



Stormwater Action Monitoring Quarterly Report April 1 through June 30, 2023

SAM accomplishments and key decisions reported for the quarter

- The WSU ditch study was amended to remove the water quality tasks, unencumbered funds.
- Eight Full Proposals (FPs) were received as part of the Round 4 SAM Study Solicitation Process

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 August each year from 2020 thru 2024. The 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 proportionally 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-Jun 2023	Lower Columbia status and trends Apr-Jun 2023	Effectiveness studies Apr-Jun 2023	Source ID projects Apr-Jun 2023	Admin Costs (Qtr) Ecology's Apr-Jun expenses
Balance at start of quarter	2,247,028	88,194	5,220,182	155,341	
Revenues	754,170	136,467	1,447,309	0	
Expenditures	273,164	50,325	599,371	126,014	65,868
Balance at end of quarter	2,728,034	174,336	6,068,120	29,327	
Encumbrances	2,008,351	102,884	2,216,019	9,591	

SAM contracting activities

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

- Signed new or amended Apr-May
 - WSU's Ditch study Amendment #1 was approved by PROC to remove the water quality monitoring aspects of the study since a suitable monitoring ditch site was not found and the work will not be done. Funds unencumbered, \$186,410.00 are returned to the SAM Effectiveness Studies account.

SAM summary by topic

Communications

SAM Staff have planned the Round 4 Study Workshop for August where 8 proposals will be presented on by the study leads. Read about it in [SAM's Newsletter #14](#).

The [2022 SAM Annual Report is now available](#). Highlights include staffing changes and recently completed studies on bioretention and trees. We also posted 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 in Puget Sound region and one stream monitoring in Lower Columbia region.

- USGS and Clark County prepared for their summer sampling campaigns this quarter. These two receiving water studies are intended to tell us if stormwater management actions are improving streams and marine waters in western Washington.

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 8 active effectiveness studies at the end of this quarter. Milestones for several projects include:

- In June, a [literature review of particle sizes in stormwater](#) was completed. Next quarter we'll finalize the 2-page fact sheet and present the findings at the September Stormwater Workgroup Meeting.
- Instruments capturing tree sap flux, stem flow, and canopy throughfall were installed on young, individual trees. The data collected is part of a [study of annual transpiration and canopy interception rates of trees common in urban areas](#).
- Contractors are out sampling infiltration rates and plant composition of some of Western Washington's oldest bioretention facilities. This is part of a [study that aims to provide design and maintenance recommendations for long-lasting bioretention facilities](#).

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. No milestones for the two active projects.

SAM contract deliverable activity

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

Receiving water agreements	Deliverables approved Q2 2023	Anticipated deliverables Q3 2023
Marine mussels – WDFW	None	Data Upload for 2020/21, Confirmed site list for 2023/24, permits, volunteer groups, and equipment orders
Puget small streams – USGS, Manchester lab, Rhithron lab	Quarterly report, Final sampling sites for 2023, Data upload for 2021	Quarterly Report, Data upload for 2022, Final 2020 and 2021 reports
Lower Columbia urban streams -Clark County	Semi-annual progress report	Data upload for 2022, Draft and Final 2022 Annual report, Semi-annual progress report, Equipment installation at 4 status sites
Source ID Contracts	Deliverables approved Q2 2023	Anticipated deliverables Q3 2023

Improving business source control programs – WSU (Sept 2023)	Quarterly report	Quarterly report, final training video and complete online module, draft SAM fact sheet
Mobile business source control – King Co (Dec 2023)	Quarterly report	Quarterly report, Pilot Program in King Co plan and outreach material
Effectiveness study contracts	Deliverables approved Q2 2023	Anticipated deliverables Q3 2023
Paired watershed study – City of Redmond (Sept 2025)	Street sweeping interim lab data with validation and interim memo, errata on hydrologic data for WY 21 and prior affected years	Contract extension. Final WY 2021 Report (Task D2), and draft WY 2022 data and draft annual report (Task D3 and E1)
Longevity of bioretention toxicity prevention - WSU Puyallup (Nov 2024)	Progress reports 7, 8 and 9	None expected
Hydrologic benefits of individual trees - WDNR (Aug 2024)	Bi-annual report, equipment installation	None expected
Orifice control for bioretention - WSU Puyallup (Dec 2022)	Draft and final modeling study report and presentation to SWG	Draft and final project report, database, and draft SAM factsheet
Improving ditches and maintenance - WSU Puyallup (Sep 2024)	Progress report	None expected
BMP maintenance condition - City of Bellevue (Apr 2024)	None received	Progress report, draft and final tech memo on O&M, Ecology interview
Hydraulic conditions of old bioretention facilities - City of Olympia (Jul 2023)	Progress report, TAC kickoff meeting, Final QAPP, Site selection	Progress report, Technical memos on hydraulic design, geotechnical, facility condition, vegetation, and maintenance, Initial results presentation to SWG and Ecology, Draft Report
Lit review of particles in stormwater & treatment -WDNR (Nov 2023)	Status updates, TAC Meeting Updates, White paper outline, Draft and final white paper, Draft fact sheet, Draft presentation to SWG	