

Barton Combined Sewer Overflow (CSO) Control Project

Summer 2013 Project Update

Final design of bioretention swales reflects community input and technical requirements

King County's Barton CSO Control Project Team recently reached a major milestone:

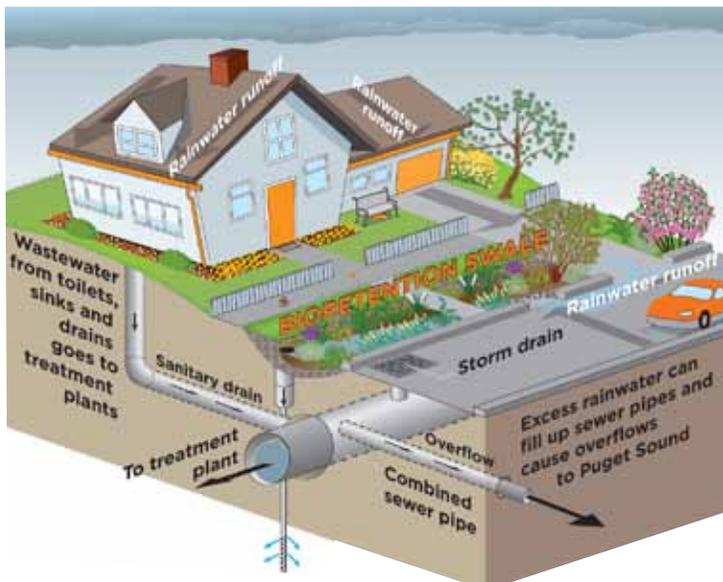
we submitted design plans to the Washington State Department of Ecology and Seattle Department of Transportation for final approval. King County will construct bioretention swales (swales) in the public right-of-way between the sidewalk and the curb on 15 blocks in Sunrise Heights and Westwood. These swales have 4 major elements:

1. Planted vegetation
2. Specially amended soils to allow water to soak in quickly
3. Underdrain pipes to move water toward the end of the block
4. Deep wells at the southern end of the block to allow water to infiltrate deep underground

The swale system will remove enough stormwater from the sewer pipes during heavy rains to reduce sewer overflows into Puget Sound next to the Fautleroy ferry terminal.



What a typical swale would look like



Protecting public health and the environment

In some areas of West Seattle, including the Barton basin, wastewater and stormwater are transported together through pipes to King County's treatment facility in Magnolia. To prevent raw sewage from spilling into homes and streets, the county system has built-in safety valves called "Combined Sewer Overflows" that discharge untreated sewage and stormwater into Puget Sound and other water bodies when the sewer system is over capacity.

One way to reduce these flows is to keep stormwater out of the sewer system. Bioretention swales in Sunrise Heights and Westwood will allow stormwater to slowly soak into the ground instead of flowing into the combined sewer system, reducing the chance of a combined sewer overflow into Puget Sound during heavy rains. Keeping pollution out of Puget Sound protects public health and the environment.

For more information or to join the project mailing list
Call: Kristine Cramer 206-263-3184
Email: Kristine.cramer@kingcounty.gov
Web: www.kingcounty.gov and search for "Barton CSO"



King County

Department of
Natural Resources and Parks

Wastewater Treatment Division

Fitting in with the neighborhood

This year, King County entered into a consent decree, which is a legal settlement with the U.S. Department of Justice and the Environmental Protection Agency to control CSOs according to the King County Combined Sewer Overflow Control Plan. Failure to do so will result in large penalties. King County employed a design process to meet this mandate while being sensitive to community impacts. The first consideration for siting the swales was ensuring that enough stormwater would be diverted from the sewer system to reduce CSOs into Puget Sound to no more than one per year on average. The swales also had to be designed around site constraints that included driveways, fire hydrants, large trees and utilities. The design team looked carefully at the flow of the stormwater on each street. Depending on the slope of the street, curb bulbs (wider swales) were needed to capture the runoff. They are usually sited mid-block to capture the most water. The project team recognizes that as efficient as the curb bulbs are in capturing the stormwater runoff, they do take up one on-street parking space. The project team has worked with many impacted homeowners and has adjusted the design when possible within the requirement to control CSOs.

The community has played an important role in the final project design. Since beginning design work on the bioretention swales in 2011, King County has worked hard to keep the neighborhood informed and involved. There have been:

- 6** community meetings
 - 24** block-level meetings
 - 2** neighborhood surveys
 - 4** briefings to neighborhood community groups
 - 2** rounds of neighborhood canvassing
 - 6** project updates and newsletters
 - 10** small group meetings with affected neighbors
- Nearly **700** email, phone, or street conversations with more than **500** residents and stakeholders.



As a result of your input

- There are fewer curb bulbs, and they are smaller in size.
- Permeable pavement will be used for access across the swales.
- Access paths are aligned as closely as possible with home paths.
- More trees have been preserved, through design refinements and through the many neighbors who have come forward to adopt a tree from the planter strip.
- The voluntary stormwater management incentive program, RainWise, has been offered to the entire Barton basin.

Operations and Maintenance Update

King County continues to develop its operations and maintenance plan for the swale system. The plan includes a schedule for watering, weeding, pruning, general upkeep, and checking and maintaining the pipes and other structures in the swales. King County shared the guiding principles for maintenance at the October 2012 Open House and November 2012 landscaping meeting, and they are posted on the County's web site. Neighborhood comments on operations and maintenance focused on the frequency and nature of maintenance, including watering, weeding and general upkeep of the swales, and tree care. The plan will be implemented at the completion of each of the two construction seasons. There will be a maintenance hotline number to alert the County to operations and maintenance issues.

Barton CSO Control Project Area, Updated May 2013



RainWise now available for Barton basin residents

The residential RainWise program provides rebates that cover most or all of the cost of installing cisterns and rain gardens on private property. The program is available to all homeowners in the Barton basin starting now and running through 2015. To check eligibility or learn more about the program go to www.rainwise.seattle.gov.



Coming Up Next...

King County will solicit and review project bids for swale construction this summer. Once the contractor is on board this fall, site work will focus on removing and transplanting trees in the public right-of-way and constructing the deep wells that will carry the filtered water once the swales are in place. Swale construction will occur later, in two seasons: March - October 2014 and March - October 2015.

Gas line adjustments

To make room for the swales, Puget Sound Energy (PSE) will be in the neighborhood this summer to move gas service out of the way of the swale construction area. Residents will receive advance notification of

any temporary road or parking restrictions before the work begins. PSE minimizes service disruptions by performing most of the work before cutting the service over to the new line, and they will coordinate with residents on a case by case basis as the work is performed.

Tree transplant and removal

This fall King County will transplant existing street trees to other locations in the right-of-way or turn them over to neighborhood residents that have requested trees for their private property. Healthy small trees that have not been requested by homeowners will be donated.

Project Milestones	2013	2014	2015
Gas line adjustments		Summer 2013	
Hire contractor		Summer 2013	
Tree transplant and removal		Fall 2013-February 2014	
Well construction		January-May 2014	
Pre-construction community meeting		Early 2014	Early 2015
Construct swale system on 8 streets		March-October 2014	
Construct swale system on 7 streets		March-October 2015	
Ongoing facility maintenance			October 2014 & beyond
Community outreach and engagement		Throughout	



Visit us at the West Seattle Summer Fest July 13 and 14! Get a virtual sewer pipe tour and learn how King County inspects over 350 miles of pipes with sewer camera robots and our closed circuit television (CCTV) sewer inspection truck. Talk to staff about West Seattle capital projects and the RainWise rebate program, and learn how you can help protect Puget Sound by being “stewards of the sewers.”

Look inside for the latest information about project design and the start of construction.

What you can expect during construction

King County is committed to being a good neighbor and will continue to engage the community as construction approaches. King County will hold a community meeting in early 2014 to share more detailed information about construction. During construction, we work with the community to minimize construction impacts whenever possible. Residents can expect:

- Advance notice of construction activities via mail, email, or phone.
- One-on-one problem solving with residents who are directly impacted by construction activities.
- Project website updated with construction notices.

Alternative Formats

206-684-1280 (voice) or 711 (TTY)

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