Stormwater Action Monitoring (SAM)
Effectiveness Study and Source Identification Projects
Round 5 Request for Proposals
September 2025

Introduction

Stormwater Action Monitoring (SAM) is soliciting proposals for effectiveness and source identification studies or projects that support the implementation of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) general permits.

This is the fifth round of SAM study solicitations since SAM was launched in 2014. Four Washington State issued MS4 permits include SAM funding options to satisfy monitoring:

- Phase I Municipal Stormwater,
- Eastern Washington Phase II Municipal Stormwater
- Western Washington Phase II Municipal Stormwater, and
- Washington State Department of Transportation Municipal Stormwater.

There are three Environmental Protection Agency (EPA) issued MS4 permits with SAM funding options for monitoring:

- United States Naval Base Kitsap,
- United States Naval Station Everett, and
- United States Naval Air Station Whidbey Island.

SAM is coordinated by the Washington Department of Ecology (Ecology) and overseen by the Stormwater Work Group (SWG). This current request for proposals is SAM's fifth round since SAM was launched in 2014. All active and completed SAM projects can be found on the SAM website; www.ecology.wa.gov/SAM.

Successful stormwater management approaches prevent and reduce water quality and habitat impacts. SAM's effectiveness and source identification projects advance our collective understanding and successful implementation of stormwater management permit requirements and programmatic approaches to permit compliance. This adaptive management feedback is used by permittees, Ecology, SWG and interested stakeholders about improving municipal stormwater programs and best management practices.

The available funding for this Round 5 solicitation is **approximately $4.6 M**, based on balances from previous permit cycle and the SAM funds collected in 2025 and 2026 from permittees' contributions for the 2024-2029 permit term for SAM projects.

SAM's funding comes from contributions paid by municipal stormwater permittees. The SWG will determine which proposals will receive SAM funds based on the multistep proposal evaluation and selection process outlined in this request. Successful proposals will have a broad base of support from permitted cities and counties. Other entities also contribute to SAM studies by in-kind services, matching funds, or unique sampling support.

This document outlines the multi-step proposal evaluation and selection process determining which proposals SAM will fund. SAM funds come from monies paid by municipal stormwater permittees; however other entities also contribute to SAM studies in the form of in-kind services, matching funds, or unique sampling support.

Please contact SAM Coordinator Raghu Namburi with questions about this process at Raghu.namburi@ecy.wa.gov or (360) 628-4989.

Eligibility

To be considered for this program, proposals shall:

- Address the preferred topics for Round 5 (Appendix A), and
- Advance regional implementation of stormwater management programs, and
- Contain a purpose, objective, study design, anticipated methods, and anticipated outcomes, and
- Articulate how the study or project will inform future permit requirements or permittees' implementation of current permit requirements, and
- Be relevant to multiple permitted jurisdictions.

Qualified Applicant

This is a competitive funding program, open to any "public agency" that may legally enter into an inter-agency agreement with the Washington State Department of Ecology. This includes cities, counties, state and federal agencies, tribes, the Washington Stormwater Center, public ports, public universities, conservation districts and agency consortiums. Consulting firms and non-profits are not eligible to apply directly for this funding program, but they may be partnered with a public agency.

Partnerships

Project proponents are strongly encouraged to form partnerships to address issues of common concern. Eligible partners include, but are not limited to, all eligible applicants listed above, non-profit organizations, and for-profit companies.

Project Ceiling

There are no ceilings or match requirements for SAM projects within available funding for Round 5. One hundred percent of eligible costs are fundable based on a negotiated contract with Ecology and the SWG Pooled Resources Oversight Committee.

SAM's unique design provides flexibility to accomplish long-term results. Projects are not constrained by typical grant program timelines or permit expiration dates. The review committee welcomes large, multi-year projects that deliver concrete interim and final products and provide useful information throughout their duration, such as the 10-year **Paired Watershed Retrofit and Restoration Study**.

Ineligible Project Components

Ineligible projects or project components include but are not limited to:

- Grant application preparation.
- Capital construction projects.
- Projects that do not support Municipal Stormwater NPDES Permit implementation.
- Give-a-ways or incentives that do not directly inform the proposed study.

- Journal publications and travel to out-of-state conferences.
- TAP-E review process for proprietary treatment systems. However, using a TAP-E approved proprietary system for a study that meets the interests of multiple parties is an eligible project component.

Project Selection Process and Timeline

There are distinct stages to proposal submittal, evaluation, and project selection process.

Project Selection Stage	Description	Target
Stage 0	Request for study proposals advertised	Sep 19, 2025
Stage 1	Letter of intent (LOI) from project proponent due to SAM Coordinator	Oct 24, 2025
	SAM Coordinator provides feedback to all project proponents and each proponent as to whether their project will move to Stage 2	Nov 19, 2025
Stage 2	Full proposal from project proponent due to SAM Coordinator	Jan 16, 2026
Stage 3	SAM Staff coordinate for scoring and technical reviews and send back to project proponents	Mar 13, 2026
Stage 4	SAM Round 5 Project Selection Workshop with presentations by proponents and stakeholder voting in week after the workshop	Week of April 6th, 2026
Stage 5	SWG approves project list for SAM funding	July 2026

The pace of new projects depends upon funding and the capacity of SAM staff at Ecology to manage projects. SAM has funding and capacity to start approximately five successful proposals each year. For this Request for Proposals, SWG expects to begin about four to six new projects in the fall of 2026.

Stage 1. Letter of Intent (LOI) to Submit a Proposal

Interested parties should fill out the Letter of Interest (LOI) Form on or before October 24th , 2025, for each individual proposal idea. SAM Staff will send the project proponent a confirmation email upon receipt of the LOI. The following information is requested in the LOI Form:

- Applicant Contact Information.
- Proposed Study Title.
- Which topic(s) from the SAM Topics Priority List (Appendix A) list do you propose to address?
- Types of projects being proposed: survey, literature review, sampling study, others.
- Short Description of the Proposed Study (250-word limit): describe how results will assess effectiveness and advance regional understanding and permittees' implementation of specific stormwater management approaches).
- What type of information will be collected or analyzed for this proposed study? (If existing permittees' data are needed, specify the type, and the expected timing of a request for existing information from Permittees.)
- What are the anticipated measurable outcomes and key deliverables that will be produced by the proposed study, and how will they be used by Permittees and the Washington State Department of Ecology?
- Permittees or agencies you are proposing to coordinate with (provide staff names and contact information, if known).

The SAM Staff, with input from the SWG's SAM Study Selection Subgroup (S4), will review each LOI for eligibility based on criteria for proposals as discussed in the introduction section of this document. Each project proponent will receive feedback on or before **Nov 19th, 2025,** to inform their decision as to whether to proceed to Stage 2.

Stage 2. Full Proposal

Successful project proponents from Stage 1 will be invited to develop full proposals and submit them via email on or before **Jan 16th, 2026,** to SAM Staff. A proposal for a SAM project should be complete enough for the review committee to understand and address scoring criteria (provided in this document) but not at the level of detail necessary for a complete contract scope of work. Proponents are advised to include the following sections:

- Project title and LOI #,
- Applicant information,
    - Organization, email, phone number, and other additional contacts.
- Project purpose,
    - What specific Stormwater Management Program condition(s) or other permit condition(s) in the NPDES Phase I and/or Phase II Municipal Stormwater Permit are addressed by your study address?
- Project description/scope of work,
    - Describe the study design or main project tasks.
        - For projects collecting new data or analyzing new or existing data, a Quality Assurance Project Plan (QAPP) is needed.
        - Specifically describe data requests from Permittees anticipated for the project. The data type, format, and nature of information sought.
    - All SAM projects must include a plan for communicating the study findings, and at a minimum, these deliverables:
        - A presentation to the SWG before the final report is completed; and
        - A draft SAM Fact Sheet which is a two-page summary of the project results/ findings following the template.
- Project team description,
    - SAM projects should plan to organize a Technical Advisory Committee (TAC). The TAC will review the study design and key and final deliverables.
        - The TAC may be formed as the first task in the proposal.
        - Project proponents may request that a SWG subgroup be a resource for recruiting project advisory committees.
        - Projects are encouraged to include multiple permittees, and particularly jurisdictions of various sizes, on their TACs.
- Project management strategy,
- Project budget and schedule
    - Specify the expected duration of the project and particular requirements for the study period, if any.
    - Articulate key project deliverables such as survey results, databases, final reports, and communication tools.
    - All SAM contracts are deliverables-based. A distinct cost for each deliverable is required.

The final proposal may not exceed 10 pages total excluding the cover page. The font size must be 12 point.

Up to three additional pages are allowed for maps and figures. The proposal scoring criteria are included at the end of this document.

Each proposal must be signed by a person duly authorized to legally bind the project lead. Partnering entities must attach a letter of commitment describing their role in the study. Letters of commitment do not count toward the 10-page proposal limit.

All costs for developing proposals in response to this request are the obligation of the applicant and are not chargeable to SAM. All submitted proposals and accompanying documentation will become property of SAM and will not be returned.

Email Raghu Namburi at Raghu.namburi@ecy.wa.gov with the attached proposal. If the file is too large, indicate the need to arrange for a safe electronic file transfer.

Stage 3. Scoring and Technical Review of Full Proposals

Stage 3a – Scoring

The SAM Coordinator and members of the SAM Study Selection Subgroup (S4) will review and score full proposals based on the criteria at the end of this document, past performance as a SAM contractor (if applicable), and technical concerns.

Stage 3b – Technical review

If needed, the SAM Coordinator will identify technical reviewers among SWG and/or Ecology to assess the technical efficacy of each proposal that passed Stage 3a. The technical reviewers will produce an unscored summary of their findings for each proposal.

SAM Staff will return scoring and technical review results to each project proponent by Feb 28, 2026, or Mar 13, 2026. The SAM Coordinator may request a revised proposal when significant changes are considered necessary by the reviewers to meet eligibility requirements.

Stage 4 – Presentation of final proposal at SAM Round 3 Project Selection Workshop

Project leads that have successfully made it through Stage 3 will give a presentation at the SAM Round 5 Workshop in **early April 2026**. The venue for the workshop is yet to be decided. Brief presentations (10-15 minutes) will follow the template provided by SAM Staff, including Q&A. The purpose of the workshop is to allow permittees and other stakeholders to get a better understanding of each full proposal. Time will be scheduled for interaction between interested parties and the project proponent. The workshop is expected to last about four hours but will be dependent on how many proposals make it to this stage.

Stage 5 – Permittee voting

For the week following the workshop, the NPDES permittees that fund SAM will be asked to vote on the proposals. A representative vote by the permit manager from each jurisdiction will cast their vote in a form sent by the SAM Coordinator. Each permittee will be asked to vote for three projects, ranked in priority order.

Stage 6 – Proposal Awards

The SAM Study Selection Subgroup (S4), local, state, federal, and other caucuses will meet to consider the permittee votes and all the full proposals along with scores to formulate recommendations to submit to the SWG. The Pooled Resources Oversight Committee will meet and form fiscal recommendations for SWG and then SWG will review the ranked project list resulting from the permittee voting prior to making final decisions. The SWG will send a final list of approved projects, including recommended start dates (see introduction section), to the SAM Coordinator and Ecology following its meeting in **July 2026**.

Full Proposal Scoring

Category	Evaluation Criteria	Maximum Possible Points
Project Purpose 100 Points	Addresses a priority topic (see Appendix A). Clearly defines how the study supports implementation of NPDES municipal stormwater permit programs and/or conditions. Articulates how the study or project will inform future permit requirements or permittees' implementation of current permit requirements.	50
	Directly involves multiple permittees who are engaged because the project will benefit their stormwater management.	15
	Advances regional implementation of stormwater management programs. Demonstrates regional or statewide significance or value (i.e., is transferable).	25
	Will sustain long-term benefits and/or deliverables are durable.	10
Project Description and Scope of Work 100 points	Clear project goals and scope of work. Contains purpose, objective, design, method, anticipated outcomes. Measurable outcomes are tied to project goals.	25
	Detailed description of project tasks. All tasks necessary to complete the project are clearly identified.	25
	Includes specific deliverables linked to project tasks.	25
	Clear plan for communication of project findings.	25
Project Team and Project Management 50 points	Clear team structure with highly qualified staff. Appropriate levels of effort. Assigns appropriate roles and responsibilities to project staff and partners. Includes estimates of the necessary time to be dedicated to the project by all team members.	25
	Multiple permittees are actively engaged in the project development and delivery processes.	15
	Past project performance on similar water quality projects is described and successes and/or lessons learned are documented.	10
Project Budget and Schedule 50 points	The budget is consistent with the level of effort described in the scope of work, with a good rationale for how it was calculated.	25
	The schedule is realistic, demonstrates the project is ready to proceed, and includes major dates and milestones and time for review by TAC or liaison.	15
	A distinct cost is provided for each project deliverable.	10

ADA Statement

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact Ecology by phone at 360-407-6600 or email at thea.angeli@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833- 6341. Visit Ecology's website for more information.

Appendix A: SWG Approved Round 5 Priority Topics List

Permit:

1. Identify correct best management practices (BMPs) and locate geographic priorities for stormwater retrofits necessary to intercept road-derived toxics (6PPDQ, PAHs, etc.) to protect water quality and salmonid populations (i.e., coho and chinook). The proposal should supplement existing research on this topic.
2. Based on an evaluation of current trainings (e.g., Illicit Discharge Detection and Elimination, Operations & Maintenance, Controlling Runoff, etc.) implemented by individual MS4 jurisdictions, identify three to five effective trainings from each category and make recommendations to standardize and improve those trainings. Develop trainings for future use across all jurisdictions in Washington.
3. Research and compile examples of effective stormwater management tools in a white paper. For example, public private partnerships, watershed planning, use of technology tools, Strategic Asset Management, or other management tools.

Source Control:

4. Conduct a stormwater runoff study to characterize stormwater pollutants at different traffic volumes (e.g., low, medium, high traffic areas). Consider building on previously collected data under the 2013 Washington State Department of Transportation's highway characterization study and the on-going SAM stormwater characterization study.
5. Develop guidance and methods for capturing and containing PCBs from suspected or confirmed sources, such as exterior buildings materials. Which BMPs are the most effective (cost included) at minimizing PCBs entering the MS4? What onsite or small and inexpensive treatment devices could be used to remove PCBs from pressure washing wastewater? What can be done to prevent the PCBs from entering the MS4 passively (i.e., when the building is just sitting in place and not being washed or demolished)?
6. What are the best test methods for detecting bacteria sources (wildlife, livestock, humans, etc.) to support Illicit Discharge Detection and Elimination work? What are the most effective practices, including education & outreach and operations & maintenance of BMPs for reducing bacteria loading in stormwater? How are those BMPs monitored for effectiveness?
7. How effective are public outreach and behavior change campaigns at reducing actions that contribute to stormwater pollution to MS4s? Which specific strategies yield the greatest impact? Make recommendations for outreach programs that apply to all jurisdictions.
8. How well does gray or traditional stormwater infrastructure capture contaminants like 6PPD, 6PPDQ, PAHs, PFAS, PCBs? What can be done to make gray infrastructure more effective at capturing persistent and emerging contaminants (through maintenance, retrofit, etc.)?
9. What are the ways that we can retrofit existing traditional or older pond structures for more stormwater quality treatment? Most were designed for flow control, but can we determine what methods could be used to update them to remove other pollutants (including 6PPDQ, PAHs, metals etc.)?

Maintenance/Manual:

10. Develop a white paper on how jurisdictions approach stormwater management on properties that do not drain to MS4s. Are there local codes for stormwater management that apply? What non-

stormwater regulations apply to manage potential sources of pollution (e.g., nonpoint best management practices, TMDLs,)?

11. Adapt TAPE's definition of qualifying storm conditions to Eastern Washington climatic conditions so that more treatment devices could be considered for approved use in drier climates.
12. What is the range of options to address spills on permeable pavement, and what are the most effective and lower cost methods?

Best Management Practice (BMP) Effectiveness:

13. Assess effectiveness, in terms of both cost and pollution reduction, of street waste disposal procedures in Appendix 6 of the Municipal Stormwater Permit. In particular, assess the effectiveness of discharging street sweeping truck decant liquids removed from the street to stormwater collection systems while sweeping during rain events.
14. Synthesize current understanding of how contaminants of emerging concern (CECs) behave within existing runoff treatment BMPs, focusing on mechanisms like sorption, degradation, transformation, and plant uptake. Include evaluating the implications for BMP design and soil or media longevity and reuse. Identify opportunities or challenges for longevity and reuse and disposal of spent media. Consider consulting contaminants listed in the PSEMP CEC Prioritization Table published by the Puget Sound Ecosystem Monitoring Program (PSEMP) Toxics Work Group.
15. Determine a biochar specification that produces the best pollutant removal treatment. Consider feedstock type, pyrolysis temperature, particle size, and post-processing treatments and how they can influence biochar's physical and chemical properties. Determine the effectiveness of biochar in removing contaminants such as nutrients, metals, hydrocarbons, PFAS and 6PPDQ.
16. Collect data and evaluate the potential for PFAS migration to groundwater via infiltration BMPs, particularly in areas with vulnerable aquifers or drinking water sources.
17. Determine the pollutant load reduction rate of total suspended solids (TSS) for a few typical Eastern and Western Washington catch basin designs to identify and demonstrate which catch basin designs qualify as "pre-treatment" BMPs. The study results should be applicable across the state. Also, consider building on the previous SAM study on catch basin maintenance (SAM Fact Sheet #15).
18. Evaluate the water quality benefits of using drought tolerant trees and shrubs in vegetated BMPs in arid climates. Provide a list of drought tolerant trees and shrubs along with installation and maintenance guidance. Demonstrate and distinguish usefulness of trees and shrubs-species with low water needs.
19. Study existing gray or green BMPs to verify capture or treatment of 6PPDQ. Consider both solids and dissolved forms of the pollutant.
20. Quantify the habitat value and other benefits, such as potentially reducing operation and maintenance, provided by mature vegetation in stormwater ponds. Are ponds still achieving the intended designed pollutant removal and/or flow attenuation? What are the trade-offs between maintaining the vegetation versus protecting the habitat?
21. Identify appropriate BMPs for managing polluted pressure washing runoff. What BMPS are most effective at different sites? Provide recommendations for how to better establish regional compliance consistency for managing pressure washing.