



Barton CSO Control Project



What is King County building?

King County is in the process of designing bioretention swales, planted areas engineered to capture stormwater runoff from streets and yards and infiltrate it deep into the ground. This technology, a type of green stormwater infrastructure (GSI), diverts heavy rains from overwhelming the sewer system and creating combined sewer overflows (CSOs) into Puget Sound.

What are CSOs?

CSOs are discharges of untreated sewage and stormwater released directly into marine waters, lakes and rivers during heavy rainfall, when the sewers have reached their capacity. Although the sewage in CSOs is greatly diluted by stormwater, both CSOs and stormwater may be harmful to public health and aquatic life. CSOs from the project area discharge near the Fauntleroy Ferry Dock at the Barton Pump Station.

Why does King County need to do this project?

Untreated sewage and stormwater may be harmful to public health and aquatic life because of the chemicals and diseases it carries. To address these health risks, the Washington Department of Ecology has set requirements that there be no more than one untreated overflow per year on average. The Barton Pump Station currently overflows about four times per year, discharging a total of four million gallons of untreated sewage and stormwater into Puget Sound.

Why Sunrise Heights and Westwood neighborhoods?

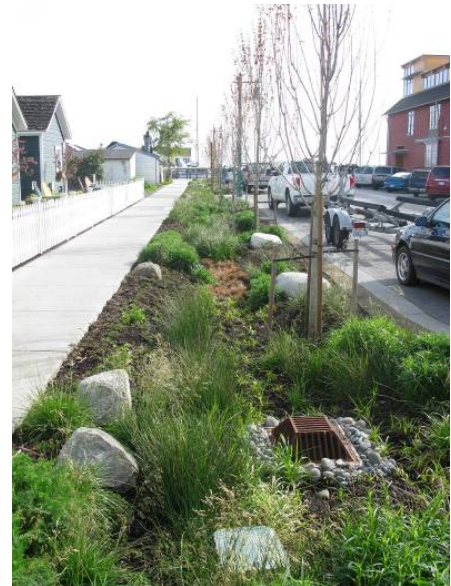
These neighborhoods are ideal for placing bioretention swales because 45% of stormwater runoff in the Barton basin comes from these areas. As a result, swales in these neighborhoods will have a prevent enough runoff from entering the sewer system to control combined sewer overflows at the Barton Pump Station. They are also ideal for constructing swales because of the moderately flat streets and wide planting strips.

How do bioretention swales work?

Bioretention swales use soils, vegetation, and trees to capture stormwater and infiltrate it deep into the ground, where it naturally recharges our groundwater supply. In the Barton basin, bioretention swales will be designed to reduce the amount of stormwater flows that would enter the combined sewer system to reach the control target of no more than one overflow per year on a long-term average.

Bioretention swales in Barton will consist of:

- Landscaping and planting in existing planting strips (the public right-of-way between the curb and sidewalk)
- Widened planting strips on some streets to make more space for the swales
- Gaps in the curb allowing water to enter and exit the swales
- Underdrains and wells that convey water deep underground



Port Townsend bioretention

Project Schedule

Extensive geotechnical investigations were completed in January 2012 to ensure that the bioretention swales will function properly under a wide range of soil and groundwater conditions. A survey of neighborhood characteristics, such as water flow and street conditions, is also informing project design. In spring 2012, we will identify locations for the bioretention swales and work closely with homeowners whose blocks are selected. Design will be complete in December 2012 and construction of the bioretention swales will occur between 2013 – 2015.

Did you know?

CSOs can occur at any time of the year when stormwater fills the sewer system beyond capacity. You can check the Web for real-time notification of CSOs at:

www.kingcounty.gov/environment/wastewater/CSOstatus

For more information:

We are working hard to ensure neighbors are informed throughout this project. Please visit our website or contact us with any questions.

King County's CSO Control Program: www.kingcounty.gov/environment/wastewater/CSO

Barton CSO Control Project:

www.kingcounty.gov/environment/wtd/Construction/Seattle/BartonCSO-GSI

Kristine Cramer, King County Community Relations
206-263-3184 or Kristine.cramer@kingcounty.gov

ALTERNATIVE FORMATS AVAILABLE
206-684-1280 / 711 (TTY Relay)