

# FREMONT SIPHON

## replacement project



**King County**

Department of  
Natural Resources and Parks  
Wastewater Treatment Division

Project Newsletter

SPRING 2012

**Join us for a  
community  
meeting on  
May 15, 2012**

**6 p.m.**

**Open house**

**6:30 p.m.**

**Presentation**

**Fremont Public  
Library**

**See inside for  
important  
project  
updates!**

## King County Begins Designing the New Fremont Siphon

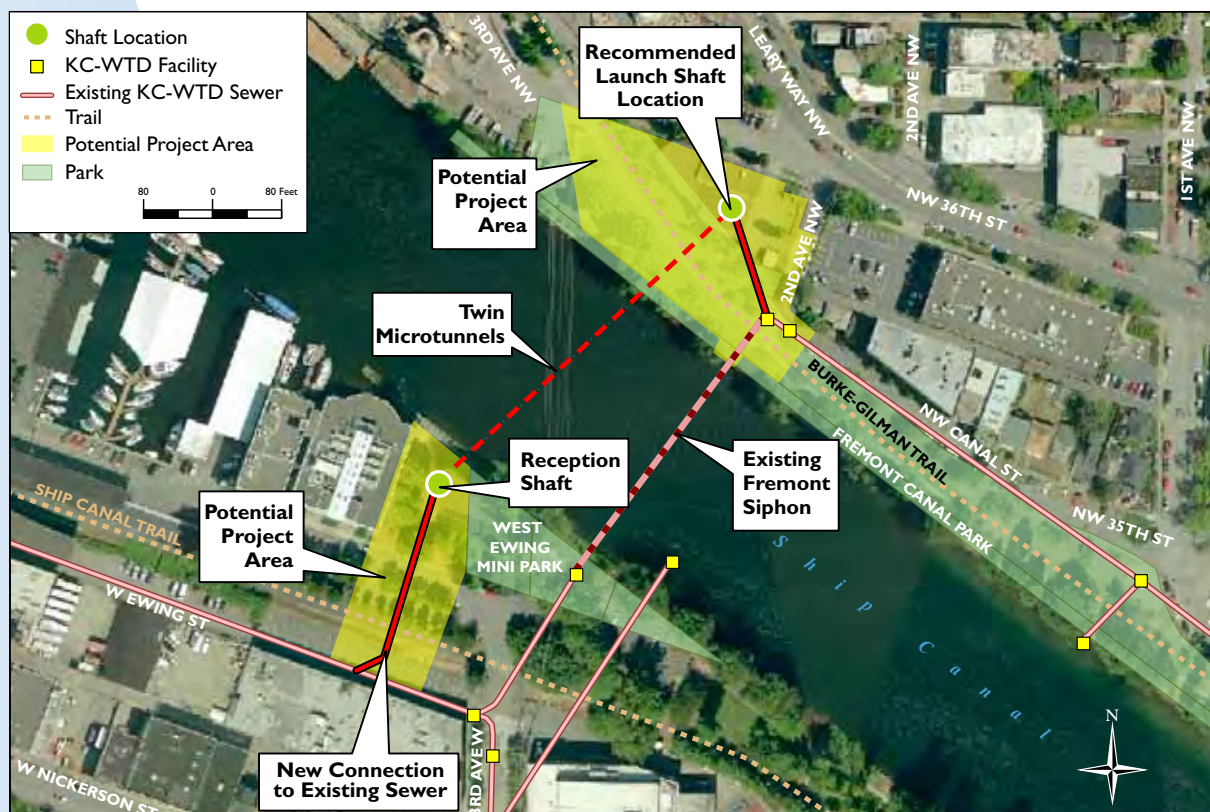
In 2011, King County Wastewater Treatment Division (WTD) announced that it intended to replace the Fremont Siphon pipelines with new pipelines installed in a location west of the existing facility (see map below).

The Fremont Siphon, almost 100 years old, is a critical conveyance pipeline carrying wastewater from the County's northeastern service area to the West Point Treatment Plant in Seattle's Discovery Park. The existing siphon is located within a tunnel under the Lake Washington Ship Canal, west of the Fremont Bridge.

King County's Fremont Siphon Replacement Project is still early in design. However, we have important updates on project elements and proposed construction locations that we want to share with the community. King County will continue to provide project updates throughout design, which will be completed in late 2013.

Below you will see an overview of the current project plan, and on the next pages, you will find information on:

- Proposed locations of construction activities and new structures
- Replacement of the City of Seattle's CSO (combined sewer overflow) outfall
- Restoration of affected areas



*Project areas in Fremont and Queen Anne. See inside for more detailed maps of each location.*

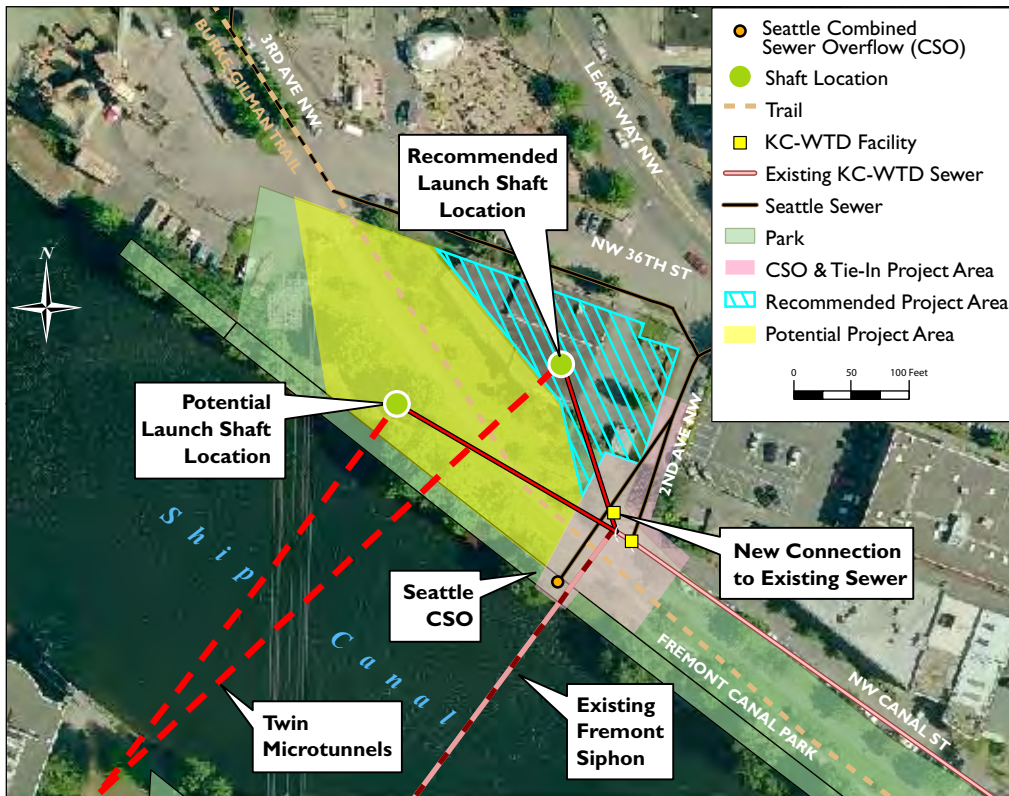
## Locations of construction activities

In early design phase, project teams conduct surveys and field investigations to refine plans for facility location, configuration, and construction. On the Fremont Siphon project, this work was carried out in 2011 and early 2012.

In the planning phase, the project team proposed to focus trenchless construction staging on King County's property in Queen Anne. During early design, the team determined that constructability, technical and access considerations required trenchless construction staging to be located on the Fremont side. The Queen Anne site will be used for the microtunnel retrieval pit and staging for work to connect the new siphon to the existing sewer.

On the Fremont side, the possible locations of the new siphon facilities were limited to the Fremont Canal Park or the property located at 2nd Avenue Northwest and Northwest 36th Street due to hydraulic constraints (see map below). After reviewing the full range of community considerations and project requirements, King County WTD recommends a proposal to locate the new siphon and odor control facility on the latter property. King County WTD is still in the process of defining this proposal. Environmental review will be conducted on the proposal under the State Environmental Policy Act (SEPA) in summer 2012.

Under the recommended proposal, some work will still occur in Fremont Canal Park to reconfigure the City of Seattle's CSO outfall, described on page three. Limited and temporary detours of the Burke-Gilman and Ship Canal Trails will be required for work in Fremont and Queen Anne, respectively.



## New structures in Fremont

New above-ground and at-grade structures will be needed for this project. During the planning phase, the community expressed concerns about odor from King County's existing sewer system in Fremont. After monitoring and analysis, the project includes odor control for the existing and new system. A new odor control facility will include an above-ground structure. Plans for this facility will be developed during final design.

Operations and maintenance crews will also need access to the new siphon pipelines. Concrete slabs and manholes at the surface will be needed to provide access for inspections and maintenance.



*Soils processing will be carried out on the Fremont side.*



*The microtunnel launch pit, where pipe sections are added, will be on the Fremont side.*



*Trees and vegetation along the Ship Canal in Fremont.*

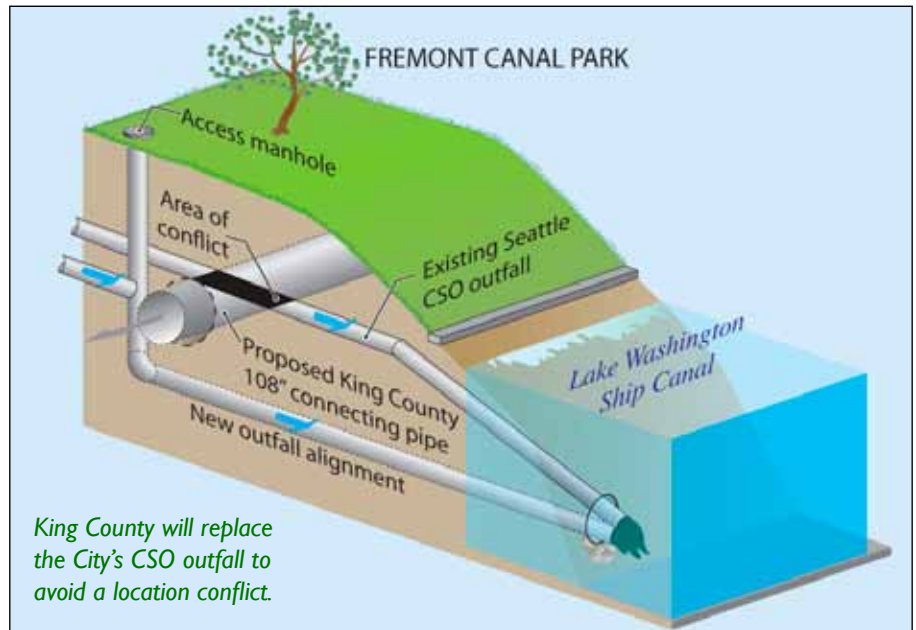


*The Burke-Gilman Trail will be temporarily detoured during construction near the existing Fremont Siphon.*

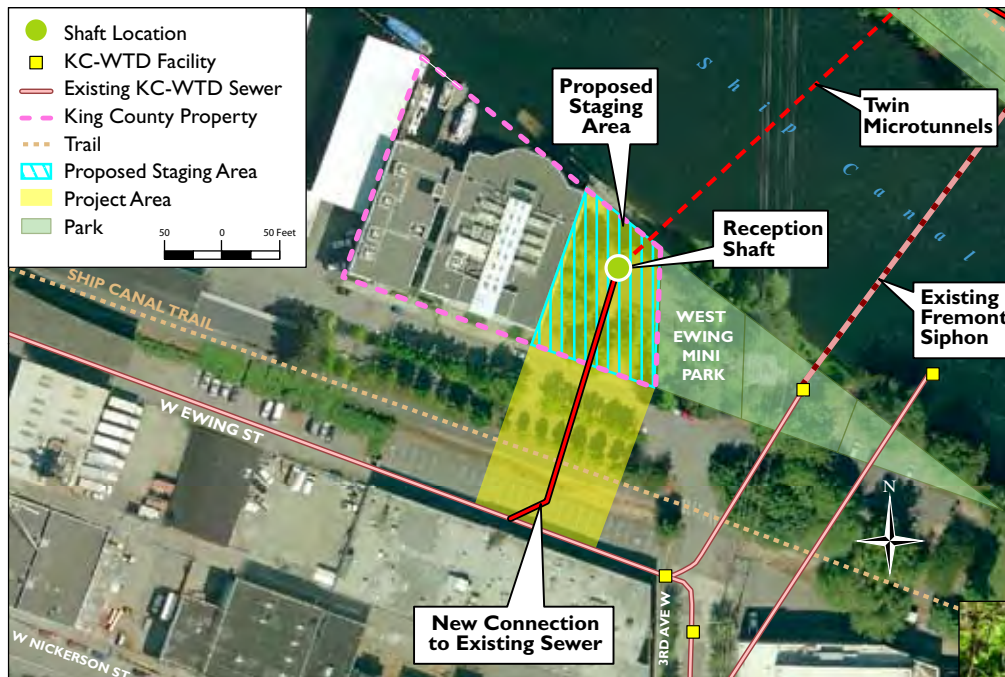


## Replacement and reconfiguration of the City of Seattle's CSO outfall

King County is working closely with the City of Seattle on replacement and reconfiguration of one of the City's CSO outfalls. This outfall currently extends under the Fremont Canal Park to the Ship Canal and is in direct conflict with the proposed location of the new siphon. The possible locations for the siphon are limited due to hydraulic constraints. To eliminate pipeline conflicts, King County will install a new outfall adjacent to the existing outfall (see graphic to the right). The discharge point and capacity of the new outfall will remain the same. The outfall installation will require excavation in Fremont Canal Park and work in the Ship Canal, outside of the navigational channel (see map on page two). For information on the City of Seattle's CSO system and CSO reduction program, visit [www.seattle.gov/cso](http://www.seattle.gov/cso).



*Schematic representation*



## New structures in Queen Anne

Operations and maintenance crews will need access to the new siphon pipelines. Concrete slabs and manholes at the surface will be needed to provide access for inspections and maintenance to the new siphon and its connections to the existing pipeline. To limit impacts, King County plans to locate most new structures on the King County owned property, however, there may also be new manholes in the street right-of-way.

## Restoration of affected areas

King County knows the community is concerned about this large construction project which will be carried out in densely populated neighborhoods with limited park space. The community has asked questions about areas that will be affected and how they will be restored. King County has assessed existing site conditions and will work closely with the City of Seattle on restoration plans for streets, trails, and parks. Permit conditions will describe restoration of vegetation and hardscape along the Ship Canal. Restoring King County's property in Queen Anne presents an unusual challenge: the project design needs to consider several memorial features located on this site. King County will work with the community as we plan restoration design of property acquired for this project.



*The project location in Queen Anne, located on King County property next to King County Environmental Labs.*



**Department of  
Natural Resources and Parks**  
**Wastewater Treatment Division**  
King Street Center  
KSC-NR-0505, 201 S. Jackson S.  
Seattle, WA 98104-3855

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## REMINDER: Fremont Siphon Replacement Project Community Meeting

Tuesday, May 15, 2012  
6 p.m. Open House  
6:30 p.m. Presentation  
Fremont Public Library  
731 N. 35th Street  
Seattle, WA 98103

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**Alternative Formats**  
206-684-1280 (voice) or 711 (TTY)

Visit the project Web page at [www.kingcounty.gov/environment/wtd/Construction/Seattle/FremontSiphon.aspx](http://www.kingcounty.gov/environment/wtd/Construction/Seattle/FremontSiphon.aspx) or contact Monica Van der Vieren at [monica.vandervieren@kingcounty.gov](mailto:monica.vandervieren@kingcounty.gov) or 206-263-7301.

## For more information

- Attend a community meeting on May 15
- Request a briefing for your community group or organization
- Provide comment during environmental review under the State Environmental Policy Act (SEPA), summer 2012
- Visit us at the Fremont Fair June 16-17
- Watch for notices for future community meetings

King County knows this project is important to both the Fremont and Queen Anne communities, as well as park and trail users. We are committed to involving the community as we continue design.

## How You Can Participate

