

Bellevue Pump Station Upgrade

King County's Bellevue Pump Station, at the corner of Southeast Sixth Street and 102nd Avenue Southeast, needs to be upgraded to handle growing wastewater flows from the Bellevue area. The pump station is part of a regional wastewater system to protect public health and the environment.

Built in 1964, the facility pumps wastewater to the Sveyolocken Pump Station in Mercer Slough Park off Bellevue Way. From there, the wastewater is piped to the county's South Treatment Plant in Renton. Together, these two pump stations serve the central business district, Surrey Downs, west Bellevue and northwest Bellevue.

History

In 1958, the citizens of the region formed the Municipality of Metropolitan Seattle (Metro). The purpose of this agency was to clean up Lake Washington and other water

bodies in the region. In the early 1960s, Metro built a regional sewer network

including large pipes to move wastewater from the south and north end of Lake Washington and pump stations to move wastewater through the pipes to two regional treatment plants.

King County assumed the functions of Metro in 1994 and now operates the regional treatment plants in Renton and Seattle, 42 pump stations and 335 miles of pipe.



Lake Washington, circa 1958



Areas served by the Sveyolocken and Bellevue Pump Station.

As part of the Regional Wastewater Services Plan passed by the King County Council in 1999, the entire wastewater system was evaluated for its ability to safely and adequately convey and treat the region's wastewater. Several King County pump stations are nearing the end of their ability to adequately pump the volume of wastewater from the areas they serve. Also, these older buildings must be updated to current seismic codes and for safety, odor control and reliability.



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

What's planned for the Bellevue Pump Station?

King County's Wastewater Treatment Division is planning two projects for the Bellevue Pump Station:

- ¥ Pump station building upgrades
- ¥ Construction of a 5,700-foot 24-inch pipe from the pump station to a large regional pipe near Interstate 405.



Pump Station Upgrades

The pump station will be upgraded with new pumps; electrical, mechanical and odor control equipment; and standby generator. A new roof will be put on the existing building, and other changes will be made to the building to ensure it meets current building codes. King County will also improve access to the pump station for maintenance vehicles and workers. All the upgrades will be on King County property.

Pipeline Construction

King County has recently upgraded the Swayolocken Pump Station, but because of space constraints at the site, it could not be upgraded enough to handle more flows from the Bellevue Pump Station. Therefore, during the Bellevue Pump Station upgrade a new pipe will be built between the Bellevue Pump Station and a large regional pipe near Interstate 405.

The pipeline will be installed using a method called horizontal directional drilling. As the name implies, crews will drill a hole underground from the pump station to Southeast Sixth Street at 112th Avenue Southeast. Another hole will be drilled from there, crossing under I-405, to the Lake Hills Connector near the Wilburton Trestle. From there, the pipe will be routed north to Southeast Fifth Street to connect to the existing pipe that carries wastewater to the treatment plant in Renton.



The proposed force main (FM) will be built from the pump station to Interstate 405. The existing force main flows along Bellevue Way. The Eastside Interceptor (ESI) carries the regions wastewater to the South Plant in Renton.

What will happen during construction?

Work areas will be at Southeast Sixth Street by the pump station, Southeast Sixth near the Bellevue Club and Lincoln Plaza, the Lake Hills Connector by the Wilburton Trestle, and Southeast Fifth Street near the Burlington Northern Santa Fe tracks.

The pump station work will have a more localized impact on neighbors. During the upgrade, there will be demolition work and construction of new structures. Like any remodeling project, noise and activity will be visible around the pump station. Road closures may occur close to the pump station for several months. King County will have proper traffic control to redirect traffic and make sure pedestrians are safe. King County staff will send out periodic construction notices to tell neighbors about activities for this project.

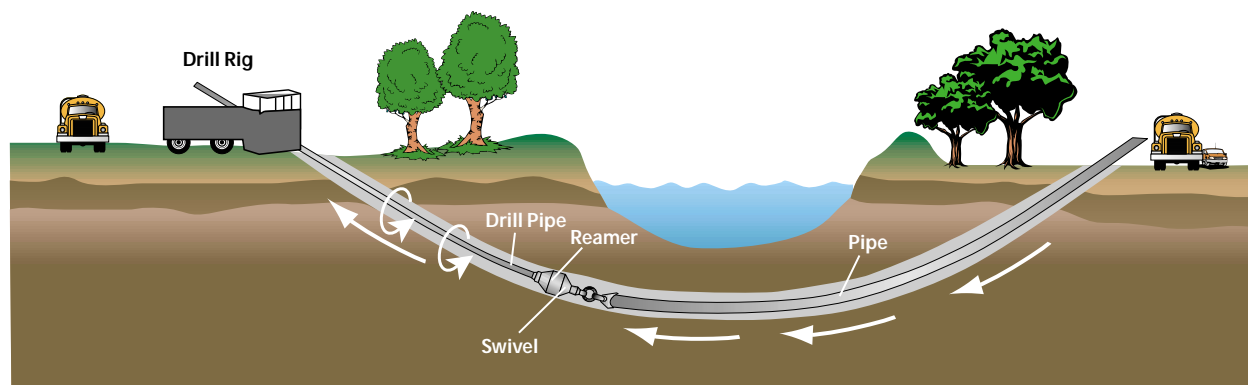
The pipeline work will also affect other neighborhoods along the route of the pipe. The drilling will occur mostly at a depth of 100 feet or greater. Homes, businesses and schools above the drilling unit should experience no impacts from the work, except for occasional surface monitoring during drilling. King County will negotiate easements with all property owners above the pipeline.

Southeast Sixth will be affected near the pump station where the drilling rig will be located. Traffic routes will be modified on Southeast Sixth between 112th Avenue Southwest and 114th Avenue Southwest. King County has been working with property managers on Southeast Sixth to provide the best alternative for traffic to and from their office buildings. Lake Hills Connector will also be affected with a lane closure during the drilling operations, and Southeast Fifth will be affected temporarily during the open-cut pipeline installation. During construction, there will be noise around the drilling equipment.

How did we evaluate project alternatives?

The county's Wastewater Treatment Division evaluated other alternatives for the pipeline route as well as alternatives for the look and layout of the pump station.

King County chose this pipeline route after getting comments from the City of Bellevue. Major factors contributing to selecting this alternative were impact on residents and businesses, ability to get permits, impact on other utilities, impact on roads and traffic, and cost.



Horizontal directional drilling uses a drilling rig on the surface to install a pipe in a shallow underground arc. The drilling rig bores a pilot hole that's filled with fluid and then enlarges the hole to the final pipe size. Pipe is then pulled through the hole. Directional drilling often needs a large staging area so the pipe can be lined up before it's pulled into the hole.

We looked at several factors for the pump station layout, including cost, number of new buildings required, access, and location of pump station elements like odor control units and a standby generator with respect to the neighbors.

What's next?

In April, King County will move forward with final design. In 2006, a contract for construction should be advertised for bid, and construction could start early summer of 2006. It will take up to about three years to finish the upgrade of the pump station and build the new pipeline.

Under the State Environmental Protection Act, an environmental review will occur during spring 2005.

King County welcomes ideas about the overall design of the pump station, landscaping and special needs of people affected by construction.

All questions, suggestions and comments are welcome.

Please contact John Phillips at 206-296-4081 (TTY Relay: 711) or by e-mail: john.phillips@metrokc.gov

**Alternative Formats On Request
206-296-4081 / 711 (TTY Relay)**

Attend a Meeting:

To learn more about the project, please join us at a community open house.

Thursday, March 10, 2005

7:30 PM - 8:30 PM

Bellevue High School

10416 S.E. Wolverine Way

Room 303

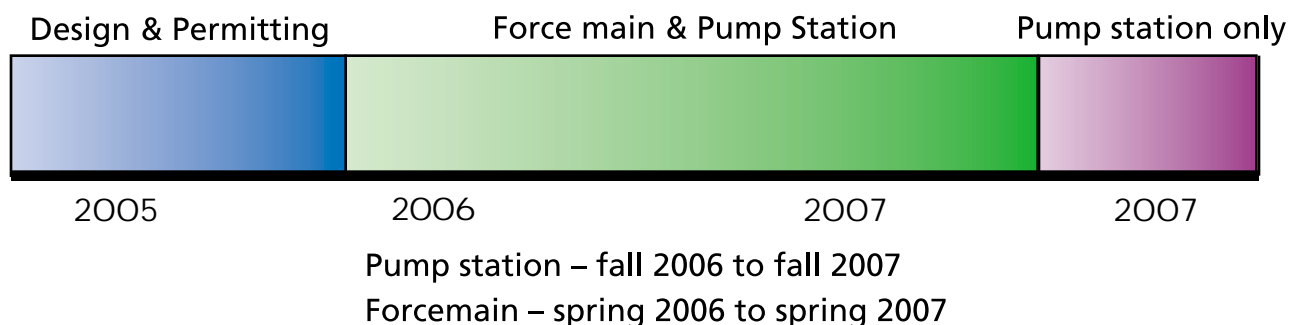
Reasonable accommodations on request.



King County

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Wastewater Treatment Division
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Schedule



Visit our Web site <http://dnr.metrokc.gov/wtd/projects/bellevue/>