



# **King County – Wastewater Treatment Division South Lake Sammamish Basin Alternatives Analysis Project**

Project Update  
June 6, 2013

# Agenda

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- ▶ Why am I here?
  - Update MWPAAC on the Tunnel Alternatives Analysis
  
- ▶ What will we be talking about?
  - Background
  - Objectives and Approach
  - Accomplishments
  - Results
  - Pump Station and Forcemain Upgrade

# Background and Project Need

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To protect public health and the environment, the Wastewater Treatment Division evaluated options to add capacity and reliability to the regional wastewater conveyance system served by the Sunset and Heathfield Pump Stations in Bellevue.

Two options considered to provide reliable additional capacity:

- ▶ Upgrades to the Sunset and Heathfield Pump Stations and the conveyance connecting those facilities to the larger pipes to the west.
- ▶ Tunnel options to convey flows from the South Lake Sammamish Basin to the Eastside Interceptor.

# Objectives and Approach

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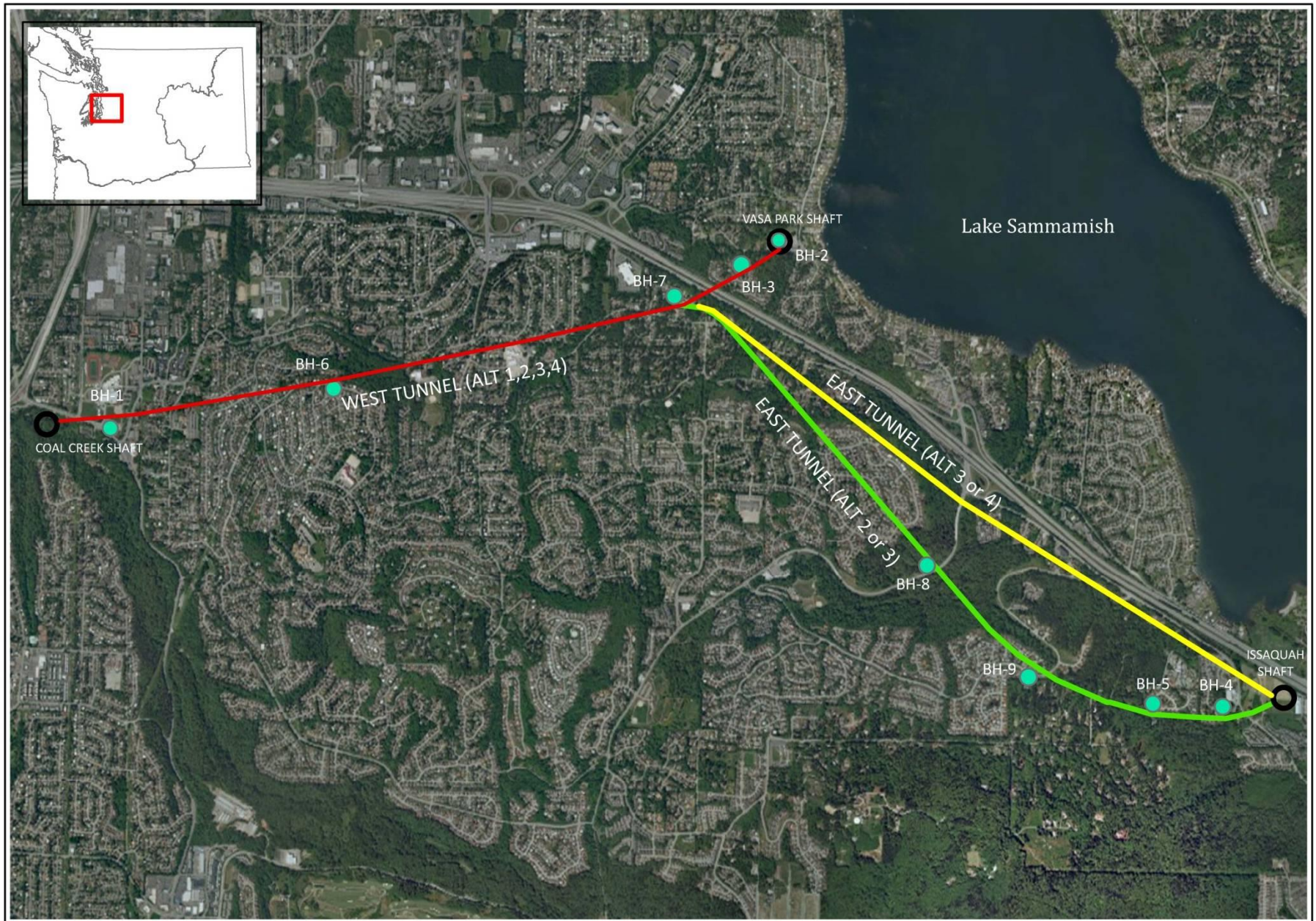
## ► Objectives

- Confirm technical and financial feasibility
- Develop more detailed design; refine financial analysis
- Identify preferred alternative

## ► Approach

- Use subphases to reduce risk
- Pull geotech work forward
- Determine best tunnel alternative
- Compare best tunnel and best pump station alternatives





Eastgate Tunnel Concept Design TM  
**Figure 3.1: Proposed Eastgate Tunnel Alignments**



# Results

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- ▶ Less rock than anticipated
- ▶ Poorly indurated rock
- ▶ High water table



# Results

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## Present Value Life Cycle Cost Comparison

Alternative	Present Value Capital Costs (\$M)	Present Value O&M Costs (\$M)	Present Value Net Costs (\$M)
CSI Plan	\$257.0 M	\$51.8 M	\$308.8 M
Alternative 1	\$425.8 M	\$31.1 M	\$456.9 M
Alternative 2	\$488.2 M	\$20.3 M	\$508.4 M
Alternative 3	\$476.9 M	\$20.3 M	\$497.2 M
Alternative 4	\$401.7 M	\$20.3 M	\$422.0 M

# Pump Station and Forcemain Upgrade

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- ▶ Preferred Project: Sunset and Heathfield Pump Stations and Conveyance Upgrade
- ▶ Approximate Project Schedule:
  - Predesign:  
Q2 2013 – Q1 2014
  - Final Design:  
Q1 2014 – Q1 2016
  - Construction:  
Q1 2016 – Q3 2019





# QUESTIONS

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► For more information contact:

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Thank you!