

67 – Public Education and Outreach Efforts

The 2013 NPDES Phase I Municipal Stormwater Permit directed the City of Seattle to implement a program for conducting education and outreach to specific audiences on specific topics. The City has prepared an education and outreach program of best management practices to meet these requirements. The following sections include a brief description of the education and outreach activities associated with each of the BMPs, what strategies are in place to track improvements in the target audience's understanding of the problems, and a summary of 2014 activities.

Protect Our Waters (POW) Community and Youth Programs

This program educates the general public about the impacts of stormwater flows into surface waters and the impacts associated with impervious surfaces. The program includes teacher training, curriculum resources, field trips and community service/service learning activities. Programs are implemented through a partnership between Seattle Public Utilities (SPU) and Seattle Public Schools (SPS).

SPU and SPS have identified existing curriculum areas where applied stormwater issues can support and enrich student learning. As a result local geographic references, stormwater-related content and new lessons have been added to district-wide science curriculum for elementary (5th grade) and middle school (6th grade) students. In addition, field trips at the elementary level tie the investigation of an applied problem - the impacts of stormwater on a real stream - to district-wide grade level content (either the Land and Water science kit or Salmon in the Classroom program). The field trips bring children to a local urban stream where they explore hydrologic concepts and the impacts of urbanization on lotic systems. Community service and service learning opportunities, such as storm drain stenciling, extend the reach of this content into the adult community and build a personal stewardship ethic.

In 2014 SPU provided materials for 50 stormwater related district-wide science kits. Materials included the Ecology GROSS grant-funded *Lost and (Puget) Sound* video and lessons and an original power point presentation titled *Discovering Seattle's Land and Water*. Twenty-five teachers received training on the kits and the use of the new materials. In addition 800 children attended



urban watershed fieldtrips related to Salmon in the Schools at Piper's Creek, and over 2,200 students attended a field trip extension to the Land and Water unit at either Longfellow, Piper's, Taylor or Thornton Creek. More than thirty different public, private and parochial schools in Seattle participated in the program. Several years of teacher surveys have indicated that teachers that participate in these programs see increases in student understanding of the impacts of stormwater and impervious surfaces.

Working with the Seattle School District provides an opportunity to reach a diverse geographic audience and engage students with direct, applied learning. The program links closely with current

school science curriculum to reinforce target messages and illustrate concepts with real, local examples.

In 2014, programs for the general public included direct education, social marketing, partnerships, inclusive engagement and personal stewardship strategies to promote water quality and watershed health. SPU provided public tours of creek watersheds and stormwater projects, staffed public festivals and events and supported volunteer storm drain marker and stencil events. In addition educational materials such as E-newsletters and BMP beverage coasters were distributed. SPU also supported public stewardship programs such as Salmon Watcher and Salmon Stewards, community advisory councils, and the Green Infrastructure Partnership and collaborated with regional Tribes to produce Salmon Homecoming reaching over 1000 students.

Doo Diligence Pet Waste Program

The Doo Diligence Pet Waste Program is a city-wide outreach effort that educates the general public about the impacts of pet waste on water quality. In 2014, the program employed several programmatic strategies to engage residents on the topic of source control BMPs, environmental stewardship actions, and opportunities to improve pet waste disposal practices. Strategies in 2014 included: highly visible signage in public places, the distribution of targeted outreach materials, and maintenance of pet waste baggie dispensers at key locations throughout Seattle.

Partnerships in 2014 included collaborations with Seattle Animal Control, Seattle Parks and Recreation, Block Watch organizations, and multiple local businesses such as veterinarians, animal hospitals, clinics, and pet stores. In 2014 the program increased outreach to Seattle communities by installing new pet waste baggie dispensers bringing the total to 65 and distributing over 132,000 mutt-mitts.

Automotive Maintenance Program (AMP)

In 2014, SPU continued to educate residents and the general public about the impacts of vehicle fluids on stormwater quality through our free Auto Leaks Workshops. The goal of each four-hour workshop is to remove barriers for BMP adoption and create the connection between clean water and vehicle maintenance. All participants receive a Vehicle Maintenance Kit after completion of the workshop. A total of 361 Maintenance Kits were given to participants who attended the workshop. In 2014, three-hundred and sixty-one (361) people participated in the 39 auto leaks workshops offered to the public.



The grant received from the Washington State Department of Ecology that supports AMP's effort on a regional level ended in Fall 2014. During the grant period, 2012-2014, AMP provided a total of 95 workshops in three different cities (Seattle, Shoreline, & Renton) serving an estimated number of 1,120 people. The post-workshop survey indicated that 88% of the participants attending the workshop checked for leaks on their cars and 78% changed how they maintained their cars. An online survey found that an estimated 76% of participants had repaired all or some of the problems found during the workshop. About 61% of workshop participants reported that they made repairs

because they didn't want to pollute the waterways of Puget Sound. Evaluation of the program's effort from 2012-2014 indicates that AMP successfully contributed to changing car maintenance behaviors and is an effective program for influencing BMPs that can help protect Puget Sound.

To increase workshop participation and raise awareness, SPU continued to partner with King County, WA State Department of Ecology, and other agencies/institutions in the region. Workshop posters, brochures, and social media with information about car maintenance BMPs were shared with the public through our community partners. Three issues of SPU's Curb Waste and Conserve direct mail newsletter (distribution approx. 280,000) included information promoting the auto leaks classes. In addition, a 4-week radio campaign promoting the workshops ran on KUOW. Partnerships with King County and the Washington Department of Ecology continue to play a pivotal role in Seattle's AMP campaign and regional messaging.

Natural Soil Building

The Natural Soil Building Program (NSB) is supported by SPU Solid Waste and Water Supply funding as well as SPU Drainage funding and the Local Hazardous Waste Management Program in King County. The NSB Program has two components: the Master Composter Soil Builder (MCSB) volunteer training and outreach program, and the Garden Hotline (which answers phone and email requests, and also conducts classes especially for underserved and ESL audiences). The NSB program provides outreach and education on Natural Yard Care (including pesticide and fertilizer reduction) and also on RainWise techniques (LID and GSI) for the general public, residents, property owners and landscape professionals.

In 2014 the Master Composter Soil Builder program conducted two multi-day trainings for volunteers: one in the Spring for a diverse group of English-speaking MCSB volunteers, one in summer for multi-ethnic at-risk youth in collaboration with Safe Futures Youth Center in SW Seattle, and one in early fall for diverse low-income young volunteers participating in the Seattle Youth Garden Works program who will be doing outreach with future low-income participants. The newly trained volunteers joined the existing volunteer cadre in completing 959 hours of outreach and making 13,210 customer contacts on Natural Yard Care and RainWise at community events, demonstrations, and classes around Seattle.

The Garden Hotline serves all of King County through additional funding from the county-wide Saving Water Partnership and the Local Hazardous Waste Management Program in King County. The Garden Hotline responded to 9,503 public requests for information on Integrated Pest Management (IPM), plant selection, soil building, RainWise, and other resource conservation issues. Seventy-nine percent of the Garden Hotline contacts were with residents within the City of Seattle, and 21% in King County outside Seattle. Besides phone and email contacts the Hotline conducted 49 classes and outreach events, with 38% of event contacts provided in underserved, immigrant, or communities of color. Hotline staff also wrote articles for community media, updated factsheets and guides, and assisted in preparing materials for translation. A survey of Hotline customers in 2014 indicated 92% satisfaction and usefulness of the information they received in helping them change behaviors.

Seattle reLeaf

Seattle reLeaf is a citywide interdepartmental program that focuses on increasing and maintaining healthy tree cover. Seattle reLeaf has two main projects: Tree Ambassador and Trees for Neighborhoods. Seattle reLeaf is an appropriate BMP for educating the public about landscaping and buffers and it engages residents in the stewardship and restoration of the urban forest canopy.

Seattle reLeaf's Tree Ambassador project empowers Seattle residents to become local leaders in urban forest stewardship. Tree Ambassador volunteers lead community events in their neighborhoods, including street tree weeding and mulching work parties, small-scale landscape renewal projects, and public tours of neighborhood trees. In 2014, reLeaf trained 45 new Tree Ambassadors. With the help of volunteer Tree Ambassadors, the reLeaf engaged over 600 people in 35 community Tree Ambassador events. Events included 13 tree walks and 12 community work parties in neighborhoods including Ballard, Rainier Beach, North Delridge, Lake City, and Beacon Hill.

The Trees for Neighborhoods project builds a healthier, greener Seattle by engaging residents in planting trees on private residential property. In October and November 2014, residents planted 995 trees at 427 households in neighborhoods across Seattle.

Trees included evergreens, Pacific Northwest natives, fruit, and power line friendly trees. All participants attended a tree planting and care workshop before picking up their new trees—80% reported learning something new about tree planting and 100% said that they would recommend the program to others. One participant commented, "Didn't know the proper technique for planting trees prior to participating in this awesome program. Feel much more empowered to plant trees now!" Residents who have planted program trees in the past years receive opportunities to attend free pruning workshops and regular reminders to water their trees during Seattle's hot, dry summer months. Since 2009, Trees for Neighborhoods has helped residents plant over 5,300 trees across the city.



Seattle Green Business Program (formerly Resource Venture)

To provide outreach to businesses, SPU funds the Seattle Green Business Program, a free resource conservation program for Seattle businesses, currently being implemented by Cascadia Consulting, under contract with SPU. Under this contract, the program provides site specific technical assistance to businesses, develops targeted outreach materials in multiple languages and implements SPU's Spill Kit Incentive Program, which provides spill kits and assistance in developing a spill plan to participating businesses. The program offers the 'Get on the Map' campaign to publicly recognize businesses taking actions to cut waste, save water and energy, and reduce pollution. In 2014, SPU participated in an effort to create a larger, regional green business program within the state.

In 2014, separate from the Seattle Green Business Program and funded by Ecology under the Local Source Control Contract, ECOSS, under contract with SPU, put on two separate workshops. The audience was Spanish-speaking mobile vendors. A total of 32 people attended, representing the

following sectors: mobile food trucks, landscapers, cleaning, maintenance, construction, painters, and others. All the attendees found the information useful and 92% reported that they would implement all of the best-management practices discussed during the workshops.

Spill Kit Program

To supplement inspections and provide outreach to businesses, SPU funds the Seattle Green Business Program (formerly Resource Venture, a resource conservation program for Seattle businesses, currently being implemented by Cascadia Consulting, under contract with SPU. Under this contract, the program provides site specific technical assistance to businesses, develops targeted outreach materials in multiple languages and implements SPU's Spill Kit Incentive Program, which provides free spill kits, assistance in developing a spill plan and onsite spill training to participating businesses. The spill kit program is promoted on the web, during inspections and during 'Get on the Map' outreach visits. In 2014, 291 businesses were provided with spill kits, spill plans and spill training as a result of the program.



Car Wash Program

In 2014 the Car Wash Program focused on gathering information from high schools to determine the frequency of charity car washes in Seattle. SPU partnered with the Puget Soundkeeper Alliance to survey high schools in the Seattle area and establish which high schools, and organizations within high schools, were organizing charity car wash events. Twenty-seven schools were contacted, three schools admitted to hosting a charity car wash event within the last few years, 16 schools have not hosted a charity car wash, and 8 were undetermined. In West Seattle, where traditional charity carwash BMPs (e.g. tickets) are not available, four high schools were targeted with outreach materials designed to promote a new BMP. The suggested practice is to contact SPU for approval for car wash events so that locations can be vetted for drainage connectivity.

For the general public SPU partnered with Brown Bear to offer coupons for a free car wash in the Utility's @ Your Service and Curb Waste Conserve newsletters. SPU's @ Your Service publication reaches approximately 180,000 households. Curb Waste and Conserve reaches approximately 290,000 residents.

In an effort to discourage car wash events in the MS4, SPU water quality inspectors handed out information to car wash fundraisers and host sites in locations when car wash events were discovered. In addition, businesses located in the MS4 that were reported for hosting car wash events are contacted, educated and informed that they should discontinue those activities.

STORM/Puget Sound Starts Here (PSSH)

In 2014, the City continued to participate in STORM (Stormwater Outreach for Regional Municipalities) strategic planning and program activities. SPU supports STORM as an active member of the Core Team and participates in the North King County Stormwater Outreach Group (SOGgie). In 2014 SPU partnered with North King County SOGgie in a bus ad campaign to raise awareness about stormwater pollution. SPU is a partner in the STORM grant for the Vehicle Leaks Campaign,

which complements the City’s grant for the Automotive Maintenance Program. SPU co-led planning for PSSH month including the major outreach event at a Mariners Game. SPU staff also regularly shared examples of programs and materials with other municipalities (both Phase I and Phase II permittees) through STORM. The City continued to include the PSSH brand and website address on many related outreach materials. The Puget Sound Starts Here (PSSH) website focuses on stormwater BMPs for cars, pets, yard care and home cleaning. STORM and the PSSH campaign are appropriate BMPs because information is available and accessible for a wide general public audience.

Water Quality Hotline

The City maintains a Water Quality Hotline to allow the public to report water quality concerns



within Seattle. Each case is investigated and issues are resolved using the City’s source control procedures and progressive enforcement policy. This BMP provides a mechanism for the public to take an active role in stormwater pollution prevention and help the City increase awareness of activities that have negative impacts on stormwater. Outreach to the public includes magnets, bill inserts, business cards and creek-watershed

newsletters.

Staff responds to water quality issues during business hours. For spills during non-business hours, callers are instructed to call the Operations Response Center to dispatch an on call Spill Responder. In 2014, the program logged 350 water quality concerns. Of those, 37 were received via the hotline. A larger number were reported using the City’s web page for reporting pollution.

Green Gardening Program

The Green Gardening Program educates nursery and landscape professionals and horticulture students on how to reduce their use of pesticides. The program promotes Best Management Practices (BMPs) for environmentally-sensitive landscaping practices, with an emphasis on Integrated Pest Management (IPM), as well as water conservation, landscape stormwater mitigation, and the recycling of organic materials, either on-site or via collection programs.

Two IPM Workshops were held in 2014, reaching 339 participants. The workshops serve private sector landscape professionals who generally work throughout Seattle and King County, as well as public sector landscapers, landscape business managers and owners, program managers, students, and educators. The first workshop: “Water from the Ground UP: Getting the Most from What You Put In” focused on soil/water/plant relationships. It was held at South Seattle Community College on March 12, reaching 105 participants. The second workshop: “What’s HOT in Sustainable Landscaping”, was held at South Seattle Community College on October 22 and reached 234 participants.

Two trainings were offered to Spanish-speaking landscapers in Spanish. Sustainable Weed Management was held in collaboration with the Enviostars program and reached 56 attendees. The second session, on Plant Health Care and Integrated Pest Management, was held as part of the fall IPM workshop and reached 21. An effort to more effectively engage Vietnamese landscapers culminated in development of a concise bilingual flyer, informed by interviews with target audience

members. This will be distributed beginning in late winter, 2015. Four IPM classes were presented at three local horticulture schools reaching a total of 53 students.

The Natural Yard Care Nurseries Recognition Program completed its transition into the King County EnviroStars program in 2012. This change resulted in continuing to motivate nurseries to commit to sustainable practices and education, while reducing program costs and increasing efficiencies. Ten trainings to nursery professionals reached a total of 143 nursery staff representing 15 nurseries. This is an appropriate BMP for yard care techniques protective of water quality as it provides the target audience with information on how to change their behaviors to improve stormwater quality.

RainWise

The RainWise program provides education to the general public, homeowners, landscapers and property managers about low impact development techniques, including site design, pervious paving, retention and expansion of existing vegetation, and installation of rain gardens and cisterns within City of Seattle MS4 areas. This program provides education and outreach on how to slow, spread, filter and infiltrate stormwater. The program will implement the following educational/technical elements to raise awareness about Green Stormwater Infrastructure (GSI), including stormwater treatment and flow control:



- SPU posts rain garden designs, plant lists and maintenance guidelines that can be downloaded from the internet. The RainWise program provides information and brochures on various GSI techniques on our website (www.seattle.gov/util/rainwise) as well as in hardcopy.
- RainWise Tools (www.rainwise.seattle.gov) is an internet-based education, recruitment, tracking and marketplace outreach tool that helps educate property owners about GSI techniques they can use on their property.
- Two RainWise training workshops were held for contractors in 2014. To date over 500 contractors have been trained, and 54 are represented as participating contractors.

Natural Landscaping Professional Development

This program is a series of well attended professional workshops (and supporting guides and web content) which target the specified behaviors and practices in the permit (low impact development (LID) techniques: including sustainable site design, soil BMPs and retention of native vegetation, plant selection and maintenance options that reduce pesticide and fertilizer use, and Natural Drainage/LID strategies for on-site stormwater management, and stormwater treatment and flow control). These workshops target permit audiences including engineers, design professionals, landscape contractors (including non-English-speakers), developers, builders, permitting and inspection staff, and land use planners. The program is built on survey and focus group work with these professionals and customers. Professionals who attend the workshops incorporate LID techniques into their designs and pass on information to the homeowners, landscapers and property managers that they work with. Many participants fill out in-class evaluations and they identify (pledge) the actions they intend to take as a result of the training.

In 2014 the program conducted 46 training events, in collaboration with professional organizations and local governments, which were attended by a total of 1,580 professionals: landscape and building contractors, developers, landscape architects and designers, engineers, architects, inspection and permitting staff, and outreach trainers. While the funding comes from several sources, most training events focused on LID and Green Stormwater Infrastructure design, construction, and maintenance, IPM and other chemical-reduction maintenance practices, soil best practices, and construction site erosion and sediment control. Ninety-three percent of respondents to post-workshop surveys rated the workshops as good or excellent, and 78% said they would use the guidelines and techniques presented in the workshops in current or future projects.

2014 also brought progress in professional standards and certification. The national Sustainable Sites (www.sustainablesites.org – the site and landscape equivalent of the LEED green building standards) launched its project certification program after 7 years of development. And Washington’s ecoPRO Sustainable Landscape Professional (www.walp.org/ecopro) entered its 2nd year with a complete training curriculum and certification for landscape installation and maintenance professionals. SPU is a founding and technical advisory member of both those programs, which are shaped by concepts, BMPs, and training materials developed here, refer to www.seattle.gov/util/landscapeprofessionals.

For More Information

- For more information on Protect Our Waters visit:
<http://www.seattle.gov/protectourwaters>
- For more information on the Doo Diligence Pet Waste Program visit:
<http://www.seattle.gov/util/EnvironmentConservation/MyHome/PreventPollution/PetWaste/index.htm>
- For more information on the Auto Maintenance Program visit:
<http://www.seattle.gov/util/EnvironmentConservation/OurWatersheds/ProtectOurWaters/PreventPollution/AutoLeaks/index.htm>
- For more information on the Water Quality hotline visit:
<http://www.seattle.gov/util/myservices/drainagesewer/pollutioncontrol/surfacewaterqualityinvestigations/>
- For more information on the Green Gardening program visit:
<http://www.seattle.gov/util/ForBusinesses/Landscapes/TrainingCertification/GreenGardeningProgram/index.htm>
- For more information on the Natural Soil Building program visit:
<http://www.seattle.gov/util/EnvironmentConservation/MyLawnGarden/CompostSoil/index.htm>
- For more information on reLeaf visit: <http://www.seattle.gov/trees/>
- For more information on RainWise visit:
<http://www.seattle.gov/util/environmentconservation/projects/drainagesystem/greenstormwaterinfrastructure/rainwise/>
- For more information on Natural Landscape Professional Development visit:
<http://www.seattle.gov/util/ForBusinesses/Landscapes/index.htm>
- For more information on the Green Business Program, a free resource conservation program for Seattle businesses, visit
<http://www.seattle.gov/util/ForBusinesses/GreenYourBusiness/index.htm>
- For general questions about this SWMP or more information about this section, email swmp@seattle.gov or visit
<http://www.seattle.gov/util/myservices/drainagesewer/aboutthedrainagesewersystem/stormwatermanagementplan/>