

Regional Stormwater Monitoring Program Lessons Learned

INTRODUCTION

- In the process of overseeing the creation and launch of the Regional Stormwater Monitoring Program (RSMP) the Stormwater Work Group (SWG) has observed many things that have worked well and a number of things that have not worked well. In making these observations the SWG has some ideas as to how to implement the RSMP more efficiently and effectively. This is a living document intended to capture the current lessons learned.

OVERALL RSMP OVERSIGHT AND IMPLEMENTATION

- Keeping the technical details of the RSMP outside of the municipal stormwater National Pollutant Discharge Elimination System (NPDES) permit requirements and overseen by the SWG stakeholders provides necessary flexibility to adapt the monitoring to new information and circumstances.
- The Pooled Resources Oversight Committee (PRO-Committee) serves a key role in ensuring that SWG recommendations are followed. The PRO-Committee in turn makes recommendations back to the SWG for better RSMP implementation over the long term.
- The PRO-Committee must meet more frequently during program launch when most contracting decisions are made and scopes of work are finalized.

FOR RSMP STATUS AND TRENDS MONITORING, PERMIT SPECIAL CONDITION S8.B

- Identify/assign a technical project manager for each monitoring component and include this task in the budget.
- Do not underestimate the level of effort required to confirm field sites.
- There are errors in the “master sample” for generating the list of sites. Consider using data from other sources.
- When using multiple agencies’ field crews and labs to implement a probabilistic sampling design, foresee adjustments to each agency’s level of effort (and amendments to contracts) to accommodate site list changes.
- Think about and prepare for data management in advance.
- Start working on analysis and reporting as soon as possible. Prepare for these activities in the Quality Assurance Project Plan (QAPP) for each monitoring component.

FOR THE RSMP EFFECTIVENESS STUDIES, PERMIT SPECIAL CONDITION S8.C

- Identify a liaison for each study to help the RSMP Coordinator review and approve deliverables and communicate the progress, findings, and any concerns about the project to the SWG. For studies with a Technical Advisory Committee one member is selected to serve in this role, or it could be shared.
- Better defined and closer to final scopes and cost estimates, perhaps including a buffer of about 10%, are needed before the SWG recommends projects for funding. This will avoid cost overruns resulting in unfunded approved projects that are farther down the list.
- To keep costs from increasing avoid asking project proponents to answer additional questions or to improve proposed approaches. In situations where it is better to spend additional funds to get more usable information, identify that by doing better, more comprehensive review early in the selection process.
- Complex sites/studies with unique BMP series or other characteristics might not provide regionally relevant results. We are at the beginning of creating a base of new data and information on urban settings.
- Consider splitting more projects into phased pieces for study design (QAPP development) followed by implementation.
- Consider starting with a smaller number of projects, perhaps focusing on a single stormwater management program component or theme for each round of proposals.
- Streamline the process of selecting studies to reduce the level of up-front investment by project proponents.
- Technical review should occur earlier in the process, prior to SWG selection of projects.
- Continue to survey permittees on their priorities and interests for these studies.

FOR THE SOURCE IDENTIFICATION INFORMATION REPOSITORY (SIDIR), PERMIT SPECIAL CONDITION S8.D

- The two sides of this “repository” (*Methods/Approaches* and *Results/Findings*) might be best split into distinct efforts for both budgeting and communication purposes.
- Permit-specified content for the IDDE tracking requirement might ease compilation and analysis of those data.

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REVIEW AND APPROVAL OF RSMP DELIVERABLES

- For review and approval of QAPPs and content deliverables the PRO-Committee will rely on the technical subgroup for status and trends and SIDIR, and a “liaison” for each effectiveness study. These groups and people serve an objective, informed, third party review role in addition to the RSMP Coordinator and Ecology’s engineers. The subgroups’ chairs (or other spokespersons) and study liaisons communicate the progress and any concerns to the SWG.

ADMINISTRATION OF THE POOLED FUNDS ACCOUNT

- Prepare internal agency fiscal personnel and managers for the overall effort and non-standard approach.
- The NPDES permit can serve as a contractual arrangement for obligating funds.
- Permittees like the invoicing system and the quarterly budget and progress reports.

FOR MONITORING CONDUCTED BY PERMITTEES CHOOSING NOT TO PARTICIPATE IN THE RSMP

- Details of the receiving water monitoring requirements need to be clearly defined within the permits.
- Because the RSMP is flexible and the permit-defined “opt-out” monitoring is not, there cannot be a perfect match.
- The same data collection methods in both QAPPs result in comparable “opt-out” and RSMP data.
- Only a small portion of the locally intensified “opt-out” data can be used in the probabilistic regional analysis.
- For effectiveness studies, the Phase I permittees choosing to both participate in the RSMP and conduct their own study are contributing to the broad base of knowledge for improving stormwater management practices.
- Oversight of permittee-conducted monitoring and analysis is resource intensive for Ecology.
- Ecology or “opt-out” permittees, not the RSMP, should plan and pay for additional analysis of the data.