Letter of intent (LOI)

Interested parties should submit a Letter of Intent (LOI) on or before February 28, 2020 for each individual proposal. Letter of intent should include applicant contact information and seven questions about proposed study. More details about SAM study selection process, eligibility and funding availability can be found in SAM REF guidelines in SAM Effectiveness webpage.

Email address *

bensor@marysvillewa.gov

Applicant contact information

Applicant Full Name *

Brooke Ensor

Organization *

City of Marysville

Phone number *

360-363-8288

Proposed Study Information

1. Proposed Study Title *

Derelict Facility Maintenance

2. Which topic(s) from the SWG's priority list do you propose to address? *

The proposed study topic should be in the SWG's priority list

7. What is known about the water quality benefits of the maintenance thresholds that are required in the SWMMWW for vaults, ponds, and trenches? 7.1. Can we more cost-effectively clean vaults, ponds, infiltration trenches, and catch basins? 7.2. When is it more effective to replace/retrofit versus provide significant maintenance to a facility? 13. Quantify the habitat and other benefits and reduced O&M provided by mature vegetation in stormwater ponds. Are we still getting the pollutant removal? What are the tradeoffs?

3. Select type of project being proposed *

- [ ] Survey
- [ ] Literature Review & Synthesis
- [x] Environmental Sampling Study
- [ ] Other

4. 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

This proposed study will collect water quality, capacity, and maintenance cost information of a derelict stormwater facility pond before and after maintenance is performed. One stormwater pond facility has been identified in the City of Marysville. The facility is privately owned but the City has an easement. Water quality samples will be taken from the inlet and outlet structures. The pond will be fully surveyed to assess the current capacity. Modeling of the current condition will be conducted to determine if the pond meets flow control standards from the 2014 Stormwater Management Manual for Western Washington. An assessment of evapotranspiration from existing trees or flow monitoring could be attempted to determine how the trees may be adding to the flow control capacity of the facility.

Then the facility will be maintained by removing all vegetation and mucking the pond back to the original design capacity. The facility will be surveyed again to reevaluate the capacity. Modeling will be repeated. Water quality sampling will also be repeated. The water quality data, cost of maintenance, capacity measurements and modeling will be used to assess the trade-offs of maintaining derelict stormwater pond facilities. Additional facilities may be added to the study, if the study parameters can be met.

This study will help Permittees plan facility retrofit strategies by assessing the effectiveness of current maintenance standards as they relate to old and overgrown stormwater facilities. This study will inform Ecology maintenance standard decisions and retrofit guidance.

5. What type 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

Water quality, topographic survey and cost information will be collected for this project. Existing information is not expected to be needed from other permittee's.

6. 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? *

Measurable outcomes: Before and after water quality sampling data. Before and after flow control modeling. Cost of maintenance for this facility.

Deliverable: Project drainage report with before and after flow control modeling, assessment of water quality measures. Analysis of the cost of maintenance versus alternative retrofit strategies. This project will begin to compile a list of considerations that are needed to develop retrofit strategies for similar facilities.

These items will be used by Permittees during the development and implementation of retrofit projects. The Washington State Department of Ecology can use this information to give guidance on retrofit projects and strategies for old facility rehabilitation.

7. Permittees or agencies you are proposing to coordinate with (provide staff names and contact information, if known) *

Enter "NA" if not applicable.

NA