



MAGNOLIA

CSO CONTROL PROJECT

King County
 Department of Natural Resources and Parks
 Wastewater Treatment Division

Fall 2012

King County Continues Designing the South Magnolia CSO Control Project

King County's Wastewater Treatment Division (WTD) is continuing to design the South Magnolia Combined Sewer Overflow (CSO) Control Project. Once in operation, the new CSO control facility will meet current standards set by the Washington Department of Ecology to limit untreated CSO discharges to no more than one per year on a long-term average.

To reduce the number of CSOs, the project will build an underground storage tank to store peak combined sewer flows during high flows. After storms have passed, flows will be transferred from the storage tank to the Interbay Pump Station for conveyance to the West Point Treatment Plant.

The project consists of three main elements: an **underground diversion structure** located in the right-of-way under 32nd Avenue West; and an **underground storage tank** in the Port of Seattle's Terminal 91 West Yard; and approximately **3,000 lineal feet of gravity sewer line** connecting the diversion structure to the storage tank.

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Look inside for:

- Updated landscape and architecture design for the storage facility site
- Information about a second trenchless technology option for installing the gravity sewer pipeline
- Invitation to a community meeting on October 20, 2012



The King County Wastewater Treatment Division (WTD) provides high quality regional wastewater service. As part of WTD's mission to protect public health and the environment, the Combined Sewer Overflow (CSO) Program has worked to reduce overflows of combined stormwater and sewage since 1980. King County has reduced CSO volume from 2.3 billion gallons per year to less than 1 billion gallons per year.

DESIGN CONTINUES *(continued from page 1)*

King County’s project team has been working closely with the Magnolia community during design to provide information and address questions and concerns. In 2012, the project team has hosted a variety of public meetings:

- January 21- a technical information session to provide information about the alignment for the conveyance pipeline and how geotechnical investigations informed design

- February 15- a community meeting to present the configuration of the new underground storage tank and associated odor control and electrical facilities and an update on how the facility will operate
- June 13- a community meeting to present the landscape and architecture concept for the storage facility site at the Terminal 91 West Yard

King County’s team will continue working with the community throughout design and construction. In this newsletter you will find an invitation to the next in a series of community meetings.

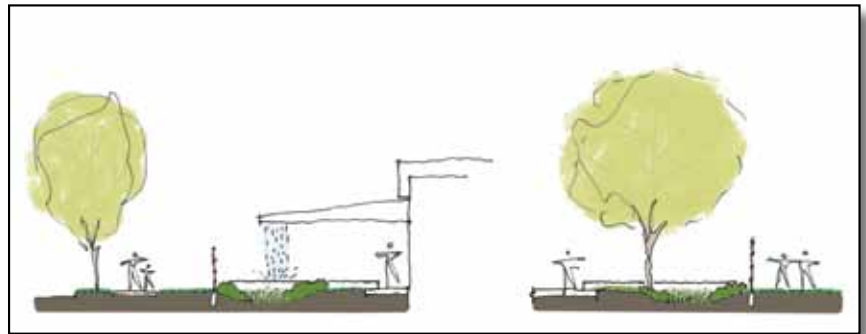
Landscape and Architecture Design

The South Magnolia CSO Control Project team has developed a landscape and building design concept for the storage facility at the Port of Seattle’s Terminal 91 West Yard. Throughout early design, the team faced a challenge to configure and design the facility to accommodate a range of future uses in the surrounding area, including proposals for either commercial or park use. In order to stay on schedule with designing the architecture of the equipment building and landscaping, the team designed the project to minimize impacts on the potential future uses for the property.

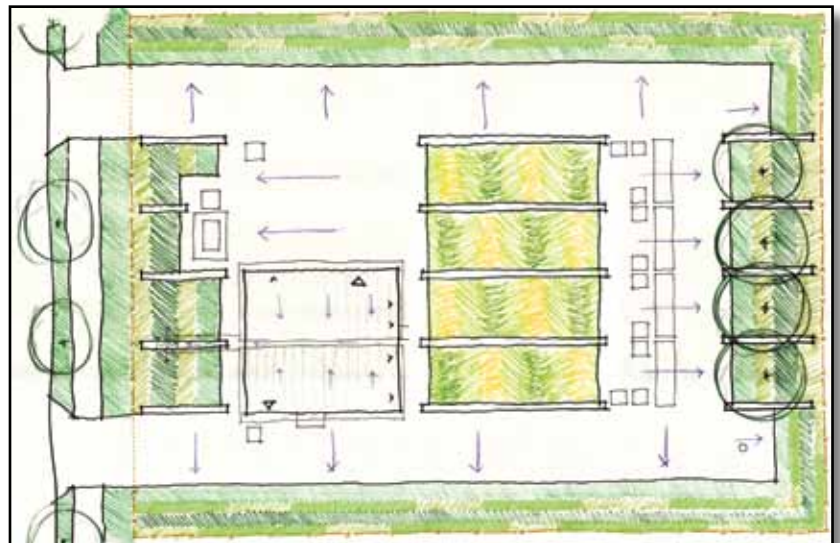
The design accomplishes these goals with several features:

- Landscape elements on the surface of the underground tank that reflect the structure of the storage bays beneath
- Bioswales and a rain garden that meet City of Seattle stormwater management requirements for driveway and roof runoff treatment and detention
- A distinctive gutter, or “scupper” that will direct roof water to the rain garden in a cascade visible from 23rd Avenue West
- Low-maintenance plantings that provide strategic screening or viewing of facility elements while creating potential habitat for local wildlife

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Landscape plan: habitat and bioretention areas on the site.



Proposed viewing areas through the west and east edges of the site.

STORAGE FACILITY DESIGN *(continued from page 2)*

Attendees at the June 13 meeting provided additional suggestions for sustainable elements that the project team will discuss on October 20, including:

- Increasing the percentage of native plants used in the landscaping
- Adding solar panels to the equipment building
- Reusing stormwater on site
- Considering use of pervious pavement for driveways
- Reusing excavated soils on site
- Addition of more habitat features

The project team will also discuss options for different fence types and architectural look and feel using different material colors.



The above ground building design includes durable, low-maintenance materials.

Update on Gravity Sewer Pipe Installation

King County's design team has added a second trenchless method option for installing the new gravity sewer pipeline from 32nd Avenue West to the underground storage tank. Addition of a second option for pipeline installation will help to maintain project schedule and increase the potential number of contractors interested in building the gravity sewer line.

At a technical workshop on January 21, 2012, the team described Horizontal Directional Drilling (HDD), a trenchless technology developed to install pipelines while avoiding open trench excavations that could disrupt surface activities and structures or environmentally sensitive areas. At the upcoming community meeting on October 20, the team will describe an emerging technology that combines

elements of two trenchless methods, microtunneling and HDD, to install underground pipelines. This technology, referred to as Direct Pipe,[®] has been implemented in recent years to build pipelines up to and exceeding the length of the South Magnolia gravity sewer pipeline. Each method involves specific and slightly different locations for the upper diversion structure to meet industry standards for installation.

Design of the HDD alignment is continuing, with refinements to accommodate access and address work in slope areas during construction on 32nd Avenue West. The team is developing design of a temporary realigned road to allow traffic to pass around the construction area.

Community Meeting on October 20, 2012

You are invited to attend a community meeting to hear updates on conveyance and facility design on Saturday, October 20 at the Discovery Park Environmental Learning Center from 10:00 a.m. until 2:00 p.m.

Session 1: 10:00-11:30 a.m.

Presentation on the new gravity sewer pipeline that will extend from 32nd Avenue West to the storage tank site. Learn about an additional trenchless technology option for pipeline installation and updates on conveyance design.

Open house and refreshments - 11:30 a.m.- 12:00 p.m.

Session 2: 12:00-1:30 p.m.

Discussion of site design at the Terminal 91 West Yard. The team will

- Provide an update on landscape and architecture design
- Discuss flexible elements like building materials, plantings, and fence type
- Follow up on community suggestions from the June 13 design meeting

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Creating Resources from Wastewater



YOU'RE INVITED!

SOUTH MAGNOLIA CSO CONTROL PROJECT COMMUNITY MEETING

Saturday, October 20, 2012
10:00 a.m. - 2:00 p.m.

Discovery Park Environmental Learning Center
 3801 Discovery Park Boulevard
 Seattle, WA 98199

How You Can Participate

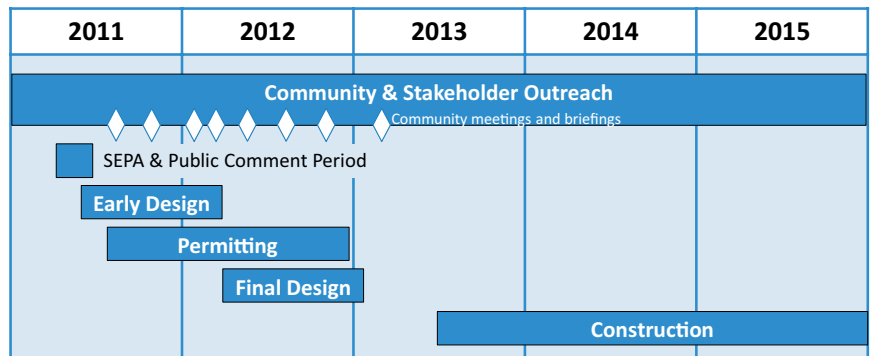
King County knows this project is important to the community and is committed to continuing outreach throughout design and construction. Stay involved and informed:

- Attend a community meeting on October 20
- Request a briefing for your community group or organization
- Watch for notices for future community meetings on the project calendar:

www.kingcounty.gov/environment/wtd/Construction/Seattle/SMagnoliaCSOStorage/MeetingCalendar



SOUTH MAGNOLIA CSO CONTROL PROJECT TIMELINE



For more information

Visit www.kingcounty.gov/environment/wtd/Construction/Seattle/SMagnoliaCSOStorage.aspx

Contact Monica Van der Vieren at monica.vandervieren@kingcounty.gov or 206-263-7301 for questions, concerns, and special accommodations at meetings.

Alternate Formats Available.
 Call 206-684-1280 or TTY: 711.