



MENOMONEE FALLS STORM WATER UTILITY

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VILLAGE OF
Menomonee

Falls

Introductions and Roadmap

■ Introductions

- Steve Wurster, PE & COO
- Ed Maxwell, MBA
- Ryan Kloth, PE

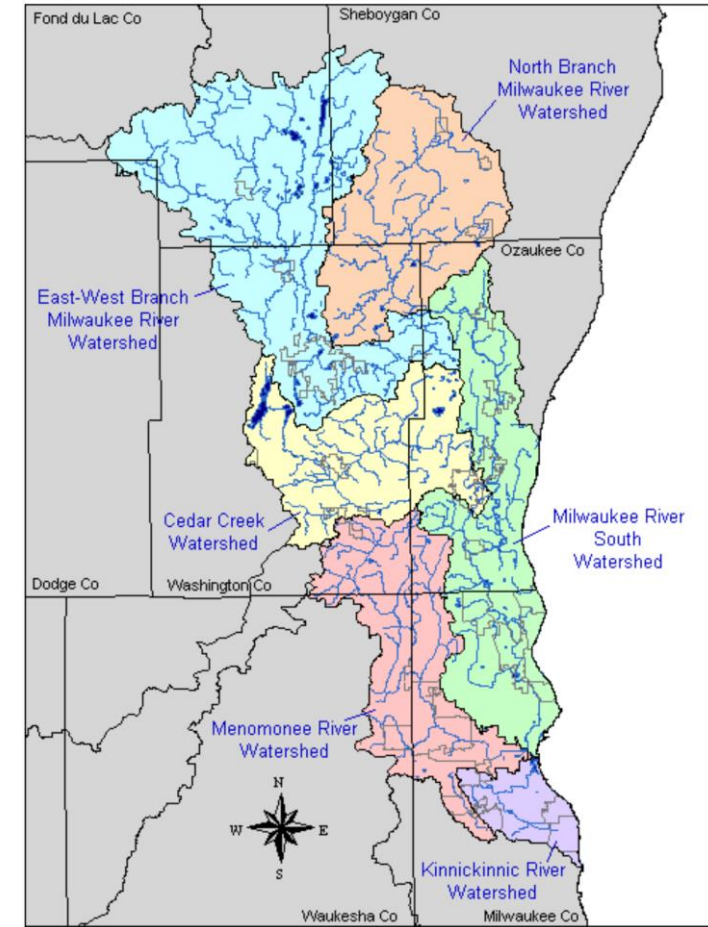
■ Agenda

- The need: regulations, water quality, & flooding
- Storm water utilities: costs and revenues



DNR Storm Water Permit - History

- Federal Clean Water Act = 1972
- Initial DNR Storm Water Permit = 2006
- Menomonee River Watershed Permit = 2012
 - 11 municipal entities
 - Milwaukee (City & County) to Butler
 - Current permit (2020-2025)
- Regulates storm water discharge throughout Village, not just in the Menomonee River watershed
- Individual & shared responsibilities



DNR Storm Water Permit

- 6 Minimum Control Measures
 - Public information & outreach
 - Public involvement
 - Illicit discharge detection & elimination
 - Construction site pollutant control
 - Post-construction pollutant control
 - Pollution prevention
- 20% sediment reduction
- Mapping updates
- Annual report

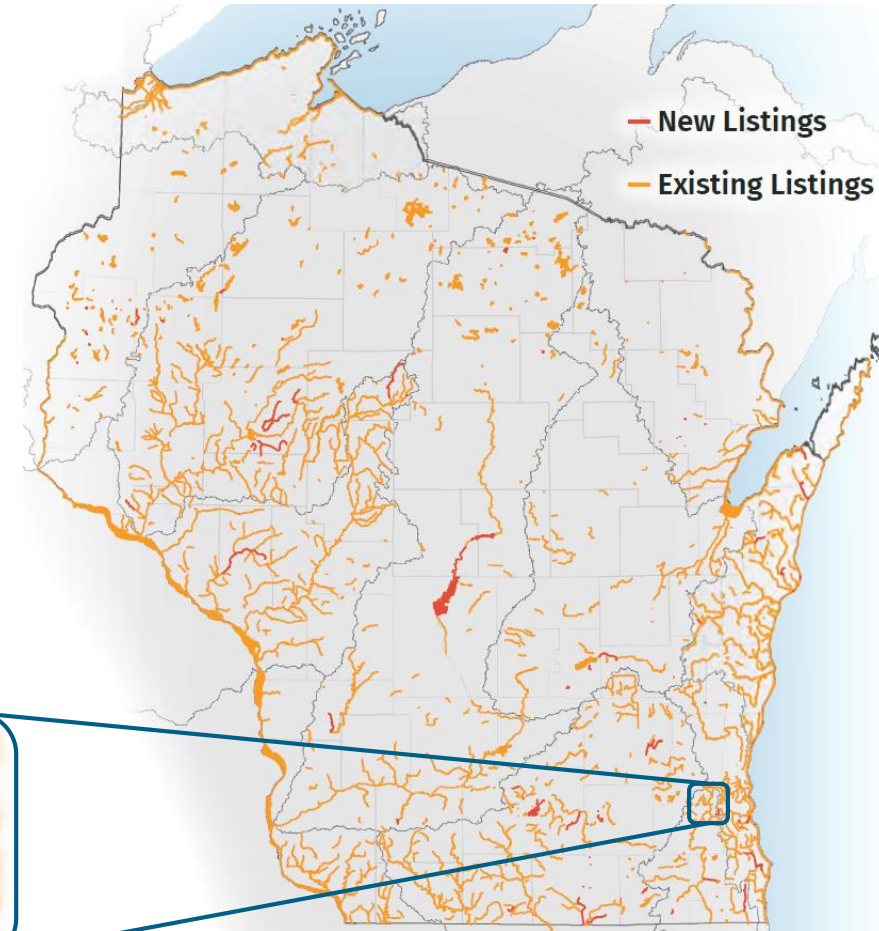


DNR Storm Water Permit Requirements

- Public Education: Survey (9/30/21); prioritized program (9/30/23)
- Illicit Discharge: Ordinance, update program, annual screening (2021)
- Erosion Control: Ordinance, update program, site inspections (4/1/21)
- Post Const.: Ordinance, update program, pond maint. tracking (2021)
- Pollution Prevention: Snow/ice, nutrients, street sweeping, catch basins, leaves/grass, municipal property SWPPP, training (2021)
- Other: Annual catch basins cleaning (2021), update street sweeping & leaf collection program (3/21/22), group public education (9 topics), public involvement, map updates, annual report

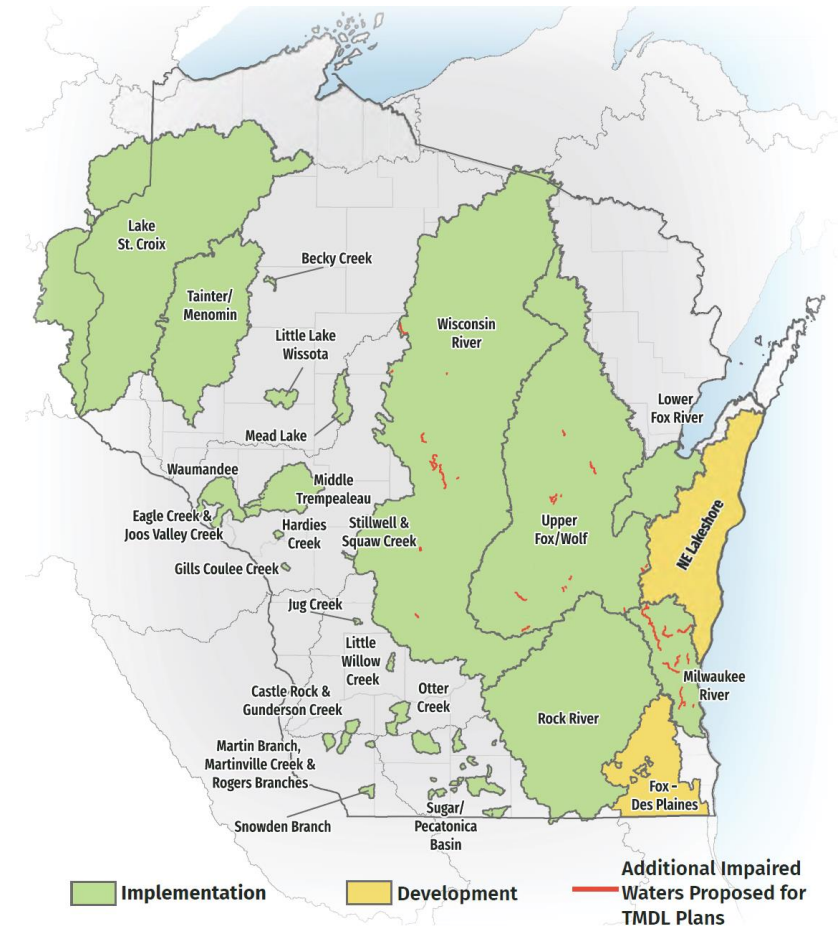
DNR Storm Water Permit

- Impaired waters (1,465 in WI)
- Total Maximum Daily Load (TMDL)
 - Required on impaired waters
 - Establishes a pollution budget to meet EPA & DNR water quality goals
 - Sediment, phosphorus & bacteria limits

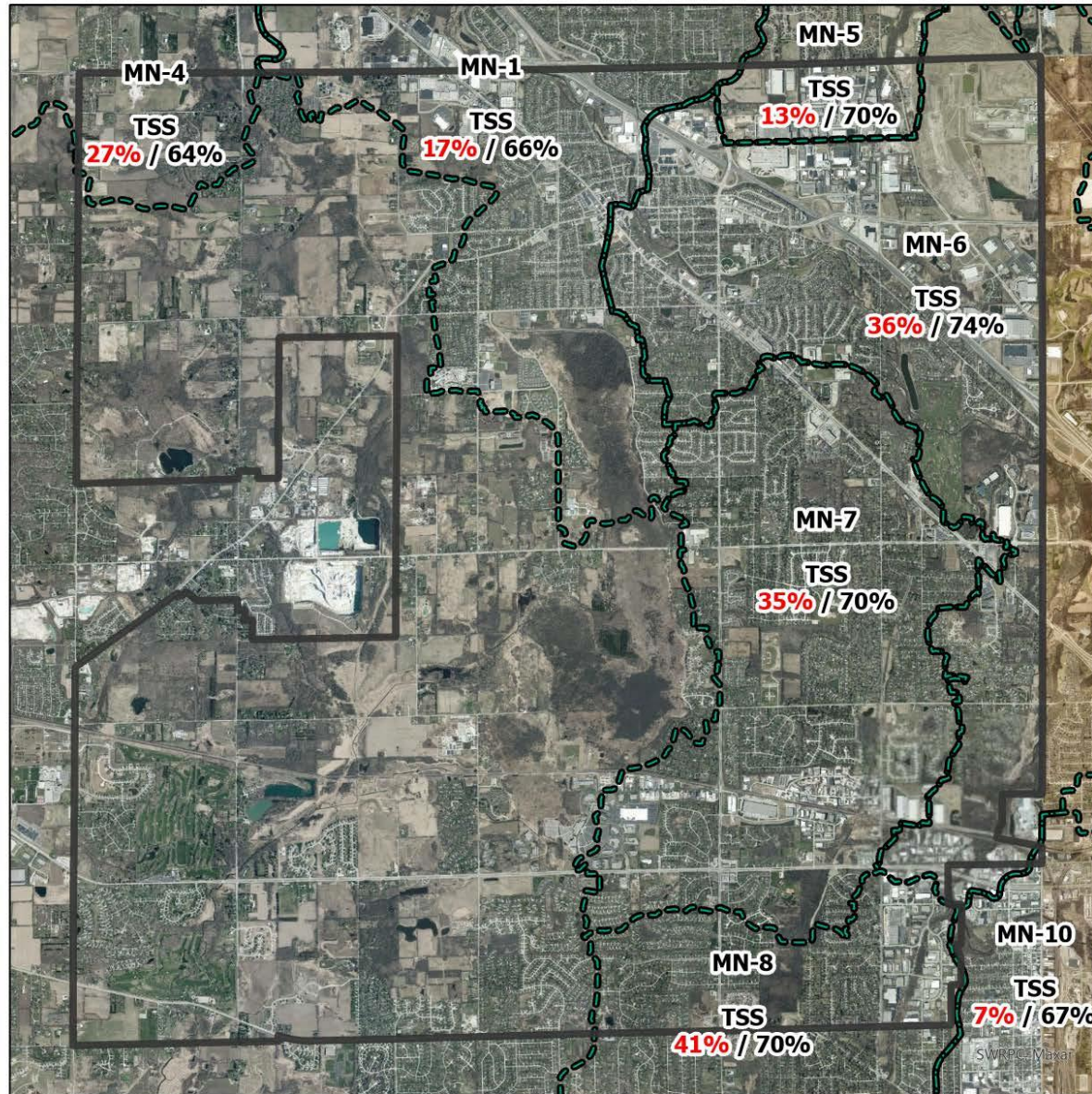


Total Maximum Daily Load (TMDL)

- All impaired waters will be covered by TMDLs
- First TMDL in WI = Rock River (2011)
- Menomonee (MKE) River TMDL (2018)
- TMDL requirements added to Village permit in 2020
 - Goal = Reduction in Sediment, Phosphorus, Bacteria
 - 7 reachsheds in Village



Menomonee Falls Reachsheds: TSS



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Total Suspended Solids (TSS)

Current Conditions
VS
TMDL Requirement

Village of Menomonee Falls
Waukesha County, Wisconsin
April 2023

Legend

- Village Boundary
- TMDL Boundaries

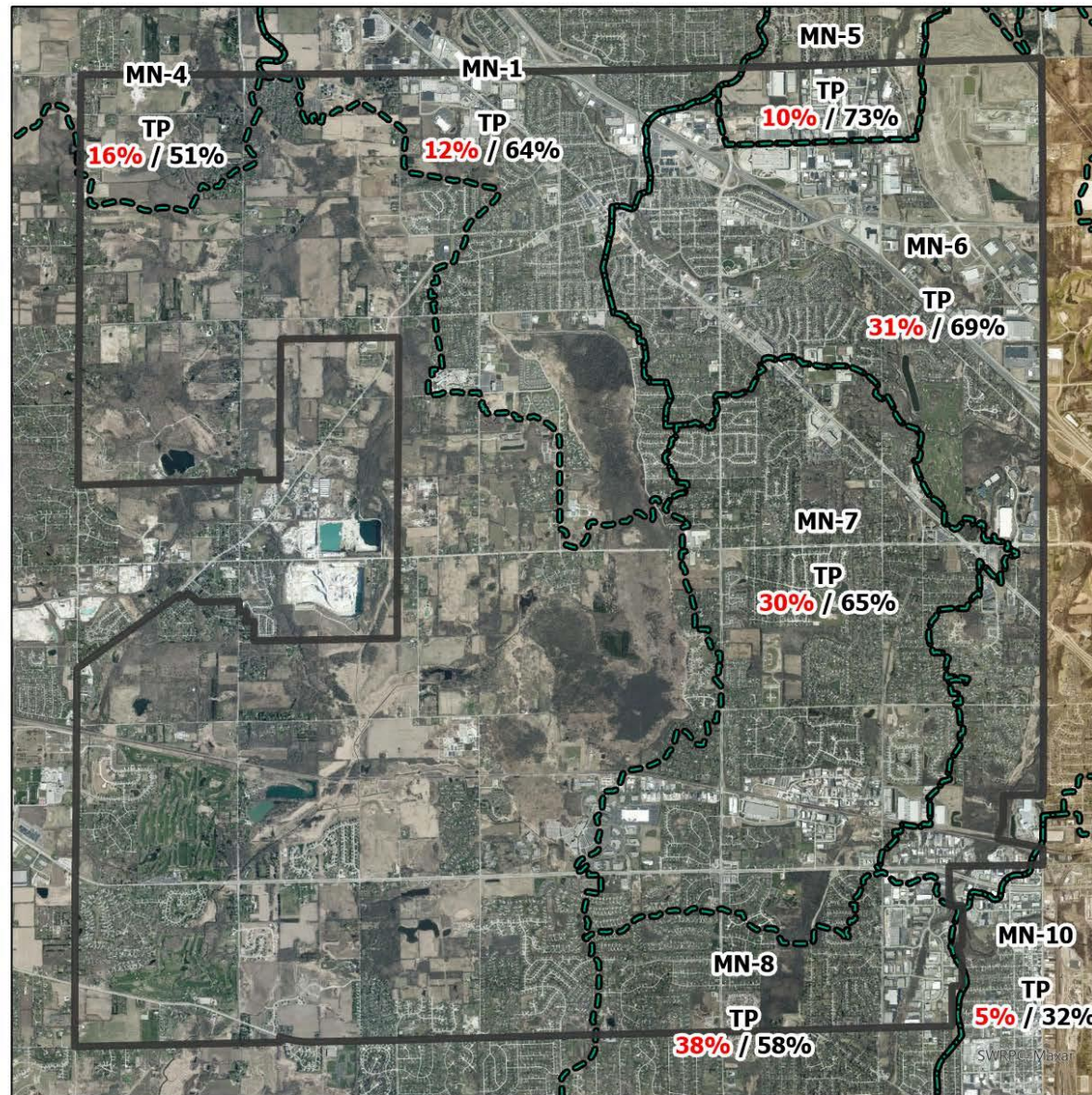


0 0.33 0.65 1.3 Miles

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Menomonee Falls Reachsheds: TP



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Total Phosphorus (TP)

Current Conditions
VS
TMDL Requirement

Village of Menomonee Falls
Waukesha County, Wisconsin
April 2023

Legend

Village Boundary
 TMDL Boundaries



0 0.33 0.65 1.3 Miles

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DNR Storm Water Permit Requirements

– Action Steps

- SWPPP for new public works building (12/31/20)
- Bacteria action limits for IDDE (6/30/21)
- Fecal coliform source inventory (3/31/23)
- Analysis of TSS & P status vs. TMDL goals (3/31/23)
- Fecal coliform elimination plan (9/30/23)
- TMDL compliance plan (9/30/23)
- TMDL benchmarks (9/30/24)
- Complete 3 storm water quantity or quality projects (2025)

What If We Do Nothing?

DNR Audits (once every 5 years)

Notice of Noncompliance

Notice of Violation

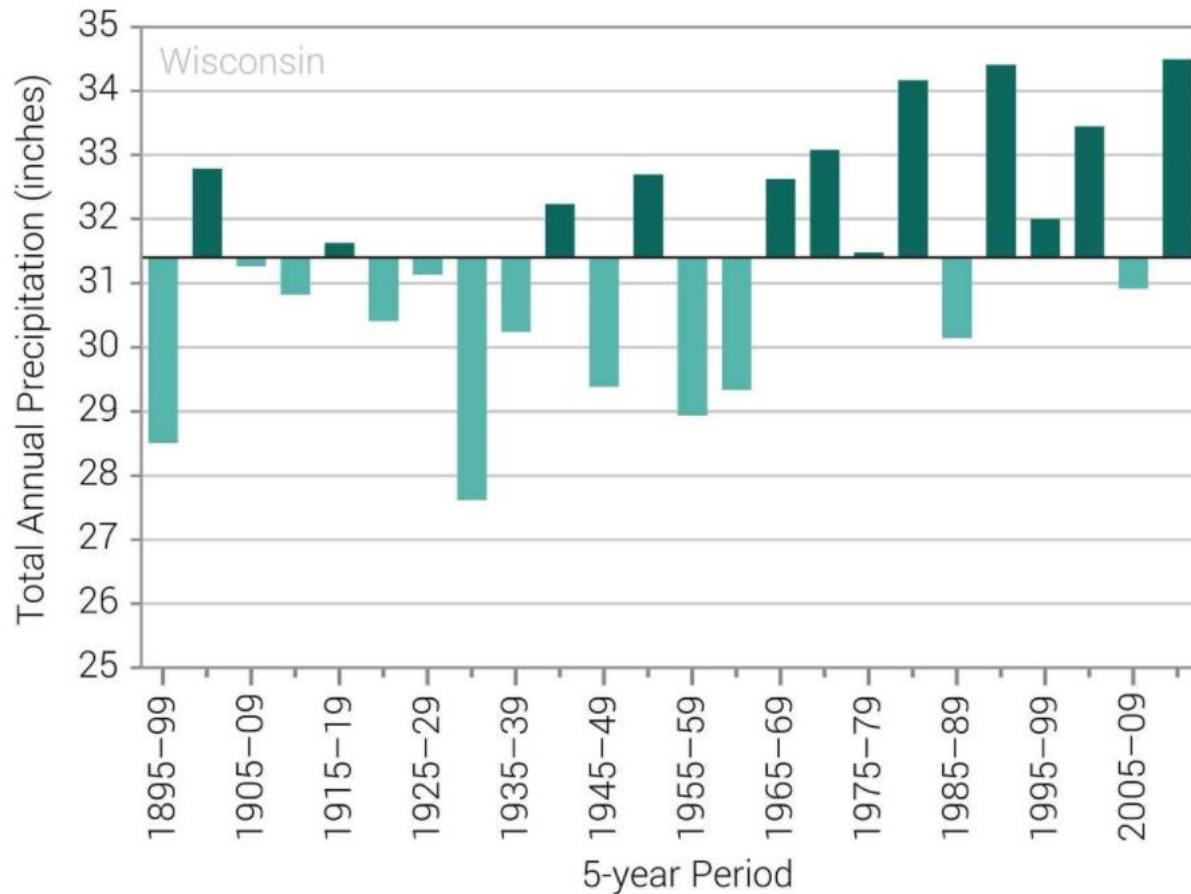
Fines (up to \$10,000 / day)

Impacts to other regulatory approvals (e.g., sanitary extensions)

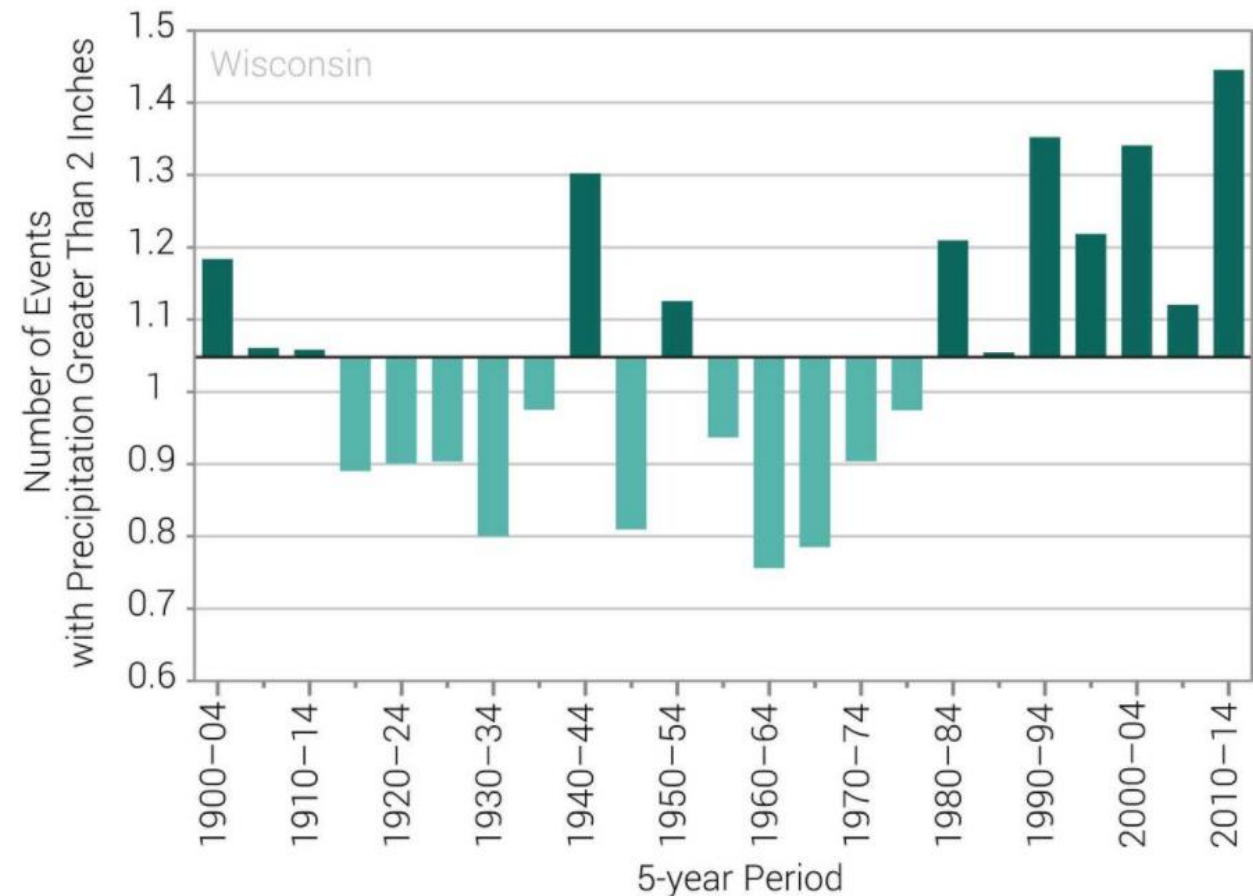


Flooding Patterns and Forecast

Observed Annual Precipitation



Observed Number of Extreme Precipitation Events



Village History

- Initial study done in 2001
 - Flood control & storm sewer capacity focus
- Village storm water ordinance = proactive flood control
- Limited historic water quality efforts
 - Village focus shifting to include DNR permit compliance
 - Current R/M & Village effort focused on near-term DNR permit items

Next Steps

- Need to ramp up efforts to maintain compliance
- Financial status of SW funding
 - \$931,000 annually from general fund
 - Borrowing from water utility – \$2.6+ million
- Additional funding is necessary
 - Annual operating costs of \$1.9 million
 - Significant cash flow needs for operating and capital expenses



Storm Water Utilities

- Created to address unmet needs
- Mission:
 - Control flooding
 - Improve water quality
 - Comply w/ regulations
- Housed within other departments
- Fees to match costs
 - Tax-exempt properties
 - Credits
 - Appeals process



Establishing a Storm Water Utility Fee

- Revenue requirement = expenses
- Expenses split into base and volumetric
 - Account = administrative/fixed
 - Volume = dealing with SW
- Volume rates based on impervious surface area
- Equivalent Residential Units (ERUs)
- 1 ERU = 3,725 square feet of impervious surface area
- All nonresidential properties measured in terms of ERUs

Customers and ERUs

Summary of Proposed ERUs and Customer Accounts

Customer Class	Number of Customers	ERUs
Residential	11,355	11,355
Non-residential	599	15,557
Totals	11,954	26,912

Potential Rates

Summary of Proposed Storm Water Utility Rates		
Volume Costs	\$	1,719,712
Account Costs		172,188
Total Costs	\$	1,891,900
Volume Costs	\$	1,719,712
Equivalent Residential Units (ERUs)		26,912
Monthly Volume Charge / ERU	\$	5.33
Annual Volume Charge / ERU	\$	63.96
Account Costs	\$	172,188
Customers		11,954
Monthly Account Charge	\$	1.21
Annual Account Charge	\$	14.52
Total Monthly Charge/ERU	\$	6.54
Total Annual Charge/ERU	\$	78.48

Sample Properties

Table 2 - Proposed Monthly Charges for Example Properties

Property	Base ERUs	Volume Charge	Account Charge	Total Charge
Single-family Home	1	\$ 5.33	\$ 1.21	\$ 6.54
Gas station	11.7	\$ 62.36	\$ 1.21	\$ 63.57
Bank	14.9	\$ 79.42	\$ 1.21	\$ 80.63
Restaurant	18.2	\$ 97.01	\$ 1.21	\$ 98.22
Church	46.6	\$ 248.38	\$ 1.21	\$ 249.59
Wholesaler	56.1	\$ 299.01	\$ 1.21	\$ 300.22
Manufacturing facility	115.1	\$ 613.48	\$ 1.21	\$ 614.69

Operating Expenses

Utility Expenses

Depreciation	\$ 816,000
Other Operation & Maintenance	1,101,700
Total Operation & Maintenance	\$ 1,917,700
General & Administrative	25,200
Other Revenues	51,000
Total Net Operating Expenses	\$ 1,891,900

O&M Detail

Operation and Maintenance	Projected 2024
Depreciation Expense	\$ 816,000
Salaries	332,000
Health Insurance	96,300
Overtime	9,100
FICA	25,900
Pension-VMF	23,700
Dental Insurance	4,400
Life Insurance	1,200
Worker's Comp Insurance	9,500
Wage/Benefit GF Transfers	91,800
Department Supplies	100
River Cleanup Expense	300
Storm Watr. Dischg. Permit	6,600
Gas & Diesel Fuel	5,100
Diggers Hot Line	6,100
Cellular Data Service	500
Engineering Services	5,100
Audit/Acctg. Serv.	5,100
Consulting Services	70,400

Operation and Maintenance (continued)	Projected 2024
Rent - Equipment	40,800
Leaf Collection	10,200
Leaf Collection Labor	76,500
Sweeping	10,200
Sweeping Labor	45,900
Catch Basin Clean Labor	16,300
CB & MH Repair	8,200
CB & MH Repair Labor	40,800
Curb & Gutter	1,200
Frozen Culverts	200
Frozen Culverts Labor	2,000
Culverts/Ditching	10,200
Culverts/Ditching Labor	71,400
Ditch/Dentention Pond Mowing	40,800
Erosion Control	6,100
Detention Basin Maint.	1,000
Illicit Discharge	500
Public Education	12,200
Storm Sewer Monitoring/Sampling	13,500
Bond Expenses	500
Subtotal	1,917,700

Capital Expenses

Stormwater Utility Capital Improvement Budget						
Project	2024	2025	2026	2027	2028	Total
Storm Sewer Program	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
Catch Basin Cleaning	250,000	250,000	250,000	250,000	250,000	1,250,000
Aero Park- Community Park - Phase II (Bio Swale & Storm Sewer)	200,000				266,000	466,000
Ann Ave - Shady Ln to Sheridan Dr - Storm Sewer			248,000		266,000	514,000
Arthur Ave Pond & Storm Sewer - Arthur & Men River		580,000				580,000
Dardis Dr - Jacobson Dr to Dardis Place - Storm Sewer	165,000					165,000
Graysland Storm Sewer Replacement		355,000				355,000
Hiawatha Dr - Mary Ct to Men Ave - Storm Sewer				200,000		200,000
Hillcrest Dr - Shady Ln to Sheridan Dr - Storm Sewer				165,000		165,000
Men Ave & MacArthur Pond & Storm Sewer - Rotary Park to Schllafer Dr				62,000	1,030,000	1,092,000
Menomonee Ave Culvert Replacement - 200 feet East of Main St	145,000	390,000				535,000
Menomonee Ave Reconst (Appleton Ave to Townhall Road) Storm Sewer		330,000				330,000
Norman Drive Pond & Storm Sewer Relay - Men Ave to Manhattan Dr					132,000	132,000
Overview Drive - Culvert Replacement over Butler Ditch			265,000			265,000
Richfield Subdivision Pond Dredging				275,000		275,000
Rozanne Dr Storm Sewer Relay - Wheeler Dr to Main St	570,400					570,400
Shady Lane Pond & Storm Sewer Extension - Grand Ave Int to Erika Rd		95,000	1,316,000			1,411,000
Sheridan Dr - Hillcrest to Main St - Storm Sewer				130,000		130,000
Theodore Dr - Jacobson Dr to Ann Ave - Storm Sewer		145,000				145,000
Total	\$ 1,430,400	\$ 2,245,000	\$ 2,179,000	\$ 1,182,000	\$ 2,044,000	\$ 9,080,400

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Cash Flow

Cash Flow Analysis					
	2024	2025	2026	2027	2028
Revenues					
User Rates	\$1,891,900	\$1,905,149	\$1,918,490	\$1,931,925	\$1,945,453
Interest Income	1,500	1,500	1,500	1,500	1,500
License & Permit Revenues	49,000	49,000	49,000	49,000	49,000
Misc. Revenues	500	500	500	500	500
Total Revenues	\$1,942,900	\$1,956,149	\$1,969,490	\$1,982,925	\$1,996,453
Expenses					
O&M less Depreciation	\$ 1,126,900	\$1,149,438	\$1,172,427	\$1,195,875	\$1,219,793
Subtotal Debt Service	\$207,610	\$321,523	\$493,010	\$659,423	\$749,191
Total Cash Expenditures	\$1,334,510	\$1,470,961	\$1,665,437	\$1,855,299	\$1,968,984
Net Cash Flow	\$608,390	\$485,187	\$304,053	\$127,626	\$27,470
Cash Reserve Balances					
Beginning of Year Cash Balance	\$86	\$608,476	\$1,093,663	\$1,397,716	\$1,525,342
Cash Flow	\$608,390	\$485,187	\$304,053	\$127,626	\$27,470
End of Year Cash Balance	\$608,476	\$1,093,663	\$1,397,716	\$1,525,342	\$1,552,811
Cash Reserve as % of Annual O&M	54%	95%	119%	128%	127%

Rate Comparison w/ Neighbors

Southeast Wisconsin Annual Storm Water Utility Fees				
Municipality	Charge / ERU			
Hales Corners	\$	14.00		
Delafield	\$	29.00		
Slinger	\$	47.76		
Lisbon	\$	48.00		
Glendale	\$	54.00		
New Berlin	\$	60.00		
Greenfield	\$	68.00		
West Allis	\$	77.16		
Proposed Menomonee Falls	\$	78.48	Mean	\$ 78.74
Wauwatosa	\$	78.72	Median	\$ 78.72
Greendale	\$	79.60		
Brookfield (Town)	\$	81.60		
Watertown	\$	82.92		
Whitefish Bay	\$	100.00		
Sussex	\$	105.12		
Brown Deer	\$	106.08		
Pewaukee (City)	\$	120.00		
Elm Grove	\$	122.80		
Fox Point	\$	142.80		

Takeaways

- Needs are growing
- So are regulations
- Funding must grow to match these



Next Steps

- Education and outreach during summer
 - 3 public information meetings
- Adoption of SW fees on Monday, September 18

Questions?

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