



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

SUNSET AND HEATHFIELD PUMP STATIONS UPGRADES

August, 2013

Project Update

Pump Stations Upgrade Preferred Project; Tunnel Option Proves Unfeasible

To protect public health and the environment, King County evaluated options to add capacity and reliability to the regional wastewater conveyance system served by the Sunset and Heathfield Pump Stations in Bellevue. The pump stations regularly carry flows beyond the design standards stated in the Regional Wastewater Services Plan (RWSP) and are approaching their capacity. Population growth upstream has increased the use of the large pumps, affecting overall reliability, performance and efficiency of the system.

The South Lake Sammamish Basin Alternatives Analysis Project evaluated two possible options to provide reliable additional capacity:

- Upgraded Pump Stations and associated conveyance
- Bored Pipeline between Issaquah and Bellevue

Upgraded Pump Stations and Associated Conveyance

Upgrading the Pump Stations and associated conveyance is the preferred project. The Wastewater Treatment Division (WTD) is moving forward with upgrading both the Sunset and Heathfield Pump Stations and associated conveyance. It is anticipated that predesign will begin in 2013 and construction will commence in 2016. Visit the project website for more information:

<http://www.kingcounty.gov/environment/wtd/Construction/East/SunsetHeathfield.aspx>

Bored Pipeline between Issaquah and Bellevue

During the Conveyance System Improvement (CSI) Plan update and the County's continuous improvements efforts, a tunnel option emerged as a feasible alternative (see map of alignment alternatives on page 2). A preliminary study anticipated benefits to include: cost savings, energy savings and a smaller community footprint.

In 2012, WTD started geotechnical evaluations to identify the feasibility of a tunnel. The geology and hydrology were different than predicted (less, poorly indurated rock and a high water table) and it was determined that a tunnel would require too many costly interventions to make the project feasible. It is estimated that the project would cost \$110 million more than the pump stations upgrade.



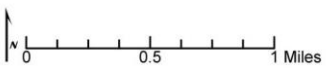
Crews conduct geotechnical investigations as part of the early analysis.



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The tunnel alignments considered in the preliminary analysis, ultimately determined unfeasible.