

72 - Stormwater Monitoring or Stormwater-Related Studies

In accordance with S8.A, this summary provides a brief description of the stormwater monitoring or related monitoring studies conducted during 2015 by or for the City outside of the permit required monitoring.

Water Quality

Pollutant Source Control Sampling - This monitoring was conducted by SPU in support of and associated with the Water Quality Hotline, IDDE, and business inspections for source control from existing development.

Lower Duwamish source sediment samples - In 2015, SPU continued to collect source sediment samples (i.e., catch basins, inline sediment traps, and inline grab samples) to support the source control program for the Lower Duwamish Waterway superfund site. In 2014, SPU took 102 samples, which were analyzed for the LDW contaminants of concern, including TOC, SVOC's, TPH-Dx, select Metals, PCB's, Grain Size and occasionally site specific parameters, such as pH, additional metals, VOC's.

Seattle City Light inspections - SPU conducted stormwater source control inspections at the South Service Center and the South Sub Station on September 9th, October 1st, and October 15th of 2015. During these inspections, samples were taken from both the South Service Center and the South Sub Station. Sediment samples were tested for diesel-range total petroleum hydrocarbons (TPH), semi-volatile organics (SVOC), PCB Aroclors, total metals (copper, zinc, arsenic, mercury) and total organic carbon (TOC).

Street Sweeping

The objective of the Street Sweeping for Water Quality Program (SS4WQP) is to cost-effectively reduce the pollutant load carried by stormwater runoff from Seattle's streets to receiving water bodies. The purpose of the monitoring program is to collect & evaluate performance metric data in order to (A) provide information for regulatory requirements for solids disposal, (B) to track program performance, and (C) for developing a baseline for future effectiveness studies. Performance metrics currently being collected include mileage swept (street curb miles within a combined [sanitary] basin, and miles within an MS4 basin), sweeping velocity, solids load removed, cost, and sweeping solids chemistry (metals, SVOCs, PCBs, BTEX, grain size, total solids, Nutrients (Tot Phosphorous, TKN), total organic carbon, pH, NWTPH-Dx/Gx, BOD/COD, Fecal coliform).

Thornton Creek

Several concurrent efforts were conducted as part of the on-going SPU Thornton Creek Bacteria Investigation (TCBI) to locate and address sources of bacteria in Thornton Creek. Continuation of focused in-stream E.coli sampling has identified the South Fork of Thornton Creek as the section of stream where most of the bacteria load originates, and it is, therefore, the section of stream where most of the source identification efforts are focused.