



Waterways

City of Madison Engineering Division • Annual Stormwater and Sewer Utilities Newsletter

cityofmadison.com/engineering/stormwater

FALL, 2026

From Study to Solution: Greenway Project Marks First Major Watershed Milestone

Mendota Grassman Greenway Flood Mitigation Project marks the first major project to be completed as a product of the City's major flood mitigation efforts through its Watershed Study Program. The concept to improve the Mendota Grassman Greenway came from one of the City's first watershed studies. During the studies, Engineers review the existing stormwater system to determine the causes of flooding and then develop projects to reduce the risk of flooding.

The City began the Watershed Study program in 2019 after the large and intense rain events in 2016, 2017 and 2018 that caused significant flooding on the west side of Madison. The studies developed flood models that identified existing flood risk and the best combination of conceptual flood solutions to reach flood mitigation targets watershed wide. A key flood mitigation target is to prevent the flooding of homes and businesses in the 1 percent annual chance storm (6.7 inches in 24 hours). More than nine homes were found to be at risk of flooding in a 1 percent annual chance around the Mendota Grassman Greenway, which is on the west side of Madison between Old Middleton Road and Lake Mendota near Baker Ave.

From 2021 to 2024, the City, in partnership with MSA (an engineering consulting firm the City works with), completed the detailed design, public outreach, and constructed the Mendota Grassman Greenway Flood Mitigation and Restoration project. It significantly improved stormwater conveyance by lowering and widening the greenway, creating a low-flow rock-lined channel and vegetated floodplain, and upsizing the stormwater pipes under University Ave and Camelot Drive. Flood depths were reduced by over two feet. Homes are no longer at risk of flooding in the 1 percent-chance storm.

Prior to the flood mitigation project, there was low herbaceous vegetation diversity and many invasive plants, including burdock and garlic mustard. The canopy, composed primarily of oaks and hickories, was transitioning to faster growing native or invasive tree species with little oak or hickory regeneration. The flood mitigation project restored the greenway to native species that complement the flood mitigation work. The native plants included in the restoration are adapted to wet conditions and have deep roots that hold the soil in place and help infiltrate stormwater. Additionally, many oak and hickory trees were replanted. Oak trees are a critical keystone species that provide an enormous contribution to food webs, as many moths, butterflies, and insects depend on oaks to lay their eggs. Retaining this keystone species is crucial to support local wildlife. The restoration boosted biodiversity and improved habitat and soil health.

The Mendota Grassman Greenway is a great example of how the City is becoming more climate resilient with stormwater infrastructure and restoration working together.



A Letter from Your City Engineer, Jim Wolfe

As our world continues to grow more knowledgeable and interested about stormwater infrastructure, our Division also continues to learn and try new ways to address basic infrastructure needs, while also more broadly benefiting our community. The City of Madison Engineering Division is consistently working on ways to help educate about the work we do and what it means to make a resilient stormwater system that works well for us in the City of Madison. In this edition of Waterways, you won't have to go further than this front page before you see one of the first major products of our intense, detailed, and thorough Watershed Study Program (cover page). Inside, you'll learn on Page 2 how to take part in the City's new grant program to encourage and assist residents who are voluntarily building a rain garden on private property. Don't miss the article (p. 2) to learn about forebays and one was improved when the City dredged out 400 dump trucks worth of sediment to improve water quality to Stricker's Pond. We're particularly proud of our work with some impressive sixth graders at O'Keefe Middle School on Page 3, and be sure to brush up on your brine knowledge ahead of winter in our collaboration with Wisconsin SaltWise (backpage). Work continues with each season, and every moment we're grateful to serve a community so engaged and involved. Please continue to stay connected with us online through webpages, virtually through construction project meetings, and through phone calls and emails when you have questions. We're proud to do this important work and to serve the City of Madison.

- Jim Wolfe

Webinars, Resources and More Set for 2026 WI Stormwater Week

Join us for the fourth annual Wisconsin Stormwater Week! WI Stormwater Week is a collaborative effort of organizations throughout the state that work to raise awareness about the sources of stormwater pollution. Wisconsin Governor Tony Evers signed a proclamation establishing Sept. 19 – 27, as the 2026 WI Stormwater Week.

This year, we have a statewide Call to Action for WI residents so check with your local municipality or an organization to get involved with an Adopt-a-Storm Drain Program. It's easy and fun!

Are you interested in being a supporting partner? Register as a WI Stormwater Week partner by visiting the website: wistormwater.com

The week-long effort includes free educational webinars for Wisconsin residents and homeowners. These webinars provide backyard stormwater pollution prevention practices and regional resources for residents to get involved.

- » 6-7 p.m., Sept. 22, Webinar Topic: Whose Pond is it Anyway?
- » 6-6:45 p.m., Sept. 23, Webinar Topic: Only Rain Down the Drain!
- » 6-7 p.m., Sept. 24, Webinar Topic: Infiltration: We're Not Talking Coffee!

Register for a webinar by visiting: wistormwater.com/webinars-topics

WI Stormwater Week is the same week as National Stormwater Awareness Week! National Stormwater Week has free educational webinars throughout the week, check them out here: stormwaterawareness.org

Get up to \$500 Reimbursed with New Private Rain Garden Grant Program

The City of Madison has a new program to encourage and assist residents who are voluntarily building a rain garden on private property. Rain gardens are a special type of garden that is designed to hold water for a short time and give it a chance to soak into the ground. The program reimburses Madison residents for eligible expenses, provided that the rain garden meets a few design criteria. The maximum reimbursement amount is \$500 per property, and the garden must treat at least 600 square feet of roof, sidewalk or driveway for the full reimbursement amount. If it is not possible to direct 600 square feet of hard surface toward the rain garden, the city uses a sliding scale to calculate the reimbursement amount. The gardens can be relatively small compared to the area draining to them, but the maximum benefits are achieved when there is roughly five square feet of hard surface draining to one square foot of rain garden. If you are unsure how to design a rain garden, there are great resources at ripple-effects.com/rain-gardens. Additionally, Ripple Effects hosts an annual rain garden workshop in late winter. Dane County residents can book a 30-minute meeting with a rain garden expert to go through their plan for a small, reimbursable fee. The workshop is planned to line up with the PlantDane native plant sale (Ripple-Effects.com), so participants can purchase plants for their rain garden at a discount. The City has limited funds dedicated to the rain garden reimbursement program. The projects will be reimbursed on a first come first serve basis. If an eligible project completes the reimbursement process, but the annual budget has been exhausted, the project will be reimbursed the next year. The reimbursement program is only for newly constructed rain gardens. So, if you built one in the past, you'll have to build a second (or third!) rain garden to participate. If you are required to build the rain garden to meet ordinance requirements, you are not eligible for the reimbursement program. Interested residents should check out the City of Madison Rain Garden webpage cityofmadison.com/engineering/stormwater/programs-initiatives/rain-gardens. There you will find a private rain garden reimbursement guide and a spreadsheet to help estimate the potential reimbursement and find all the necessary resources in one location. If you have any questions, please contact Phil Gaebler pgaebler@cityofmadison.com

Big Upgrade for Small Forebay Near Stricker's Pond

The Pheasant Branch Enhancement reconstruction began in 2025 to maximize the ponds, greenways, and culverts in the Old Sauk Trails Business Park to mitigate future flooding with the funding assistance of a FEMA Building Resilient Infrastructure and Communities (BRIC) grant. The project also creates a multi-use path on the east side of the pond from Excelsior to Deming Way with a spur to Fourier Drive. The project will be completed in 2026.



The project will decrease the flood elevation around the pond by 4.5 ft and mitigate the flooding of many buildings during the 1% annual chance storm. Prior to this project, the City contracted with an ecological firm to relocate herptiles (frogs and turtles) from the ponds and greenways to avoid impacts during the construction. The pond and greenway system will be revegetated with native wildflowers, grasses, trees and shrubs which will improve the functionality of the stormwater system, increase biodiversity and provide wildlife habitat.

Most people are champion flushers. It only takes one person flushing wipes to create a clog that affects an entire neighborhood. This is an example from the Madison Metropolitan Sewerage District of how wipes clog sewer pipes.

Every wipe belongs in the trash—even those labeled “flushable.”



O’Keefe Sixth Graders Team Up with City Engineering for Successful Rain Gardens

In the fall of 2023, the science teachers at Georgia O’Keefe Middle School reached out to the Engineering Division to add a rain garden to the school. A quick meeting with Engineering staff mapped out the potential locations and gained approval from the principal and maintenance staff. In spring of 2024, an application to Dane County’s “Free Plants for Schools and Community Projects”

lwr.danecounty.gov/grants-and-costshare/free-plants, was submitted and a request for plant donations via Plant Dane was placed for the 2025 plant sale.

Near the end of the 2025 school year, City of Madison Stormwater Engineer, Phil Gaebler, met with the school to assist with the layout and construction of the rain garden. The sixth grade science classes turned over sod, built a berm, and shaped the 20 ft. by 10-ft. garden. They made sure the bottom was flat and that it would hold 6 inches of water depth.

Next was planting day. The students planted based on how much water the plants need. Wet-loving plants went in the bottom, and the dry-adapted plants went on the top of the berm and on the slope down to the sidewalk. Many hands made quick work. Over 350 plants were placed in the garden in one day. The plants were watered, and, the following day, a layer of mulch was added to help keep down the weeds and hold in moisture.

The garden had an impressive first season. By fall, it was in full bloom and had proved that it could fill with rainwater and drain completely in less than two hours. We even found a monarch hatching from its chrysalis. In 2026, the school expanded the rain garden and added a second standalone garden. Together, the rain gardens treat the runoff from over 5,000 square feet of roof, add habitat for pollinators, and were a hands-on learning experience for the sixth-grade class.

If you work at a school and are interested in adding a rain garden, please reach out to Phil Gaebler pgaebler@cityofmadison.com

Reduced or eliminated economic impacts that will help keep businesses undamaged, which will allow them to remain open to the public and employees.



Learn About Lake Quality, LakeForecast Gives Yahara Lake Conditions

By Clean Lakes Alliance

Whether you’re planning to swim, launch a kayak, or simply enjoy a day by the water, Clean Lakes Alliance’s LakeForecast water quality monitoring program helps you stay informed about current conditions on the Yahara lakes. Clean Lakes Alliance uses their network of more than 100 dedicated citizen scientists to monitor water quality conditions at over 80 locations across the Yahara chain of lakes, including every public beach. Volunteers collect observations on water clarity, algae, and overall lake conditions, providing valuable, real-time information for the community. Residents can visit lakeforecast.org to view the latest condition reports.

Water quality can change quickly due to wind direction, rainfall, and temperature. By sharing the latest condition reports, LakeForecast gives residents a better understanding of what they’re seeing at their favorite beach while highlighting the important role everyone plays in protecting our lakes.

The program also demonstrates the power of community science. Every observation submitted by a volunteer contributes to a growing record of lake conditions throughout the summer, helping identify patterns, support public awareness, and complement ongoing water quality monitoring efforts throughout the watershed. Most importantly, LakeForecast brings people together around a shared commitment to clean, healthy lakes. To learn more, visit lakeforecast.org or cleanlakesalliance.org.

Salt Brine for the WIN!

Salt brine is a key tool for municipalities and private contractors working to reduce winter salt use while maintaining safe winter roads and pavement surfaces. Excess road salt damages vehicles, roads, bridges, buildings, and freshwater resources. In fact, it's estimated that one ton of rock salt causes **\$3,000 in damage** to our built infrastructure. The good news is that salt brine is enabling **30–60%** reductions in total salt use.

So, what is salt brine? Salt brine is simply a mixture of salt (sodium chloride) and water. Despite a common misconception, salt brine is **no more corrosive** than the granular rock salt it's made from. Like rock salt, brine is most effective at temps above 15F. The trade-off for more melting at even colder temps, is a more expensive and, typically, more corrosive product whether in liquid or granular form.

Salt brine can be used in several ways. Applied **before** a winter storm, it creates a barrier that prevents snow and ice from bonding to the pavement surface, making plowing more effective. It can also be used to **pre-wet rock salt**, reducing the amount of salt that bounces off the road or sidewalk, and speeding up the melting process. Finally, some contractors make a **liquids-only application** after plowing. Liquid salt brine works faster than a granular product because the salt is already in solution so melting begins immediately. Imagine a future without the leftover crunch and salt tracks through buildings – with brine, that future is now!



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Check Your Mailbox!

The City sends postcards with details about Public Information Meetings (PIMS) when construction is planned in your neighborhood.

Explore Project Pages Online

Visit cityofmadison.com/engineering/projects to find:

- Meeting dates
- Project design
- Schedule
- Contacts
- Recordings of virtual meetings



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Watershed Study Progress by the Numbers

20 Watershed Studies, includes 24 distinct watersheds

14 completed studies

60 sq. mi. of areas with completed existing conditions flash flood mapping (includes areas outside of city, excludes UW)

60 sq. mi. of city in active studies (includes areas outside of city)

93.4 miles of pipe



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