



Stormwater Action Monitoring Quarterly Report January 1 through March 31, 2021

SAM accomplishments and key decisions reported for the quarter

- SAM Annual Report for Year 2020 completed
- First Round 3 SAM studies get underway

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

Table 1 shows the SAM budget for each account for the whole program. Revenue for 2020 is expected in August, and each year 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. Projected expenditures for the next quarter are based on anticipated approved deliverables and invoices and an estimate of Ecology’s expenses. 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		Lower Columbia status and trends		Effectiveness studies		Source ID Projects		Admin Costs (Qtr)
	Jan-Mar 2021	Apr-Jun 2021 (anticipated)	Jan-Mar 2021	Apr-Jun 2021 (anticipated)	Jan-Mar 2021	Apr-Jun 2021 (anticipated)	Jan-Mar 2021	Apr-Jun 2021 (anticipated)	Ecology’s Jan-Apr expenses
Balance at start of quarter	\$1,918,389	\$1,910,834	\$136,467	\$55,926	\$4,304,047	\$3,853,759	\$452,004	\$318,037	
Revenues	-\$5,088*	\$0	\$0	\$0	\$5,088*	\$0	\$0	\$0	
Expenditures	\$2,467	\$189,119	\$80,541	\$10,000	\$455,377	\$345,447	\$133,967	\$10,611	\$49,373
Balance at end of quarter	\$1,910,834	\$1,721,715	\$55,926	\$45,926	\$3,853,759	\$3,508,312	\$318,037	\$307,426	
Encumbrances	\$1,810,945	\$1,619,713	\$389,137	\$379,137	\$1,980,715	\$1,572,753	\$290,026	\$278,966	

*Ecology’s fiscal department moved \$5,088 from Puget Sound Status and Trends account to Effectiveness studies account to correct a revenue deposit error made in 2020.

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 in Jan-Mar
 - Contracted with USGS for the Puget Sound Streams for sampling 2020 to 2022
 - Contracted two Round 3 projects with WSU:
 - Guidance for evaluating the effectiveness of public education and outreach programs
 - Business SC Developing and refining source control inspection programs for businesses
- Closed contracts Jan-Mar
 - City of Olympia completed the Bioretention hydrology project and unencumbered \$16,230.97
 - King Co completed the IC/ID Manual update project.

SAM summary by topic

Communications project

Fact sheets for five projects were added to the [SAM communications webpage](#):

- FS#19 - Plant and fungi amendments to bioretention for pollutant reduction over time
- FS#20 - Bioretention Hydrologic Performance Study – Focus on Current Designs
- FS#21 - 2020 Update to the Illicit Connection and Illicit Discharge (IC-ID) Field Screening and Source Tracing Guidance Manual
- FS#22 - Regional Spill Hotline Feasibility Study
- FS#23 - Redmond Paired Watershed Study – Interim Findings

Receiving water projects

SAM monitors the impacts of stormwater runoff in urban and urbanizing areas in the Puget Sound small streams and nearshore environments. A new contract with USGS was signed for \$768,148 to continue the long term Puget Sound streams sampling in 2021 and 2022. Sampling begins for macroinvertebrates and sediment this summer for both the Puget Sound Streams and Lower Columbia urban streams. Planning and site selection assessment for the Puget Sound nearshore caged mussels monitoring using the full scale of the Puget Sound is underway. Contracts with WDFW are still in signature process.

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 6 active effectiveness studies at the end of this quarter. The City of Olympia project closed and unencumbered \$16,231 which was returned to the Effectiveness study account. A new contract was signed with WSU for \$270,100 to build permittee guidance for evaluating the effectiveness of stormwater education and outreach programs. Next quarter we anticipate bringing several more Round 3 projects under contract.

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. Both source identification projects are completed and presentations are planned for MuniCon in April 2021. A new contract was signed with WSU for \$278,945, to build a business source control guidance manual and trainings for permittees to build or enhance their source control programs.

SAM contract deliverable activity

Project activities, contracting actions and meetings are summarized under each SAM category in this section.

Communications	Deliverables approved Q1 2021	Anticipated deliverables Q2 2021
AWC	Progress report and five new SAM study Fact Sheets	Closed
Receiving water agreements	Deliverables approved Q1 2021	Anticipated deliverables Q2 2021
Marine mussels (new study frame) – WDFW	None anticipated	Newly signed contract for full study frame sampling and QAPP
Marine mussels (older design) – WDFW	None received	Presentations on 2017/18 study findings
Puget small streams – USGS, Manchester lab, Rhithron lab	Operation of continuous loggers, completion confirmation of 2020 sampling	Operation of continuous loggers, 2020 sampling data in EIM compatible spreadsheet, and report for 2020
Lower Columbia urban streams- Clark County	Semi-annual progress report	None
Source ID Contracts	Deliverables approved Q1 2021	Anticipated deliverables Q2 2021
Business source control & inspection program – WSU	Newly signed	Progress report, municipal interview summary, online directory, and BIG report gap findings
Feasibility of regional spill hotline – King Co	Biannual progress report	MuniCon presentation and closed
Effectiveness study contracts	Deliverables approved Q1 2021	Anticipated deliverables Q2 2021
Paired watershed study – Redmond	Trend report for Water Year (WY) 2016-19, WY 2020 hydrology and physical habitat data	Remaining WY 2020 data (sediment and biological) and draft report, Presentation at SWG and MuniCon
Longevity of bioretention toxicity prevention – WSU	Progress report 3	NA
Hydrologic benefits of individual trees - WDNR	Quarterly Report 9	Quarterly Report 10, data spreadsheet
Oyster shell catch basin retrofits – King County	Final report and presentation	Closed
Mulch choices for bioretention - WSU Puyallup	Semi-annual report and installation report	None expected
Orifice control for bioretention - WSU Puyallup	None received	Installation and startup report, progress report 1
Evaluating stormwater education and outreach program - WSU	Newly signed	Project schedule, progress report, and draft interview questions