Minnesota Stormwater Research Council
and
Minnesota Stormwater Research Program

2019 - 2020 HIGHLIGHTS

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.

MINNESOTA STORMWATER RESEARCH COUNCIL (MSRC) - The Council supports the research program by facilitating relevant, applied stormwater research and supports education and transfer technology. The Council is composed of professionals, practitioners, managers, engineers, and researchers who advise and provide direction for urban stormwater research in Minnesota. The Council's Advisory Board assists with the Water Resources Center and all stakeholders by setting research priorities, acquiring funds to support research and choosing projects.

wrc.umn.edu/stormwater

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

to be completed in 2020

- 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

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

wrc.umn.edu/projects/stormwater

State contribution of

$1.5M

CLEAN WATER LAND & LEGACY AMENDMENT

2019 pooled funds from

- Capitol Region Watershed District
- Mississippi Water Management Organization
- Ramsey Washington Metro Watershed District
- South Washington Watershed District
- Valley Branch Watershed District
- City of Edina
- City of Woodbury
- City of Minnetonka
- City of Bloomington
- Comfort Lake-Forest Lake Watershed District
- Nine Mile Creek Watershed District
- BARR Engineering
- Wenck Associates
- Minnesota Cities Stormwater Coalition

Total contribution

$115K

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

Water Resources Center
University of Minnesota
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MINNESOTA STORMWATER SEMINAR SERIES

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