



Stormwater Action Monitoring Quarterly Report April 1 through June 30, 2024

SAM accomplishments and key decisions reported for the quarter

- The first new project from Round 4 began. King County, in collaboration with Whatcom County, is testing the potential for High Performance Bioretention Soil Media (HPBSM) to reduce contaminants of emerging concern, including 6PPDQ and PFAS, and aquatic toxicity in stormwater
- The USGS published the [Puget Small Streams Study’s annual report for water year 2020](#).

SAM budget for the previous quarter and anticipated in the next quarter

Table 1 shows the SAM budget for each account. Revenue is expected in December 2024 and in August each year from 2025 thru 2028. The Stormwater Work Group’s Pooled Resources Oversight Committee (PRO-C) approves encumbrance of SAM funds. Encumbrances in excess of projected revenues are due to projects that span multiple years. Indirect charges are applied quarterly to the individual accounts while SAM management staff costs are applied proportional to the size of the fund at the end of each fiscal year.

Table 1. Quarterly summary of revenues, expenditures, encumbrances, and available funds for each SAM account.

Reported and projected income and expenditures	Puget Sound status and trends Apr-June 2024	Lower Columbia status and trends Apr-June 2024	Effectiveness studies Apr-June 2024	Source ID projects Apr-June 2024	Admin Costs (Ecology’s expenses) Apr-June 2024	Total (not including admin Costs) Apr-June 2024
Balance at start of quarter	2,326,108	86,102	5,447,378	21,023		7,880,611.77
Revenues	-		-	-		-
Expenditures	156,444.53	-	359,138.06	-	48,533.07	564,115.66
Balance at end of quarter	2,169,664	86,102	5,088,240	21,023		7,365,029.18
Encumbrances	495,256.33	123,088.02	1,626,004	-		2,244,348.14

SAM contracting activities

All contract scopes of work reviewed and approved by the PRO-C and Ecology are posted online. The following contracting activities occurred this quarter:

- A no-cost time-extension was granted to the WSU-led hydrologic benefit of trees project. The project was extended from August 2024 to December 31, 2024.

- Stream monitoring work in the Lower Columbia River Basin was extended through the end of 2024 in an amendment to the contract with Clark County. This amendment also increases funds for the labor involved in setting up and maintaining monitoring equipment. The total budget for the project increased by \$113,176.00.
- USGS was awarded \$100,000 from the Urban Waters Federal Partnership Cooperative for a proposal to assess the occurrence of 6PPDQ and identify tire particles in urban streams known to be used by coho salmon for spawning in the Green-Duwamish Watershed. This work is being coordinated with SAM's Puget Small Streams status & trend monitoring project. SAM funds will not be used for this new work.
- One new SAM effectiveness study contract was fully executed, and work began this quarter. The King County-led full scale bioretention BMP study using the HPBSM filtration media at a site in Whatcom County was contracted for \$161,812. Ecology contributed an additional \$41,320 to the project.

SAM summary by topic

Communications

Routine deliverable and contracting updates to SAM website.

Receiving water projects

SAM monitors the impacts of stormwater runoff in urban and urbanizing areas in the Western Washington small streams and nearshore environments. There are two active stormwater receiving water monitoring studies in Puget Sound region and one stream monitoring study in Lower Columbia region. Key updates:

- The USGS published the [Puget Small Streams Study's annual report for water year 2020](#). Stream health conditions for this study were sampled from sites categorized by the percentage of total impervious area (TIA%) within each sample basin. While the data from 2020 do not show statistically significant changes, there is an observed decrease in bioassessment quality and sediment metal levels compared to 2015, with largest declines in the most urban areas (40–100 TIA%). A more robust trend analysis with recent data will be conducted later.
- Delays in lab analysis of bioassessment data is delaying reporting for the two streams projects in Puget Sound and the Lower Columbia River Basin. These delays are also impacting the paired watershed retrofit & restoration effectiveness study.

Effectiveness studies

SAM studies determine the effectiveness of operational or structural BMPs, maintenance and management actions, and outreach efforts to reduce stormwater runoff and transport of pollutants to receiving waters. There are 7 active effectiveness studies at the end of this quarter (Table 2). Milestones include, but are not limited to:

- The project teams on Hydraulic Condition of Old Bioretention Facilities and Improving Ditches and Maintenance presented results at the May 5th Stormwater Work Group meeting.
- Scopes of work are under development for two more new projects—Stormwater CEC Monitoring (FP8) and Street Sweeping Load Evaluation (FP2).

Source Identification Projects

SAM projects on source control and source identification will improve illicit discharge detection and adapt our management solutions for pollutant sources in stormwater runoff.

- The Mobile Business project finalized their [best practices recommendations for finding, tracking, and outreach to mobile businesses, and listing tool](#). The project has been completed.

SAM contract deliverable activity

Table 2: SAM’s contracts, end dates, and deliverable activity.

Receiving water agreements	Deliverables approved Q2 2024	Anticipated deliverables Q3 2024
Marine mussels – WDFW	None Received	Draft and Final Reports for 2020/21, Fact sheet for 2020-21
Puget small streams – USGS, Manchester lab, Rhithron lab	Data upload for 2022, Final 2020 report.	Complete sampling for WY2024; Final 2021, 2022 reports
Lower Columbia urban streams -Clark County	Bi-monthly continuous data submission	Semi-annual progress report, Draft and Final Reports for WY 2023; Data Upload to EIM for WY2023
Source ID Contracts	Deliverables approved Q2 2024	Anticipated deliverables Q3 2024
Mobile business source control – King Co (Dec 2023)	Draft and final best practices guidance, SWG presentation, presentation to local group, draft fact sheet, Keyword spreadsheet tool, final report, and project completed.	Project close
Effectiveness study contracts	Deliverables approved Q2 2024	Anticipated deliverables Q3 2024
Paired watershed study – City of Redmond (Sept 2025)	None received	WY2023 draft and final report, street sweeping data, Amendment for final water year of sampling and reporting.
Longevity of bioretention toxicity prevention - WSU Puyallup (Nov 2024)	None received	Draft and Final report, 2 nd SWG presentation, and draft SAM fact sheet.
Hydrologic benefits of individual trees - WDNR (Dec 2024)	None expected.	None expected
Improving ditches and maintenance - WSU Puyallup (Sep 2024)	SWG Presentation, draft fact sheet	Project close
BMP maintenance condition - City of Bellevue (Apr 2024)	Final tech memo on published findings	Quarterly progress report, Draft and final pilot data memo, Draft white paper
Hydraulic conditions of old bioretention facilities - City of Olympia (Jul 2023)	Ecology interviews, draft final report, six presentations, SWG presentation	Final report, draft fact sheet
Bioretention effectiveness for 6PPD and PFAS – King County (Nov 2025)	Project kickoff	TAC member list, semi-annual progress report, QAPP addendum