Advancing science, technology and management of stormwater in Minnesota by investing in and facilitating research to prevent, minimize, and mitigate the impacts of runoff from the built environment.
Stormwater Research Program (SWRP)

This program advances research that informs urban stormwater management to prevent, minimize, and mitigate the effects of runoff from the built environment. Through Extension education and technology transfer, the SWRP also disseminates information to professionals, policy leaders, managers in industry, and at all levels of government.

**COMPLETED PROJECTS 2019 - 2020**

- Establishing a Geodata Standard for Stormwater Infrastructure
- Effectiveness of Sump Manholes for Pretreatment Particulate Removal
- Capture of Gross Solids and Sediment by Pretreatment Practices for Bioretention
- Temporal Dynamics of Pathogens and Antibiotic Resistance in Raw and Treated Stormwater
- Determining Which Iron Materials in Iron-Enhanced Sand Filters Remove Phosphorus from Stormwater Runoff

**PROJECTS UNDERWAY**

- Detecting Phosphorus Release from Stormwater Ponds to Guide Management and Design
- Identifying Sources of Contaminants in Urban Stormwater and Evaluation of Their Removal Efficacy Across a Continuum of Urban Best Management Practices
- Developing a Street Sweeping Credit for Stormwater Phosphorus Source Reduction
- Pond Treatment with Spent Lime to Control Phosphorous Release from Sediments
- Inspiring Community Action for Stormwater Management
- Biofiltration Media Optimization

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NEW PROJECT INVESTMENTS 2020 - 2022

- Understanding Solids Loading in Minnesota Stormwater
- Biofiltration Media Optimization - Phase II: Multi-Year Performance, Impacts of Road Salt, and Optimized Organic Ratio
- Leveraging Minnesota’s Stormwater Data for Improved Modeling and Management of Water Quality in Cities
- Evaluation of Microbial and Chemical Contaminant Removals in Different Stormwater Reuse Systems
  - Equipping Municipalities with Climate Change Data to Inform Stormwater Management
- Field Evaluation of Stormwater Best Management Practices to Characterize the Comprehensive Contaminant Removal Performance of Biochar-Augmented Filter Media
- Pollutant Removal and Maintenance Assessment of Underground Filtration Systems
  - Monitoring Methods for Prioritization and Assessment of Stormwater Practices
Forward in 2020

- Request $1.5M of continued funding from the Minnesota Clean Water Fund
- Solicit program support funds from watersheds, cities, and businesses
- Appoint new Minnesota Stormwater Research Council Advisory Board Members for 2021-2023
- Hire a new stormwater Extension Educator to advance efforts in technology transfer

The future of stormwater pond research

- There are more than 30,000 stormwater ponds across Minnesota
- The proliferation of this practice requires investigating how they can be designed to be more effective, discovering maintenance needs, and optimize methods for management.
- The Council and Center has established a dedicated pool of resources to address research on ponds

MINNESOTA STORMWATER SEMINAR SERIES

wrc.umn.edu/projects/stormwater/swseminars

Monthly seminars with national and international experts

Feature presentations and local panel discussions available online for anytime viewing

15+ seminars in 2019-2020 drawing more than 1,500 participants

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For more information about the program, Council and stormwater projects, please visit:
wrc.umn.edu/projects/stormwater