

Fremont Siphon Replacement Project

Seattle Pacific University – Major Institution Master Plan Standing Advisory Committee Briefing Summary

May 29, 2012 6:30 – 8:00pm

Library Seminar Room, University Library, 3226 6th Avenue West, Seattle, WA

Overview

On May 29, 2012, the King County Wastewater Treatment Division (WTD) presented at the Seattle Pacific University's (SPU) Standing Advisory Committee (SAC) meeting. The role of the SAC is to monitor future development under the current SPU master plan. The SAC meets on a regular basis to review the status of the plan and provide input on any ongoing development activity. The project team presented at the SAC's quarterly meeting. The briefing was intended to further engage SPU and nearby Queen Anne residents.

The Fremont Siphon is located under the Lake Washington Ship Canal between the neighborhoods of Fremont and Queen Anne. The project team presented updates on proposed locations of construction activities and new structures, replacement of the City of Seattle's combined sewer overflow (CSO) outfall, and restoration of affected areas. The team presented next steps in the project and opportunities for public participation.

15 committee members and 7 members of the public attended the meeting.

Presentation

Participants learned about the County's proposal to site potential construction areas and new structures now that the project is in early design. The project team described their proposal for a new microtunnel under the ship canal, just west of the current tunnel. Major construction staging will be located on the north (Fremont) side of the canal. Since King County's parcel in Queen Anne was found to be insufficient for construction staging, major construction staging is proposed at the north (Fremont) side of the Ship Canal. The current proposal, which will undergo environmental review during Summer 2012, recommends staging major construction activities and the new odor control facility and access hatches on the private property located at 2nd Avenue NW and NW 36th Street.

The presentation was similar to the May 15, 2012 community meeting presentation, which can be found at: <http://www.kingcounty.gov/environment/wtd/Construction/Seattle/FremontSiphon/MeetingCalendar>

The SAC was encouraged to use a variety of methods for submitting questions and input, including the following:

- Web: <http://www.kingcounty.gov/environment/wtd/Construction/Seattle/FremontSiphon>
- Email: Monica.vandervieren@kingcounty.gov
- Phone: 206-263-7301

Meeting attendees were encouraged to ask questions, express concerns, and provide input. King County staff indicated that input is always welcome and will be used throughout the project design process. Dave Church, SPU Assistant Vice President for Facility Management, noted that he wanted to make sure the SAC was introduced to the project and encouraged the SAC members to invite King County to present about the project at other community group meetings.

Summary of Questions and Input

Questions, feedback, and discussion from the meeting attendees are summarized below.

What is a CSO pipeline?

CSOs, or Combined Sewer Overflows, occur in areas where stormwater and wastewater are handled through the same sewer system. Under normal operations, the combined sewer system conveys flows directly to a treatment facility. Large storm events can result in combined flows that exceed system capacity, resulting in a discharge of untreated stormwater and wastewater through an outfall to a nearby waterway. King County continues to work on CSO control projects to meet current standards of no more than one untreated discharge per year (per location) on a long term average. Storing excess flows during large storms is one example of CSO control. When system capacity returns, stored flows are returned to the conveyance system and on to the treatment facility. For more information on King County's CSO Control Program, visit www.kingcounty.gov/environment/wastewater/CSO.

Are the Ballard and Fremont siphon projects related to the other King County CSO Control projects?

The Fremont Siphon replacement project is not intended to reduce CSOs. The Fremont Siphon project team is coordinating the realignment and replacement of the City of Seattle's CSO outfall in the project area due to conflicts with the new siphon pipeline.

At this meeting the team incorrectly responded to the question regarding the Ballard Siphon replacement project. That project will in fact bring the Ballard Regulator under control as well as reduce CSO events at our 11th Ave Regulator.

In 2016 the central waterfront viaduct demolition will be occurring, causing limited access. This would in theory add traffic to Nickerson Street. What does the trucking load look like for this project during the first quarter of 2016?

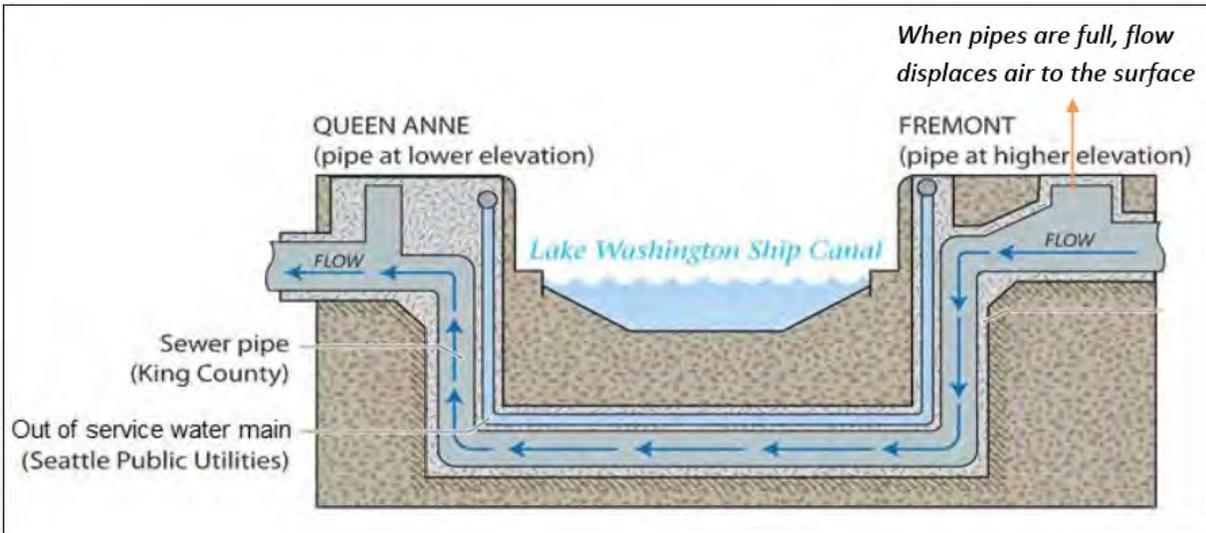
By 2016, the shaft and pipe construction will be complete and we will be in the site restoration phase of construction, so there will be minimal truck traffic.

Will there be an above ground building for odor control?

Yes. The facility will be located on the Fremont side, and will be approximately 30 feet by 30 feet.

Can you explain how the odor control system works?

Wastewater travels through the siphon from the Fremont side of the canal to the Queen Anne side. On the Fremont side, the North Interceptor pipelines are not full and convey both wastewater and air (i.e. the pipe is not 100% full of wastewater). When the North Interceptor flows enter the Fremont Siphon, the smaller diameter pipe traveling underneath the canal fills up with wastewater which blocks the air from travelling through the siphon. The blocked air has nowhere to go, thus finding its way to the surface in Fremont. The pipes are still completely full when the wastewater reaches the opposite side of the siphon, so there is no odorous air escaping to the surface on the Queen Anne side. The new odor control facility will pull the air out of the pipelines through a vacuum, and fans will send the air through carbon scrubbers to remove the odors.



Has this type of odor control been used elsewhere?

There are similar odor control facilities located throughout the County's system which have proven effective in reducing odors.

There is currently no odor control planned for the Queen Anne side. Will the project cause any odors on the Queen Anne side of the canal?

King County has conducted analysis on the amount of flows and sources of odor, and determined that odor control will not be needed on the Queen Anne side of the project. There may be occasional odors associated with construction, specifically the work to connect the new siphon to the existing system and the work to isolate the existing siphon. We will provide notice during work if we expect this type of impact.

What could be done to reduce odors on the Queen Anne side?

There is an odor problem at 3rd and Nickerson Street. I'm surprised you aren't taking care of odors on the Queen Anne side, since there is a higher concentration of people on this side.

If people observe odors they believe are related to the County's sewer, they can call King County's Odor Hotline at West Point Treatment Plant (206-263-3840) to report odor complaints. Crews will respond within two hours to the site to investigate, which is important to determine the source of the odor and a means of addressing the odor if it comes from the County's system. There are both City of Seattle and King County sewer pipes in the area. In addition, sewer-like odors can come from other sources. So timely reporting helps to determine the source of the odor accurately and develop a response.

King County has not received any odor complaints in this area, but we will report these observations to our Facilities Inspection and Offsite crews, and they can inspect the County's manholes to make sure they are sealed. *Note that this has been completed.*

If the new siphon results in odors on the Queen Anne side of the canal and the new odor control facility does not take care of these odors, will you retro-fit the new construction to eliminate odors on the Queen Anne side?

We do not anticipate any odors on the Queen Anne side with the new siphon construction, since the air within the pipelines is forced out when it enters the siphon on the Fremont side. We will maintain the existing hydraulics and capacity, so we do not anticipate a change in how air flows through the system.

What federal, state and local permits are required?

Permits will be required from several agencies, including: US Army Corps of Engineers, Department of Ecology, City of Seattle Department of Planning and Development and Seattle Department of Transportation.

Is there a kayak put-in near the King County Environmental Labs?

A dock with canal access for the Seattle Pacific University rowing crew is located near the King County Environmental Labs. Though the project is still in early design, the current layout leaves access to the dock from the northeast side of the site.

How close are you to obtaining private property? What will happen if King County is not able to acquire the property?

If King County proceeds with the proposal, the County works closely with the property owner following a process guided by state law. The process includes assessment of fair market value for the property and relocation benefits. No final decision on property acquisition will be made until after the completion of environmental review, which will occur in Summer 2012. King County is currently communicating with the property owner.

Closing

The project team thanked the SAC members for letting the project team present on the project. Local input is very important to informing the decision process, resulting in a design that will meet the needs of the community. Staff encouraged the audience to remain involved and continue to provide input.

Fremont Siphon Replacement Project Team Attendance

King County Wastewater Treatment Division

Will Sroufe, Project Manager

Adair Muth, Community Relations

MWH Global Americas

Joseph Clare, Design Consultant Project Manager

EnviroIssues

Hannah Litzenberger, Community Relations