



King County

Barton, Murray, Magnolia, and North Beach



**North Beach
CSO Control Project
Public Meeting
October 19, 2010**

CSO Beach Facilities

carollo
Engineers...Working Wonders With Water®

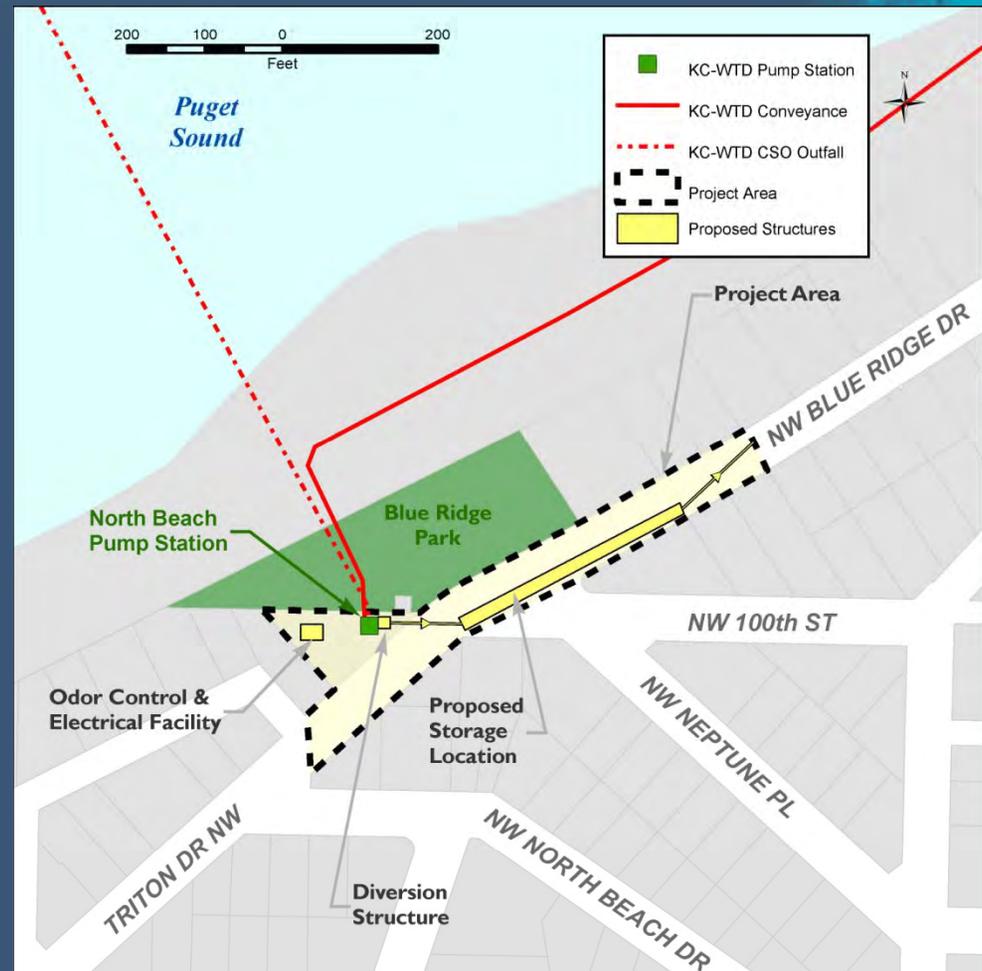
And Associated Firms

Meeting Purpose

- Review the county's decision process for the recommended CSO control project
- Convey how community input influenced the decision
- Provide further detail on the recommended project
- Describe how King County works with communities during design and construction
- Present next steps

North Beach CSO Facility Project Status

- Transition to new phase of North Beach CSO Control Project
- Planning phase 2007-2010
- Proposal to control CSOs in North Beach
- Project design begins early next year



What Happens During Design

- Draft facility plan submitted to Department of Ecology 12/31/10
- Design consultant selected
- Environmental Review completed
 - SEPA
- Regulatory approval of facility plan following SEPA
- Complete design and permitting by 2012

Community Input in the Decision Process

- Over 200 community members expressed support for the pipeline storage option
- Most stakeholders opposed to facilities in Blue Ridge Park
- Carkeek Park stakeholders support reduced flows to Carkeek Park
- Strong opposition to pipeline conveyance to 8th Ave Interceptor (Alternative 1D)
- Questions about future plans for existing facilities

How We Got Here

The Requirement King County Must Address

- Uncontrolled CSO discharge from the North Beach PS
 - Average 10 events per year
 - Average 2.2 million gallons per year
- Control requirements
 - One untreated event per year on a long term average
 - Set by State Regulations (WAC 173-245)
 - Ecology set West Point NPDES permit requirements



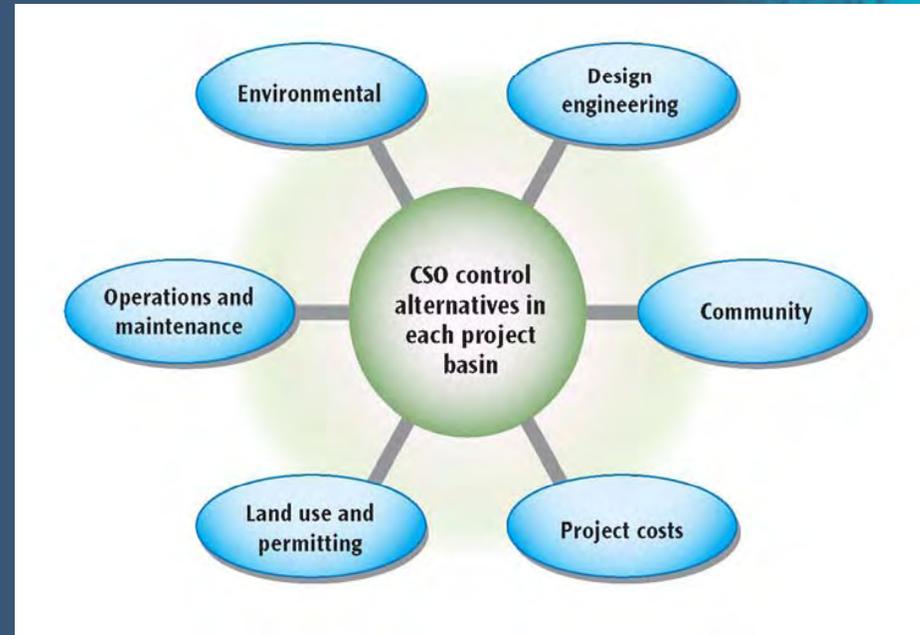
Approaches Considered for CSO Control

- Storage
- On-site Treatment
- Conveyance & Treatment
- Peak Flow Reduction
 - (Demand Management)
- Combination of Approaches



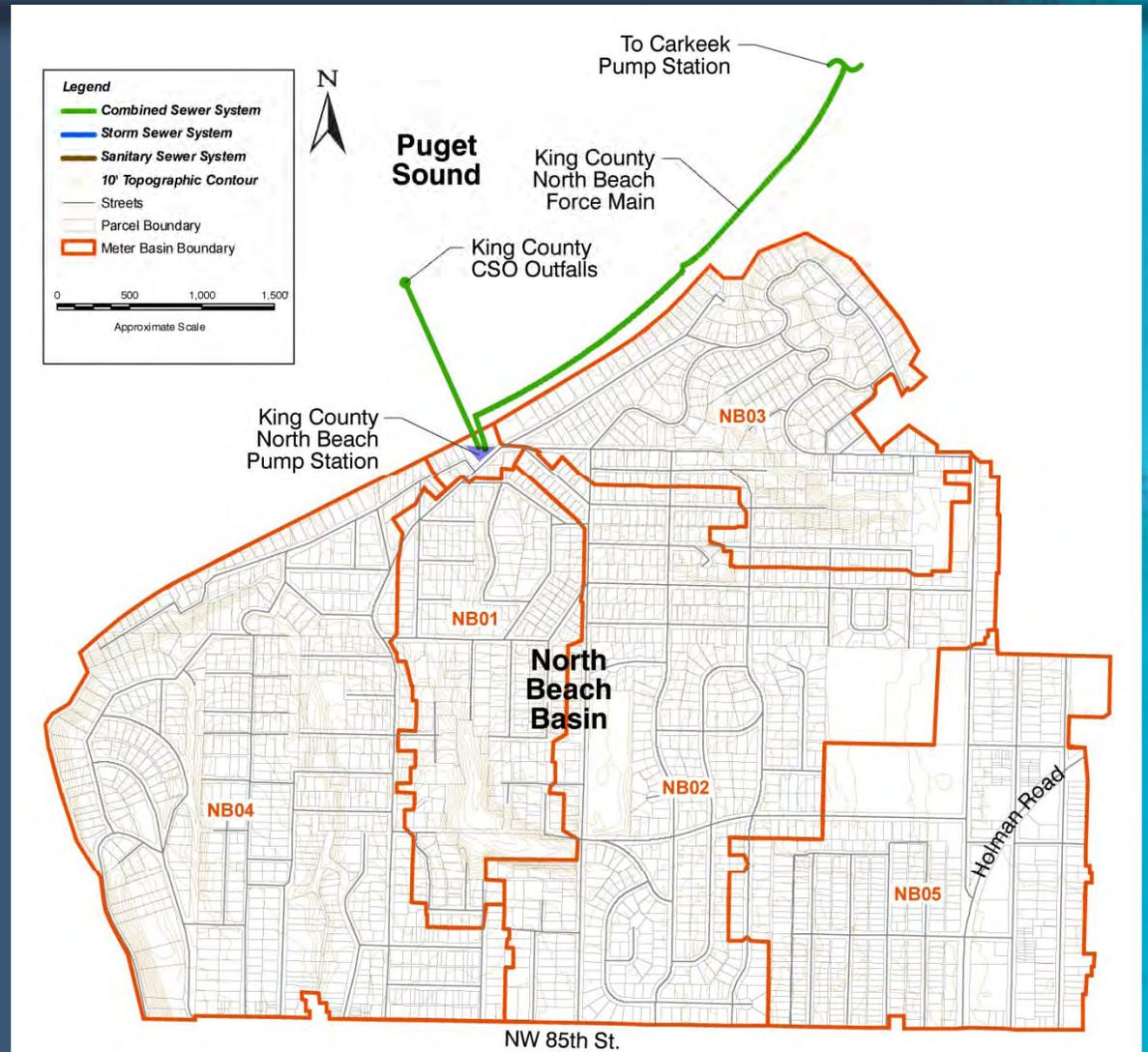
Evaluation Factors

- Individual alternatives were evaluated using a range of factors:
 - Land Use/Permitting
 - Environmental
 - Community
 - Costs
 - Operations & Maintenance
 - Design and engineering



King County's North Beach Wastewater Facilities

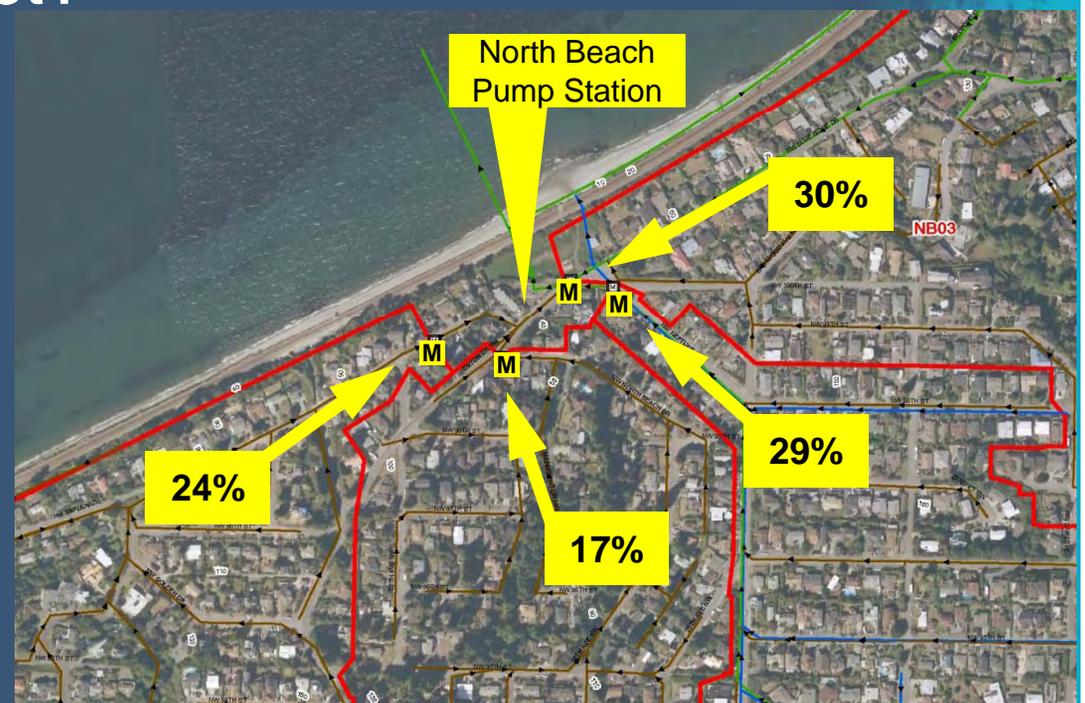
- Both King County and SPU operate sewer systems in North Seattle
- King County's system pumps wastewater collected from the local system to Carkeek Wet Weather Facility



Alternatives Developed to Meet Basin Requirements

- What's required for a workable alternative:
 - Sufficient room to site and construct the facility?
 - Feasible to construct?
 - Will the alternative capture sufficient peak flow?

Wastewater flows in North Beach converge at the bottom of the basin



Three Alternatives for CSO Control

- Common elements:
 - Storage
 - Bottom of the basin location



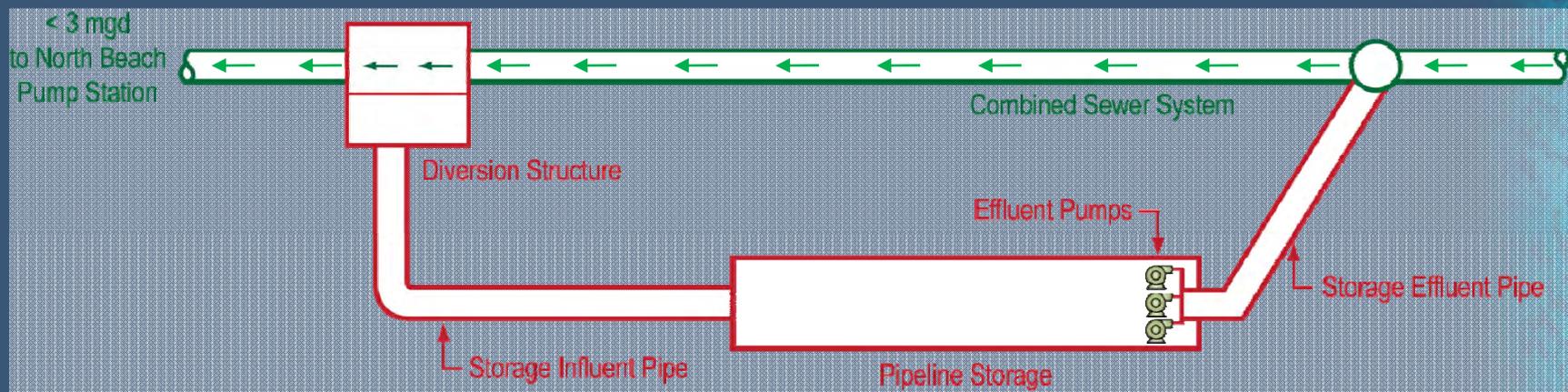
North Beach Basin Recommended CSO Control Project

Recommended CSO Control Project : Underground Pipeline Storage

- Pipeline storage in right-of-way: approximately 325' long, ~12' diameter, ~230,000 gallons
- Underground diversion structure to direct peak flows to storage tank
- Odor/electrical facilities on King County property

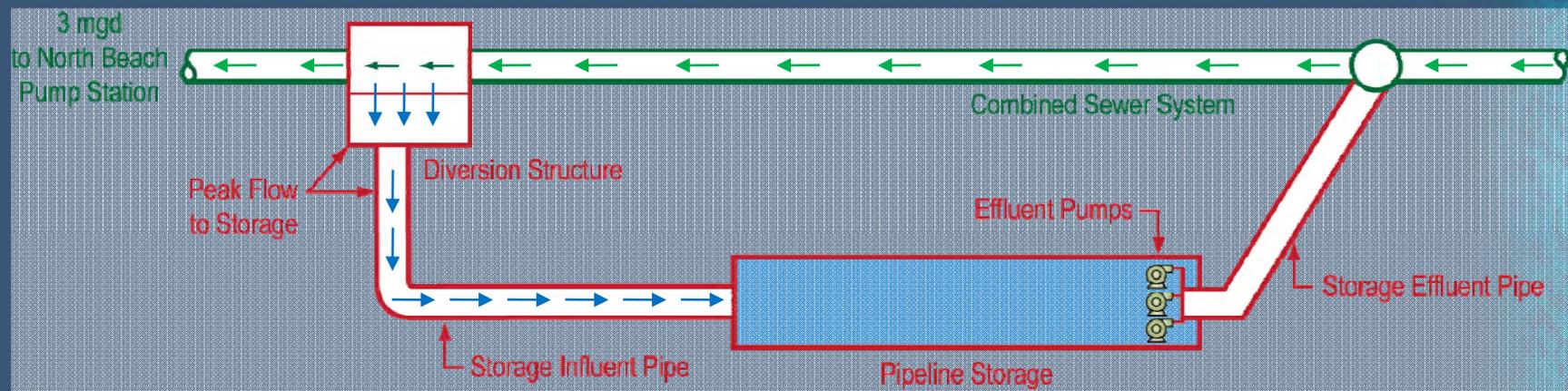


How the Storage Facility Works to Control CSOs



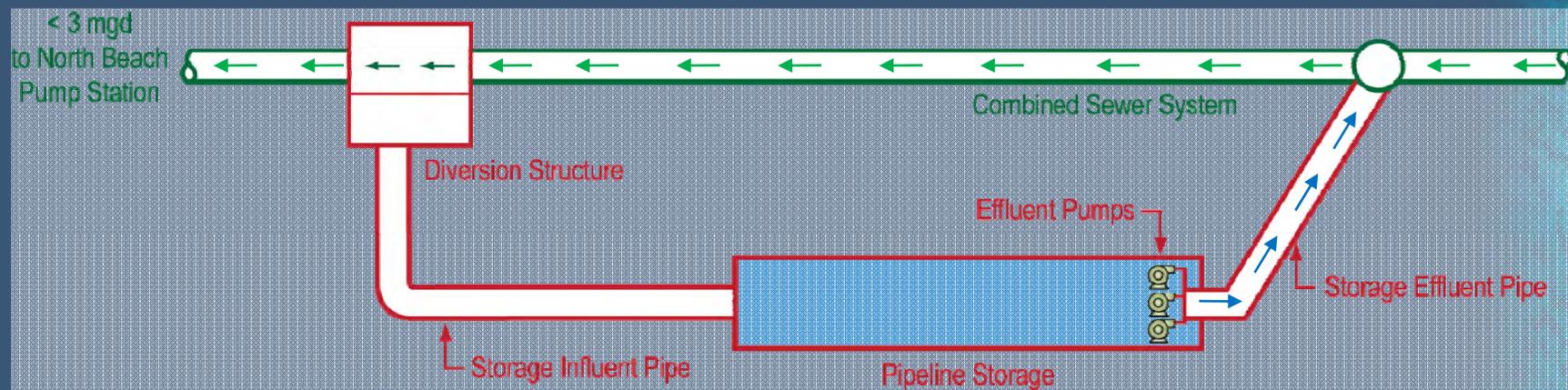
- Normal operation
- Flow to pump station <3 mgd

How the Storage Facility Works to Control CSOs

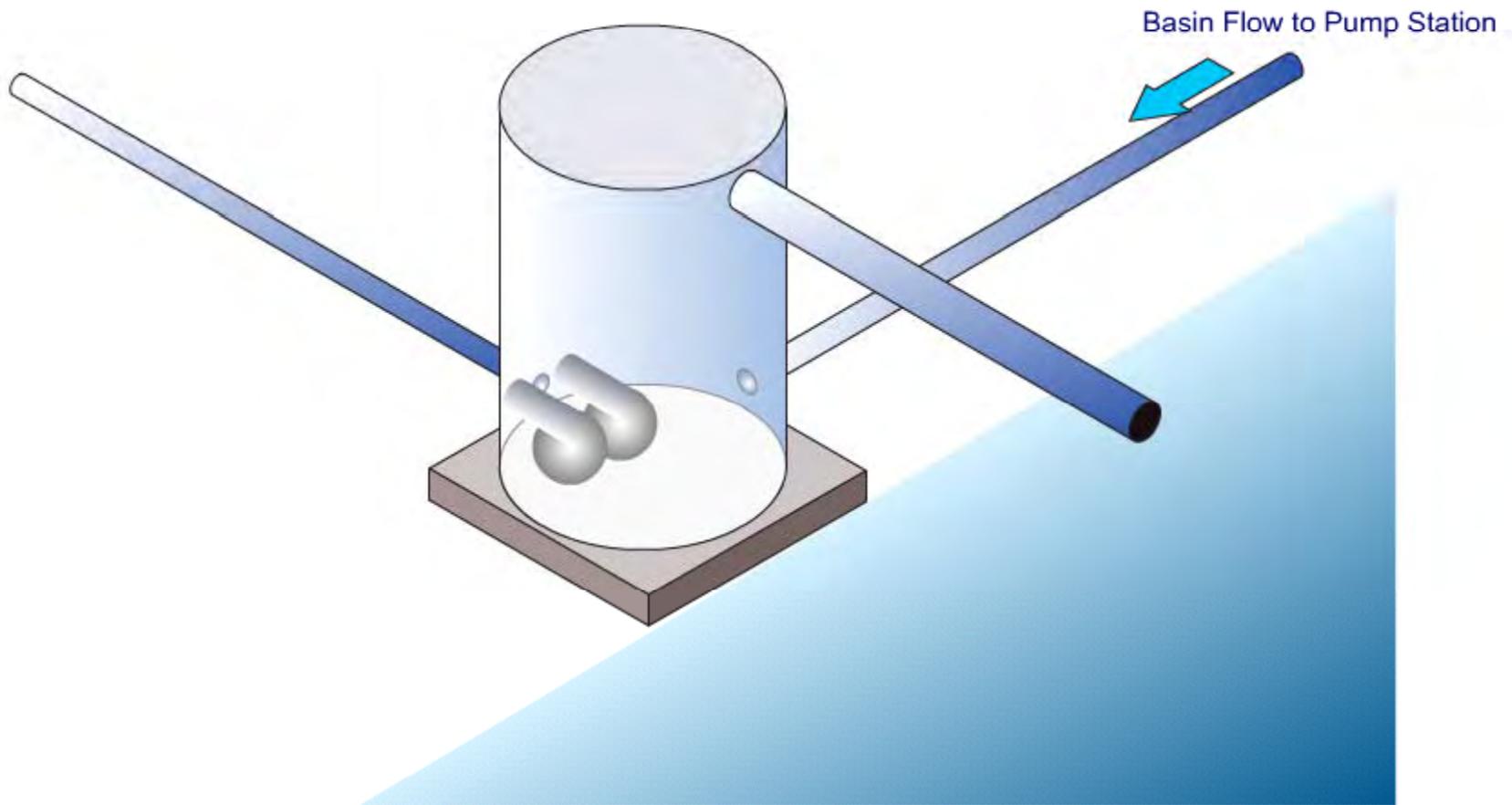


- Peak flow > 3 mgd
- North Beach Pump Station continues pumping

How the Storage Facility Works to Control CSOs



- Post event flow < 3 mgd
- Stored flow pumped back to North Beach Pump Station following wet weather



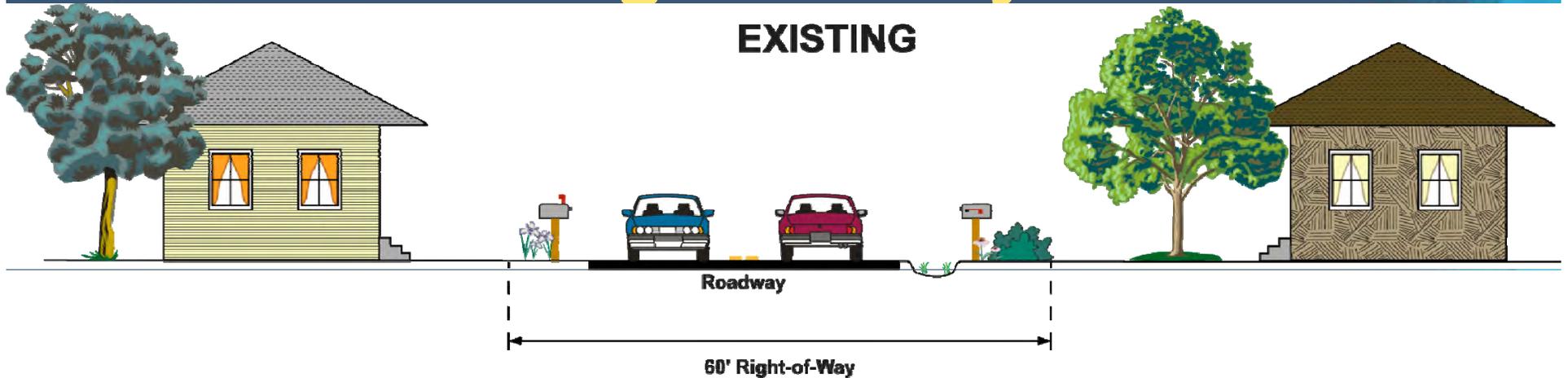
Recommended Project Location



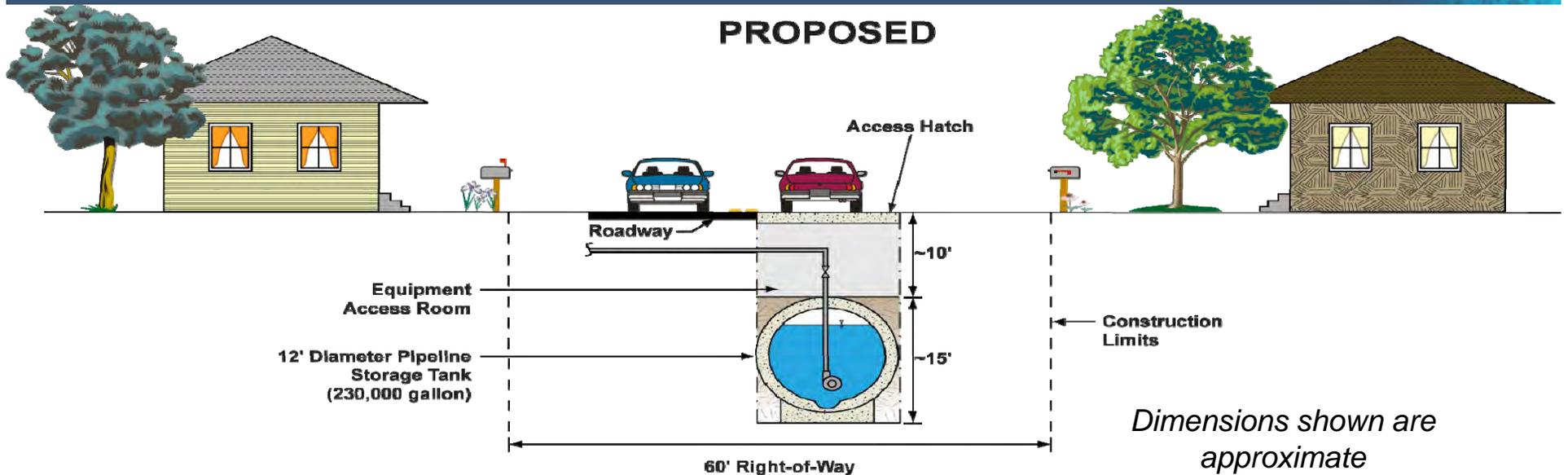
Dimensions shown are approximate

Recommended Project Location in the Right of Way

EXISTING



PROPOSED



Project Considerations for Right of Way Location

Underground location will require the entire right-of-way

- Maintaining access
- Working near homes
- Landscaping in Right-of-Way



A 12' inside diameter storage pipeline



View of North Beach project area²²

Considerations for Associated Facilities

- Diversion structure, odor control and electrical facilities located on King County's North Beach PS property
- King County will design these facilities to minimize visual impacts

North Beach Pump Station



King County Will Continue Working with the North Beach Community During Design and Construction



- Public meetings
- Presentations to community groups
- One on one information exchange
- Web and newsletter updates

King County
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Wastewater Treatment

King County, Washington

You're in: Wastewater Treatment » Projects (planning, construction) » Seattle projects » Puget Sound Beach CSO Control » Pr

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Projects (planning, construction)

- System planning
- North King County/South Snohomish projects
- Seattle projects
 - Ballard Siphon replacement
 - Barton Street Pump station upgrade
 - 53rd Avenue Pump Station upgrade
 - Fremont Siphon
 - Murray Avenue Pump Station Upgrade
 - Puget Sound Beach CSO Control
 - FAQs
 - Meeting calendar
 - Approaches to CSO control
 - Decision process & schedule
 - Project basins
 - Barton
 - Murray
 - North Beach
 - Project alternatives
 - South Magnolia
 - Library
 - Ravenna Creek pipe extension

North Beach CSO Control Project

To protect Puget Sound and public health, King County is identifying CSO control options for North Beach area.

June 30, 2010 Update

King County is continuing to take [feedback](#) on the [three proposed alternatives](#) for CSO control in the North Beach basin. [Summaries of public meetings](#) can be found at meeting calendar page.

On June 26, the county hosted a [technical information session](#) to provide more detail and answer questions we have received about the project background and decision process.

King County is working to protect public health and the environment by limiting untreated flows of combined stormwater and sewage to Puget Sound. Controlling CSOs in Barton, Murray, North Beach, and Magnolia is a priority because of their location near popular beaches.

Why are CSOs a problem at North Beach?

Like many [cities around the country](#) (external link), the older parts of King County's wastewater system carry both wastewater and stormwater to the [treatment plant](#). When heavy rains fill the pipes, excess stormwater and sewage flow directly into Puget Sound near North Beach. These events, called [combined sewer overflows or CSOs](#), help to avoid sewer backups into homes and businesses and onto streets during storms, but they are a public health and environmental concern. When a CSO happens, about 90 percent of the overflow is stormwater and the rest is dilute

News releases

- July 20, 2010 -- West Seattle public meeting to focus on 'green' options for stormwater control, Aug. 5: Residents invited to review project proposals for Sunrise Heights, Westwood | [View meeting announcement flyer \(PDF\)](#)
- July 14, 2010 -- Hear about King County proposals to control Combined Sewer Overflows
- June 24, 2010 -- Learn about proposals to control combined sewer overflows, June 26: Technical information session to focus on north Seattle, North Beach Basin
- June 17, 2010 -- Get details on West Seattle sewer improvement proposals, June 19: Public invited to review proposals, provide feedback
- Past project news releases

How you can participate

- Visit the [CSO Control Program Web site](#) to learn about King County's work to reduce combined sewer overflows
- Attend [public meetings](#) to view presentations, ask questions, and provide feedback



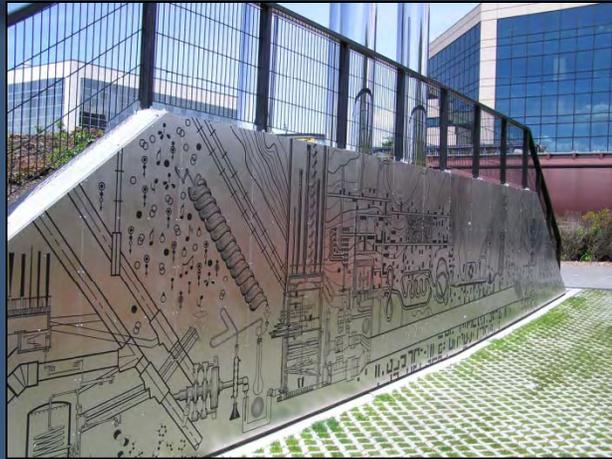
King County Works with Communities During Project Design

Working together to address community concerns about:

- Facility design
- Construction impacts
 - Residential and park access
 - Deliveries
 - Work hours
 - Construction traffic
 - Noise
 - Impacts to landscaping



Community Input Shapes Facility Design – Above Ground



Air vent, Denny Regulator



Pacific Pump Station



Community Input Shapes Facility Design



Odor Control Stack

**Hidden Lake Underground
Storage Pipe**

Project completion 2009



Odor Control Stack

53rd Street Pump Station

Project completion 2010



King County

We Work to Minimize Construction Impacts



King County

- Approved Traffic Control Plan
- Maintain emergency and local access
- Provide advance public and agency notice of traffic disruptions



Problem Solving During Construction



King County

Department of
Natural Resources and Parks
Wastewater Treatment Division

**North Beach Storage Pipeline
Project**

24/7 Construction Hotline

206-XXX-XXXX

In an emergency, dial 911

- Work with construction management team to address odor, noise, dust, and other concerns

- Address access issues for residents, services, and deliveries



*Brightwater Project, Swamp Creek Connector,
Kenmore*

We Will Keep You Up-to-date on Construction Progress

- Web
- Newsletters
- Press releases
- Emails and mailings
- Community group briefings



King County



October 2008

Repaving on 93rd Avenue Northeast begins Wednesday October 22

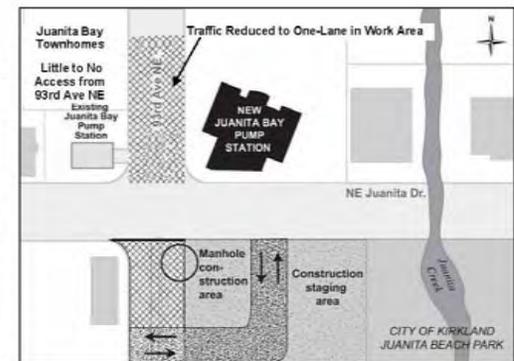
Weather permitting, King County's contractor for the Juanita Bay Pump Station project will repave roughly 150 feet of 93rd Avenue Northeast between Northeast Juanita Drive and the new pump station's northern property line on Wednesday, October 22. Repaving could extend into Thursday, October 23.

Vehicle traffic on 93rd Avenue Northeast immediately north of Northeast Juanita Drive will be reduced to one lane for the duration of the work. Drivers and pedestrians seeking access to 93rd Avenue Northeast should detour around the work site or be prepared for delays.

Access to the Juanita Bay Townhomes from 93rd Avenue Northeast will be limited during the work. Residents needing to drive during the work should plan to be out of the townhome parking lot or make alternative parking arrangements by 9 a.m. on Wednesday, October 22.

King County's project team will update the community when the work date is finalized. For more information call the project hotline: 206-205-3898

King County is building the new wastewater pump station to help ensure your community receives safe, reliable wastewater service for the next 50 years. Thank you for your patience during construction.



Alternate formats available by calling 206-684-1235 or TTY (711)

24-Hour Construction Hotline: 206-205-3898

After Construction



King County



Completed underground storage pipeline, Boeing Creek Park



- Street restoration
- Address questions and concerns during operations
- Notification of maintenance activities

Schedule

- 12/31/10 Submit Draft Facility Plan to Department of Ecology
- Spring 2011 Environmental Review Process
 - SEPA/Public comment
- Spring 2011 – 2012 Design and Permitting phase
- 2012 Regulatory Review of Final Design
- Mid 2013 Begin construction

Contact Information

- Web: www.kingcounty.gov/csobeachprojects
- North Beach Project Web page online in January, 2011
- E-mail: monica.vandervieren@kingcounty.gov
- Phone: 206-263-7301