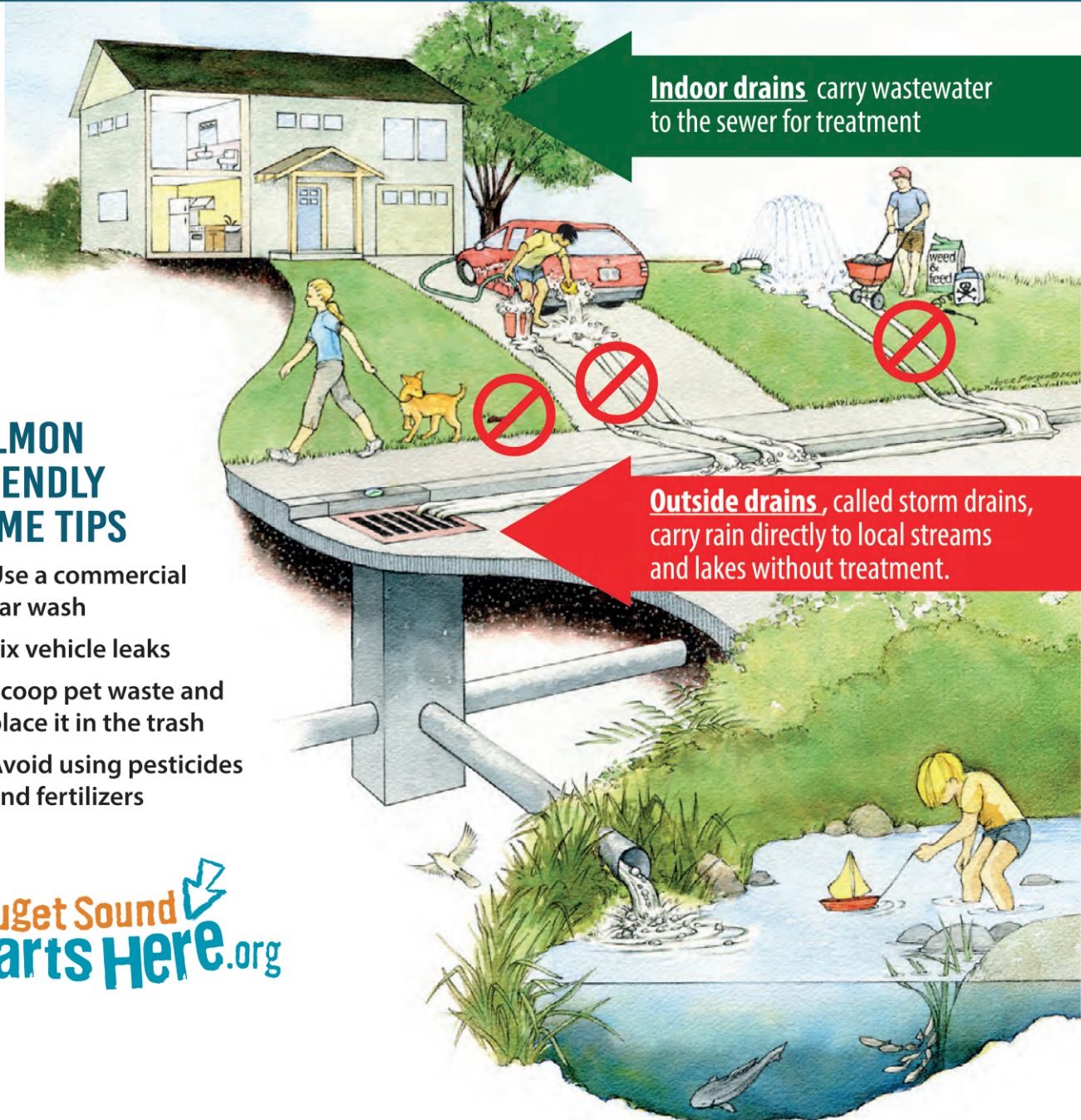
Surface Water Utility
2018 Annual Report

Alternate formats available
upon request: (206) 801-2700

ECRWSS
POSTAL CUSTOMER

Printed on 30% post-consumer recycled paper

HELP PROTECT CLEAN WATER



SALMON FRIENDLY HOME TIPS

- Use a commercial car wash
- Fix vehicle leaks
- Scoop pet waste and place it in the trash
- Avoid using pesticides and fertilizers

Puget Sound Starts Here.org