



Stormwater Action Monitoring Quarterly Report July 1 through September 30, 2021

SAM accomplishments and key decisions reported for the quarter

- New contract for mussel monitoring using the new study design for Puget Sound nearshore
- New contract with WSU-P to study ditch maintenance and retrofits to improve water quality.

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 and Source ID		Old Source ID Account		Admin Costs (Qtr)
	Jul-Sept 2021	Oct-Dec 2021 (anticipated)	Jul-Sept 2021	Oct-Dec 2021 (anticipated)	Jul-Sept 2021	Oct-Dec 2021 (anticipated)	Jul-Sept 2021	Oct-Dec 2021 (anticipated)	Ecology’s Jul-Sept expenses
Balance at start of quarter	\$2,115,035	\$2,216,534	\$29,855	\$140,437	\$4,477,507	\$4,909,699	\$303,631	\$303,631	
Revenues	\$161,587	\$0	\$110,582	\$0	\$432,192	\$0	\$0	\$0	
Expenditures	\$60,089	\$106,036	\$0	\$51,956	\$0	\$447,655	\$0	\$22,253	\$41,345
Balance at end of quarter	\$2,216,534	\$2,110,498	140,437	\$88,482	\$4,909,699	\$4,462,044	\$303,631	\$281,378	
Encumbrances	\$1,984,163	\$1,897,673	\$337,181	\$289,964	\$1,666,754	\$2,297,401	\$491,590*	261,642*	

*The source identification account is being spent down and closed per PRO-C decision. Ecology booked the mobile business contract in Q3 and will transfer the excess encumbrance on this account to the encumbrance for Effectiveness and Source ID account in Q4 2021.

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 contracts or amendments in Jul-Sept
 - A no cost extension for WDFW to complete the older design mussel monitoring (2nd and 3rd rounds) data assessment work and report.
 - New contract with WDFW for \$613,829 to start mussel monitoring using new study design that covers the whole Puget Sound nearshore (4th and 5th rounds so far with SAM).
 - Ditches Retrofit Study led by WSU-P for \$497,403 (August 2021).
 - Mobile Business Source Control and Coordination led by King Co for\$ (August 2021).

- Business Inspection Source Control (WSU-Puyallup) Amendment 1 (August 2021)
- No projects were closed this quarter, July-Sept

SAM summary by topic

Communications

Routine deliverable and contracting updates to SAM website. No projects were completed this quarter and no new fact sheets this quarter.

Receiving water projects

SAM monitors the impacts of stormwater runoff in urban and urbanizing areas in the Puget Sound small streams and nearshore environments. Clark County have concluded first round of summer stream sampling in the Lower Columbia region. USGS Puget Sound stream sampling is finishing up this summer's sampling. A total of 33 random stream sites in Puget Sound and 8 sites in Lower Columbia region were monitored this year. USGS started site evaluation for 2022 sampling. Ecology's Environmental Assessment Program staff will conduct routine data QA/QC for EIM data from Puget Sound Streams, Lower Columbia Streams, and the ongoing Redmond Paired Watershed Study.

For marine nearshore mussel monitoring, WDFW is transitioning to the new design and completed site evaluation for the upcoming winter 2021-2022 cage deployment. Round 3, the last report for the old design mussel monitoring is delayed and anticipated to be completed early next year.

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. Scope of work development is underway on a new approved project, Bellevue's (FP7) Stormwater BMP maintenance condition evaluation.

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 King County led Mobile Business Source Control and Coordination project is newly signed and underway this quarter. The WSU-Puyallup led project on Business Source Control was amended to correct budgeting errors reducing the commitment and adjust timelines due to contracting delays.

SAM contract deliverable activity

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

Receiving water agreements	Deliverables approved Q3 2021	Anticipated deliverables Q4 2021
Marine mussels – WDFW	Newly signed contract for full study frame sampling	Final site list, QAPP
Marine mussels (older design) – WDFW	None received	Chemical analysis invoices, QA-QC'd chemistry data, outline of final report
Puget small streams – USGS, Manchester lab, Rhithron lab	Email confirmation for data recording and equipment maintenance	Email confirmation for sampling, data recording and equipment maintenance
Lower Columbia urban streams- Clark County	Semi-annual progress report, continuous data upload	Email confirmation of sampling, E-form submission, continuous data upload
Source ID Contracts	Deliverables approved Q3 2021	Anticipated deliverables Q4 2021
Improving business source control programs – WSU	Communications Plan	Summary of municipal interviews, BIG report gap findings, online resources list of materials and tools
Mobile business source control – King Co	Signed contract	TAC#1, project schedule, draft and final survey
Effectiveness study contracts	Deliverables approved Q3 2021	Anticipated deliverables Q4 2021
Paired watershed study – Redmond	Water year (WY) 2020 draft report and associated data	WY 2020 final report.
Longevity of bioretention toxicity prevention – WSU Puyallup	Progress report 3 and 4	Progress report 5 and 6
Hydrologic benefits of individual trees - WDNR	Presentation to SWG, Quarterly reports 10 & 11	Data file, Draft report
Mulch choices for bioretention - WSU Puyallup	Semi-annual report	Maintenance effort memo, draft analysis, TAC presentation
Orifice control for bioretention - WSU Puyallup	Progress report 2	Progress report 3, Interim result presentation to SWG, contract amendment
Evaluating stormwater education and outreach program - WSU	draft interview questions/contacts, draft report template, and draft web survey	Project schedule, draft mock-up website, draft reporting questions (D5.1), and progress report
Improving ditches and maintenance – WSU-Puyallup	None received	Draft and final QAPP, and Installation memo