



Stormwater Action Monitoring Quarterly Report January 1 through March 31, 2020

SAM accomplishments and key decisions reported for the quarter

- New 3-year contract with USGS for conducting Puget Sound small stream monitoring with total budget of \$768,148. This contract includes site evaluation, equipment deployment and maintenance, summer watershed health monitoring, and data analysis and reporting.
- WDFW retrieved mussel cages at the 38 out of 41 SAM sites (cage lost) and 41 more at their partner sites.

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		Effectiveness studies		Source ID Projects		Admin Costs (Qtr)
	Jan-Mar 2020	Apr-Jun 2020 (anticipated)	Jan-Mar 2020	Apr-Jun 2020 (anticipated)	Jan-Mar 2020	Apr-Jun 2020 (anticipated)	Ecology’s Jan-Mar expenses
Balance at start of quarter	\$1,670,366	\$1,616,231	\$3,732,874	\$3,291,315	\$602,842	\$562,878	
Revenues	\$0	\$0	\$0	\$0	\$0	\$0	
Expenditures	\$54,135	\$42,322	\$441,559	\$563,196	\$39,964	\$61,163	\$60,095
Balance at end of quarter	\$1,616,231	\$1,573,909	\$3,291,315	\$2,728,119	\$562,878	\$501,715	
Encumbrances	\$1,046,142	\$1,095,660	\$2,732,032	\$2,168,836	\$235,324	\$174,161	

SAM study solicitation process

Based on decisions made by permittees as of December 1, 2019, the anticipated revenue for the 2019-2024 permit term is approximately \$1.4M for Effectiveness and Source ID, \$750K for Puget Sound Status and Trends, and \$136K for Lower Columbia Status and Trends, annually. The third round of project solicitation to gather a new set of SAM Effectiveness and Source Identification studies began on January 22nd. The request for proposals was sent by the SAM Coordinator on three listservs (SAM newsletter, SWG, and SWG Reporter) and posted to the SAM website.

SAM contracting activities

All contract scopes of work are reviewed and approved by the PRO-C and Ecology are posted online. Two contracts were closed this quarter; the bioretention blends alternative for low phosphorus export and PCB capture study. A new 3-year contract with USGS was signed for total \$768,148 to monitor 35 Puget Small stream sites.

SAM summary by topic

Communications project

Association of Washington Cities (AWC) reported the survey of stormwater managers like SAM products that are easiest to communicate findings with the public and elected officials - such as the websites, SAM booklet, SAM focus sheets and videos.

Receiving water projects

SAM monitors the impacts of stormwater runoff in urban and urbanizing areas in the Puget Sound nearshore and small stream environments. Mussel cages were successfully retrieved from 38 sites in January, and tissue composite samples were prepared for chemical analyses. The second round (2017-2018) mussel monitoring report will be out in late 2020. For Puget Small streams, the project lead from USGS and SAM scientist have been working on developing Quality Assurance Project Plan that will cover 3 years of monitoring.

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. Three studies are working on data analysis: bioretention fungal amendments, bioretention hydrology performance, and the oyster shell catch basin retrofits study. Four studies are in the sampling phase: bioretention longevity, mulch options for bioretention, individual tree hydrology-monitoring project and the Redmond Paired Watershed study for the 2019-2020 wet season. The WSU-led orifice control of bioretention study is getting a delayed start and may miss the 2019-2020 wet season.

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. There are two active source identification projects. The spill hotline feasibility study is preparing the interview summary report. King County delivered the draft updated illicit connection illicit discharge (IC/ID) field screening manual this quarter and will begin to plan trainings in 8 locations in western Washington.

SAM contract deliverable activity

Jan – Mar 2020

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

Communications	Deliverables approved Q1 2020	Anticipated deliverables Q2 2020
AWC	SAM fact sheets for bioretention fungi, and PCB capture, and the communication products survey.	SAM fact sheet for Puget Sound Streams improved study design.
Receiving water agreements	Deliverables approved Q1 2020	Anticipated deliverables Q2 2020
Marine mussels – WDFW	Mussel cage retrieval, 3 rd round QAPP amendment, List of equipment and supplies purchased	Biological metrics datasheet, Draft report for the 2 nd round monitoring (2017/18)
Puget small streams – USGS, Manchester lab, Rhithron lab	NA	QAPP
Source ID Contracts	Deliverables approved Q1 2020	Anticipated deliverables Q2 2020
IC/ID Manual Update – King Co	Draft IC/ID manual and schedule for upcoming trainings	Final updated IC/ID manual and revised schedule for upcoming trainings
Feasibility of regional spill hotline – King Co	Draft interview research summary report	Final interview research summary report and TAC Meeting
Effectiveness study contracts	Deliverables approved Q1 2020	Anticipated deliverables Q2 2020
Paired watershed study – Redmond	None received	Water year 2019 biological data to PSSB and hydro data to KC database
LID bioretention hydrology performance (current 2012+ facilities) – Olympia	Progress report	Interim project meeting with SAM Coordinator
Effectiveness of bioretention soil to capture and treat PCBs – King Co	SWG presentation, semi-annual progress report, and final report	Completed
Field test of plants and fungi on bioretention performance – USFWS	None received	Year 2 report on hydraulic, water quality, and toxicity monitoring.
Longevity of bioretention toxicity prevention – USFWS	Progress report 1	NA
Hydrologic benefits of individual trees - WDNR	Quarterly Report 5	Quarterly Report 6

Oyster shell catch basin retrofits – King County	Semi-annual project report, Preliminary flow data & Analytical data	Data validation
Mulch choices for bioretention - WSU Puyallup	None received	Installation photos
Orifice control for bioretention - WSU Puyallup	None received	Draft and final QAPP?