

Advancing Stormwater Science, Technology, and Management in Minnesota

2018 Request for Proposals

The Water Resources Center (WRC) at the University of Minnesota, in cooperation with the Minnesota Stormwater Research Council (MSRC), is pleased to invite proposals to advance stormwater science, technology, and management in Minnesota. The major source of support for projects funded through this Request for Proposals (RFP) is an appropriation from the Clean Water Fund, with the following legislated purpose:

“...a performance evaluation and technology transfer program for storm water best management practices to enhance data and information management of storm water best management practices; evaluate best management performance and effectiveness to support meeting total maximum daily loads; develop standards and incorporate state-of-the-art guidance using minimal impact design standards as the model; and implement a knowledge and technology transfer system across local government, industry, and regulatory sectors.” (Minnesota Minnesota Session Laws 2017. Chapter 91, article 2, section 10 (b))

Additional funds to support projects may be provided by the Minnesota Stormwater Research Council (MSRC), an independent organization of stormwater professionals, practitioners, managers, engineers, researchers and others. The Council’s goals include the following:

- Facilitate the completion of needed applied research that enables more informed decisions about the use, management and protection of our water resources in urbanized areas.
- Periodically assess the status of research, identify consensus research priorities, and communicate these to Minnesota’s public and private research agencies and organizations.
- Promote coordination of research goals, objectives and funding among the research agencies and organizations.

More information about the MSRC can be found online at www.wrc.umn.edu/msrc

Eligibility and requirements

Although this funding program is administered by the Water Resources Center at the University of Minnesota, eligibility is *not* limited to University of Minnesota employees. Researchers and educators from any academic institution, government agency, non-profit organization, or private entity are eligible to apply. Staff affiliated with organizations that have contributed funds to the MSRC may submit research proposals; contributing funds to the MSRC does not make an organization ineligible. Projects must address stormwater management needs in Minnesota.

Grant recipients will enter into a contract with the WRC. Recipients will be announced via WRC communication channels including the WRC website, newsletters, social media, and news releases.

Progress reports, final reports, and other project deliverables also will be posted on the WRC website. In addition, in approximately June 2019, each funded team will be asked to present their project at a meeting of stormwater practitioners, managers, researchers, and educators.

Program Priorities

Proposals are sought in two tracks with distinct project requirements and desired outcomes. Proposals must specify the track to which their submission will be considered. Priorities in both tracks were informed by the development of the Stormwater Research Roadmap and discussions with the MSRC.

Track 1: Applied Rapid-Response Projects

These projects will address topics of immediate need, quickly transferring cutting-edge research results to stormwater practitioners and managers. Applied rapid-response projects may include synthesis of existing research conducted in Minnesota or elsewhere, a focused extension of an existing study, or original research component with data collection on a short time frame. Outputs from these projects are expected to include reports, presentations, training materials, fact sheets, or other media. Outputs should be targeted to stormwater practitioners or integrated into technical design guides including the Minnesota Stormwater Manual and other technical and policy guidance documents as appropriate. Peer-reviewed publications may result from these projects but are not necessarily expected.

Project duration: 12-14 months with project completion by December 31, 2019.

Budget range: \$15,000 - \$75,000

Expected number of funded projects: 4-6

Priority topics: Projects must address one or more of the following priorities.

- Stormwater reuse including research on suitability of practice application, characterization of the water within systems, treatment options and effectiveness analysis for cost, pollution, and volume reduction.
- Chloride use and effectiveness, deicing alternatives, and advances in application that could include research on changing applicator behaviors.
- Development of or evaluation of stormwater practices and technologies including temporary, permanent, and pre-treatment BMPs for new development and retrofit applications.

Track 2: Integrated Projects

Projects in this track will integrate original research with professional education and technology transfer. Research would address one or more of the priority issues areas that are larger in scale and require more time to fully address. Research outputs may include, but are not limited to, datasets, research protocols, models, and scientific publications. Integrated projects could include researchers from multiple disciplines. These projects require a professional education and technology transfer component with specific activities to transfer the science or technology to the relevant groups of practitioners and managers in Minnesota.

Project teams should include Extension educators or others with the appropriate expertise to develop and execute education and technology transfer activities. Outputs from these activities may include, but are not limited to, webinars and other educational materials, stand-alone course modules, training curricula, and changes to technical design guides including the Minnesota Stormwater Manual and other technical and policy guidance documents as appropriate.

Project duration: Up to 21 months (Projects must conclude by June 30, 2020).

Budget range: \$50,000 - \$300,000

Expected number of funded projects: 4-6

Priority topics: Projects must address one or more of the following research needs (A-G).

Urban watersheds:

- A. Improve the characterization of stormwater runoff and watersheds and evaluate the effectiveness of management techniques.
- B. Inform how we may more effectively reduce pollutants at their source.

Practices and technologies:

- C. Improve performance and reduce maintenance on structural temporary, permanent, and pre-treatment BMPs.
- D. Determine the cost efficiency of stormwater practices.
- E. Develop new and innovative stormwater management practices and to better understand the suite of emerging practices.

Human dimensions:

- F. How education, outreach and training strategies and methods are linked to behavior changes and how those are linked to changes in water quality and stormwater runoff management.
- G. Evaluate and improve stormwater management policies.

Application instructions

Proposals are due by 5pm CDT on Monday, September 10, 2018. To submit a proposal, create a single combined pdf document with all the elements in the list below, and send it as an attachment to msrc@umn.edu. The file name should begin with the last name of the principal contact. Either in the body of the email or in a separate attachment, include a list of up to four reviewers who do not have conflicts of interest with proposal team and are qualified to assess the research and education activities in your proposed project. For each reviewer, please include contact information and, if available, a link to a webpage profiling the reviewer's background.

A complete proposal includes the following elements:

- **Cover page** (1 page). The cover page must include the following elements:
 - Project title
 - Project type (Track 1 or Track 2)

- Name, affiliation, and contact information for all team members. Identify the team member who will be the Project Lead (primary point of contact)
- Project summary (up to 250 words) describing the need, procedures, and expected outcomes of the project to a general audience. This summary will be posted on the WRC website if the project is funded.
- **Project Description** (up to 5 pages, excluding references). This description will be the primary focus of reviewers evaluating each proposal. It should include the following elements.
 - Background and rationale. Explain the problem you are addressing and how it responds to the priorities in this RFP. Clearly identify the value of the proposed work to stormwater practitioners. Also relate your project to previous work and, for integrated projects, explain how it will make a new contribution to the existing knowledge base.
 - Objectives. Clearly identify the objectives of the project.
 - Procedures. Clearly explain how you will achieve the objectives, identifying tasks with enough detail for reviewers familiar with the nature of your work to understand and assess the scientific merit. Integrated projects must include an education or technology transfer plan in this section.
 - Timeline and Deliverables. Identify the timeframe of each major activity, including the nature and timing of project outputs. For all projects, one output must be a final report written for stormwater practitioners and managers. Project teams will also be expected to make at least one presentation about their project at a forum for stormwater stakeholders and professionals in approximately June 2019.
 - Roles and responsibilities. Identify the roles of each project team member in relation to project tasks and outputs.
- **References cited** (no page limit).
- **Assurances** (1 page). Include assurance that you are using good research practices, as appropriate for your project. This will likely include quality assurance and quality control (QA/QC) and data management plans. If you are using a lab to test items, indicate that the lab you are using is certified (for whatever standards are appropriate to your work) and/or documentation or statement regarding how any instruments that are used have a calibration or maintenance schedule; a plan that includes blanks and duplicates for certain types of samples, or at least some knowledge of the variability inherent in their sampling and evidence that they will collect sufficient samples to deal with this variability. A data management plan would specify how data are checked and backed up routinely so that they can't be lost in a computer hard drive failure or simply by losing a lab notebook, etc.
- **Budget.** Use template provided at <http://z.umn.edu/MSRCrfpBudget>. Indirect costs are not an allowable expense for this program.
- **Budget justification.** Provide a budget narrative describing the expenses, and connecting each expense to specific activities and objectives. Matching funds are not required but indicate if you have the opportunity to leverage other funds.

- **Team qualifications** (up to 2 pages per team member). Include a biosketch or abbreviated curriculum vitae for each team member, highlighting professional experience and qualifications related to the proposed work.

Note to investigators from the University of Minnesota: Proposals should not be submitted through Sponsored Projects Administration (SPA). Grants will be awarded using internal account transfers. We recommend, however, that proposers notify their unit head(s) and finance professionals about their proposal prior to submission.

Review and award process

Proposals will be reviewed by peer scientists and other stormwater experts. Submitted projects and external reviews will be discussed by representatives from the WRC and MSRC. Up to \$1.2 million of the Clean Water Fund appropriation is available to support projects for all priorities in both tracks. Additionally, the MSRC may allocate its pooled funds from local units of government to sponsor additional projects that will support its mission and goals. The choice of funding source for awarded projects is at the discretion of the WRC and MSRC, not the proposer. Projects selected will be required to enter into a contract with the WRC and will need to submit a one page summary of the project and expected projected outcomes prior to receiving any funds. These summaries will be released to communicate the scope and value of the program to the public.

Evaluation criteria

Proposals will be evaluated for the following:

- **Relevance:** Do the research and deliverables address an identified priority information need? Do the objectives have high value to local stormwater managers? Does the work avoid duplicating previous efforts?
- **Scientific merit:** What is the quality of the research and education plan? Are the objectives and activities clearly explained? Will proposed activities achieve objectives? Will the research activities result in a significant advance in knowledge? Will the education and technology lead to changes in learning or actions for an identified audience?
- **Capacity:** Do the personnel and institutions have the capacity and expertise to effectively complete proposed work? Are the budget and timeframe realistic and reasonable for completing activities and objectives?
- **Collaborations and demonstrated support:** Does the proposal build collaboration across the research and implementation communities and build on other research or funding? Are appropriate partners identified?

Timeline

- RFP released July 2018
- Proposals due by 5pm CST on Monday, September 10, 2018
- Review decision announced in November 2018
- Funds awarded no later than December 31, 2018
- Award recipients will be required to enter into a contract with the Water Resources Center.
- Rapid response projects must be completed by and all funds expended by December 31, 2019.
- Integrated projects must be completed by and all funds expended by June 30, 2020.

Contacts

For questions about the submission process or the suitability of a proposed topic, please send an email to msrc@umn.edu. Your inquiry will be directed to the appropriate representative from the WRC or the Council that can best address it.

Alternatively, you may contact one of the following by phone:

Jeff Peterson 612-624-9282

Joel Larson 612-624-3738

John Bilotta 612-624-7708



Minnesota Stormwater Research Council

