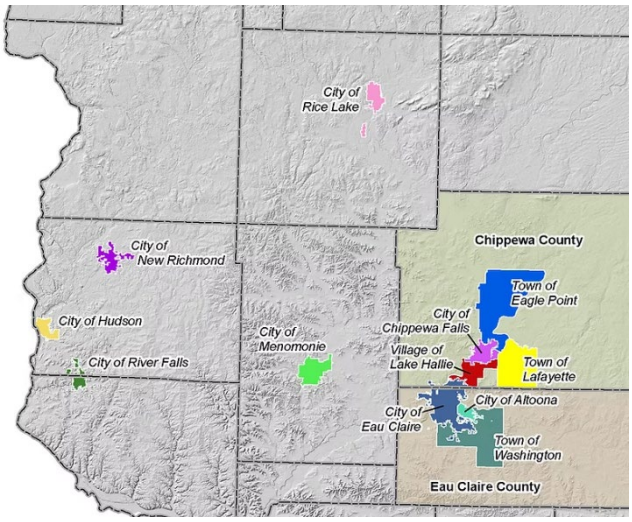
What's Going On Across The State?

Wisconsin Municipal Separate Storm Sewer System (MS4) Permittees

Quarterly Fall Edition November 2025

Rain to Rivers Secures Xcel Energy Grant for Citizen Science Chloride Testing



Rain to Rivers (R2R) of Western Wisconsin is a storm water consortium of 14 municipalities in Western Wisconsin dedicated to storm water education and outreach.

R2R was recently awarded a $4,000 grant from the Xcel Energy Natural Resource Fund to support a new Citizen Science Chloride Testing Project in Western Wisconsin, aimed at improving water quality in the Lower Chippewa River Basin.

The project consists of three phases:

1. **Planning and Recruitment:** R2R is currently identifying testing locations and recruiting volunteers, including youth and adult groups, to participate in this hands-on "Citizen Science" initiative. Engaging local residents is key to raising awareness about the environmental impact of chlorides using a collaborative and participatory approach.

2. **Data Collection:** Starting in January 2026, volunteers will use chloride test strips, similar to those used by the Izaac Walton League, to measure chloride levels in local waterways. Testing will occur in Winter, Spring, and Summer 2026 to track seasonal variations. Test results will be stored online and shared on a project website using a cloud-based platform for data sharing, collaboration, and community engagement (ArcGIS Hub).

3. **Analysis and Outreach**: R2R will analyze the collected data and share findings with volunteers, stakeholders, and local governments to promote informed action on water quality.

The project officially launches in January 2026. Stay tuned for updates and details at www.raintorivers.org as the initiative progresses and the project website is established.

1000-year flood in Southeast Wisconsin

In August 2025, torrential downpours in southeastern Wisconsin caused devastating flash flooding.

In any landscape, this size event will cause damage and can leave people feeling helpless. Educating the public about best management practices (BMPs) empowers everyone to do what they can to help mitigate the impacts of flooding.

Education may include keeping stormwater drains clear of debris to ensure runoff drains properly off the roads (such as the adopt a drain program) or outreach to private stormwater BMP owners (e.g., ponds, infiltration basins) on the importance of inspecting and maintaining the BMP so inlet and outlet structures do not back up and cause flooding.

Winter is Coming: Are construction sites in your community ready for winter?

Everyone knows Wisconsin has four seasons: Winter, spring, summer, and fall. However, us Wisconsinites know there are plenty more seasons in-between. After winter comes fool's spring, then a second winter, followed by another false spring, then a third winter. When you think winter is finally over and spring is on the way, mud season starts.
Ideally, all constructions sites are to be seeded with fall or winter seed mixes and covered with erosion matting for winter shutdown. However, with more frequent freeze-thaw cycles becoming commonplace for Wisconsin winters, construction sites are also operating year-round. Continued construction, in combination with changing weather patterns and increased winter rain, can quickly result in wet, muddy, and erosive conditions that are challenging to correct when there isn't summer heat to help dry soggy areas.
As a result, it's important that MS4 Permittees communicate with construction site operators in their community to ensure they have an adequate plan for winter. It is recommended to start communicating with sites early in the fall (i.e., right now) to ensure seeding happens in the appropriate timeframe or sites have the appropriate erosion control materials to get them through the winter.

Below are two winter-specific site management strategies. However, if your community has more strategies, tips and tricks, or stories of hard lessons learned, please let your local storm water staff know so we may share with others.

1) Full winter shutdown- Seeding and stabilizing the site completely, in accordance with DNR Techincal Standards. If properly done, all other BMPs can be removed and re-installed prior to work starting again in the spring.

2) Minimized work area- for sites that will continue work, defining priority work areas and avoiding 'riskier' practices such as large-scale grading and stockpiling can help the site be successful in the winter. Note: these sites should seed and stabilize all erodible areas outside of these footprints. All other BMPs must remain and be repaired regularly.

Wisconsin Salt Wise 2025 Smart Salting Workshops

Wisconsin Salt Wise offers a wide range of free training for winter maintenance professionals who remove snow, apply road salt or maintain snow removal equipment. Learn how using the right amount of salt can save time, budget and our waters. Theses trainings cover a wide range of topics such as best management practices to keep paved areas safe, guidance on determining the right amount of salt to use, the benefits of liquids and case studies from local applicators. Visit the Wisconsin Salt Wise Workshop website for upcoming training opportunities!

MS4 Map: Identifying Storm Water Outfalls

The MS4 permit requires MS4 Permittees to maintain their MS4 maps, which require the identification of all MS4 outfalls. A storm water outfall is the point where collected storm water from a conveyance system (i.e., curb and gutter or swales/ditches) is discharged. In other words, a storm water outfall is the terminal point for a storm sewer system. When a storm sewer system terminates at a body of water, the outfall location is clear. However, since storm sewer systems do not always terminate at a body of water, outfall locations may not be as obvious. Below are a few examples to consider when mapping storm water outfalls:

Storm Water Best Management Practices (BMPs)**: For storm sewer systems that discharge into a storm water BMP (e.g., wet pond), the location of the outfall can vary.

- If the storm water BMP is municipally owned (i.e., publicly owned) or operated (i.e., privately owned BMPs where the MS4 permittee has maintenance authority, such as through a maintenance agreement or easement agreement, etc.), the storm water outfall is located at the outlet structure of the BMP. This is because the BMP collects runoff from the storm sewer system and eventually conveys storm water to waters of the state.
- In a situation where the MS4 permittee does not have maintenance authority on a privately owned storm water BMP, the outfall location would be located at the inlet structure of the storm water BMP as this is where the MS4 permittee's storm sewer

system terminates. However, mapping the outfall from privately owned BMPs is recommended so actual discharge location to a water of the state is known.

**** Note**: More information on BMP outfalls pertaining to the illicit discharge detection and elimination (IDDE) program's dry weather field screenings will be provided in a future newsletter.

Interconnected Outfalls: If Municipality A's storm sewer system directly discharges to Municipality B's storm sewer system, the point of interconnection is considered an outfall for Municipality A.

Swale Conveyances: Roadways with swale conveyance systems typically have up to four points of discharge at bridge or culvert waterway crossings. Each location where a swale discharges to a waterway is considered a separate outfall.

Village of Thiensville: Pigeon Creek Restoration and Access Improvements

The Pigeon Creek Restoration Project Area includes a 0.50-mile segment of the waterway located less than one mile from the Milwaukee River confluence. The degraded habitat and water quality in this section of the Creek is reflective of the loss of fish and invertebrate habitat, increased fish passage barriers, low dissolved oxygen levels, and increased temperatures found within the project area. Sources of these problems include channelization, sedimentation, low flow, and urban runoff. As a result, severe sediment buildup and channel debris is blocking flow, trapping debris, and exacerbating surface flooding of adjacent roads, posing a threat to human health and safety.

However, previous floodplain modeling and hydrologic studies completed by the Village indicated this section of Pigeon Creek has great potential to provide vital floodplain improvements as well as important spawning and nursery habitat for fish species. The Pigeon Creek Restoration project will restore three acres of the creek and riparian zone. Restoration and access improvements will include:

1) Debris removal and morphological restoration of 2,120 linear feet of stream.
2) Two acres of floodplain and wetland habitat restoration.
3) Stabilization of 2,000 linear feet of degraded streambanks.
4) Improved open space amenities including a picnic area, and multiple stream overlooks.

These improvements will collectively restore form, function, native habitat, and floodplain connectivity to Pigeon Creek, which will help solve the drainage and flooding concerns in local streets and neighborhoods.

Additional improvements will provide increased access and recreational opportunities to riparian areas along the stream for the community. Planning and design for the project began in 2023 with community outreach, a feasibility study and coordination with project partners. Field surveys, planning, engineering design, and modeling for the project was completed in 2024. Construction began in September 2025 and is anticipated to be completed by April 2026. This work will help the Village achieve the goal to improve the urban biodiversity of the creek and riparian habitat and enhance access and recreational opportunities for community members in the Village. The Village thanks its following project partners Southeastern Wisconsin Regional Planning Commission, Fund for Lake Michigan, Wisconsin Costal Management Program, Wisconsin DNR, Great Lakes Sediment and Nutrient Reduction Program, Great Lakes Commission, National Fish and Wildlife Foundation, and RES.

City of Wauwatosa's Storm Water Solutions in Firefly Grove Park

Some might associate Firefly Grove Park with Mama Rosa (the giant troll art sculpture), the looping pump track, or the whimsical living willow hut. But for those who look closer, the park also tells another story - one about water and sustainability. The City's newest park, located at 1900 N. 116th Street, is centered around storm water best management practices (BMPs).

Prior to the 1970's, this area was a landfill. After it was filled, it was just long grass up to your knees with water that wasn't optimal for runoff.

After a major transformation, the park now features three major storm water best management practices (BMPs): an engineered wetland, a biofiltration basin, and porous pavement walkways. Together, these systems capture, store, and filter nearly 580,000 gallons of storm water before it flows into the existing wetlands nestled along the park's east side.

The engineered wetland alone holds more than 218,000 gallons using native plants and soils to slow and treat the water.

The biofiltration basin provides another 205,000 gallons of storage, allowing storm water to soak naturally into the ground. Porous pavement paths add over 155,000 gallons of storage by letting rain filter through slowly rather than run off hard surfaces.
The City leveraged local partnerships to ensure that every storm water element was fully funded through Fresh Coast Green Communities and the MMSD Green Solutions Funding program. These storm water features help protect the neighborhood from flooding, improve water quality, and revitalize a once-overlooked property.

Upcoming Dates, Reminders And Events

New Publication: USGS Study – The Role of Street Cleaning on the Water Quality Performance of a Stormwater Treatment Pond in Madison, WI.
The U.S. Geological Survey, in cooperation with the Wisconsin Department of Natural Resources and the City of Madison, evaluated how street cleaning frequency influences the pollutant removal efficiency of a stormwater treatment pond in Madison, Wisconsin (2020–2024). Samples were analyzed for nutrients, sediment, and chloride under a weekly and monthly street cleaning scenario.

Call for Proposals: Clean Rivers, Clean Lakes Conference February 10th, 2026
The 2026 Clean Rivers, Clean Lakes conference is accepting proposals for presentation topics related to flooding, leveraging relationships and collaborations with non profits, schools, colleges, and the public sector, large water users (e.g., industrial, data centers, etc.), stormwater regulation, and stormwater Best Management Practices (BMP) maintenance. Deadline to apply is November 12th, 2025.

University of Minnesota Iron-Enhanced Storm Filter (IESF) Presentation
This seminar includes a keynote presentation by John Gulliver, Professor Emeritus in the Department of Civil, Environmental and Geo- engineering (UMN), performing his research at the St. Anthony Falls Laboratory. His keynote talk is titled, "Performance and Maintenance of Sand Filters Amended to Retain Phosphate". For more information on Dr. John Gulliver's research on IESFs, please visit the full project overview and publication on Dr. Gulliver's Website.

University of Wisconsin Steven's Point Chloride Dashboard Tool
An interactive map of Wisconsin which provides chloride levels of Wisconsin's public water systems. Click on an individual well in the interactive map on the left to view detailed information on the most recent chloride sample from that well. Remember, naturally occurring salt (chloride) levels are between 0-10mg/L throughout most of the state.

Missed the 2025 Wisconsin Storm Water Week Webinars? Recordings are now available!
Wisconsin Storm Water Week events and webinars occurred from September 20-28th, 2025. Recordings are now available on the WI Land & Water website for those who may have missed it. For more information on Wisconsin Storm Water Week, please visit www.wistormwater.com.

Want To Be Featured In The MS4 Winter Edition?

We want to hear about your municipality's success stories and practices.
Please reach out to Wisconsin DNR staff with stories to include in upcoming editions:

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