



King County

Protecting Our Waters

Doing our part on rainy days

Water Quality Assessment and Monitoring Study Update

May 2015

Two teams will answer study questions

When this assessment began, the King County Council approved the project scope that included [seven questions](#) about water quality and the King County [Protecting Our Waters](#) program.

A team of King County scientists has been compiling existing data and conducting additional studies. This work will address the first three study questions about impairments in the waterbodies where King County has uncontrolled combined sewer overflows (CSOs). This team will also contribute to Question 4 about planned corrective actions.

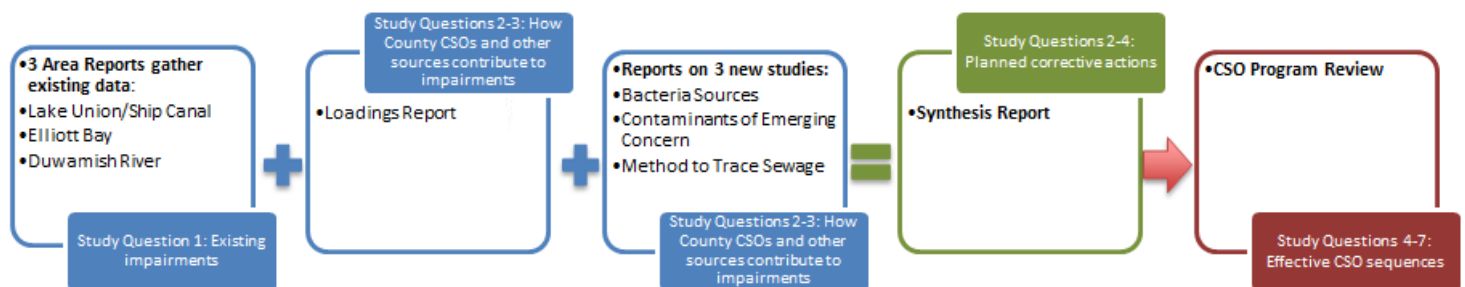
A second team, made up of planners, is about to start the CSO Control Program Review, a formal document due to the Washington State Department of Ecology (Ecology) by 2018. This team will answer Questions 4-7 about effective sequences for planned CSO projects.

The two teams will work together and share findings. This approach will ensure the CSO program review team gets preliminary findings early. While this approach will likely yield more useful information, it moves publication of final reports from 2015 to 2016.

Why an assessment?

The assessment will inform King County's [Combined Sewer Overflow \(CSO\) Control Program](#), now called **Protecting Our Waters**. The assessment will help ensure that investments in CSO control are well planned to optimize water quality improvements in Elliott Bay, Lake Union/Ship Canal, and the Duwamish River.

Documents will respond to study questions



Science and Technical Review Team discusses findings

The county science team is working with an independent [Science and Technical Review Team](#). These five experts are reviewing findings and providing input before reports are published. They will help identify data limitations, share insights, and identify possible conclusions. In April and May, they discussed the findings developed for the Elliott Bay Area Report. Summaries of presentations and meetings are made [available on the web](#) as they occur.

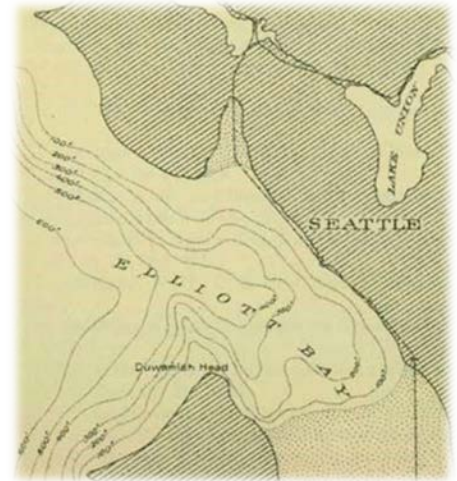
Accessible formats available upon request – 206-477-5371 or TTY 711

Preliminary Findings for Elliott Bay

The first step in the Water Quality Assessment and Monitoring Study is to gather existing data about the water bodies. Here's a brief overview of what we are learning about Elliott Bay.

There are five CSO locations managed by King County in the Elliott Bay study area and 12 managed by the City of Seattle. CSOs in the East Waterway near Harbor Island will be discussed with the Duwamish River area report.

A review of existing water quality data does not indicate any violations of Ecology water quality standards for pH, ammonia, metals, or organics. However, the data show there have been violations of the bacteria standard near the shore, especially along the waterfront. These violations were more frequently observed in the rainy months. That said, bacteria concentrations have declined over the years since the 1980s. This also appears to be the case in the other waterbodies we are studying – the Duwamish River and Lake Union/Ship Canal. (There is a poster about the Duwamish River in the [project library](#).)



The assessment also looked at existing data on sediment quality in Elliott Bay. We examined data on sediments near King County CSO outfalls and known “hot spots” that are likely to have been contaminated by historic activity. The good news is that the existing data indicate that sediments near two King County outfalls, in south Magnolia and at 53rd Ave SW in West Seattle, do not exceed Ecology criteria for sediment quality. Also good news – where past cleanup efforts have occurred, sediments mostly appear clean. However, concentrations of some substances including mercury, PCBs, PAHs, and phthalates remain a concern in sediments at various spots in Elliott Bay.

There are limited data about the tiny organisms that live in and near the sediment in Elliott Bay. In general, the data suggest that the depth of the water and the size of the grains of sediment affect the organisms more than pollution in the sediment does.

The data also show that PAHs, PCBs, PBDEs, and DDT are the most abundant organic contaminants found in shellfish that live in the bay.

The report documenting these findings will be published later. The presentation explaining the preliminary findings to the Science and Technical Review Team is [available on the web](#) now.

Find out more about the [Water Quality Assessment and Monitoring Study](#) on the web at or by contacting **Erika Peterson**, at 206-477-5525 or Erika.peterson@kingcounty.gov.