

MS4 Annual Report

Board of Public Works

Phil Gaebler - City of Madison Engineering Department

3/11/2025

Report Overview

- ▶ Minimal Control Measures
- ▶ Fiscal Analysis
- ▶ Progress

Minimal Control Measures - Each Required a Written Program

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Pollutant Control
5. Post-Construction Storm Water Management
6. Pollution Prevention - SWPPPS Required
7. Storm Sewer System Map
8. TMDL Progress and Plan

1. Public Education and Outreach

- ▶ Waterways Newsletter
 - ▶ Street Flooding Map
 - ▶ Leave the Leaves
 - ▶ Pheasant Branch Enhancement
 - ▶ Water Softeners Blending Valves
- ▶ Ripple-Effects
 - ▶ <https://www.ripple-effects.com/>
 - ▶ Storm Drain Murals - 3 completed
 - ▶ Capital High school, Huegel Elementary, Crestwood Elementary
 - ▶ Plant Dane
 - ▶ Native Plant Workshops
- ▶ Everyday Engineering Podcast
 - ▶ 2 Episodes in 2025
- ▶ Conference Presentations
 - ▶ Land and Water - Alum Project
 - ▶ ASCE- Leaf Management
 - ▶ ASCE- GI Incentives in Madison



Crestwood Elementary School (Madison)

This storm drain mural was designed by artist Sonya Sankaran using input and drawings from students at...



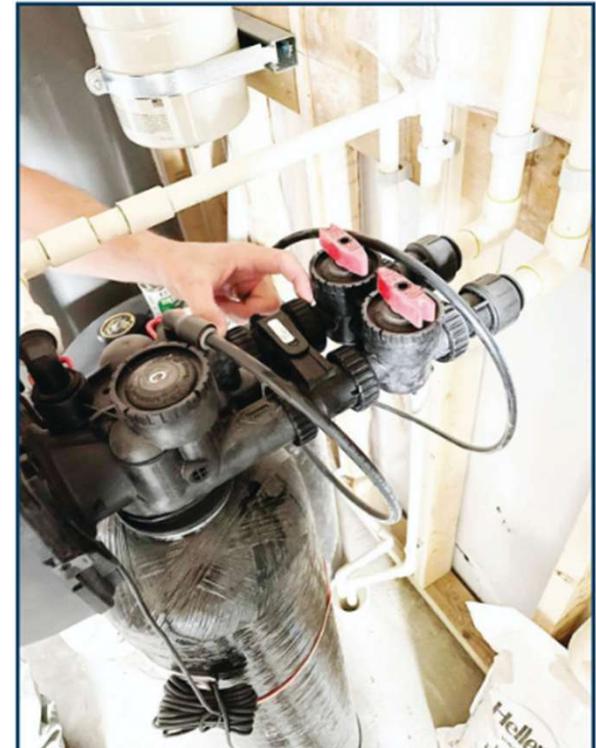
Huegel Elementary School (Madison)

This storm drain mural was designed by artist Sonya Sankaran using input and drawings from students at Huege...



Capital High School (Madison)

This storm drain mural was designed by artist Sonya Sankaran with input and drawings from Outdoors We Lear...



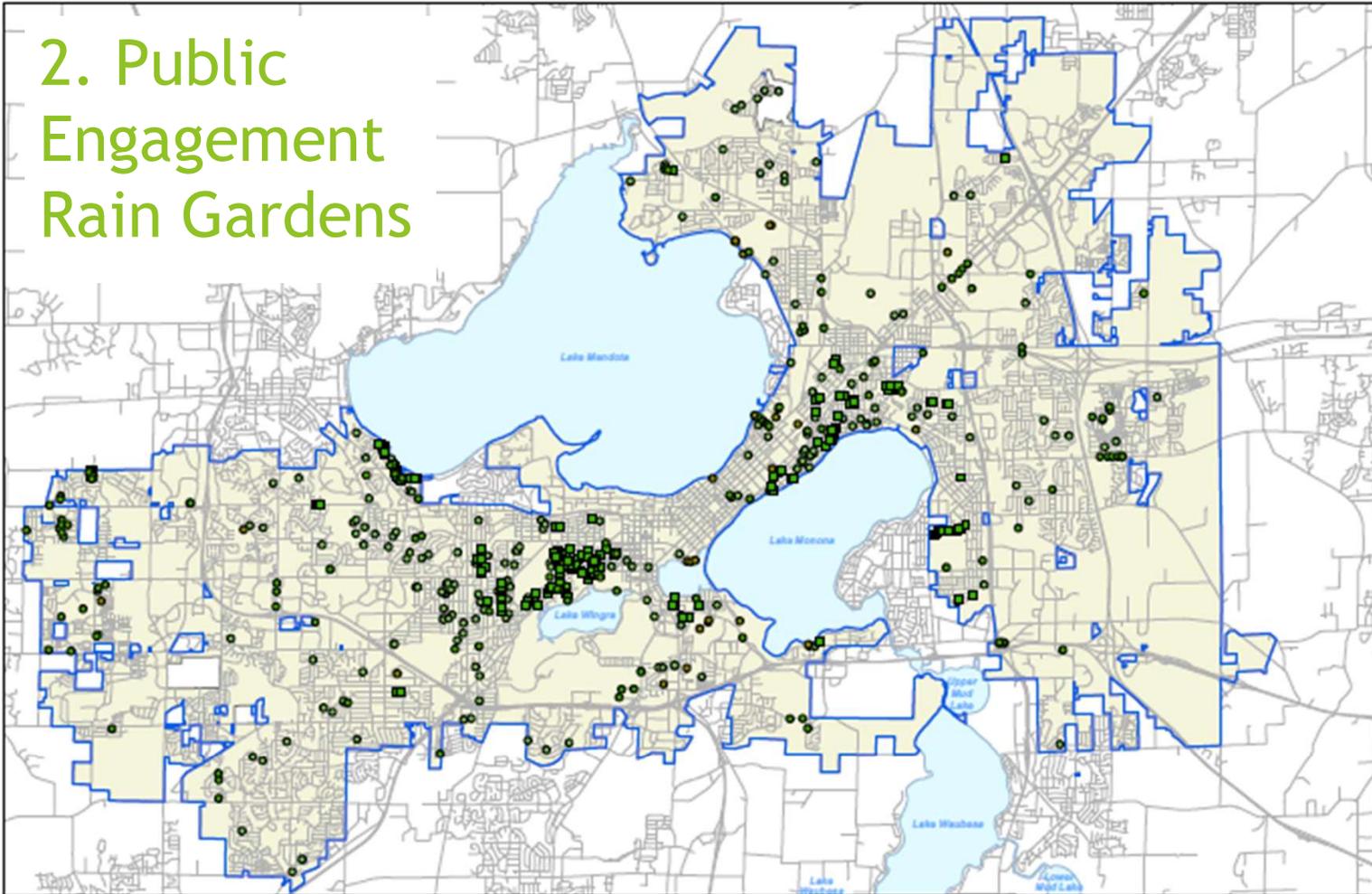
A blending valve is a small component added to the back of a water softener, which allows greater control over home water quality, and environmental benefits.

2. Public Involvement

- ▶ SWU fee Adjustment policy
 - ▶ \$5 for terrace rain garden residents
- ▶ Public Information meetings
 - ▶ Watershed studies
 - ▶ Reconstruction Projects
- ▶ WRM Tour
- ▶ Wingra Lake Loop
- ▶ Volunteer Native Plant Growers
- ▶ Okeefe Middle School Rain Garden Install



2. Public Engagement Rain Gardens



City Wide Rain Garden Map

Count: 752

Updated 10/09/2025



3. IDDE

- ▶ Illicit Discharge Detection and Elimination
 - ▶ Tests all 590 outfalls on a five year rotation
 - ▶ 100 tested in 2025:
 - ▶ No issues found
 - ▶ Since new inspection cycle (211/590) : 35% done
 - ▶ Inspections looking for water that should go to Madison Metro Sewerage District that goes to Storm Sewer
 - ▶ Cross Connections
 - ▶ Dumping
 - ▶ Concrete
 - ▶ Carpet Cleaners
 - ▶ Painters
 - ▶ Spills



Outfall in dry weather

3. IDDE

- ▶ Illicit Discharge Detection and Elimination
 - ▶ 52 complaints in 2025
 - ▶ Addressed by Public Health
 - ▶ Storm dumping can be reported here:

<https://www.cityofmadison.com/reportaproblem/dischargedumping.cfm>



Concrete washout in curb

4. Construction Site Pollution Control Erosion Control

- ▶ Issued 63 Permits over 1ac for 2025 (62 in 2024)
 - ▶ 963 Self Inspections
 - ▶ ~500 inspections
 - ▶ 39 Citation
- ▶ Green Tier Erosion Control Tour



Framed Inlet Protection

5. Post Construction Stormwater Management

Review and maintenance of Private Stormwater Treatment

- ▶ 10 new facilities added
- ▶ 256 inspection reports filed
 - ▶ County wide effort to improve reporting continuing in 2026
- ▶ Ecological Restoration Contract Now Required for 2 years Post Construction



Vegetation Establishment at Pheasant Branch Enhancement

6. Pollution Prevention Ponds and Greenways

- ▶ **288** Ponds owned and managed by the City
 - ▶ Inspected for sediment depth, bank erosion and clogging
 - ▶ **67** ponds in 2025
 - ▶ Benthic survey or transect survey
- ▶ 130 Ponds Managed by others in our system
- ▶ 1564 catchbasins
 - ▶ **780.39 tons** material removed
- ▶ Completed Green way inspections
 - ▶ **50** greenways in 2025
 - ▶ 14 repairs made



Pheasant Branch Enhancement

6. Pollution Prevention Winter Maintenance

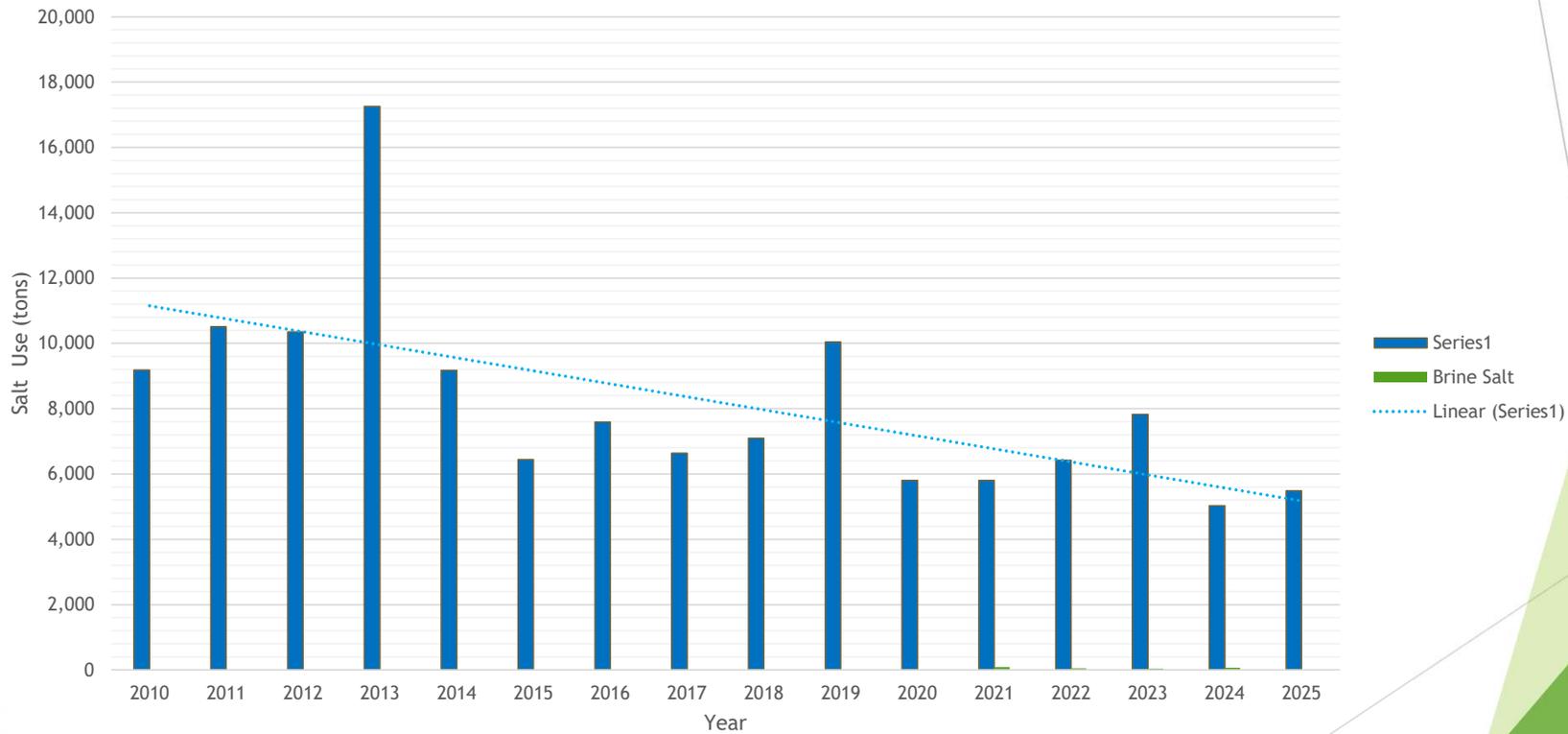
- ▶ Certification program to get public and private applicators educated on ways to effectively reduce de-icing salt.
 - ▶ Co-hosted 3 trainings with Saltwise and 2 in house
- ▶ CARPC led Starkweather Creek Chloride Management Plan- Realtime monitoring of Starkweather Creek
 - ▶ <https://www.capitalarearpc.org/2025-starkweather-creek-data-is-here-what-the-latest-numbers-tell-us/>



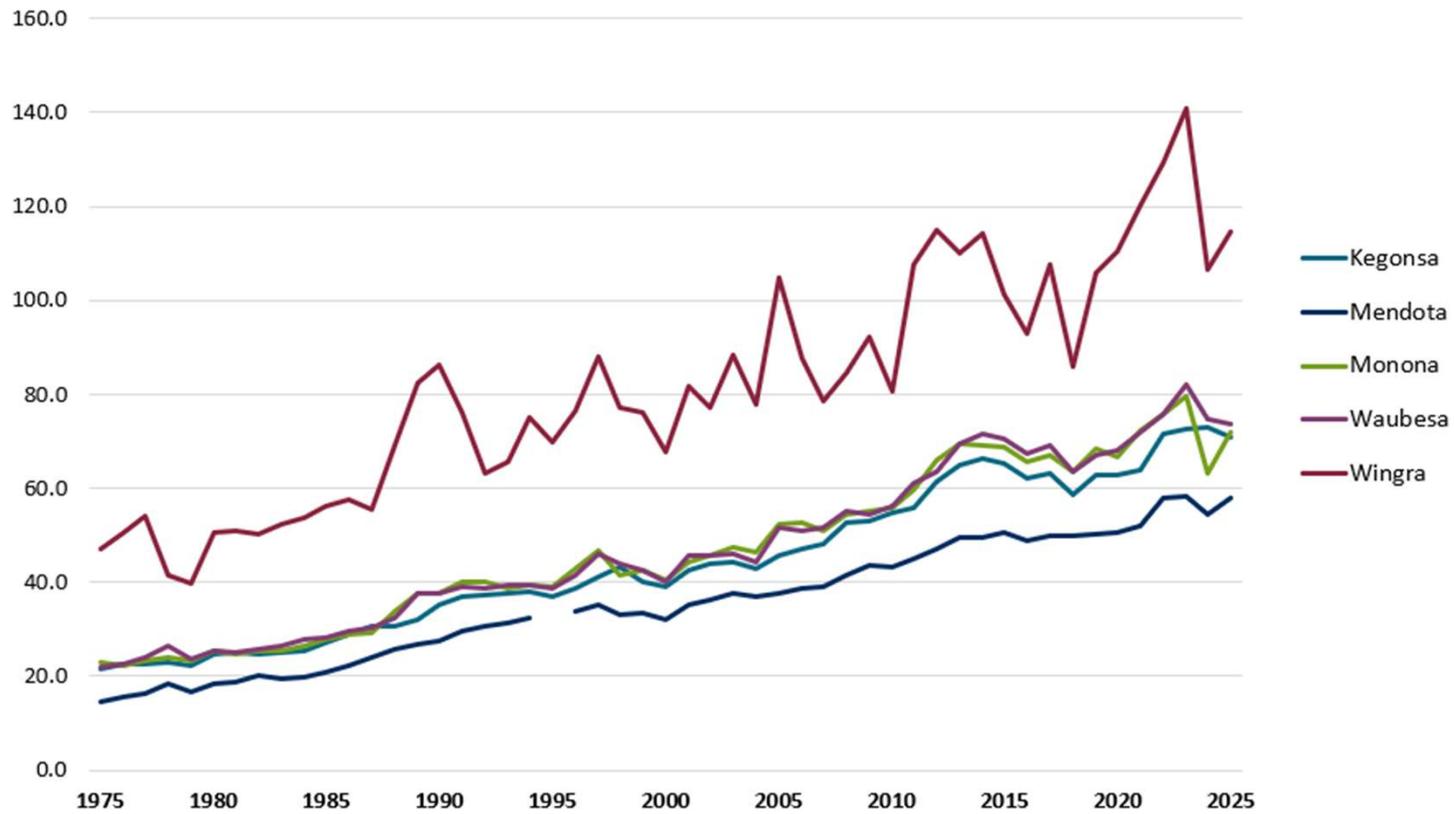
East Branch Data



6. Pollution Prevention Winter Maintenance City Salt Use 2010-2025



Average yearly chloride concentration in Dane County lakes in mg/L, measured by Public Health Madison & Dane County



6. SWPPPS- Stormwater Pollution Prevention Plans



- 9 Sites with SWPPPs
- Olin Transfer Station improvements complete 2025

6. Street Sweeping

- ▶ Clean Streets Clean Lakes Initiative
 - ▶ Weekly Sweeping with Parking Restrictions
 - ▶ 5,257 Tons Collected from 54,641 lane miles. (8% increase from 2024)



6. Leaf and Yard Waste Collection 2025

- ▶ Madison Collected:
 - ▶ 12,177 tons of leaves
 - ▶ 2,538 tons of yard waste in 2025
- ▶ Ordinance prohibiting leaves in Street
 - ▶ 10.18 - COLLECTION OF REFUSE AND RECYCLING OF WASTE.
- ▶ Promotion of leaf removal from street
 - ▶ Text alerts
 - ▶ Working on Leaving whole leaves in yards for 2025. Improved pollinator habitat.

WHY IT MATTERS

Keep Our Lakes Clean

Leaves contain phosphorus and other nutrients. When rain falls on leaves in the street, it makes a nutrient-rich runoff – like a leaf tea – that goes to our lakes. This “leaf tea” causes toxic algae blooms and other problems in our lakes.



Good for Pollinators

Caterpillars, bumblebees, and other beneficial insects like fireflies use leaves kept on our lawns as cover to stay safe throughout the harsh winter months.



Valuable to Your Garden

You can use your leaves as mulch, or you can turn your leaves into compost with the right mix of materials and tools.



Leaf Resources

More information about how to manage your leaves, from composting guides to collection guidelines, can be found on the Streets Division's yard waste website.

Contact Info

Streets Division East
608-246-4532

Streets Division West
608-266-4681

streets@cityofmadison.com
cityofmadison.com/YardWaste



CONQUER YOUR LEAVES



Protect our lakes, help pollinators, and defend your lawn by following this guide.

Stormwater Utility Budget 2025

Stormwater Utility

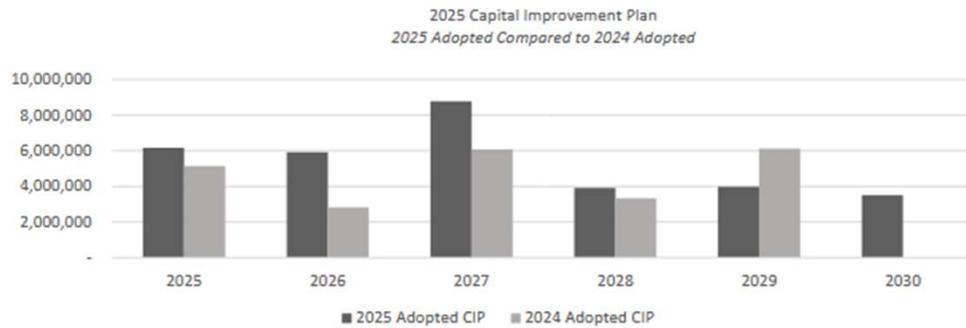
Capital Improvement Plan (CIP) Overview

Budget Phase: Adopted

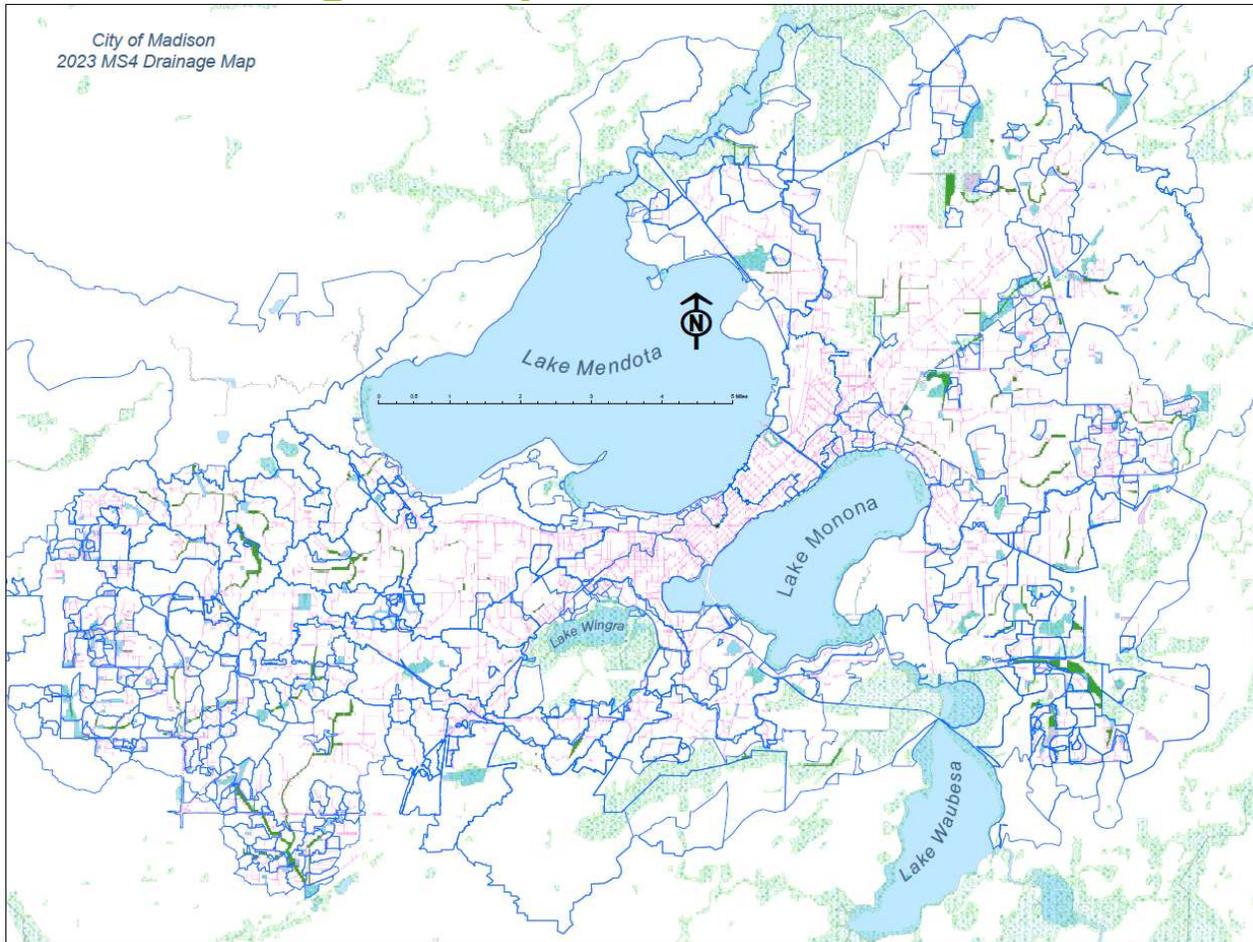
Summary Table

	2025	2026	2027	2028	2029	2030
Citywide Flood Mitigation	2,060,000	4,060,000	2,260,000	1,860,000	1,310,000	1,560,000
Lower Badger Mill Creek Pond at Mineral Point Rd	1,800,000	-	-	-	-	-
Storm Sewer System Improvements	500,000	180,000	180,000	190,000	200,000	210,000
Stormwater Quality System Improvements	1,135,000	1,050,000	1,100,000	1,330,000	1,100,000	1,050,000
Street Cleaning Equipment - Streets	596,000	638,000	824,000	526,000	1,380,000	695,420
Warner Lagoon Dredging	80,000	-	4,420,000	-	-	-
	\$ 6,171,000	\$ 5,928,000	\$ 8,784,000	\$ 3,906,000	\$ 3,990,000	\$ 3,515,420

Changes from 2024 Adopted CIP

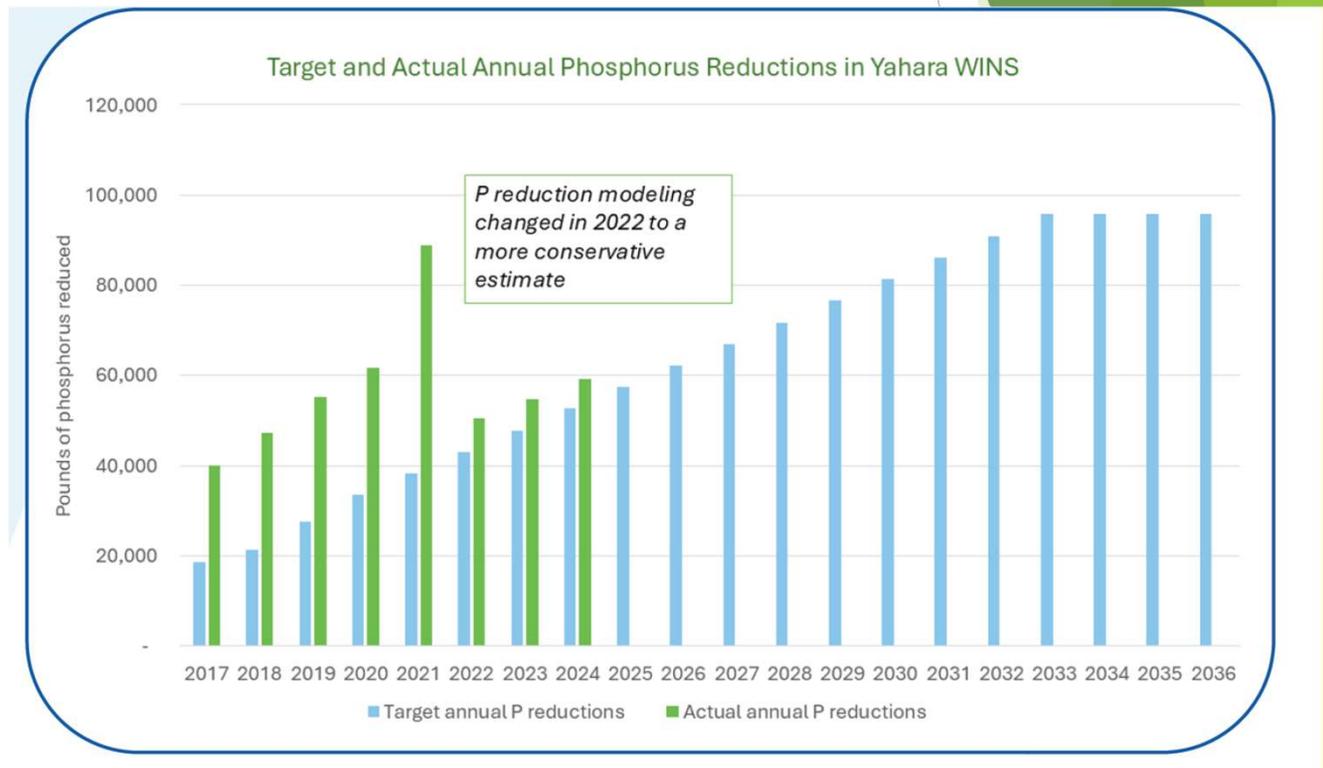


7. Drainage Map



8. Adaptive Management TMDL Compliance

- ▶ Madison Contributed
 - ▶ \$504,394 in 2025
 - ▶ Addresses 10,254 lb of TP .
- ▶ 59,124 lb TP Captured vs 52,648 lb TP Goal for 2024
- ▶ TP \$/lb is lower than initially thought
- ▶ Ultimate Goal 104,000 lb
- ▶ Madison’s MS4 produces 29,839 lb TP a year in the TMDL
- ▶ Madison Currently Captures 7,877 lb annually
 - ▶ Adaptive management covers the 10,254 lb gap.



Going Forward

- ▶ Continue Outreach and Education Efforts
- ▶ Green Infrastructure Pilot
 - ▶ Additional permeable pavement and 12 Rain Gardens 2026 - Meyer Ave
 - ▶ Expanding Reimbursement City-wide
- ▶ Increase Private Stormwater Management Inspection and Reporting -Dane County and Green Tier
- ▶ Improve and Expand Salt Certification - Increase Brine Usage
- ▶ Continue with Erosion Control Inspections and IDDE Education
- ▶ Olin Transfer Station Northeast Drainage Improvements
- ▶ Water Quality Model updates 2026