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# Ravenna Creek Transfer Pipe Extension Project

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# Today's presentation

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- Why King County needs to do this project
- How water quality is being protected
- Stormwater and sewer systems in the project area
- King County's proposed project
- Project schedule
- Public involvement
- Q/A

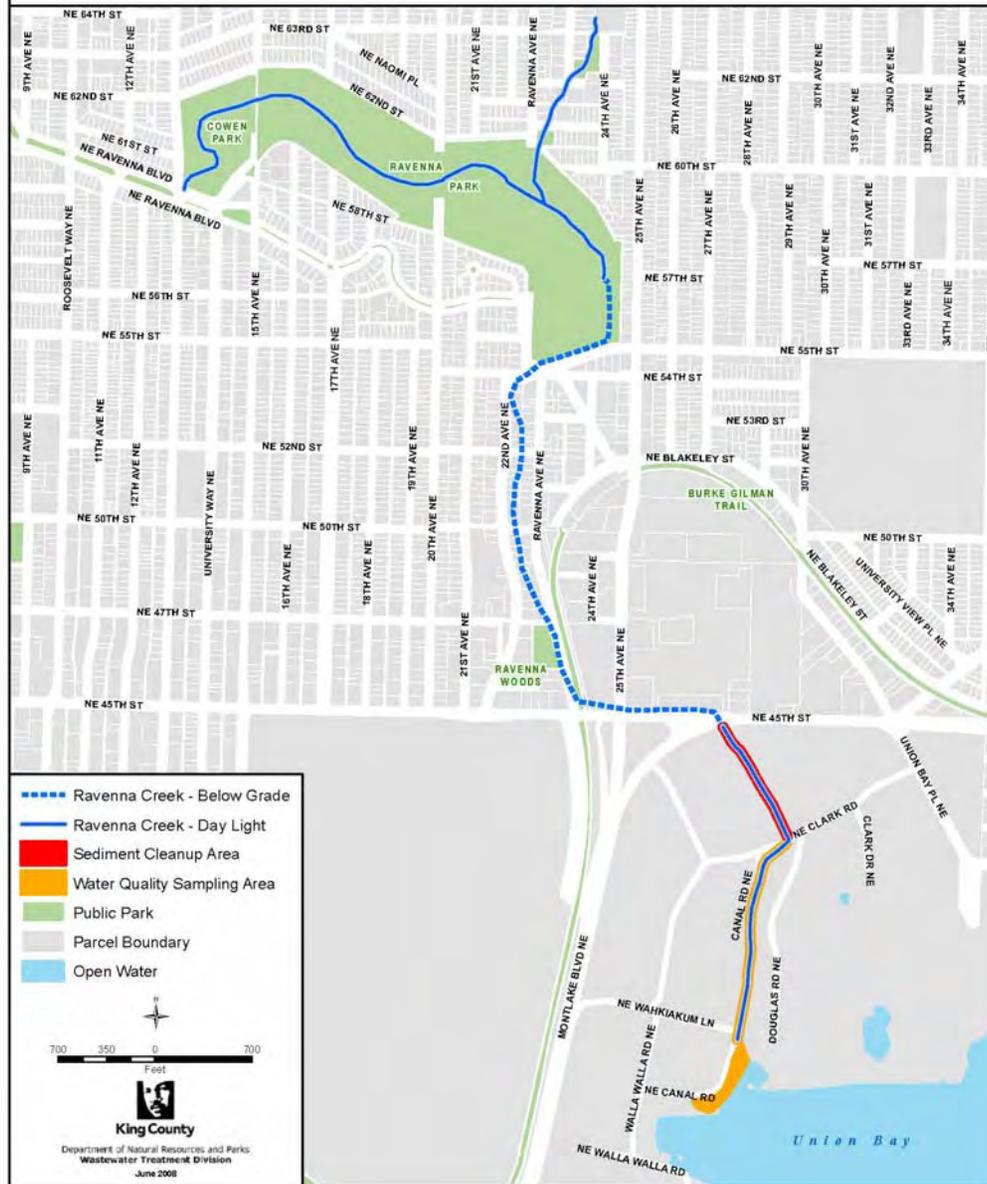
# System Design Issues Discovered During Wastewater Spill Response

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- Storm and sewer systems are complex in the area; changes were made during the creek daylighting project.
- Sewer flows were accidentally diverted to the storm system during a system repair in May, 2008.
- During spill response and cleanup activities, crews discovered the system had potential to overflow due to design issues during the Ravenna Creek Daylighting project.

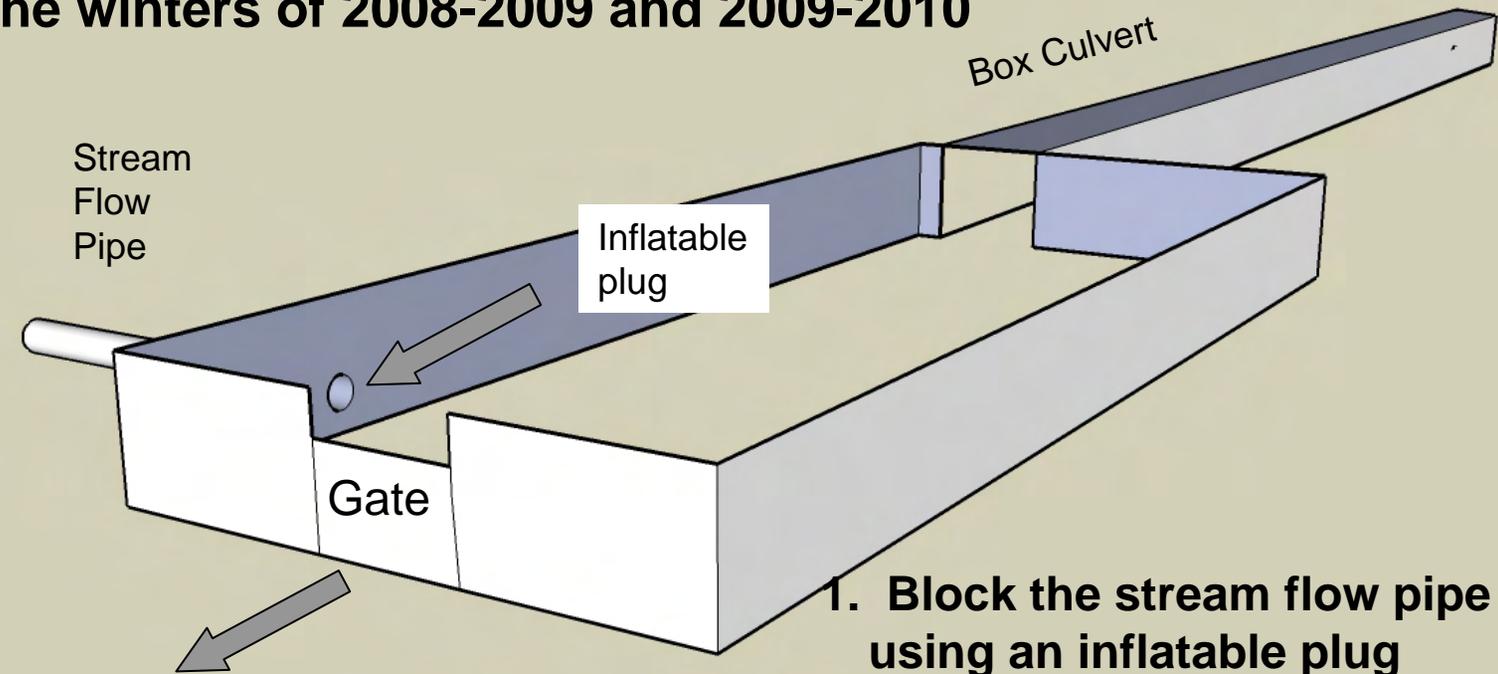
# Ravenna Creek and Ravenna Park

## Overview Map



# Temporary wet-weather diversion of Ravenna Creek to protect water quality

Wet weather diversions to West Point Treatment Plant during the winters of 2008-2009 and 2009-2010



Creek flows and potential wastewater overflows to Laurelhurst Trunk

1. Block the stream flow pipe using an inflatable plug
2. Send both stream flows and potential wastewater overflows to West Point Treatment Plant

# Temporary Stream Diversion - Benefits

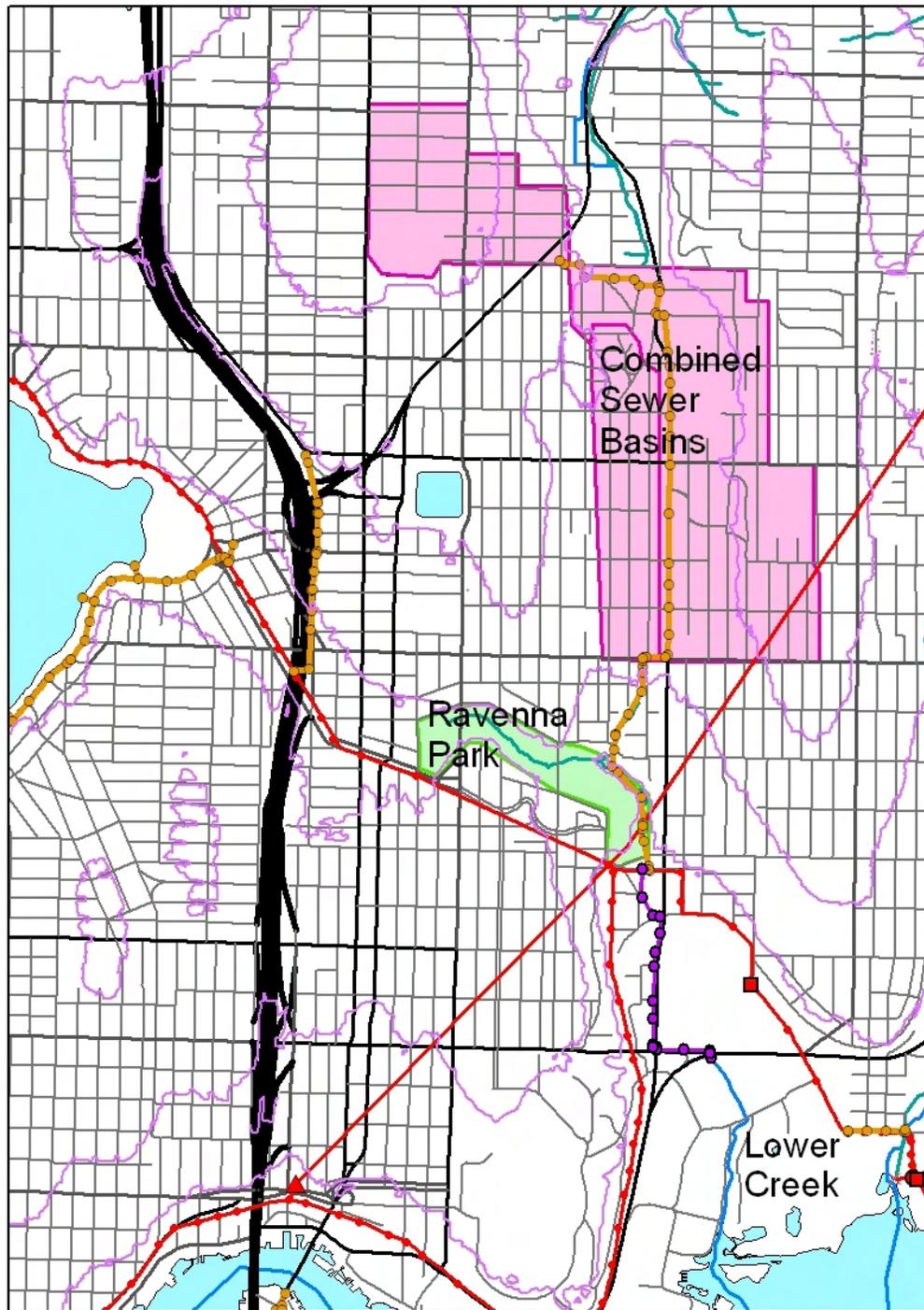
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- Eliminate overflows into University Slough
- Provide workable interim solution to protect water quality, public safety, and human health
- Provide WTD time to design and construct a permanent solution to protect University Slough
- Water quality monitoring carried out upstream and downstream of diversion during 2008-2009.

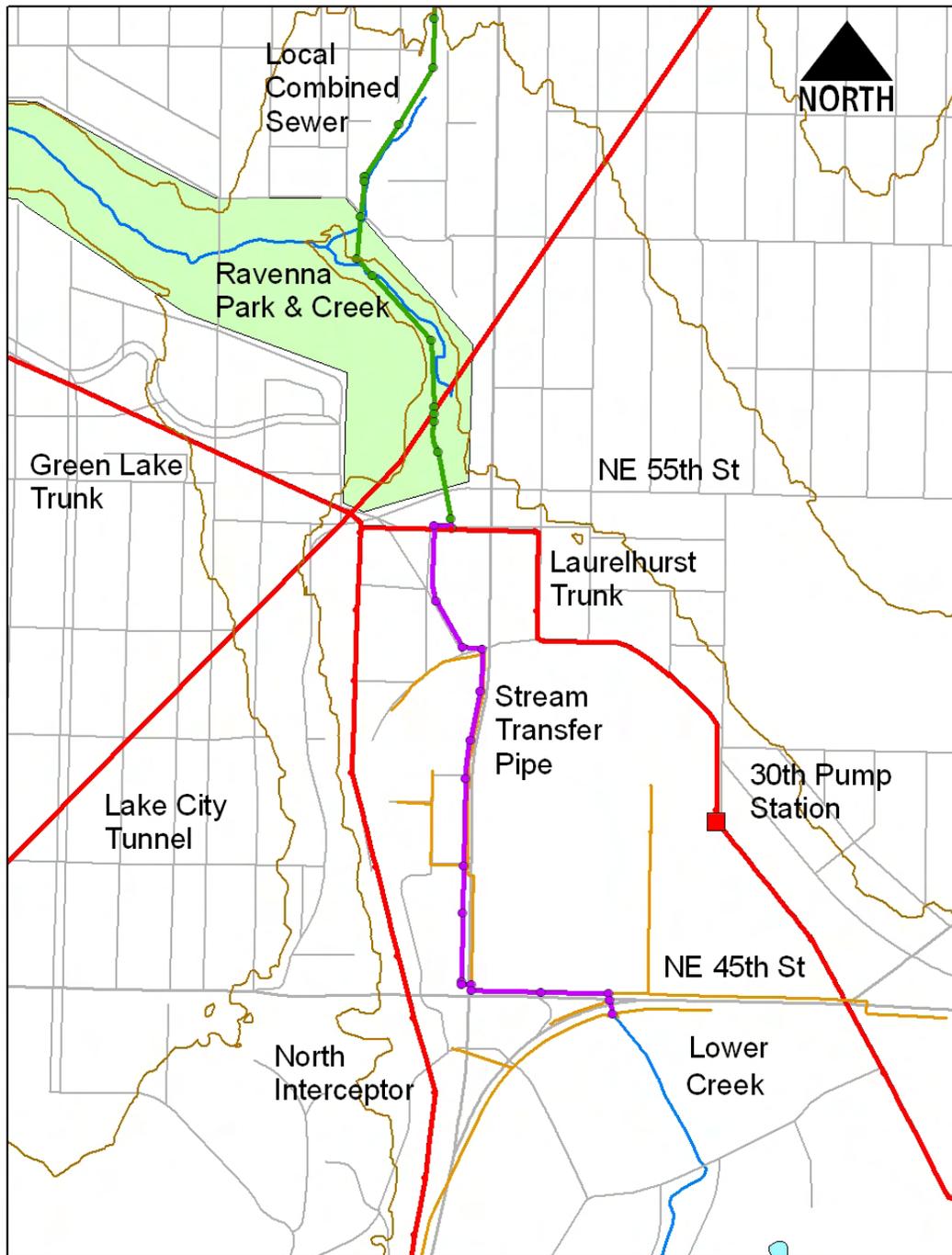
# Work to date

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- King County explored a number of project alternatives with Seattle Public Utilities
- The proposed project is a cost-effective way to protect the storm system from sewer overflows.
- The plan design maintains system flexibility and capacity, and does not change target creek flows to University Slough
- King County is establishing an agreement with SPU to take over the modified system

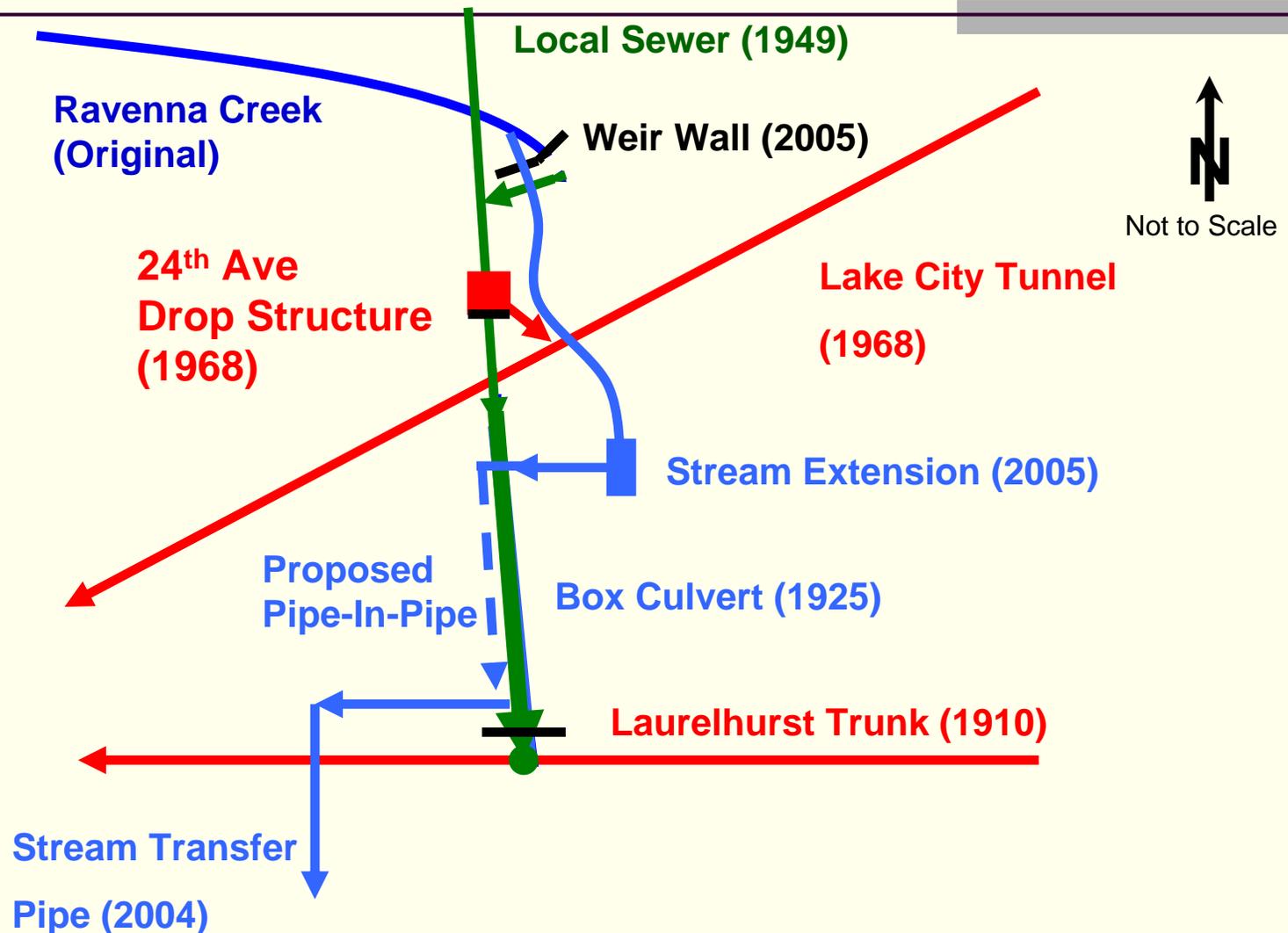


## Project Area Overview and Wastewater Conveyance System

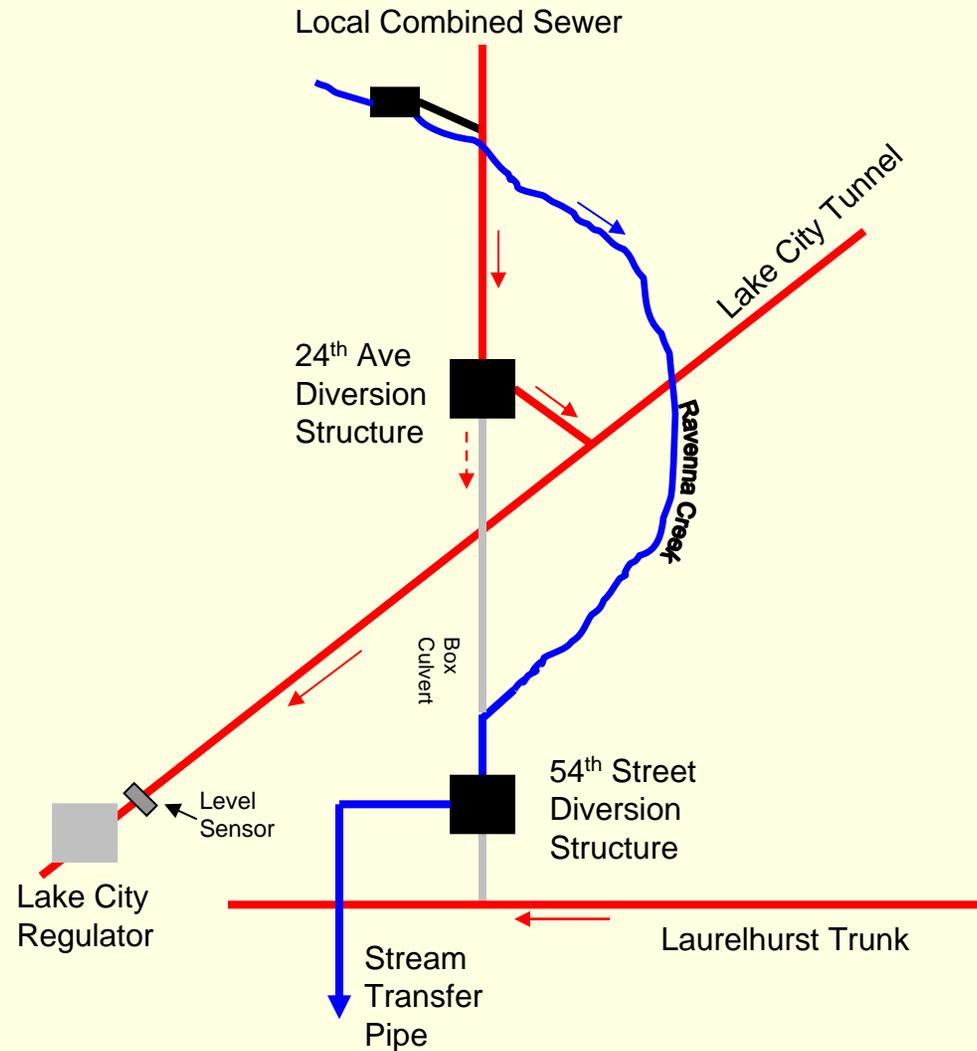


## Pipes and Stream Flow in the Project Area

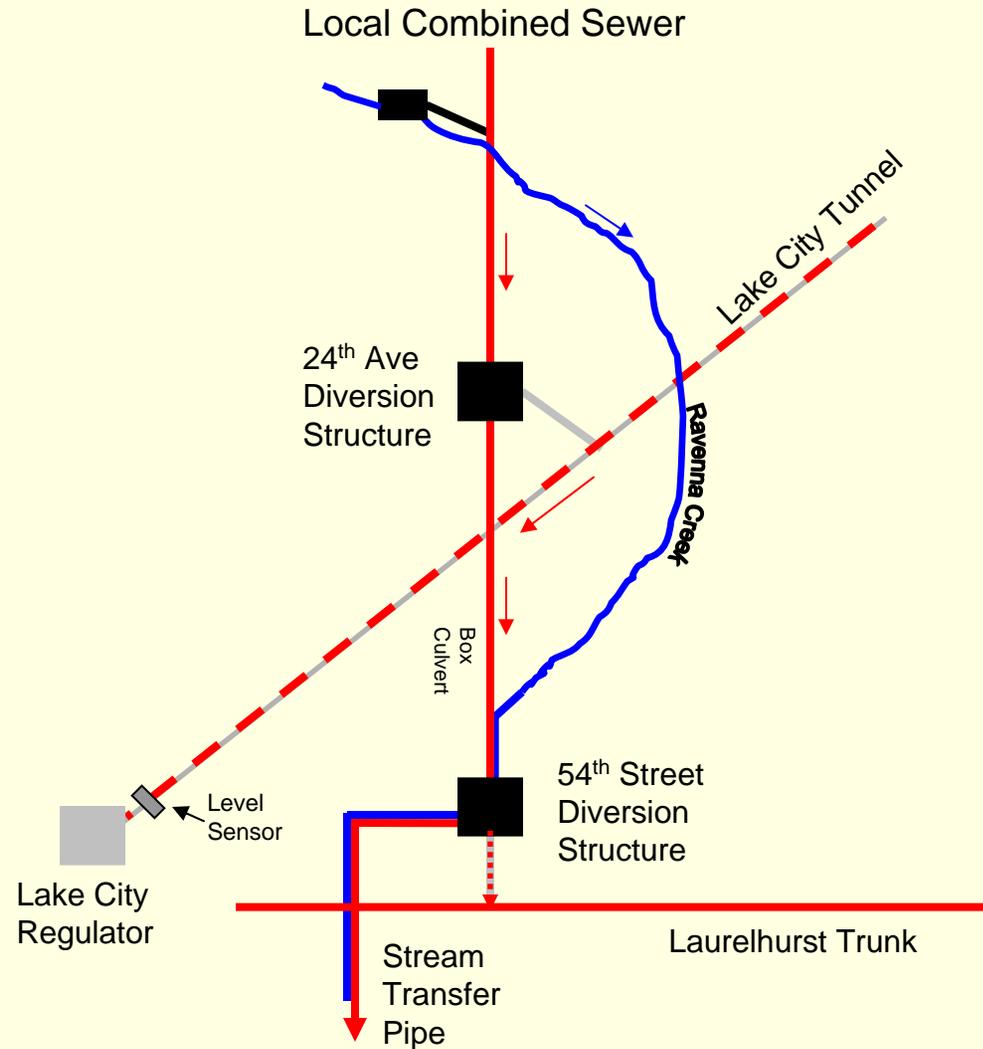
# Ravenna – History of Pipes and Flows



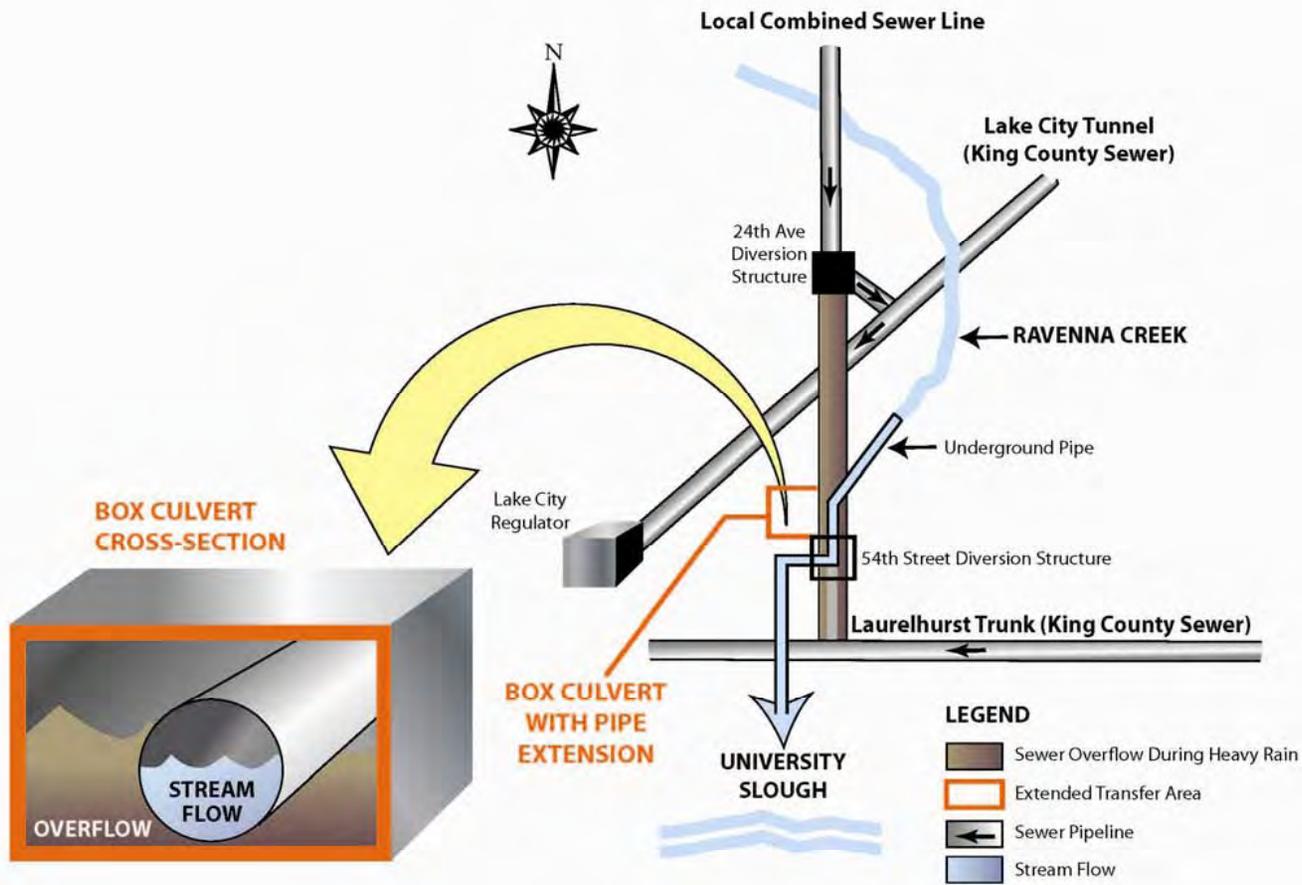
# Normal flows in the Ravenna area



# How flows were diverted during system maintenance

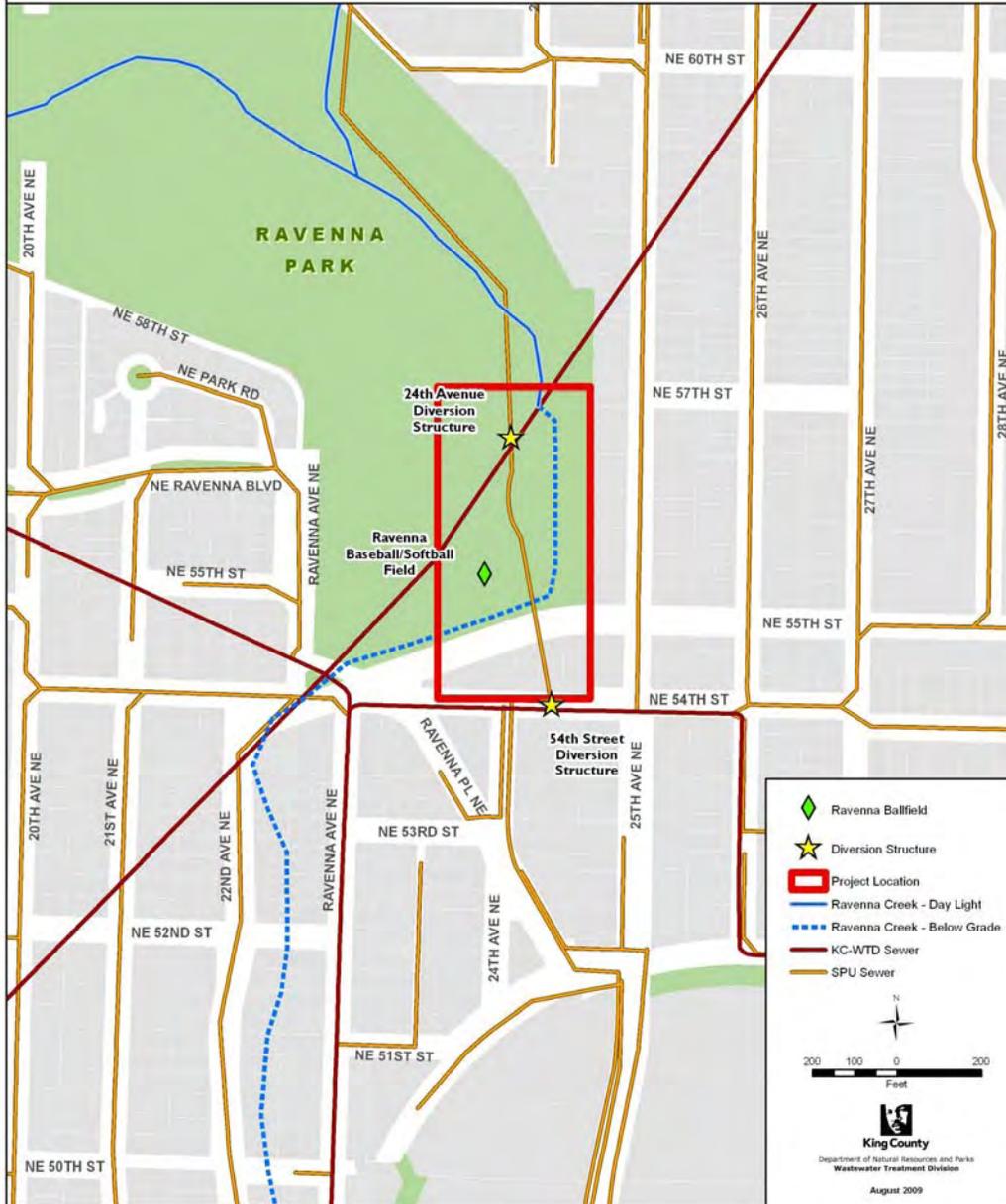


# Solution: Pipe in Pipe



# Ravenna Transfer Pipe Extension Project

## Project Location Map



The project area is located at the south end of Ravenna Park.

The proposed project approach limits surface disruption:

- No open trenching needed
- Work confined to the park
- Limited traffic impacts

# Construction Impacts to Park Users

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- Project must be carried out in the dry season (low flow season for sewers)
- Ballfield will be closed during the 2010 summer season
- Some paths and user areas may have limited access during construction and restoration
- Closures are to protect public safety
- Project area will be restored to pre-construction condition

# Preliminary Project Schedule

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- Environmental review- 10/2009 – 12/2009
- Project design - 12/2009 complete
- Permitting – 12/2009 – 3/2010
- Contracting – 3/2010 – 6/2010
- Construction and restoration – 6/2010 – 9/2010

# The Ravenna Pipeline project team will work with the community

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- Keeping informed

- Web

- <http://www.kingcounty.gov/environment/wtd/Construction/Seattle/RavennaCkPipeExtension.aspx>

- For information by mail, please request hard copies

- Contact us with questions and concerns

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