



SAM May 2024 – January 2025 Report

Project Title: Treatment Effectiveness of a Full-Scale Stormwater Facility Using High Performance Bioretention Soil media for 6PPD-Quinone and Other Toxic Chemicals

Contract Agreement Number: C2400217

Organization: King County

Project Manager: Chelsea Mitchell

Project Timeline: May 24, 2024, to November 30, 2026

Date this Form Completed: January 28, 2025

Brief Description of Achievements for May 24, 2024 – January 30, 2025

Task 1: Project Management

Percent of Task Completed: 33%

Deliverable(s): 1.1 List of TAC members
1.2 Semi-annual progress report 1

Description of Achievements:

During this reporting period, we have:

- Completed a Memorandum of Agreement with Whatcom County (CPA# 6474366) to procure additional split samples to be collected from the Geneva Bioretention Swale by their subcontractor, Herrera Environmental Consultants, for the analytes in the present study.
- Formed a Technical Advisory Committee for the project which met on 01/10/2025.
- Coordinated sample collection, splitting, and distribution to three labs (King County Environmental Laboratory (KCEL), Manchester Environmental Laboratory (MEL), and Eurofins).
- Transferred 6PPDQ sample analysis from KCEL to MEL due to delay in KCEL accreditation.
- Completed 1st semi-annual progress report (due January 2025 per QAPP Addendum).

Task 2: QAPP Addendum

Percent of Task Completed: 100%

Deliverable(s): 2.1 QAPP Addendum for Geneva Project

Description of Achievements:

The QAPP Addendum was completed, and final signatures were obtained on 11/26/2024.

Task 3: Field Sampling and Laboratory Analysis

Percent of Task Completed: 11%

Deliverable(s): none



Description of Achievements:

Samples collected:

Grab samples (PFAS) **3/6 events complete:**

- 12/07/24 (4 samples) - AS_IN (influent), AS_OUT (effluent), equipment blank, rinsate blank.
- 12/17/24 (4 samples) - AS_IN (influent), AS_OUT (effluent), equipment blank, rinsate blank.
- 01/10/24 (4 samples) – AS_IN (influent), AS_OUT (effluent), equipment blank, rinsate blank.

Composite samples (6PPDQ, PAHs, metals, DOC) **3/9 events complete:**

- 12/11/24 (2 samples) – equipment blanks.
- 12/18/24 (2 samples) - AS_IN (influent), AS_OUT (effluent).
- 01/10/24 (2 samples) – AS_IN (influent), AS_OUT (effluent).

Tasks/Milestones not achieved and why:

We have not collected aquatic toxicity grab samples yet due to the laboratory's fish hatching schedule. Aquatic toxicity testing is expected to start in late February to early March 2025. No charges have been made for Task 4 Data Analysis and reporting and Task 5 Distribution of Findings at the time of this progress report because we just started receiving lab report data in late December 2024.

Potential Future Challenges to Performance (time delays, staff changes, etc.):

While we have detected low levels of PFAS in the inflow and outflow samples in our early storm events, we do not yet know whether 6PPDQ has been detected in these water samples. PAHs have not been detected in these stormwater samples, however the method detection limit (MDL) for EPA 8270E are relatively high (0.2-0.75 µg/L per analyte) which may make it challenging to detect PAHs in this residential catchment.

General Comments:

Sampling under the Whatcom County water quality grant project ends at the end of April 2025. If funds permit, we may be able to add additional sampling events at a rate of \$3,000 per event (not including lab analyses) based on a rough quote by Herrera.

We may want to consider dropping PAH analyses due to no detections and use the funds towards additional sampling events. This could free up to ~\$5600 for additional sampling.