



Stormwater Action Monitoring Quarterly Report July 1 through September 31, 2020

SAM accomplishments and key decisions reported for the quarter

- The Round 3 SAM Study Selection Workshop was held virtually on September 16, 2020 with over 75 attendees. Voting for new studies is underway.
- The new Lower Columbia urban stream (LCUS) monitoring contract led by Clark County is underway. A new webpage was created for this new SAM receiving water status and trend monitoring study.
- Virtual trainings are planned for the IC-ID manual update and will be hosted by the Washington Stormwater Center.

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)
	Jul-Sept 2020	Oct-Dec 2020 (anticipated)	Jul-Sept 2020	Oct-Dec 2020 (anticipated)	Jul-Sept 2020	Oct-Dec 2020 (anticipated)	Jul-Sept 2020	Oct-Dec 2020 (anticipated)	Ecology’s Jul-Sept expenses
Balance at start of quarter	\$1,748,907	\$2,101,204	\$14,134	\$136,467	\$3,339,429	\$4,371,779	\$452,004	\$452,004	
Revenues	\$555,029	\$0	\$122,333	\$0	\$1,099,443	\$0	\$0	\$0	
Expenditures	\$202,732	\$176,127	\$0	\$0	\$67,093	\$134,789	\$0	\$0	\$23,751
Balance at end of quarter	\$2,101,204	\$1,925,077	\$136,467	\$136,467	\$4,371,779	\$4,236,990	\$452,004	\$452,004	
Encumbrances	\$1,228,079	\$1,051,952	\$469,678	\$469,678	\$2,234,954	\$2,100,165	\$145,048	\$145,048	

SAM study solicitation process

The nine full project proposals that are part of the third round for new SAM Effectiveness and Source Identification projects were reviewed by 2-3 SAM Study Selection Subgroup (S4) members, one Ecology stormwater staff, and SAM staff. S4 requested the response to comment by end of July from proponents in preparation for the Round 3 SAM Study Selection Workshop on September 16, 2020. Full proposals, LOIs, and review summaries are available in SAM website. After the workshop, SAM staff sent a survey link to all the western Washington permittees for voting on the Round 3 proposals.

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:

- The Lower Columbia urban stream monitoring contract with Clark County for \$469,678 was approved by the PRO-C and Ecology.
- Five years of costs associated with Manchester Environmental Laboratory (MEL) at Ecology (\$349,400) and Rhithron Laboratory for benthic identification (\$109,800) were encumbered this quarter. This will cover thru 2024 of Puget Sound streams monitoring. In addition a small amount of Chad Larson's (Ecology staff) for just this year was encumbered this quarter to assist with BIBI data.
- The IC-ID manual update source identification project was extended to January 2021 and \$20,597 added to help transition and reschedule the eight in-person to virtual trainings.

SAM summary by topic

Communications project

A SAM newsletter was sent in August to encourage permittees and other stakeholders to register for the Round 3 SAM study selection workshop scheduled for September 16, 2020. In addition, the newsletter announced the SAM fact sheet #18 on the new Puget small streams study design and the registration for the IC-ID manual trainings.

On September 16th the Association of Washington Cities (AWC) successfully hosted the SAM Round 3 Study Selection Workshop via GoToMeeting. This workshop provided a forum for permittees and other attendees to learn about each proposal, ask questions of the study lead, and hear about the next steps to vote for proposals to fund.

Receiving water projects

SAM monitors the impacts of stormwater runoff in urban and urbanizing areas in the Puget Sound small streams and nearshore environments. USGS started the summer sampling at the 33 sites for the Puget small streams (PSS) study. Nearshore mussel tissues collected from 2019-2020 monitoring were sent to the lab for chemical analyses, however, due to COVID the process has been delayed. Clark County-led Lower Columbia urban stream (LCUS) monitoring completed the site evaluation and started equipment purchasing. The LCUS monitoring QAPP will be finalized in next quarter.

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 or writing phase: 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. Trainings on the updated illicit connection - illicit discharge (IC-ID) field screening are underway and are well attended. The spill hotline feasibility study is working on the matrix of hotline options.

SAM contract deliverable activity

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

Communications	Deliverables approved Q3 2020	Anticipated deliverables Q4 2020
AWC	SAM fact sheet for Puget Sound Streams improved study design.	Progress Reports
Receiving water agreements	Deliverables approved Q3 2020	Anticipated deliverables Q4 2020
Marine mussels – WDFW	Draft report	Final report for the 2 nd round monitoring (2017/18)
Puget small streams – USGS, Manchester lab, Rhithron lab	Email confirmation for data recording and equipment maintenance	Confirmation email of data completeness, data quality issues for sites, DCE file submission for each site
Lower Columbia urban streams- Clark County	None	Semi-annual progress report, copy of receipt for probes purchase, equipment installation confirmation
Source ID Contracts	Deliverables approved Q3 2020	Anticipated deliverables Q4 2020
IC/ID Manual Update – King Co	Registration for trainings	Complete 8 online trainings, progress report, and draft fact sheet
Feasibility of regional spill hotline – King Co	Presentations to SWG and Source ID subgroup, TAC meetings	Final matrix, presentation to SWG, draft and final report, and biannual progress report
Effectiveness study contracts	Deliverables approved Q3 2020	Anticipated deliverables Q4 2020
Paired watershed study – Redmond	Final water year 2019 report, draft 4yr trend report and TAC meeting	NA
LID bioretention hydrology performance (current 2012+ facilities) – Olympia	Tech memo on modelling and 10 site models	Interim findings memo and presentation for SWG, draft and final report, draft fact sheet, and summary of presentations
Field test of plants and fungi on bioretention performance – USFWS	Interim results regarding accumulation/mobilization.	Final report
Longevity of bioretention toxicity prevention – USFWS	None	Progress report 2
Hydrologic benefits of individual trees - WDNR	Quarterly Report 7	Quarterly Report 8
Oyster shell catch basin retrofits – King County	Semi-annual project report, Report outline, presentation to SWG	Draft report

Mulch choices for bioretention - WSU Puyallup	Semi-annual report (Q1-Q2)	NA
Orifice control for bioretention - WSU Puyallup	Draft QAPP	Final QAPP