King County
Protecting Our Waters
Doing our part on rainy days

Reviewing Existing Data & Filling Data Gaps

Water Quality Assessment and Monitoring Study

Project Status Update, July 2014

The Water Quality Assessment will evaluate how King County CSOs and other sources contribute to water quality impairments. This information will support decisions about future water quality projects. To answer this and other study questions adopted by the King County Council, the assessment includes a review of existing data and literature and additional studies to fill in gaps in the available data.

Decades of data

Did you know there are water quality monitoring stations that have been operating in King County since the 1970s? King County, the Washington State Department of Ecology, and the City of Seattle have been collecting data for decades. This assessment is reviewing data from several sources to learn about water quality today and how it has changed over time.

Why an assessment?

The assessment will inform King County's **Combined Sewer Overflow (CSO) Program**, now called **Protecting Our Waters.** This program is needed to prevent pollution caused by overflows of excess stormwater and sewage on rainy days. The assessment will examine how upcoming water quality projects in Elliott Bay, Lake Union/Ship Canal, and the Duwamish River can be sequenced and integrated.

Existing data comes from these King County and Ecology long-term water quality monitoring sites and other sources

The latest scientific research

The project team has already examined about 500 studies, documents and reports – and the literature search is still under way! External experts on the Science and Technical Review Team have suggested documents and questions to explore. For example, the Review Team said it would be helpful if the County could distinguish the impurities that come from sewage from those that come from other sources, like stormwater. The project team is exploring recent scientific literature on this topic.

Priority data gap: bacteria

The project team identified several data gaps in the literature. A clear priority for an additional study is the source of bacteria in the three water bodies. The project team designed a study to find the locations where bacteria are a problem. At the suggestion of the Science and Technical Review Team, this study will use DNA to learn if the source of the bacteria is human or not. King County's existing monitoring programs will fill some of the other data gaps.

Information is available about the Water Quality Assessment and Monitoring Study on the web at http://www.kingcounty.gov/environment/wastewater/CSO/WQstudy.aspx or by contacting **Erika Peterson, at 206-477-5525 or Erika.peterson@kingcounty.gov**.