



Genesee & Henderson CSO Reduction Projects

**Southeast District Council
Public Meeting**

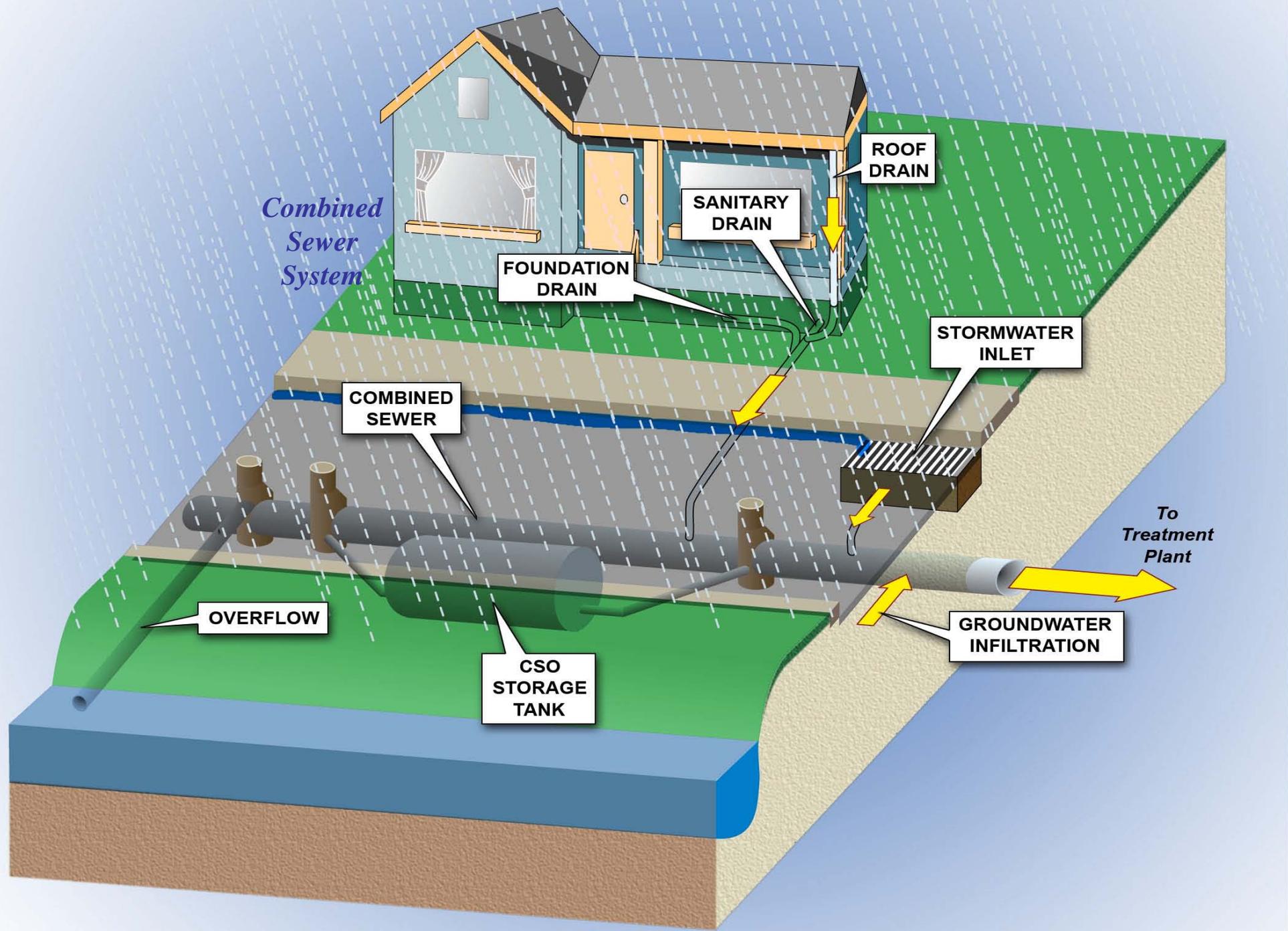
June 23, 2010

What is a Combined Sewer Overflow (CSO)?



💧 In parts of Seattle, *wastewater* (from homes, businesses) and *stormwater* (from rooftops, streets, parking lots) flow in a single pipe - a “combined sewer.”

💧 During heavy rains, stormwater (about 90%) and sewage (about 10%) exceed the capacity of the system, causing a combined sewer overflow or CSO into the nearest body of water.



Combined Sewer Overflows (CSOs)

- 90 permitted CSO outfalls
- 100 million gallons CSO discharge annually
- About 200 CSO discharge events annually

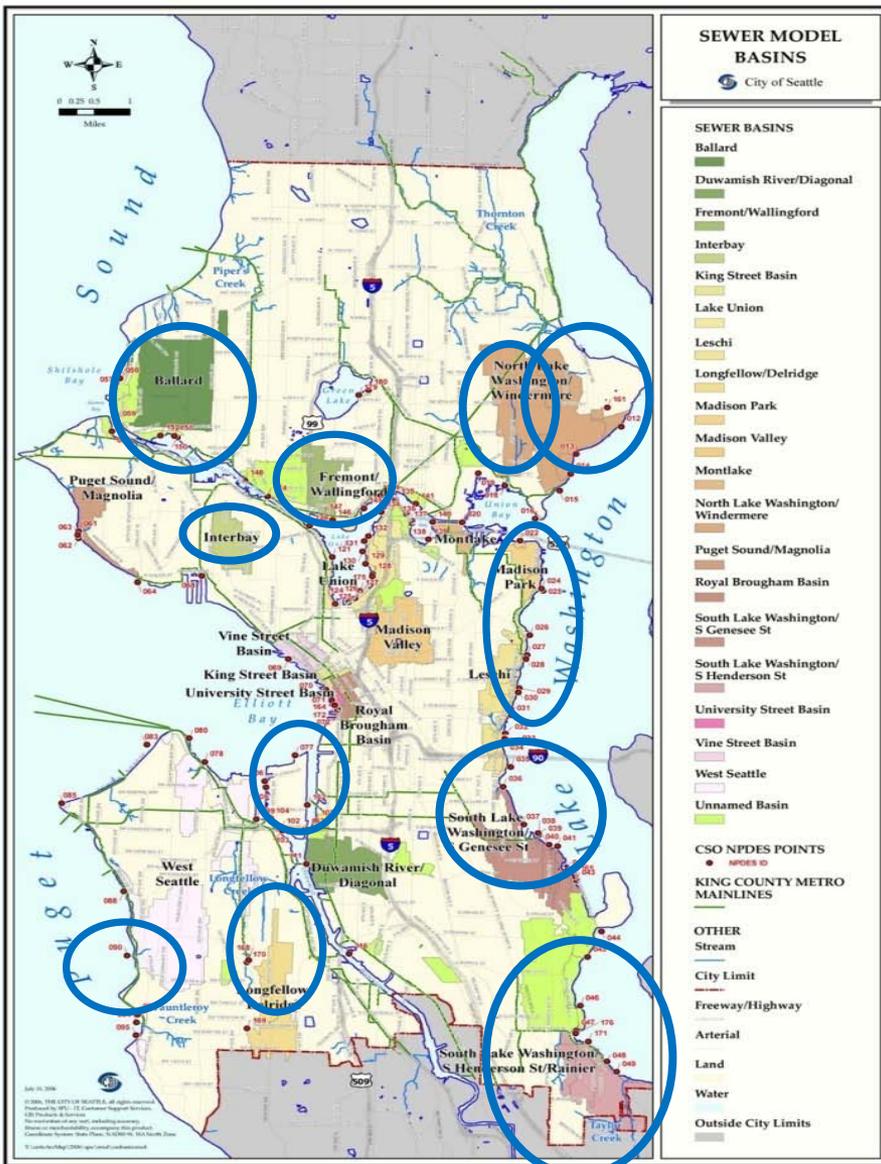


CSO Reduction Program Goals

- 💧 Finish the historic effort
- 💧 Improve water quality
- 💧 Comply with the Clean Water Act, state/federal regulations, permits & orders
- 💧 Minimize rate impacts
- 💧 Partner for cost-effective solutions

Focus on Next 5 Years

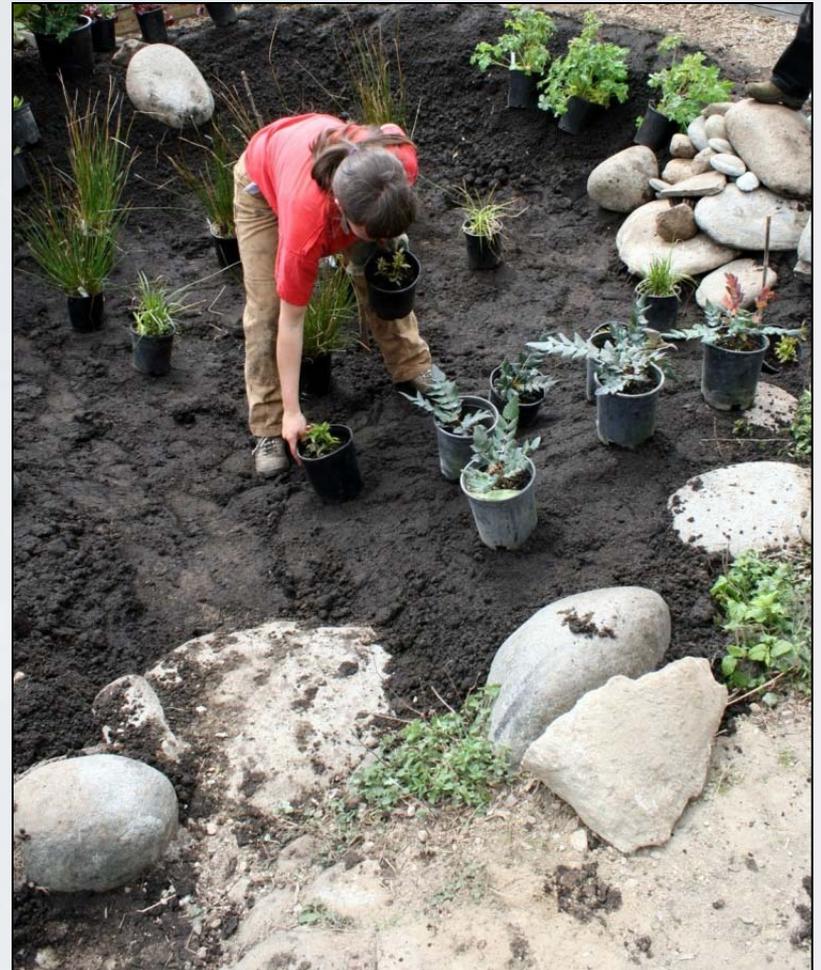
- Improve existing system - retrofits
- Construct CSO control projects in the Windermere, Genesee, and Henderson basins
- Pilot green infrastructure projects
- Complete Long-Term Control Plan



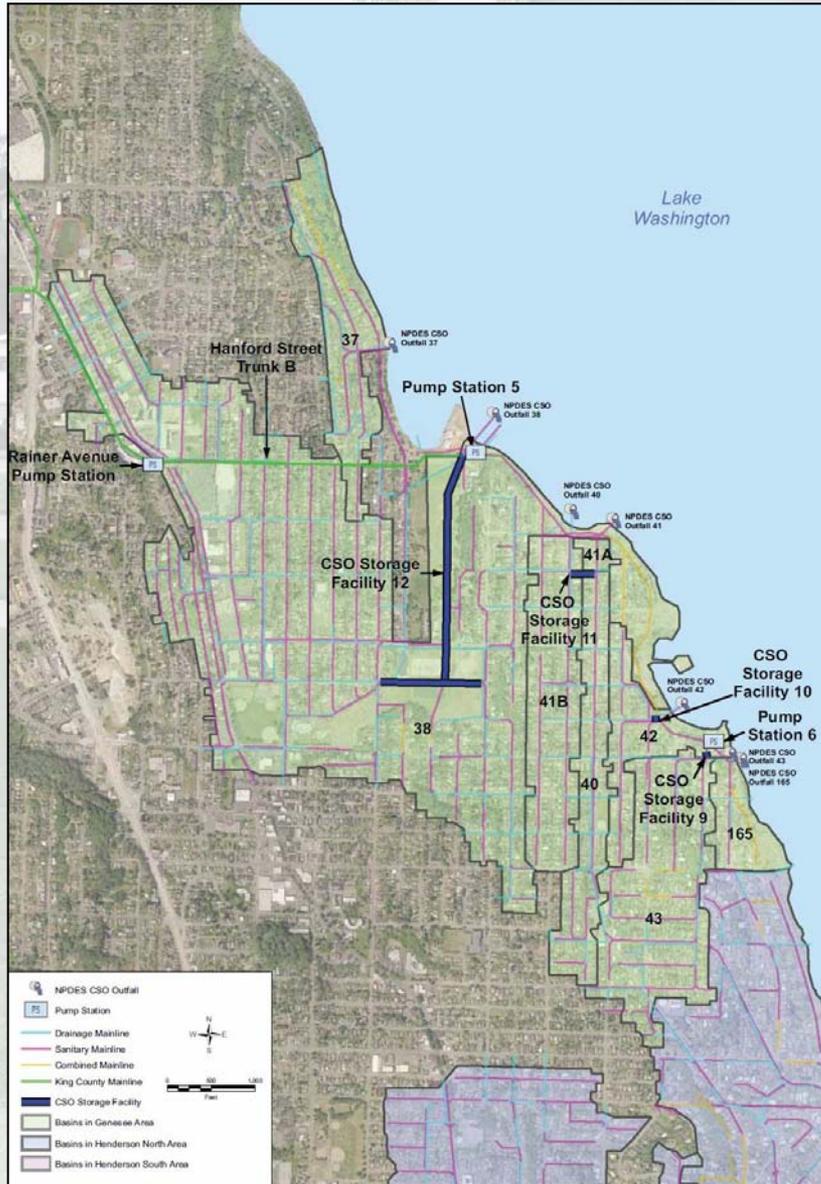


Green for Green

- 💧 Leader in Green Stormwater Infrastructure
- 💧 Allows stormwater to slowly filter into the ground, keeping it out of the sewer system
- 💧 RainWise offers incentives for homeowners to install rain gardens and cisterns
- 💧 More info at www.rainwise.seattle.gov

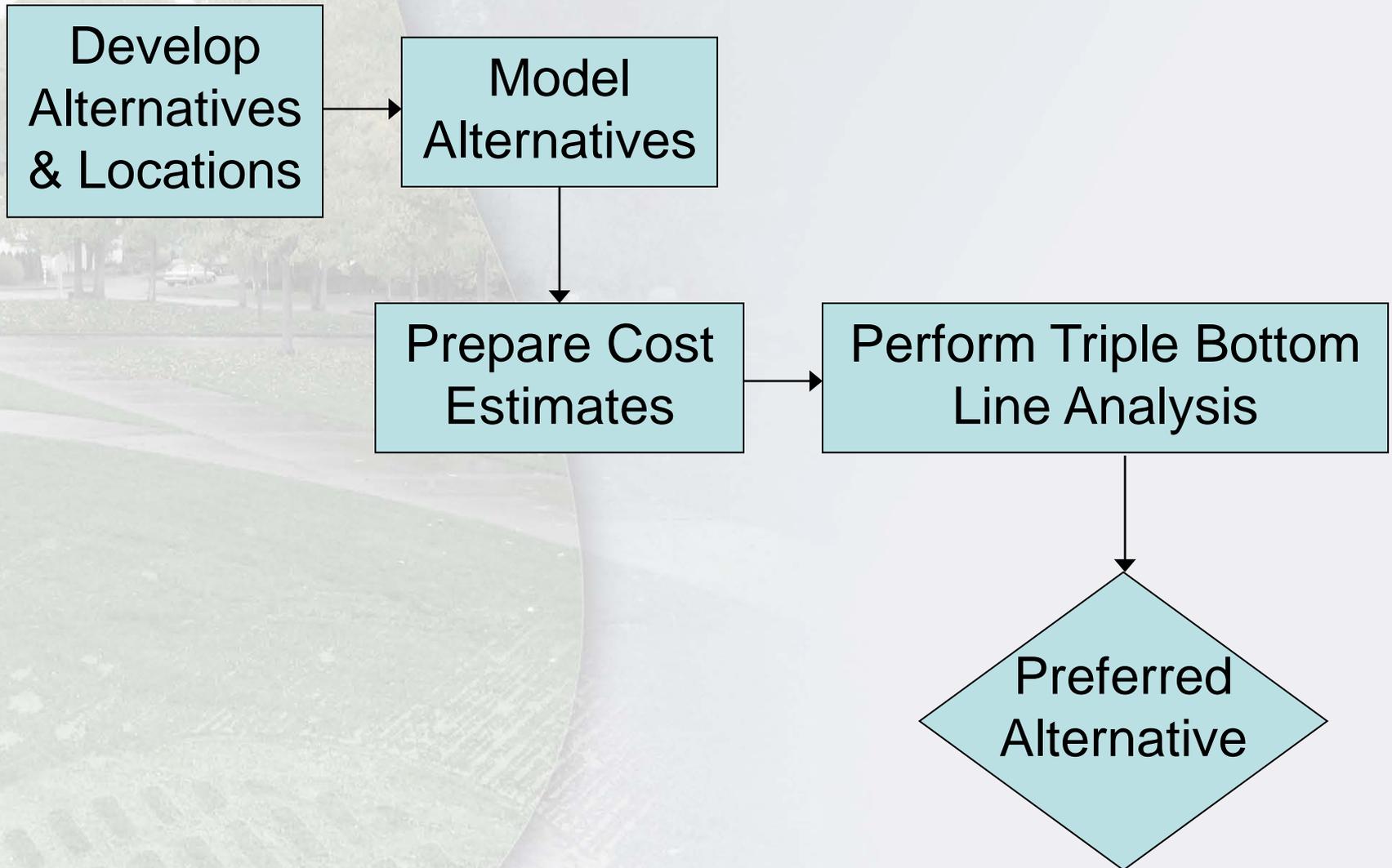


Genesee CSO Reduction Project

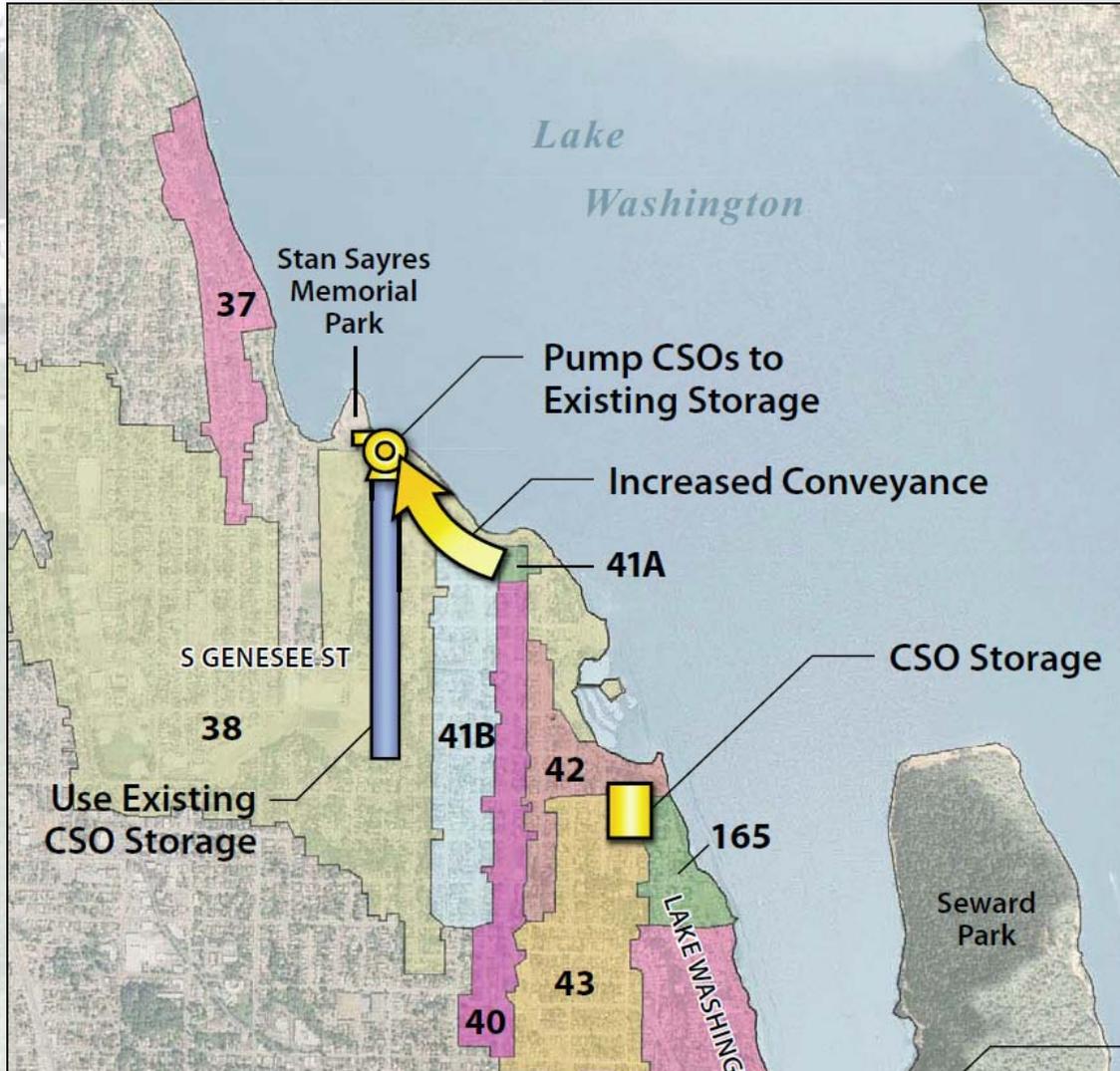


- Top-Priority Basin
- 700 Acres
- Construction 2013-2015
- Reduces CSOs from 10 times to 1 time per year
- Storage Volumes:
 - Basins 40/41: 430,000 gal
 - Basin 43: 190,000 gal

Screening Process



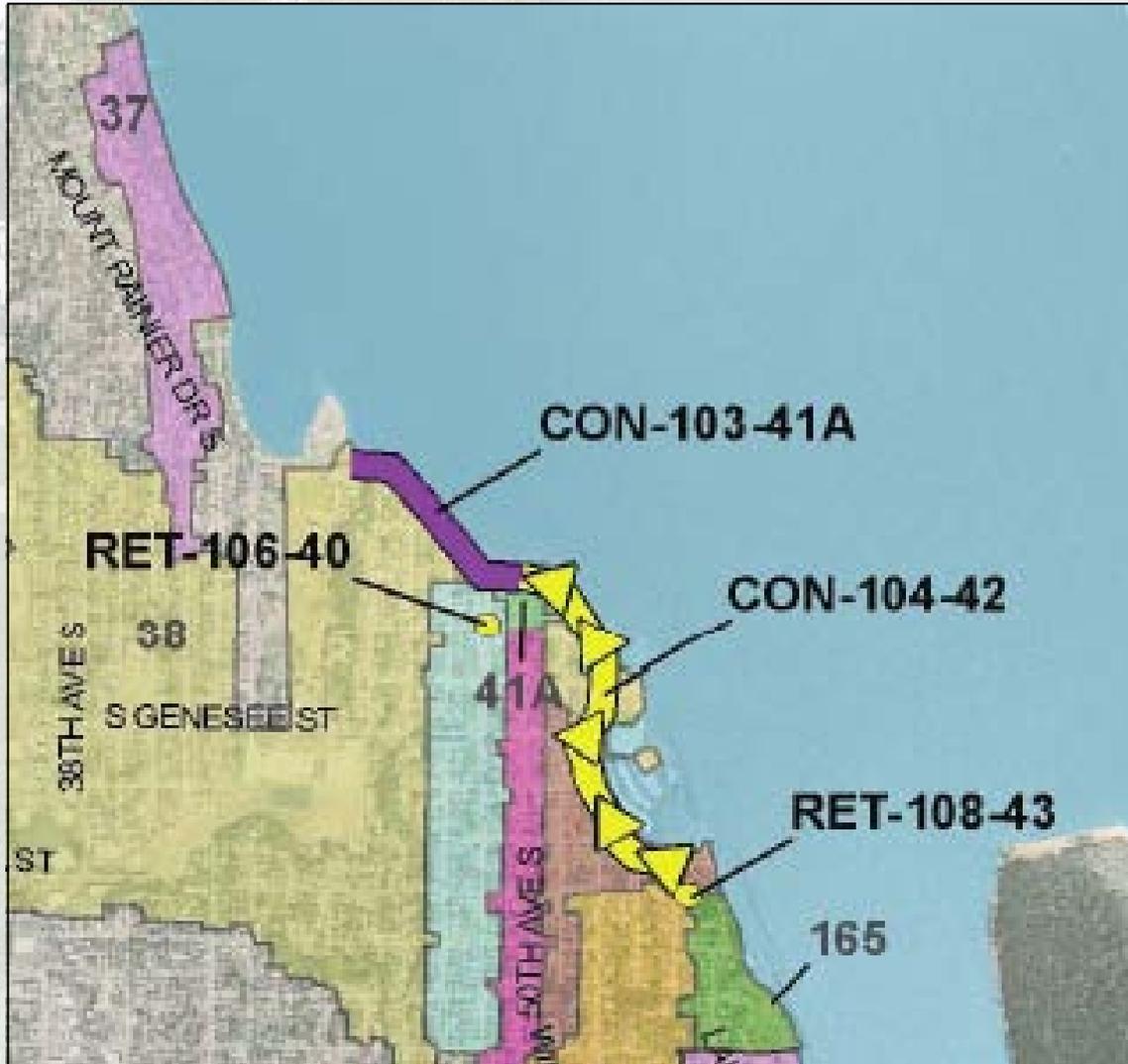
Genesee Area Alternative #1: Convey and Store



Includes:

- Conveyance line along Lake Washington Blvd
- New pump station near Stan Sayres Park
- Storage on S. Alaska St.

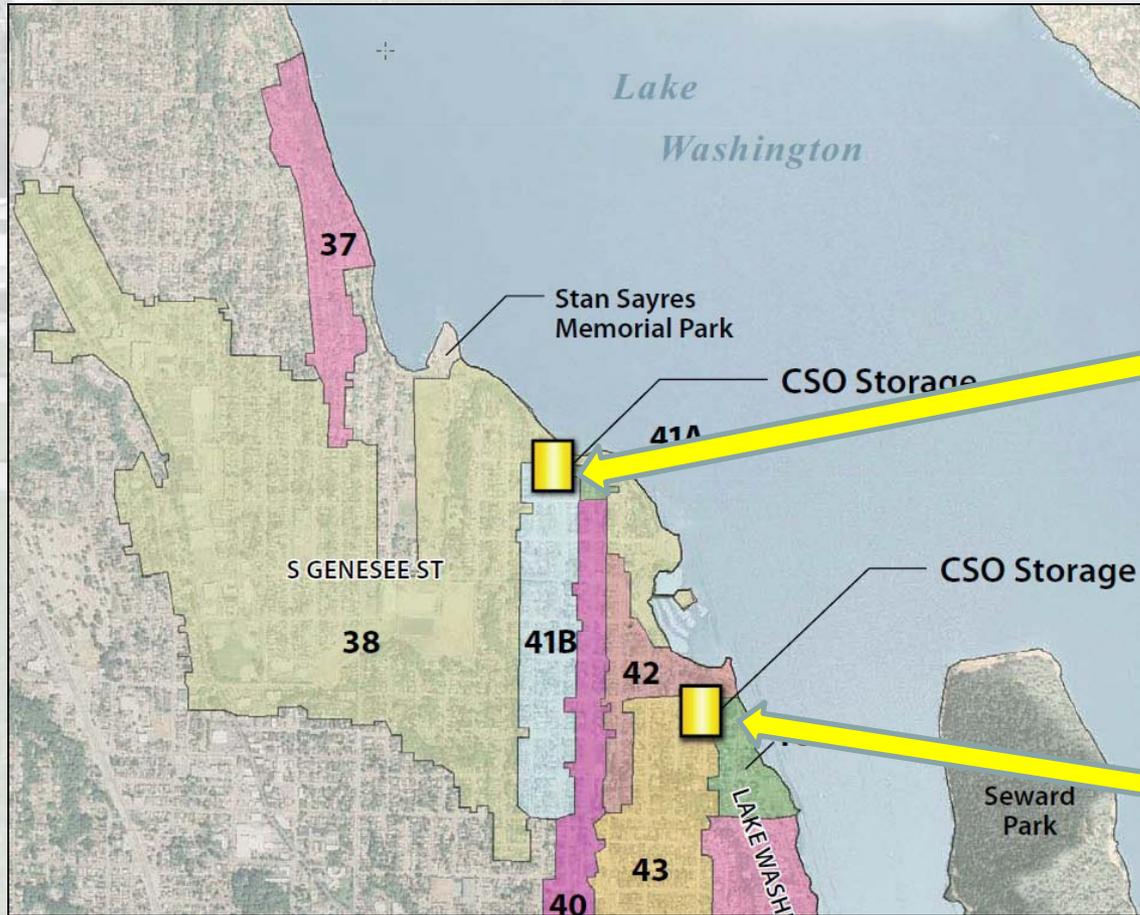
Genesee Area Alternative #2: In-line Storage



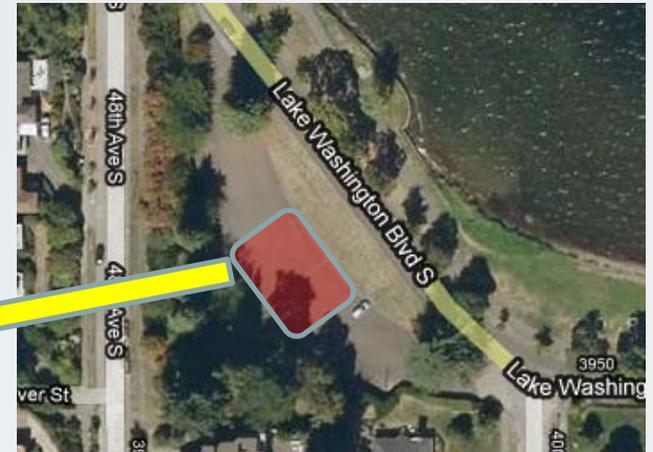
Includes:

- Conveyance line along Lake Washington Blvd

Genesee Area Alternative #3: Distributed Storage (Preferred)



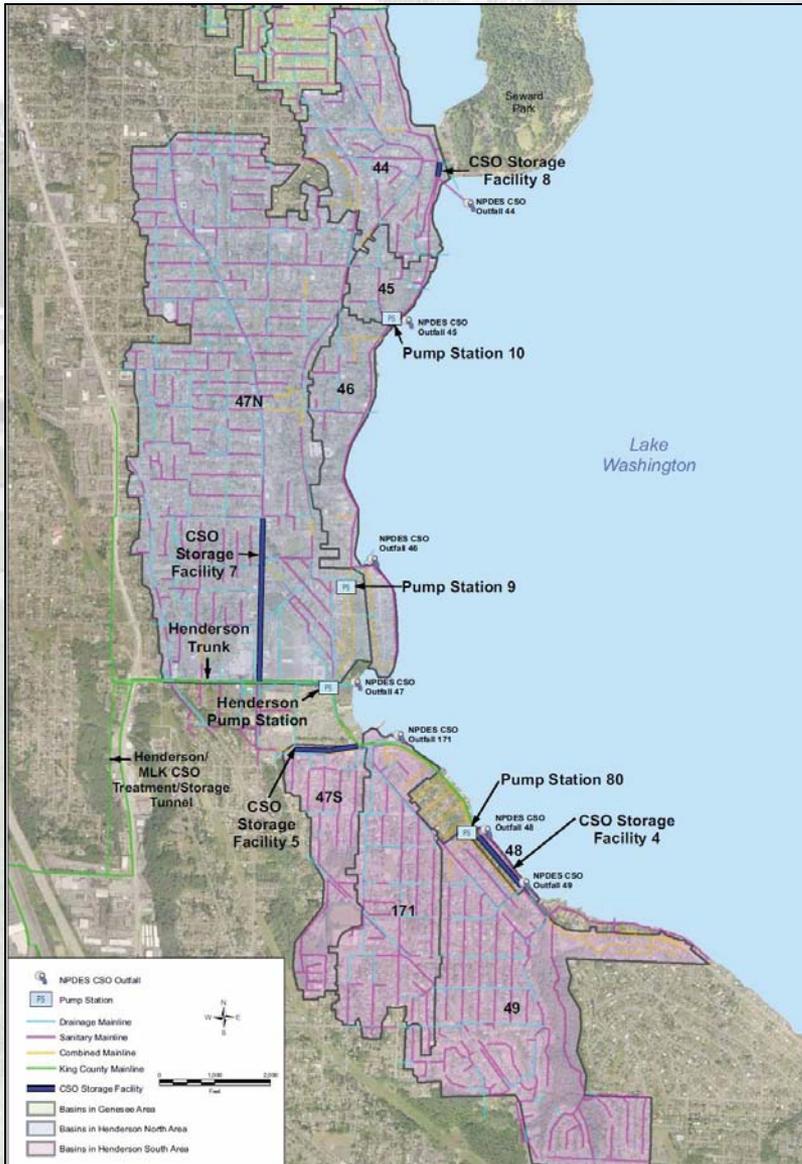
Storage in Triangle Parking Lot



Storage along S. Alaska St



Henderson CSO Reduction Project

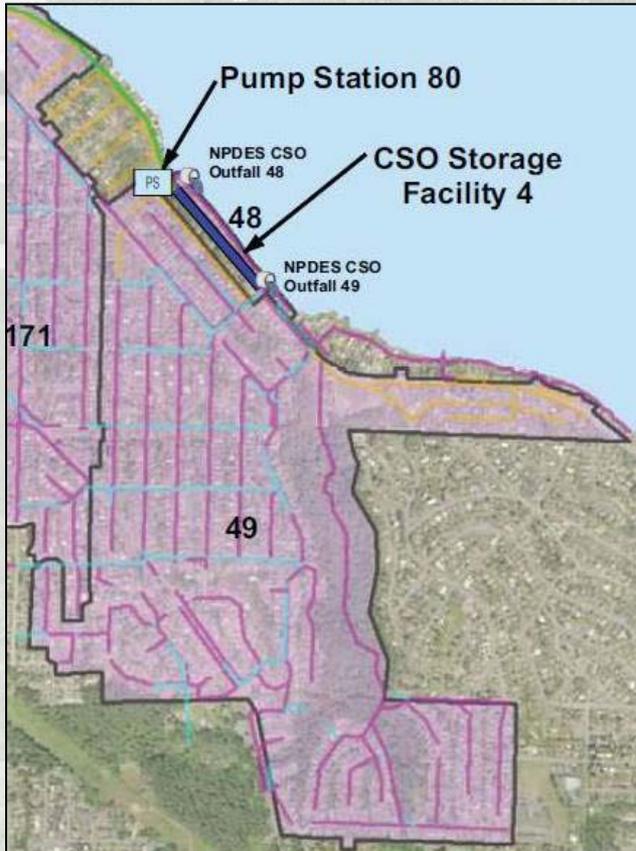


- Top-Priority Basin
- 1,800 Acres
- Construction 2014-2018
- Reduces CSOs from 17 times to 1 time per year
- Storage Volumes:
 - Basin 44: 2.4 Mgal
 - Basin 45: 200,000 gal
 - Basin 46: 350,000 gal
 - Basins 47/171: 260,000 gal
 - Basin 49: 160,000 gal

S. Henderson CSO Reduction Projects

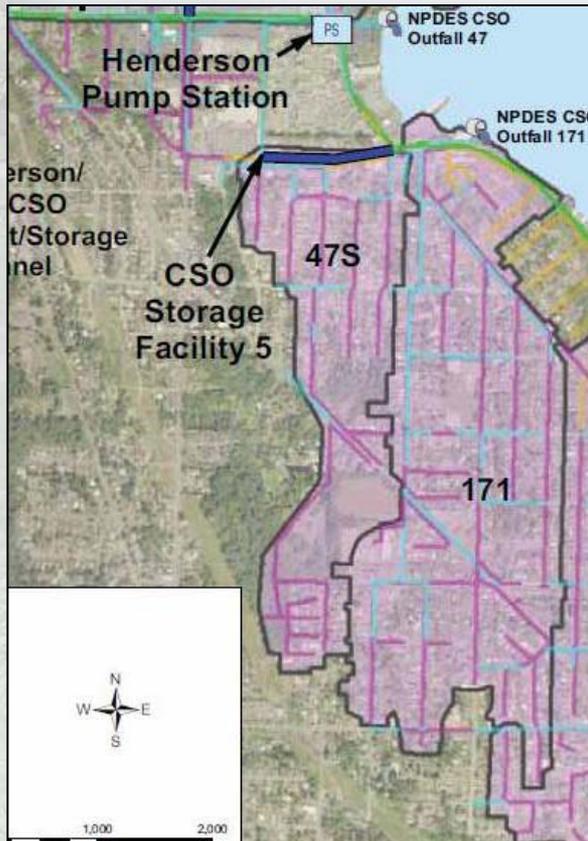
Basin 49 Alternatives:

- (1) Retrofit and possible pipe upgrade to send more flow to King County (**Preferred**)
- (2) Storage (160,000 gallons) in Rainier Avenue



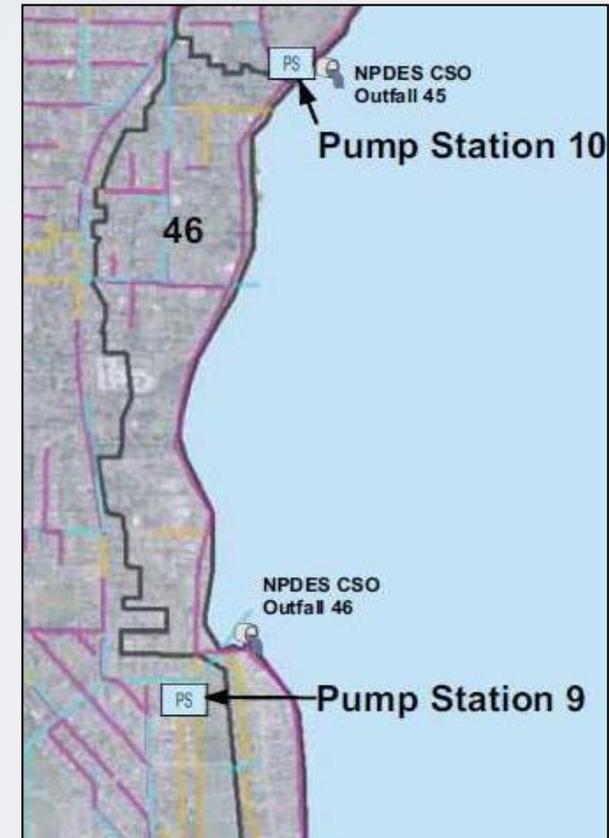
Basin 47S/171 Alternatives:

- (1) Retrofit and possible pipe upgrade to send more flow to King County (**Preferred**)
- (2) Storage (260,000 gallons)



Basin 46 Alternatives:

- (1) Upgrade/replace existing pump station to send more flow to King County (**Preferred**)
- (2) Storage (350,000 gallons) in Pritchard Island Beach Park

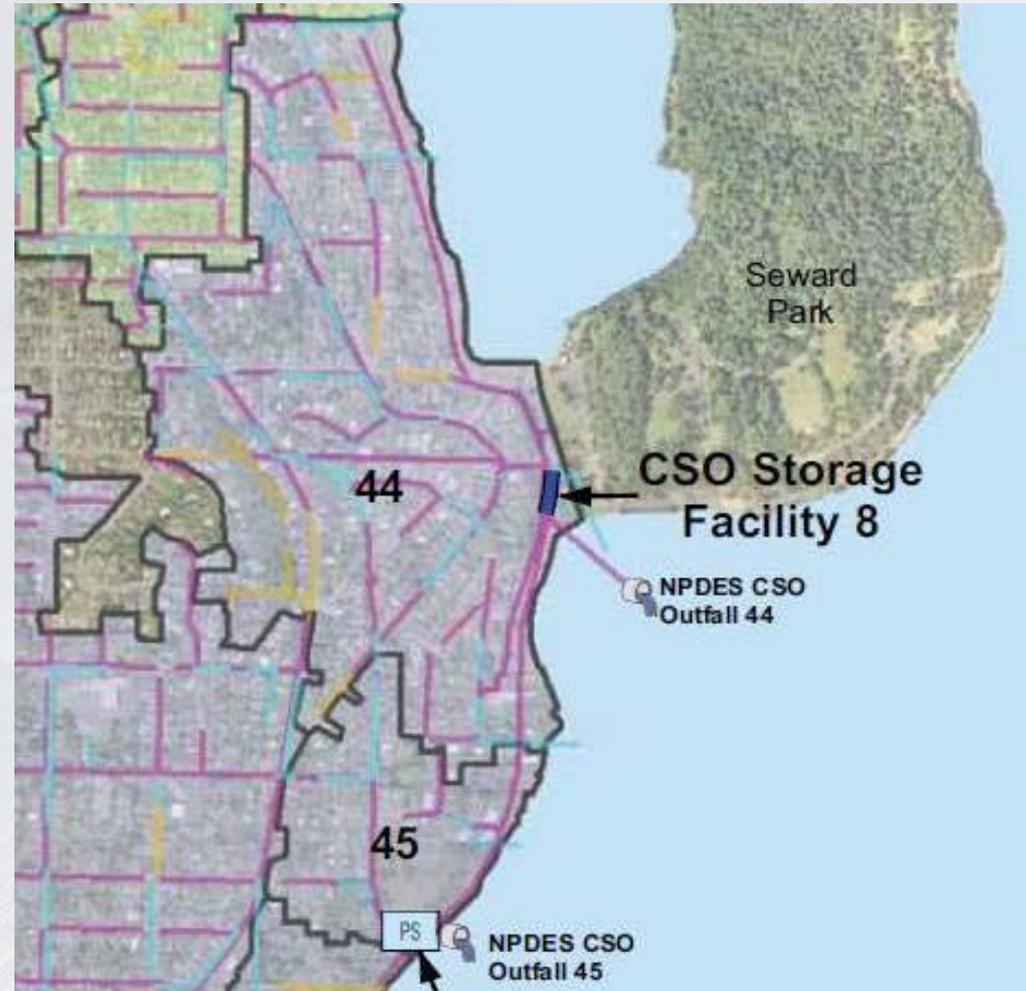


North Henderson CSO Reduction Project

Basins 44 and 45

Alternatives:

- (1) Separate storage tanks in Basins 44 (2.4 million gallons) and Basin 45 (200,000 gallons)
- (2) Transfer Basin 44 flows south to Basin 45; storage (2.6 million gallons in Basin 45)



Preliminary Project Schedules

Genesee CSO Reduction Project	2010		2011		2012		2013		2014		2015		2016		2017	
Planning & Site Selection	■															
Design			■													
Construction							■									

Henderson South CSO Reduction Projects	2010		2011		2012		2013		2014		2015		2016		2017		
Planning & Site Selection	■		■														
Design					■												
Construction									■								

Henderson North CSO Reduction Projects (Basins 44 & 45)	2010		2011		2012		2013		2014		2015		2016		2017		2018	
Planning & Site Selection	■		■															
Design							■											
Construction											■							

Project Outreach

- ◆ Presentations and briefings to community organizations on project alternatives
 - ◆ Mt. Baker Community Club
 - ◆ Lakewood Seward Park Community Association
 - ◆ Rainier Beach Community Empowerment Coalition
 - ◆ Rainier Valley Chamber of Commerce
 - ◆ Columbia City Business Association
 - ◆ Friends of Seward, Pritchard, Martha Washington Parks
 - ◆ More suggestions...

Project Outreach

- Public meetings on the preferred alternatives
 - Genesee: Early Fall 2010
 - Henderson South: Late Fall 2010
- Public meetings on alternatives evaluation
 - Henderson North (Basins 44/45): being established

Contact Information

- ◆ Project e-mail:

- ◆ SPU_GCSO@seattle.gov (Genesee)

- ◆ SPU_SHCSO@seattle.gov (S. Henderson)

- ◆ SPU_NHCSO@seattle.gov (N. Henderson)

- ◆ Project hotlines: coming soon

- ◆ Program website: www.seattle.gov/cso