



MAGNOLIA CSO CONTROL PROJECT

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

Spring 2013

We're on the way to construction!

King County's Wastewater Treatment Division is making progress toward a cleaner Puget Sound! The South Magnolia Combined Sewer Overflow (CSO) Control Project, along with three other projects in the North Beach, Barton, and Murray neighborhoods, are scheduled to begin construction by the end of 2013, addressing the County's CSO discharges in four areas where people recreate.

In December 2012, King County submitted project designs to the Washington State Department of Ecology (Ecology). In South Magnolia, the project includes a new underground CSO storage tank located in the Port of Seattle's Terminal 91 West Yard. The storage tank will store up to 1.5 million gallons of combined storm and wastewater. Flows will be sent to the tank through an underground diversion structure on 32nd Avenue West and approximately a 3,000-foot gravity sewer line extending from the diversion structure to the storage tank.

What's next for the South Magnolia CSO Control Project? In the coming months, we will complete permitting and advertise construction contracts. Two contracts will be advertised and awarded, one for the storage facility at the West Yard, and the second for a new or modified diversion structure and conveyance pipeline. Construction at the West Yard is scheduled to begin by the end of 2013 and be finished by the end of 2015 to meet Ecology's compliance deadlines.

Working with project neighbors in Magnolia

King County's project team continues to keep the community informed about our progress and to hear from neighbors and community groups. The project team hosted information sessions on October 20, 2012 to provide updated information on installation of the gravity sewer line and diversion structure and on architectural and landscape design.



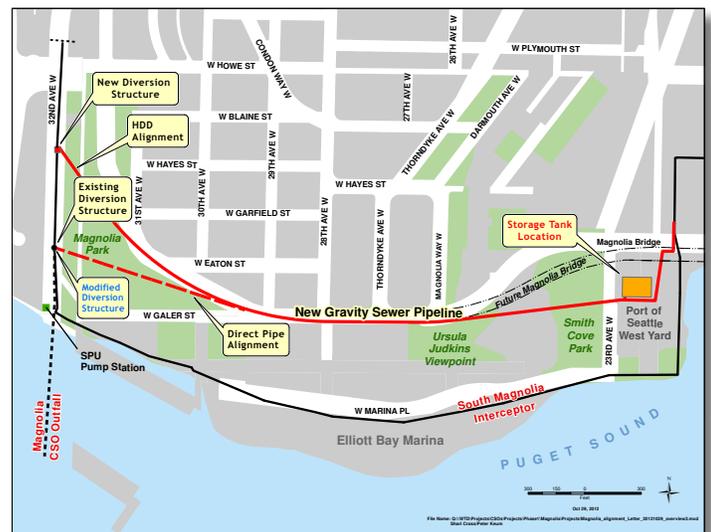
October 2012 community meeting

On January 26, 2013, the project team met onsite with residents of 32nd Avenue West. We walked the neighbors through potential construction areas and scenarios, heard concerns, and answered questions. On March 21, the team provided a presentation at the Elliott Bay Marina to help interested businesses and tenants understand construction activities expected to occur at the Smith Cove Park/West Yard area.

As we approach construction, the project team will focus outreach on project neighbors around the Smith Cove Park/West Yard area and on 32nd Avenue West to ensure we keep people up to date, answer their questions and address their concerns.

Look inside for:

- How the storage facility will be constructed
- How community input helped shape facility design



Visit the Web for more information about the South Magnolia CSO Control Project:
www.kingcounty.gov/environment/wtd/Construction/Seattle/SMagnoliaCSOstorage.aspx

How the storage facility will be constructed

Storage facility construction is expected to begin first, before conveyance pipeline construction. Before working on the storage tank itself, the contractor will need to supply power and water to the site, and establish sewer connections for the storage tank. The contractor will develop traffic control plans for all utility work affecting traffic in the right-of-way.

Power

Seattle City Light is developing a design that will involve connecting to a power vault in the Elliott Bay Marina area and installing a 2,000 foot long below-grade electrical service along West Marina Place and 23rd Avenue West to the tank site.

Sewer

A sewer line connection will be extended north under the Magnolia Bridge from the tank site to the County's South Magnolia trunk sewer.

Water

The contractor will provide water to the new CSO control facility by installing a service connection from the existing water main in 23rd Avenue W.

Once utilities are in place, King County's contractor will begin staging equipment, materials and crews on the West Yard site. To reduce truck traffic on 23rd Avenue West, the contractor will enter and exit the site mostly from the north end of the site. Here are the major construction steps to build the storage facility and finish the site:

- Shoring and excavation of the tank site, with soils hauled off site for appropriate disposal
- Pouring a 12-foot thick concrete

base slab to anchor the facility and provide support during seismic events.

- Concrete wall and top slab construction
- Construction of the equipment building on top of the tank structure
- Equipment installation and testing
- Final site improvements including driveways, stormwater management features, landscaping, and fencing
- Re-establishing walkways, lighting, and vegetation in the right-of-way according to permit conditions



Example of excavation within the shoring system taking place



Example of concrete trucks pouring a base slab



Example of installation of the base slab

Community Input Helps Shape Facility Design

The design team developed the configuration, architectural design and landscaping of the storage facility site taking into consideration potential future uses of the surrounding area, operational and stormwater management requirements, zoning, and community input. King County worked with the Port of Seattle, the City of Seattle and the community throughout the planning and design process, helping to develop a site configuration with the following attributes:

- Facility location to accommodate siting of the future Magnolia Bridge replacement, and to limit footprint in the shoreline
- Reduced site footprint with the equipment facility placed on top of the tank
- Equipment facility positioned to provide a visual buffer for vehicle traffic and on site operational and maintenance activities
- Stormwater management features such as bioswales and a raingarden to meet current city code

In 2012, the project team presented to the community an architecture and landscape concept for the site that reflects community input and the County’s mission to protect water quality. The concept included a distinctive gutter, or “scupper” on the equipment building to direct roof runoff into a rain garden, providing perspective on the volume of runoff generated by a roof, and a sustainable method for managing that runoff. Landscaping utilizes predominantly native plants that provide both aesthetic value and wildlife habitat while requiring limited maintenance. Habitat features like nesting gourds for migratory purple martins and an osprey nest platform provide opportunities to host generations of local wildlife.

The team continued to refine the design with input from the community; final touches are shown in the renderings at right.

Evergreen huckleberry



Scupper feature shortened to balance proportions Tile pattern softens building appearance



Sidewalk replaced with low vegetation to soften profile and prevent splashing onto building

