King County
Department of
Natural Resources and Parks
Wastewater Treatment
Division

JUNE 2012

About the King County Executive's Recommended CSO Control Plan

King County Executive Dow Constantine is submitting his recommended combined sewer overflow (CSO) control plan to the King County Council and the Regional Water Quality Committee for review and approval.

The Executive's plan reflects community values, concerns, and preferences expressed throughout a three year-long comprehensive review of the CSO Control Program. Completion of the nine CSO control projects will meet federal and state regulations by controlling all King County CSO locations to no more than one overflow per year on average at each location. The schedule calls for completing the projects by 2030, which continues the County's earlier commitments to regulators and the community. These final projects in the County's CSO Control Program are some of the most complex and expensive, estimated to cost a total of $711 million (in 2010 dollars).

The plan reflects community priorities heard during the public review process including: completing CSO control projects in the Duwamish River first; more detailed evaluation of the use of green stormwater infrastructure to complement traditional CSO control techniques, and collaborating with the City of Seattle on projects when it is cost-effective to do so.

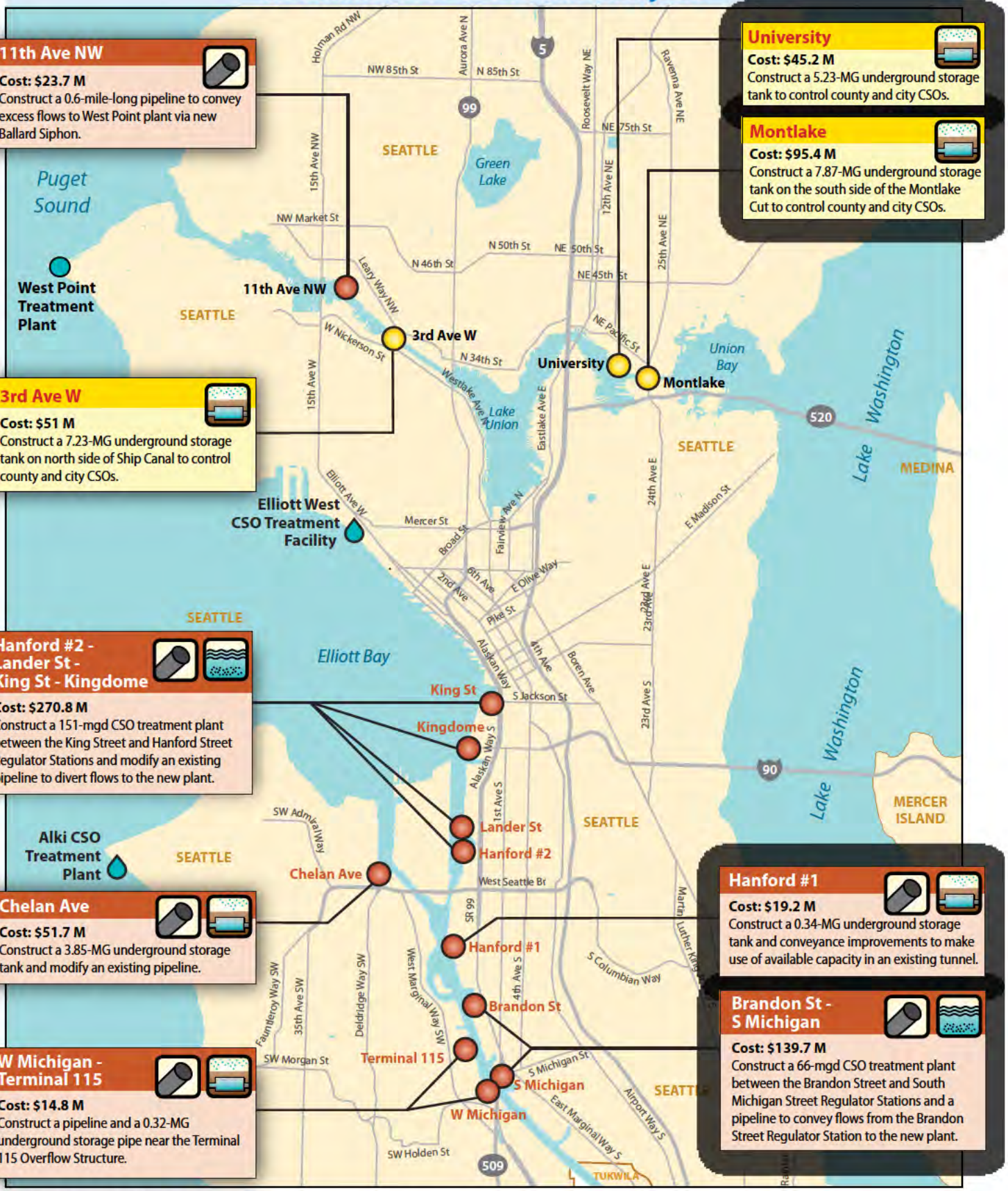
In addition, the Executive is recommending completion of a water quality assessment/ environmental benefit study (see page 4).

Since the 1980s, *King County has successfully controlled two-thirds of its 38 CSOs where stormwater and wastewater overflows occur during heavy rains, reducing volumes of uncontrolled CSOs in our waterways by more than 70 percent.*

What are Combined Sewer Overflows (CSOs)?

CSOs are discharges of untreated sewage and stormwater released directly into marine waters, lakes and rivers during heavy rainfall, when the sewers have reached their capacity. Although the sewage in CSOs is greatly diluted by stormwater, both CSOs and stormwater may be harmful to public health and aquatic life because they carry chemicals and disease-causing pathogens.

Recommended CSO Control Projects



11th Ave NW

Cost: $23.7 M

Construct a 0.6-mile-long pipeline to convey excess flows to West Point plant via new Ballard Siphon.

3rd Ave W

Cost: $51 M

Construct a 7.23-MG underground storage tank on north side of Ship Canal to control county and city CSOs.

Hanford #2 - Lander St - King St - Kingdome

Cost: $270.8 M

Construct a 151-mgd CSO treatment plant between the King Street and Hanford Street Regulator Stations and modify an existing pipeline to divert flows to the new plant.

Chelan Ave

Cost: $51.7 M

Construct a 3.85-MG underground storage tank and modify an existing pipeline.

W Michigan - Terminal 115

Cost: $14.8 M

Construct a pipeline and a 0.32-MG underground storage pipe near the Terminal 115 Overflow Structure.

University

Cost: $45.2 M

Construct a 5.23-MG underground storage tank to control county and city CSOs.

Montlake

Cost: $95.4 M

Construct a 7.87-MG underground storage tank on the south side of the Montlake Cut to control county and city CSOs.

Hanford #1

Cost: $19.2 M

Construct a 0.34-MG underground storage tank and conveyance improvements to make use of available capacity in an existing tunnel.

Brandon St - S Michigan

Cost: $139.7 M

Construct a 66-mgd CSO treatment plant between the Brandon Street and South Michigan Street Regulator Stations and a pipeline to convey flows from the Brandon Street Regulator Station to the new plant.

King County CSO Project

King County/City of Seattle Joint CSO Project

CSO Treatment Plant/Facility

Wastewater Treatment Plant

Abbreviations
MG = million gallons
mgd = million gallons/day

0 1/2 1 Mile

July 2011

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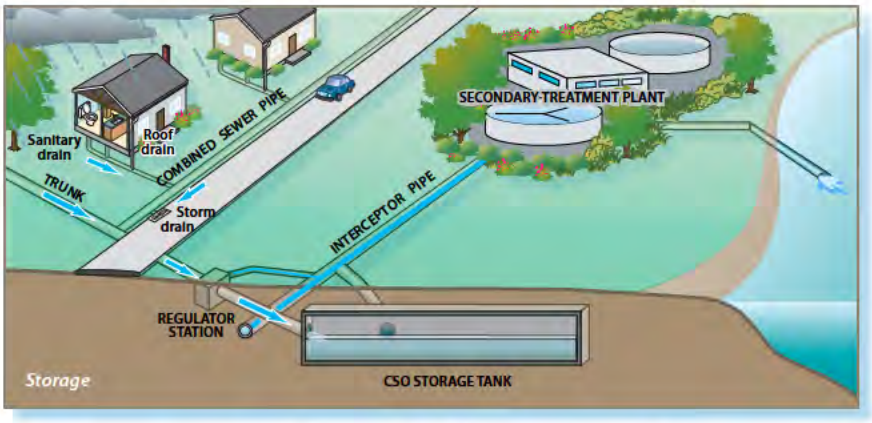
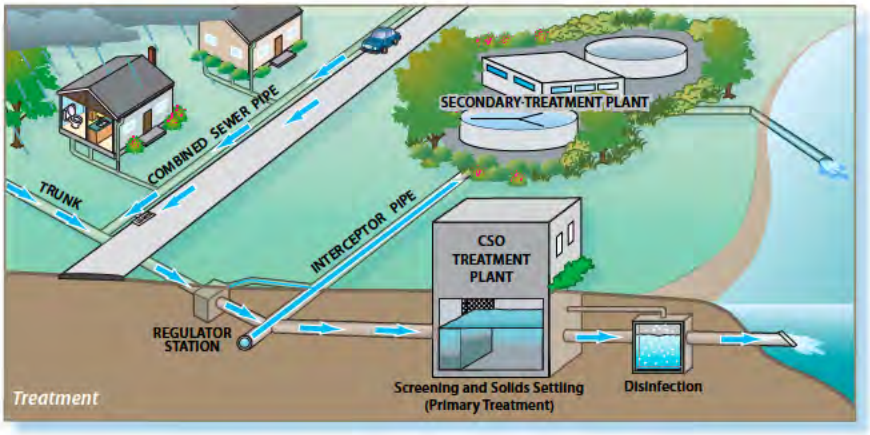
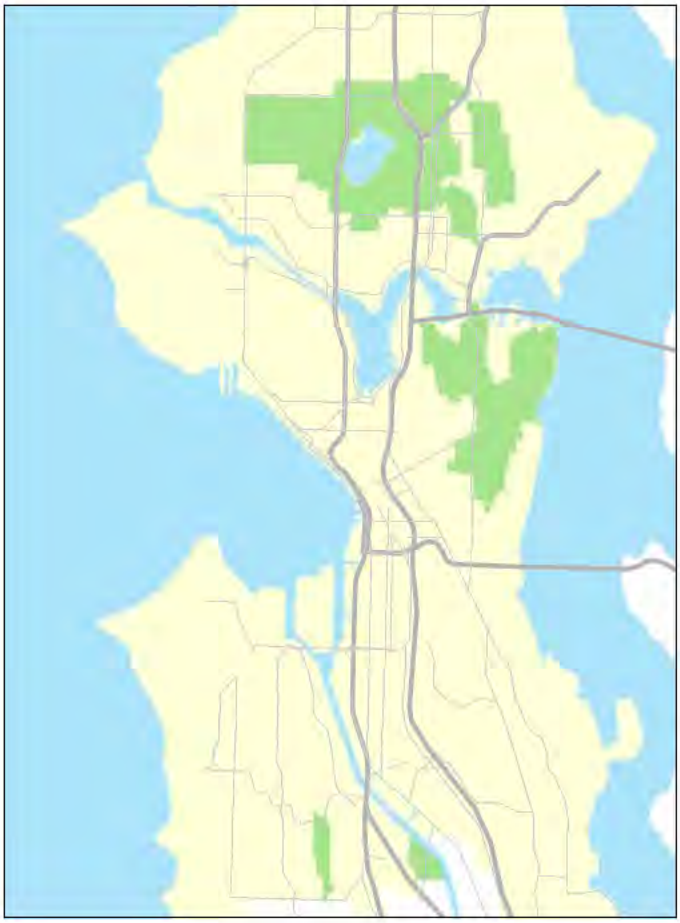
King County

The recommended projects would achieve CSO control through storage, CSO treatment, and green stormwater infrastructure:

- Seven projects would control CSOs by building underground tanks or pipes to store the flows until a storm subsides. Four of these storage projects would also include analysis of whether GSI could help reduce the required size of storage structures.
- Two projects would construct CSO treatment facilities.







Green stormwater infrastructure (GSI) in Seattle

GSI can reduce the size of needed CSO control facilities and improve stormwater quality at the same time. GSI techniques include building or installing rain gardens and swales, green roofs, permeable pavement and other systems to reduce stormwater runoff to combined sewers.

We will use GSI whenever feasible and cost-effective to reduce the size of four CSO control facilities recommended in the plan.

These are potential areas in Seattle that King County is recommending for GSI.

Taking a comprehensive view

Scientific knowledge and regulations continually evolve as we implement our long-term CSO Control Program. Periodic studies are valuable to ensure we meet our goals for water quality. The King County Executive recommends investing in a comprehensive review of water quality on the watershed and sub-watershed levels. This water quality assessment/environmental benefit study would be completed concurrently with the first projects in the plan.

The study will focus on areas where uncontrolled CSOs occur in order to identify the following:

- The most pressing public health and environmental protection problems.
- Innovative solutions for the highest priority problems.
- Critical wastewater, stormwater, environmental, and other capital projects, and operation and maintenance work.
- Options for the best benefit-cost outcomes and solutions for competing water quality priorities and CSO control planning.

The study will provide critical information. It will analyze and integrate the findings of existing studies and collect new information, as needed. Study findings will lead to identification of integrated and sequenced actions that King County and other entities can undertake to meet current water quality standards, improve public health and biological outcomes, and provide the greatest benefit to watersheds where CSO discharges occur.

An independent science panel will assess the findings and potential actions identified in the study. A stakeholder process will make recommendations to the King County Executive. The recommendations will inform the next scheduled update of the long-term CSO control plan. The Washington State Department of Ecology and the U.S. Environmental Protection Agency will need to review and approve any changes to the plan that result from the recommendations.

Recommended timeline for completing the plan

Having submitted his plan to the King County Council and the Regional Water Quality Committee for review and approval in June 2012, the King County Executive is requesting Council approval of his recommended CSO control plan by the end of September 2012 so that the County's Wastewater Treatment Division can submit the approved plan to the Washington State Department of Ecology and the U.S. Environmental Protection Agency for final approval.

The community will have opportunities for testimony at Council, Regional Water Quality Committee, or other committee public hearings on the plan. For more information go to **http://mkcclegisearch.kingcounty.gov/Calendar.aspx**.

For more information

We have provided detailed information in print at selected King County Library System and Seattle Public Libraries. (See link below.)

Visit **www.kingcounty.gov/csocontrol** for more information.

Information about this project is available in English, Spanish, Korean, Chinese and Vietnamese. Please contact Dana West at 206-684-1097 or TTY: 711.

Alternative Formats Available

206-684-1280 TTY Relay: 711

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