

# Welcome

**Commission Meeting**

**April 30, 2026**

Madison Metropolitan  
Sewerage District



# Acceptance of District Strategic Plan

Madison Metropolitan  
Sewerage District

Presented by Eric Dundee, Executive Director



# DISTRICT STRATEGIC PLAN

## PURPOSE

Protect public health, welfare and the environment by providing efficient and strategic wastewater management on behalf of our customer communities.

## MISSION

Protect public health and the environment





## VALUES

- Service
- Reliability
- Sustainability

## VISION

We will achieve operational excellence and infrastructure renewal to support the needs of the communities and local businesses we serve.

## PERFORMANCE AREAS & INDICATORS

 <b>FINANCIAL CAPACITY &amp; RESILIENCE</b>	 <b>INFRASTRUCTURE RELIABILITY</b>	 <b>PUBLIC TRUST</b>	 <b>REGULATORY COMPLIANCE</b>
<p>As a capital-intensive organization with large and variable costs, attention to revenue sources and spending is foundational to executing our purpose.</p> <p>For the District, this means having adequate financial resources for staffing and to do the required work needed for infrastructure, operations, maintenance and permit compliance, including resilience during financial disruptions.</p>	<p>To provide efficient and strategic wastewater management for a growing region, the District requires physical and technological infrastructure that must perform at a high level of service.</p> <p>The District does this by managing its infrastructure so that critical assets will not fail faster than financial resources and physical and technological maintenance capabilities can repair or replace them. This includes maximizing the service life of assets, taking a proactive approach to facility planning, and integrating energy efficiency and/or innovative technologies to guarantee the performance of critical assets.</p>	<p>As a critical public service with broad reach, the District recognizes the importance of building goodwill and collaborative relationships to positively impact our operations and organizational effectiveness.</p> <p>For the District, this means striving for public trust and instilling confidence through customer-focused actions, transparent communications, management of high-quality and effective programs, and consistent and dependable service.</p>	<p>To fulfill our mission to protect public health and the environment, the District prioritizes the well-being of our community and workforce by complying with all state and federal regulations.</p> <p>For the District, this means compliance and performance against regulatory requirements. We strive to maintain a low risk of violations and work to influence regulatory trends through innovation to achieve goals cost-effectively.</p>
<p><b>INDICATORS</b></p> <ul style="list-style-type: none"> <li>• Balance Relative to Reserve Requirements</li> <li>• Spending in Line with At-Risk Assets</li> </ul>	<p><b>INDICATORS</b></p> <ul style="list-style-type: none"> <li>• Planned Maintenance</li> <li>• Asset Condition Index</li> <li>• Critical IT/ OT (Operational Technology) System Availability</li> </ul>	<p><b>INDICATORS</b></p> <ul style="list-style-type: none"> <li>• Public Sentiment Analysis</li> <li>• Stakeholder Satisfaction</li> </ul>	<p><b>INDICATORS</b></p> <ul style="list-style-type: none"> <li>• Third-Party Compliance Validation</li> <li>• Treatment Performance</li> </ul>

## THREE-YEAR PLAN

The Three-Year Plan prioritizes the major short-and near-term projects and/or programs that we must focus on to support the District's vision and the performance areas and their indicators.

The first Three-Year Plan will cover 2026 to 2029.

We will complete the first Three-Year Plan by the end of Q2 2026.

## DISTRICT MANAGEMENT PLAN

The District Management Plan outlines how staff are aligned to the rest of the vision/strategic plans. It includes at least two things:

1. Workplans for each department and for each division, and
2. Schedule of joint management meetings to ensure progress and accountability on both the Three-Year Plan and division workplans

# Strategic Planning: Next Steps

- **May 14:** Commission acceptance of Commission Reporting Schedule
- **May 28:** Commission acceptance of the Three-Year Plan

# Resolution #2026-04-30-R5

The Commission is requested to adopt  
Resolution #2026-04-30-R5  
accepting the District Strategic Plan.

# Project Update: Overview of WDNR Final Determination to Reissue the District's WPDES Permit

Commission Meeting  
April 30, 2026



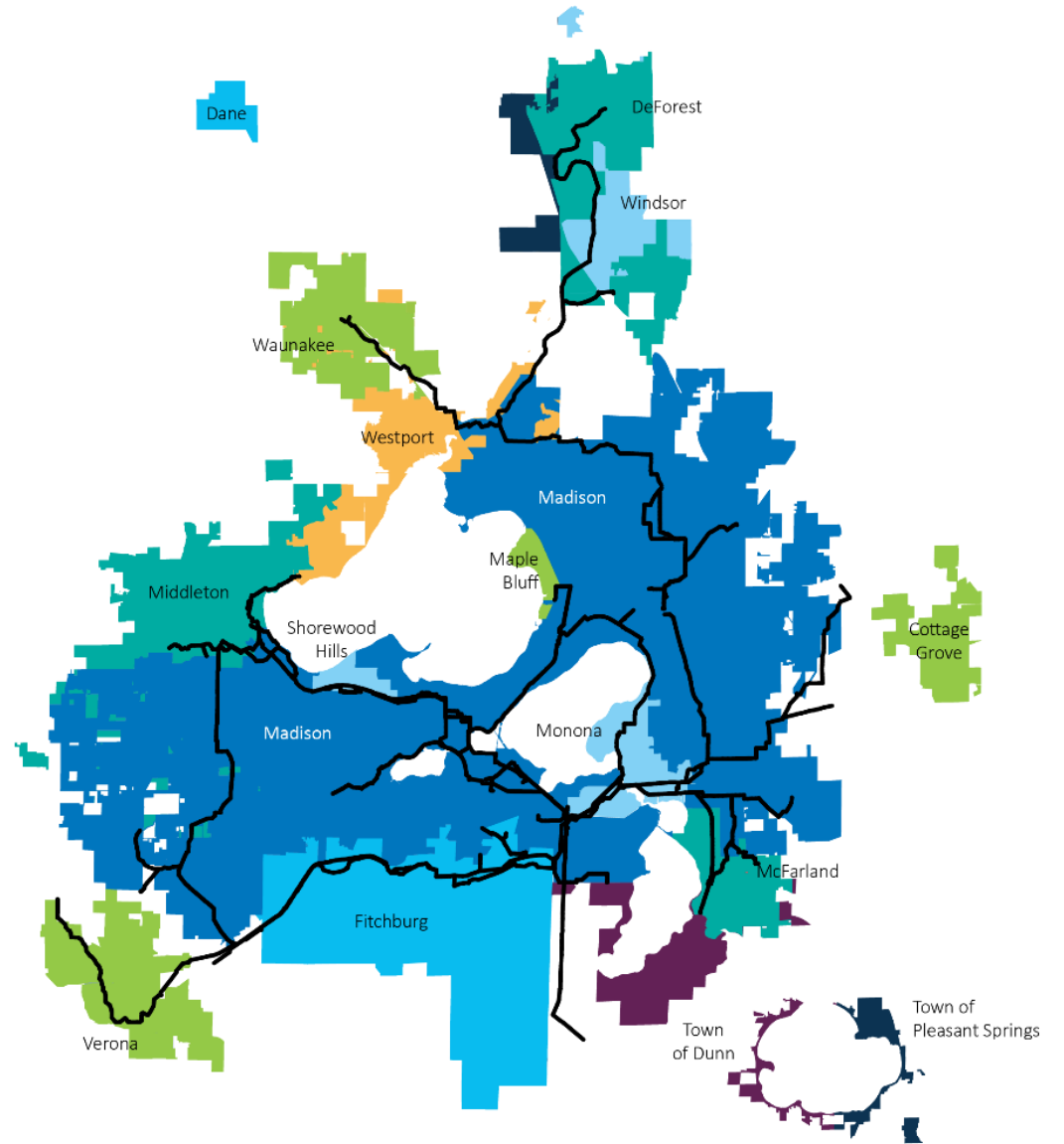
Madison Metropolitan  
Sewerage District

Presented by Martye Griffin



# About the District

- Established in 1930
- Regional wastewater utility for 24 customer communities in Dane County
- Serves 440,000 individuals and businesses across 190 square miles
- Operate 151 miles of pipe
- Collects 38 million gallons daily on average



Madison Metropolitan  
Sewerage District

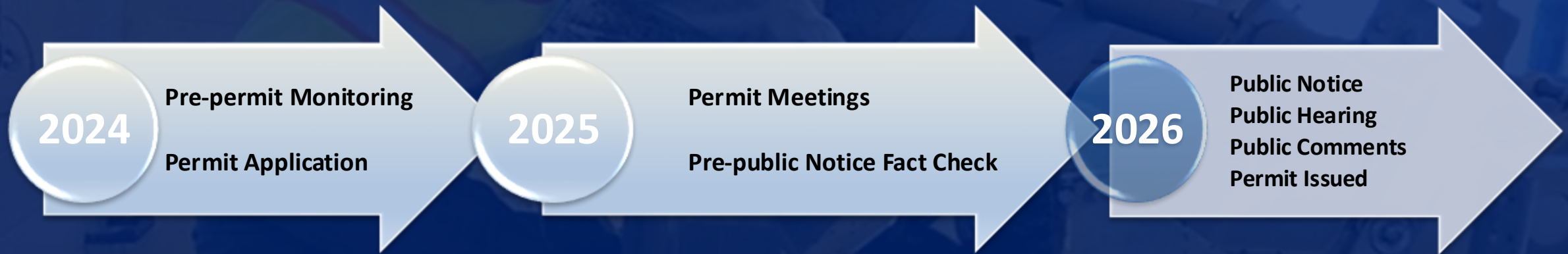


# Why a Permit?

1. Clean Water Act Requirement
2. Oversight by US EPA
3. WPDES Permit Program Administered by WDNR
4. Allows the District to:
  - Discharge treated effluent
  - Land apply biosolids
  - Regulate industrial users



# Permit Re-issuance Timeline



**Permit Signed April 6th**  
**Permit Effective Date May 1st**



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# What's New in the Permit?



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# Permit Changes

Total Suspended Solids (TSS) Limits

Testing, Monitoring & Reporting

Bacteria

(F. coli → E. coli)

Biochemical Oxygen Demand

(CBOD-5 → BOD-5)

Per- and Polyfluoroalkyl  
Substances (PFAS)



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# Permit Changes

- Outfall Consolidation
- Phosphorus Limit
- Adaptive Management Plan
- Mercury Variance
- Chloride Variance
- Whole Effluent Toxicity (WET) Limit
- Per- and Polyfluoroalkyl Substances (PFAS)



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# What Happens Next?

- First Monitoring Report in June 2026
- Next WET test in 4<sup>th</sup> Quarter 2026
- WDNR Permit decisions can be challenged by anyone impacted by the permit
- Filing deadline for a challenge is June 5, 2026



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Questions?



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Sewerage District

# Thank you!



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Sewerage District

# Study Session: Force Main Condition Assessment Program

April 30, 2026

Madison Metropolitan  
Sewerage District



Jen Hurlebaus  
Planning & Engineering Director



# Force Main Condition Assessment Program

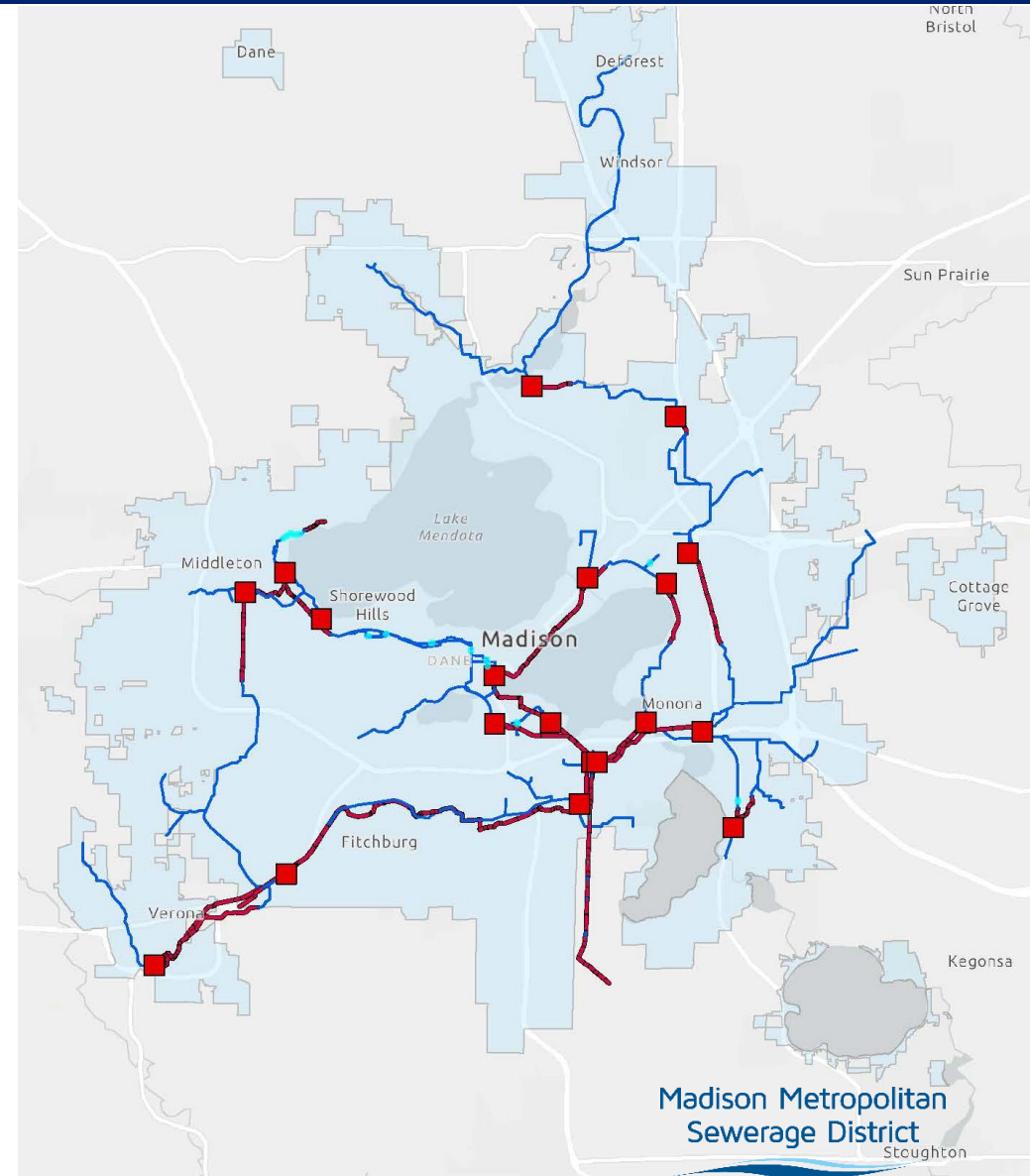
## Why this program is important

The District's force mains are a critical part of our collection system. They carry the wastewater away from pump stations to the nearest gravity sewer and on to the treatment plant; they also return treated effluent to the environment.

Inspecting force mains is relatively new in our industry, but important to do as failures create risk to human health and the environment.

### Additional facts

- The District has 50 miles of force main within its collection system.
- The District has had 5 force main failures within the last 5 years.
- This program would be delivered over the next 10 years or more based on planning difficulties, available technology and costs.



# Projects on Force Mains Since 2017 Plan

## Assessments

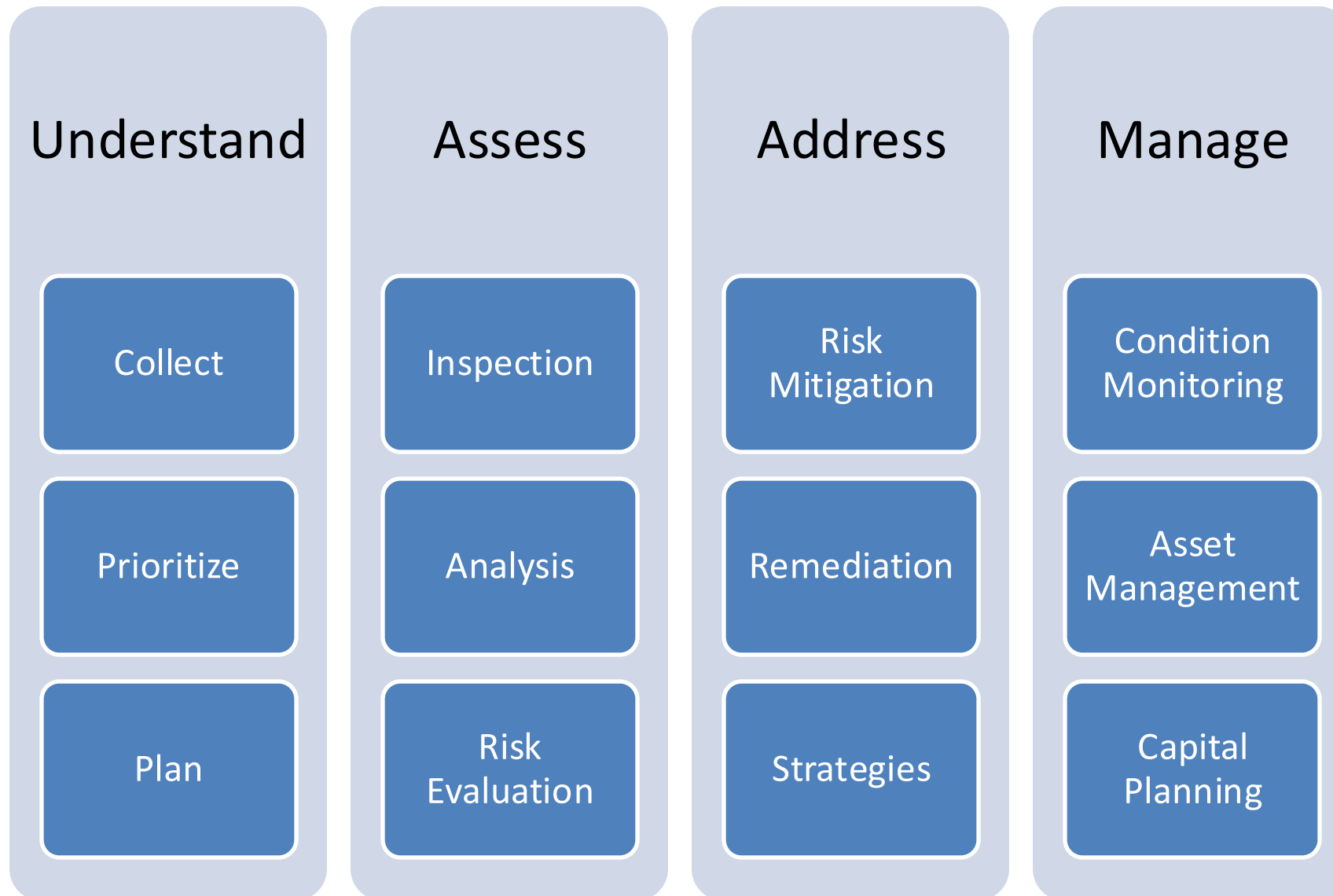
- PS06FM, 2019
- Both PS07FMs, 2019
- PS16FM (portion), 2022
- *PS10FM to be completed in 2026*

## Emergency Repairs or Issues

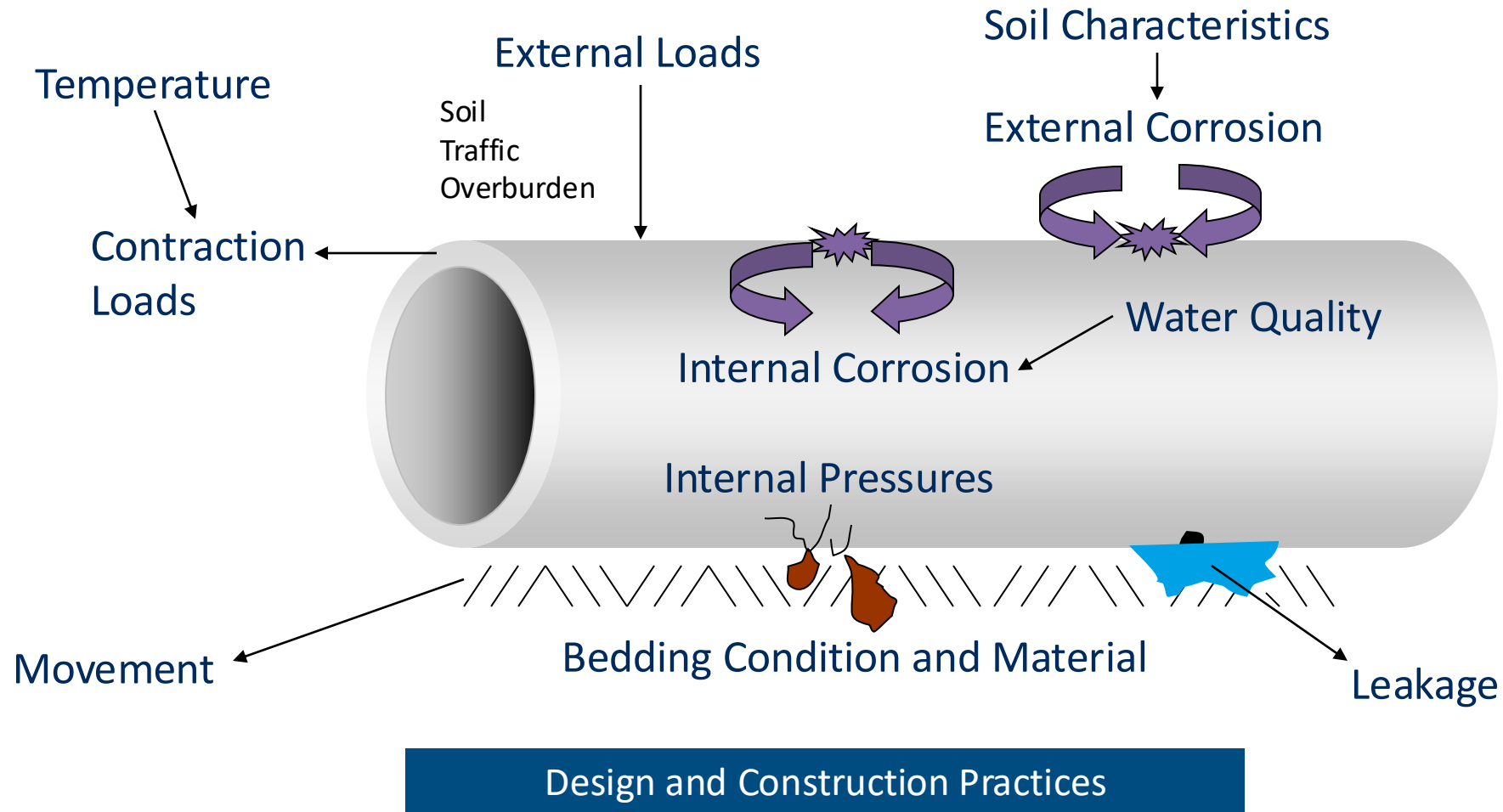
- PS07FM (RCNCP) failure at Beltline, 2021
- PS10FM (PCCP) leak at station wall identified, 2023
- PS15FM (DI) failure, 2023
- PS02FM (DI) failure, 2025



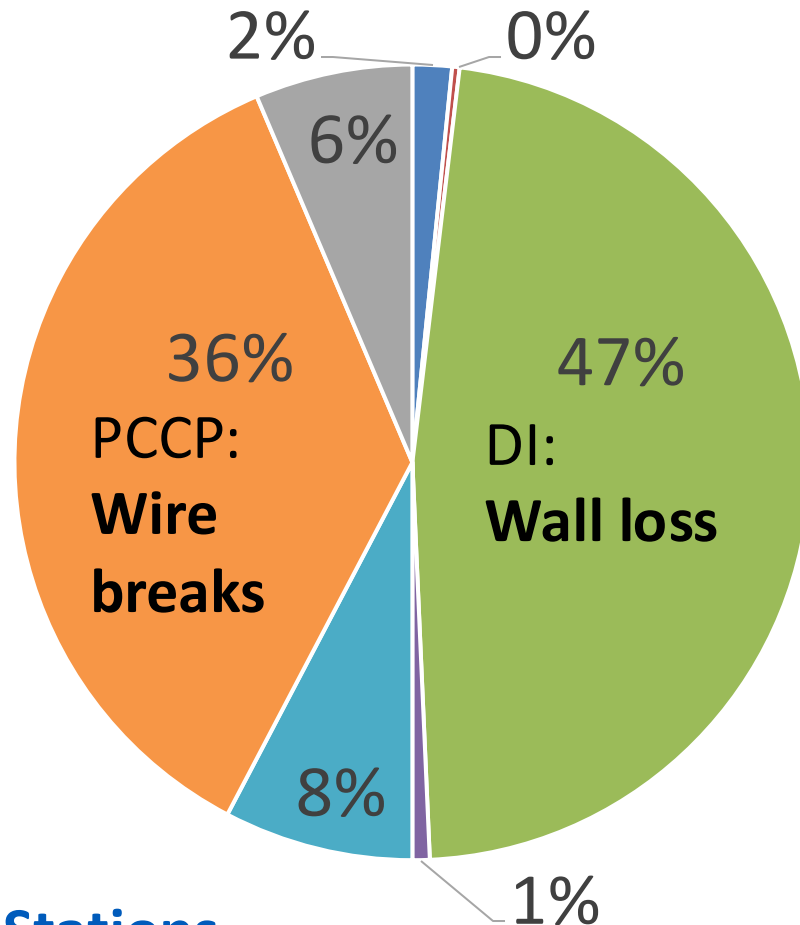
# Force Main Condition Assessment Program



# Many factors impact pipe failure; not just age



# District Force Mains by Material



- Asbestos Cement
- Cast Iron
- Ductile Iron
- High Density Polyethylene
- Poly Vinyl Chloride
- Prestressed Concrete Cylinder Pipe
- Reinforced Concrete Non-cylindrical Pipe

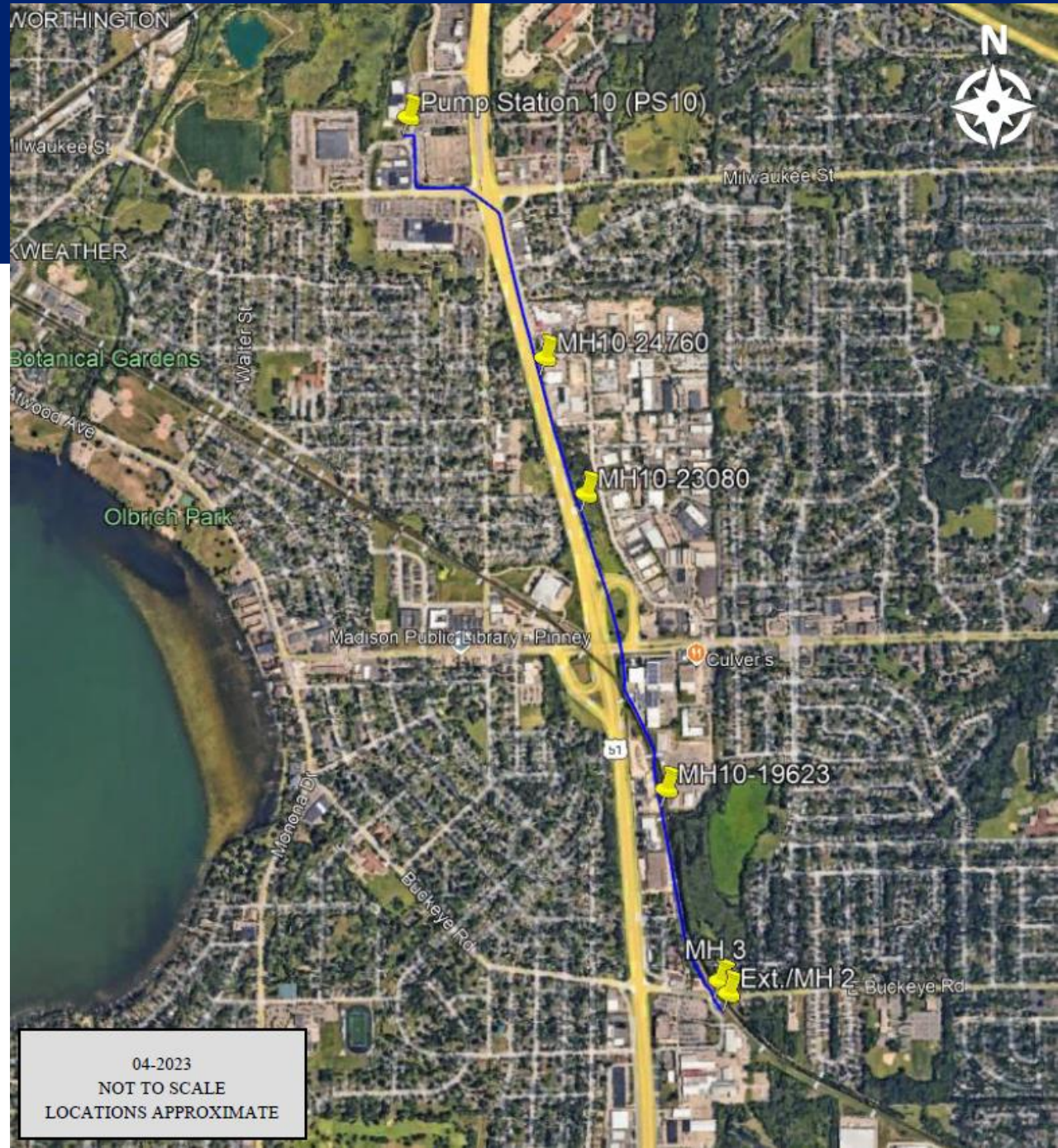
**18 Pumping Stations**

**26 Force Mains = 50 miles of pipe**

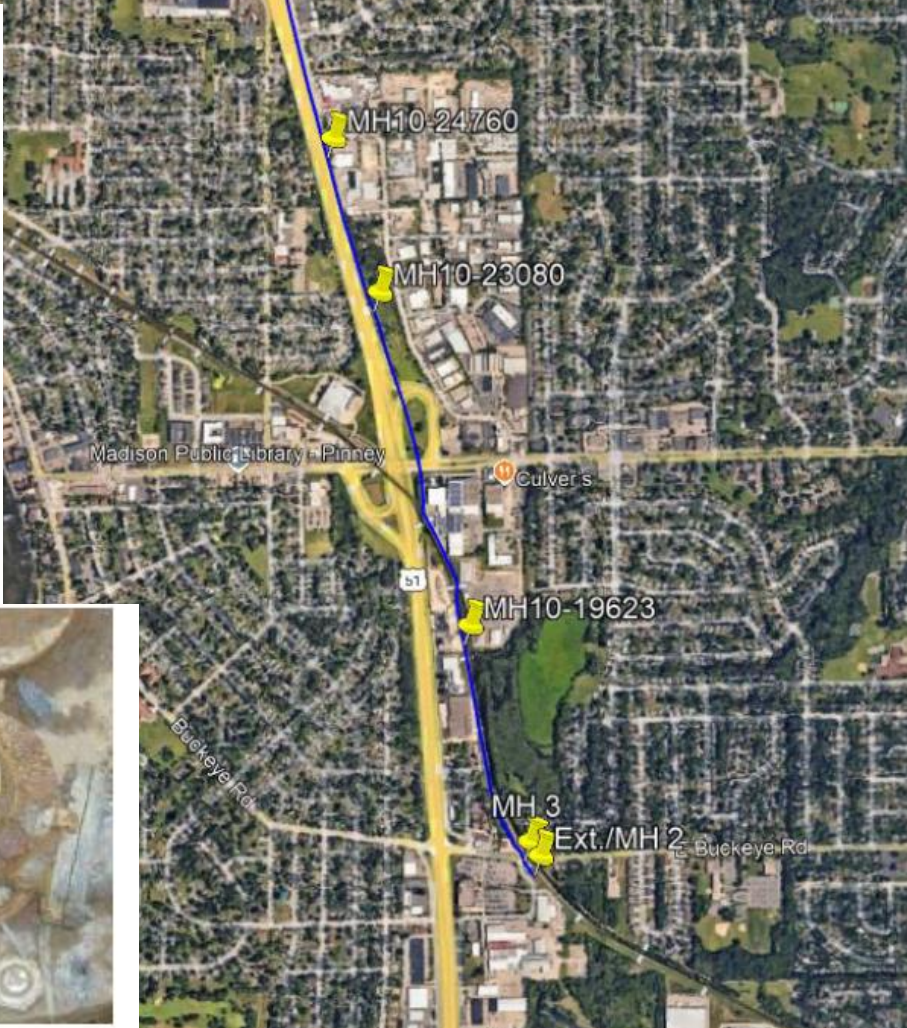
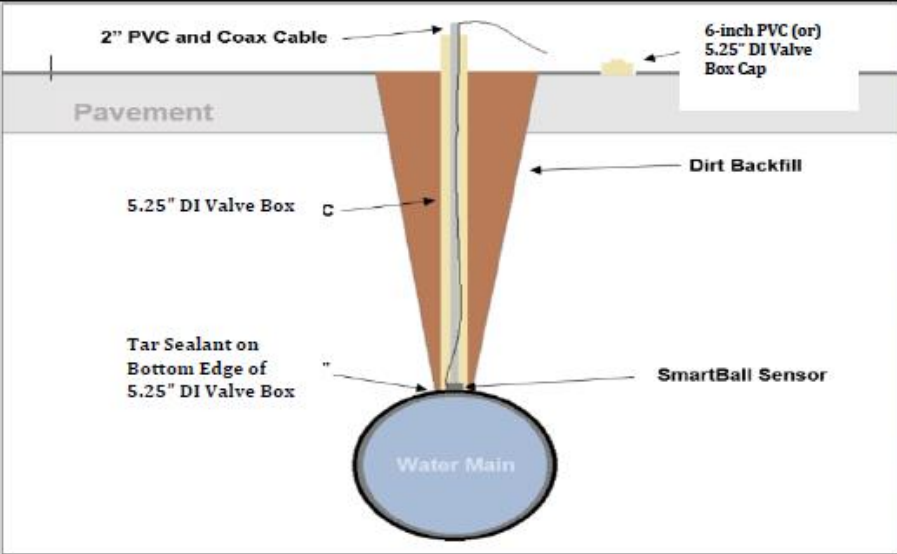
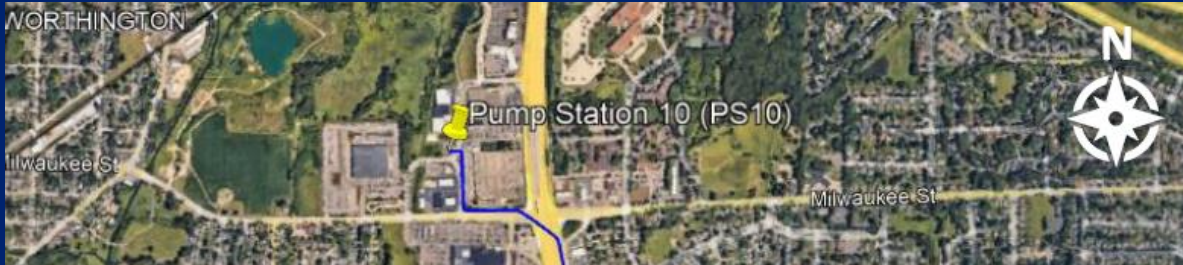
**1 – 78 years since install date**

# PS10 Force Main Condition Assessment

- Prestressed Concrete Cylinder Pipe (PCCP)
- Installed in 1964
- 36-inch diameter
- 11,200 lineal feet
- Swage lined ~1,900 feet in 2018
- Average daily flow ~9 MGD



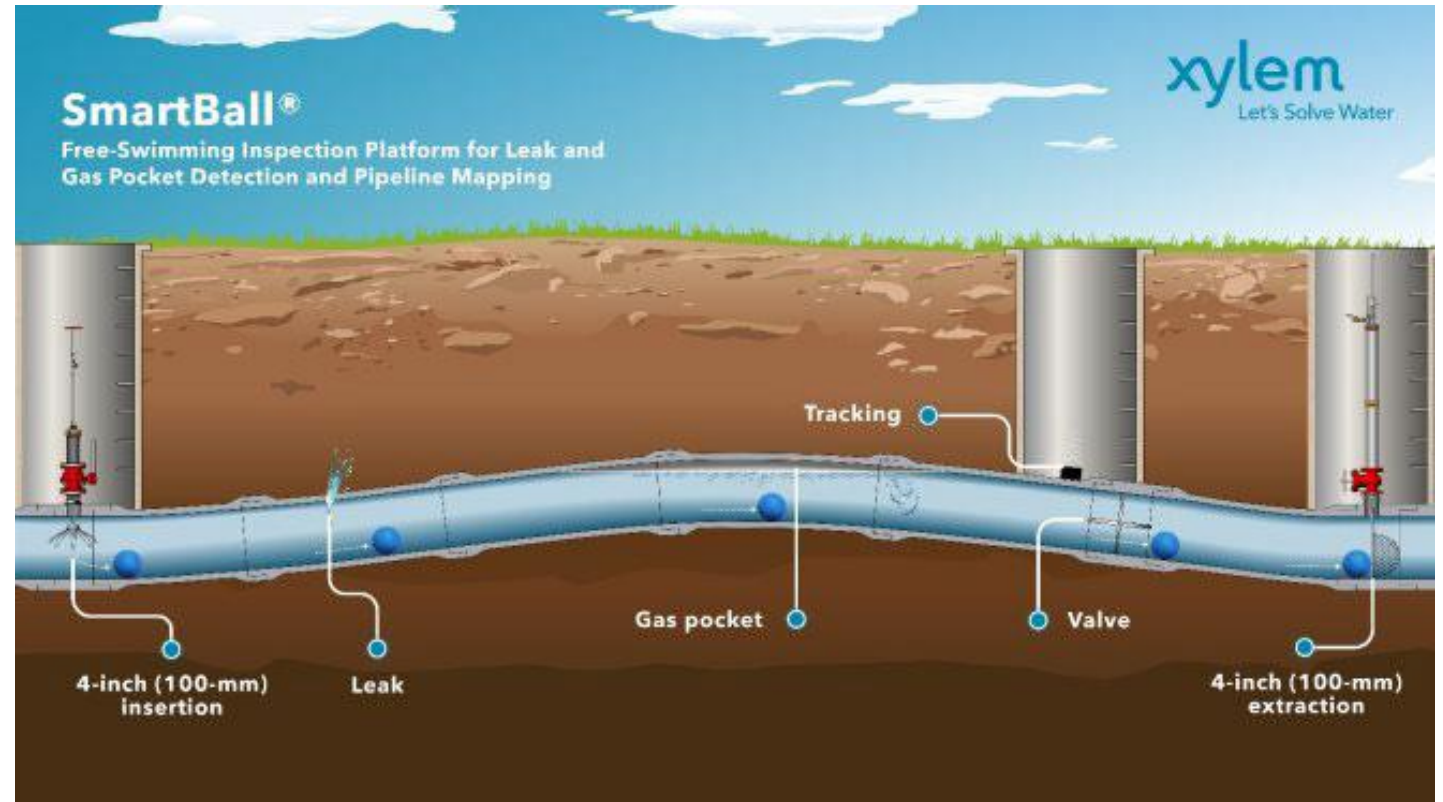
# Prepare for Assessment – Tracking sensors and flow testing



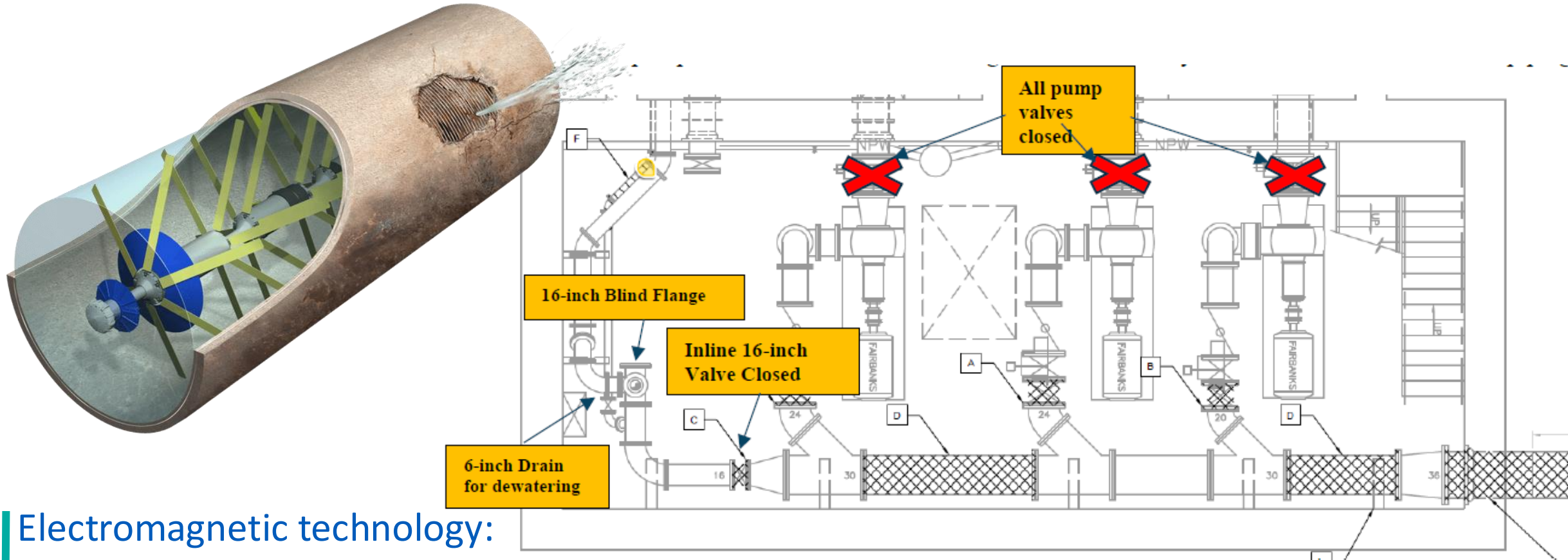
# PS10 Force Main Assessment Plan - SmartBall



Acoustic technology:  
Air pockets  
Leaks



# PS10 Force Main Assessment Plan - PipeDiver

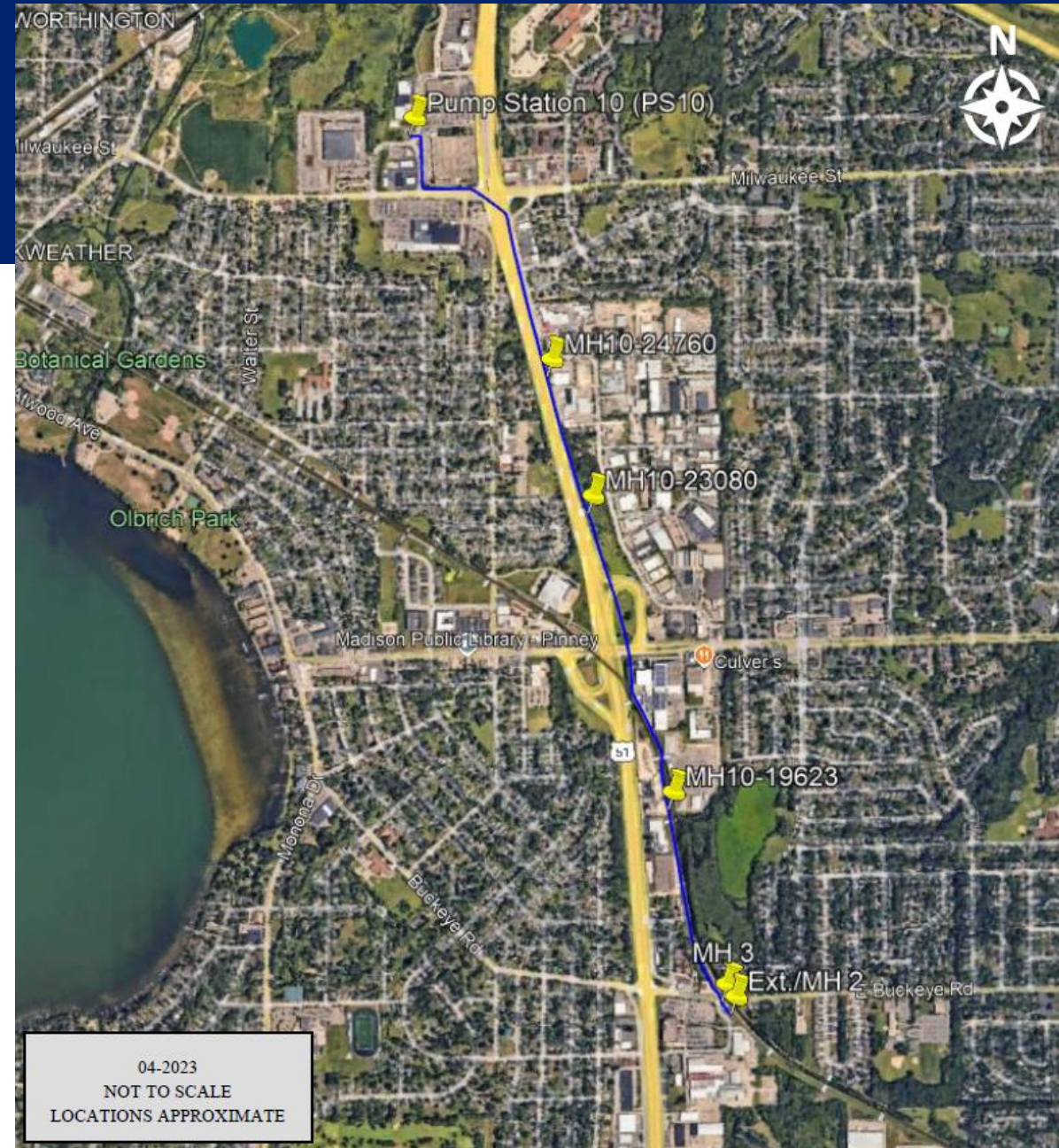


Electromagnetic technology:  
Generate eddy currents in  
wire wrap and record  
variations in magnetic field

# Assessment Plan for PS10 Force Main

## Deliverables:

- Structural consequence of broken prestressed wire wraps
- Finite element analysis-based pipe performance evaluation
- Remaining useful life evaluation



# Capital Improvements Plan – Force Main Assessments

Pipe Material	Inspection looks for	Type of Technology Used	Planned Assessments in CIP timeframe 2026 - 2032
Prestressed Concrete Cylinder Pipe (PCCP)	Steel wire breaks	Electromagnetic; Generate eddy currents in wire wrap and record variations in magnetic field	PS10FM (2026)  Badfish Creek Effluent FM (2030-2031)
	Air pockets Leaks	Acoustic	PS08FM (2032)
Ductile Iron (DI)	Wall thickness (loss)	Ultrasonic and/or electromagnetic to measure wall thickness	PS2FM (2027)
	Air pockets Leaks	Acoustic	PS15FM (2028)

# Questions



# Project Update: Madison Public Market 'Learning Lavatories'

Thursday, April 30, 2026

Madison Metropolitan  
Sewerage District



Presented by Catherine Harris,  
Pollution Prevention Specialist

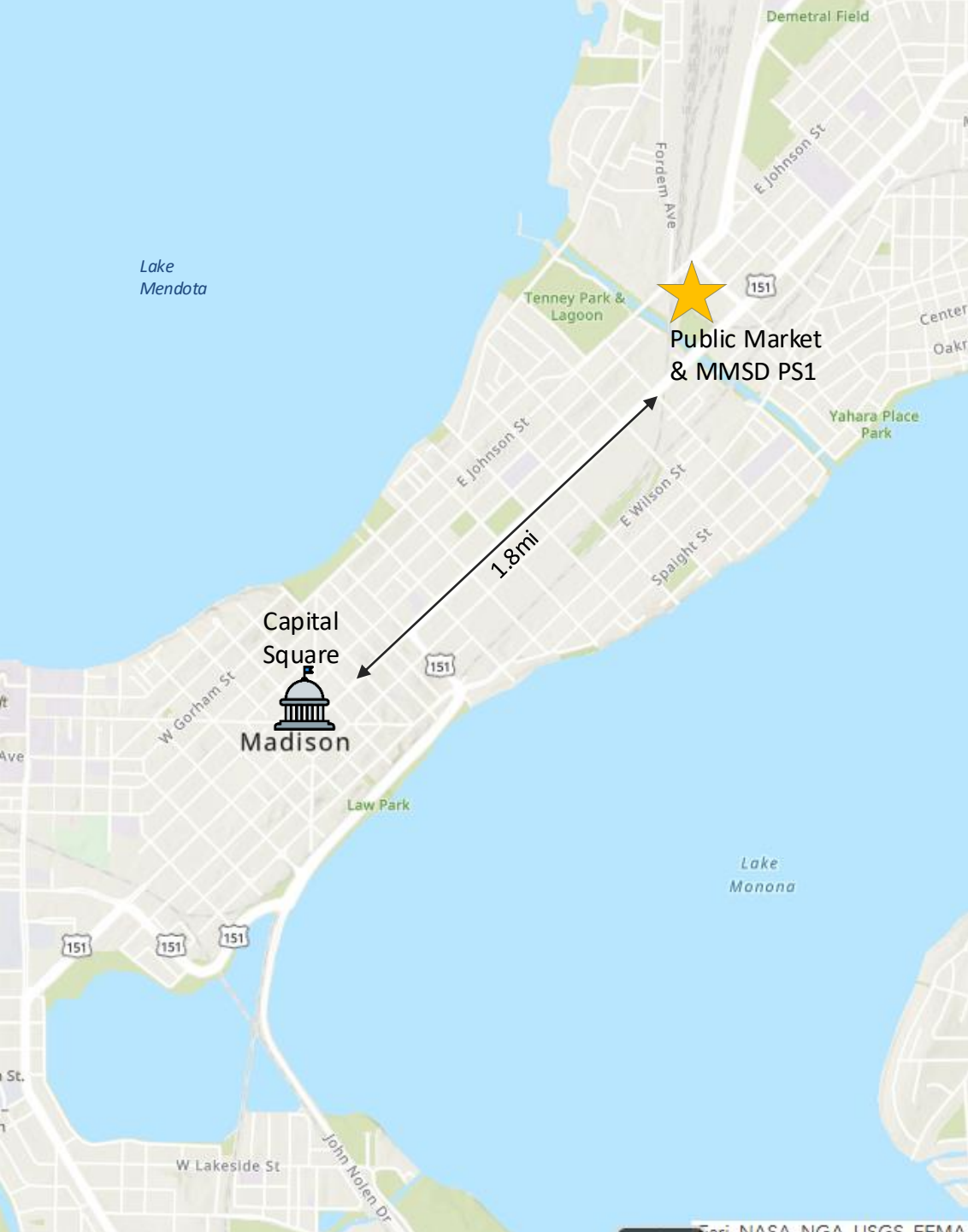




# Agenda

1. Partnership & Site Significance
2. Recap: Science-Based Designs to Support Pro-Sewer Behaviors
3. Long-Term Impact
4. Invite the Commission to see the bathrooms in person





# Madison Public Market

- Corner of 1<sup>st</sup> and Johnson St.
- Business incubator, community hub, local food focus
- Served by >200 busses daily, 3,500 people live nearby
- Estimate >500,000 visitors annually
- Surrounded by lakes, river, wetland, and even wastewater history!

A photograph of a hallway with exposed pipes in blue and red, and doors on the walls. The pipes are arranged in a grid pattern, and the doors are blue and red. The hallway is well-lit and has a clean, modern appearance.

## 7 Unique Bathroom Stalls on Each Floor

### Floor 1: “Where Will You Go?”

- Designs focus on:
  - Hidden world of wastewater
  - Awareness, appreciation for sewer system & wastewater treatment

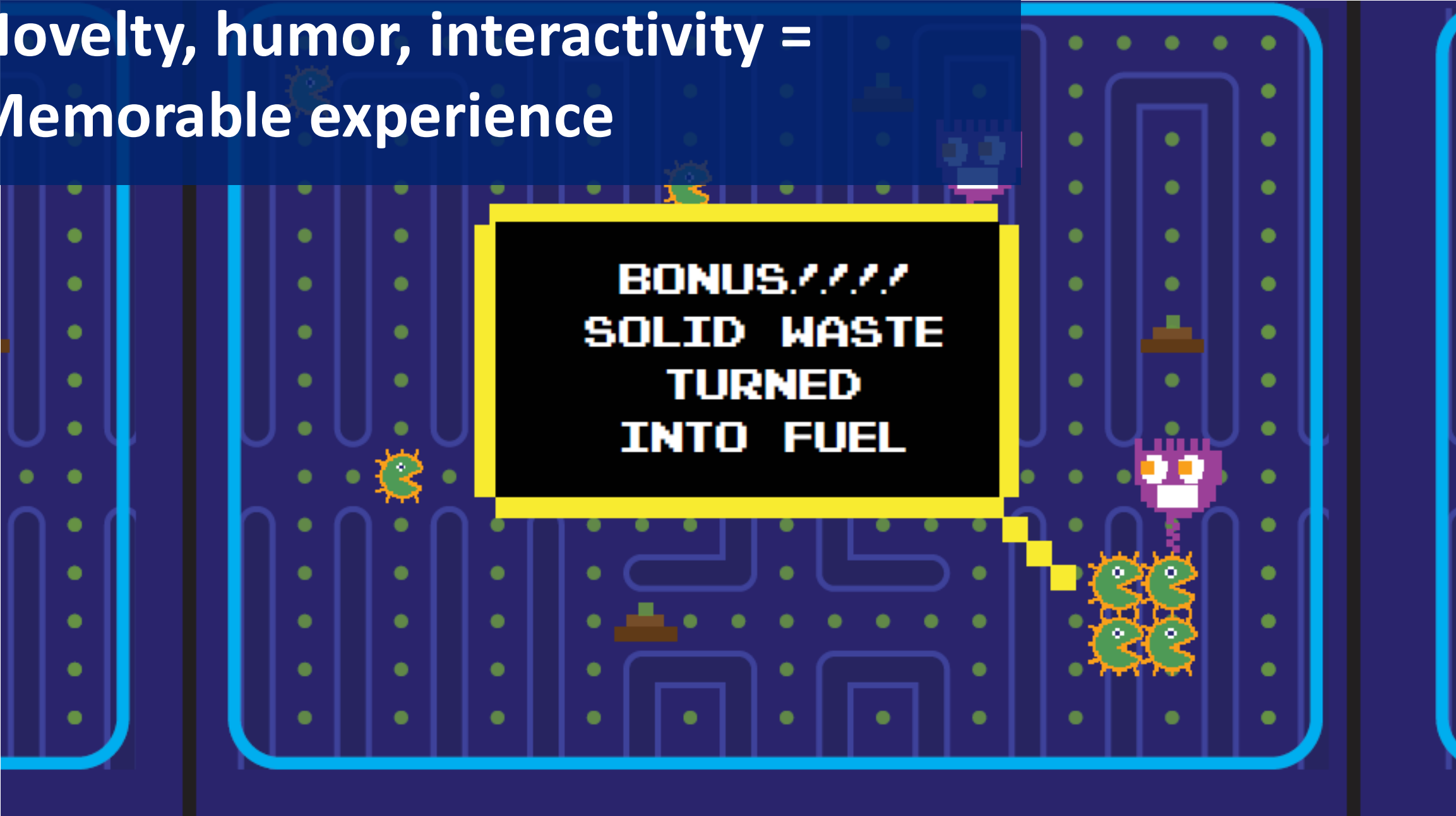
### Floor 2: “Welcome to the Can”

- Designs focus on:
  - Actions individuals can take
  - How to conserve, protect, and show appreciation for water resources

**Design Recap**



# Novelty, humor, interactivity = Memorable experience



BONUS!!!  
SOLID WASTE  
TURNED  
INTO FUEL

# Novelty, humor, interactivity = Memorable experience



“Audiences are driven to attend cultural activities for a variety of different reasons. The single greatest motivator, however, is unanimous: having fun.”  
[From LaPlaca Cohen’s 2017 Culture Track report](#) (the largest tracking survey focused exclusively on attitudes & values of US Cultural Consumers)

# Normative Messaging – Promote Trashcan Use



Champion flushers put garbage where it belongs - in the trashcan.  
Toilets and sewer pipes/pumps are not designed to handle things like floss, kleenex, wipes, bandaids, hair, nails, wrappers, tampons, yes, and even dead gold fishies.

We know most people are champion flushers, it only takes a couple people putting (even small amounts) of garbage down the toilet to cause damage to the wastewater system, and plastic pollution. Keep sewer rates low by preventing equipment failure due to clogs.



[madsewer.org/champion-flusher](https://madsewer.org/champion-flusher)

BE A  
CHAMPION  
FLUSHER



## UP YOUR FLUSH GAME

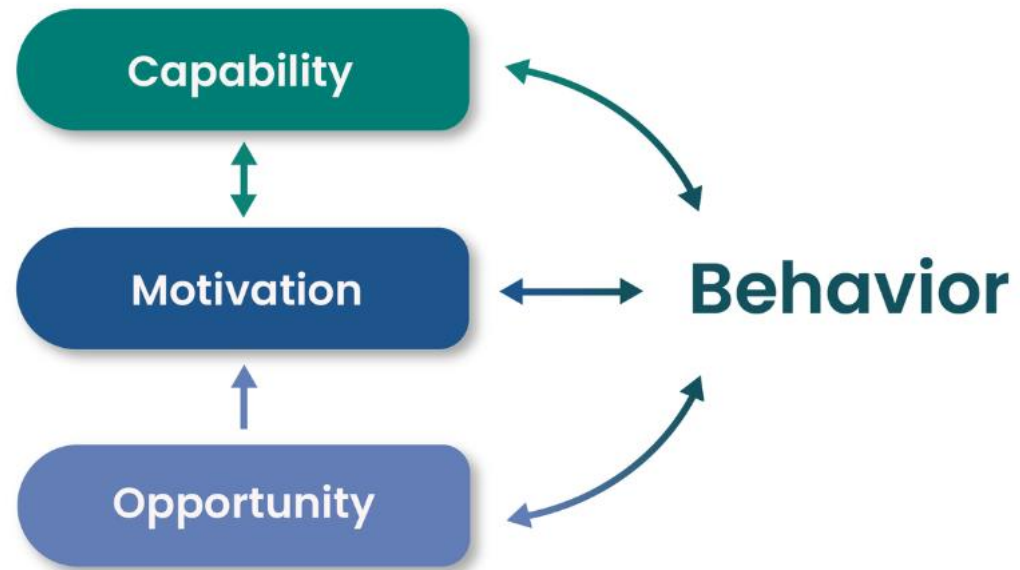
ONLY FLUSH PEE, POO,  
PAPER AND TOILET PAPER.

TOSS NON-FLUSHABLES IN THE  
TRASH!

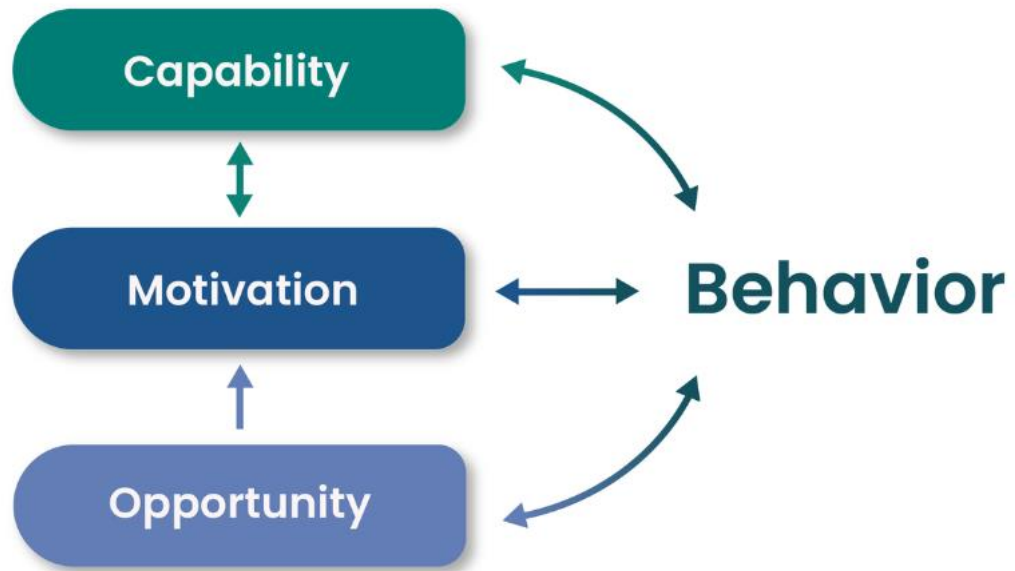
POUR COOKING OILS INTO A JAR, LET  
THEM COOL, AND TOSS THEM TOO!

PROTECT YOUR HOME AND THE  
SEWERS BY PLAYING BY THE RULES!  
YOU'VE GOT THIS!

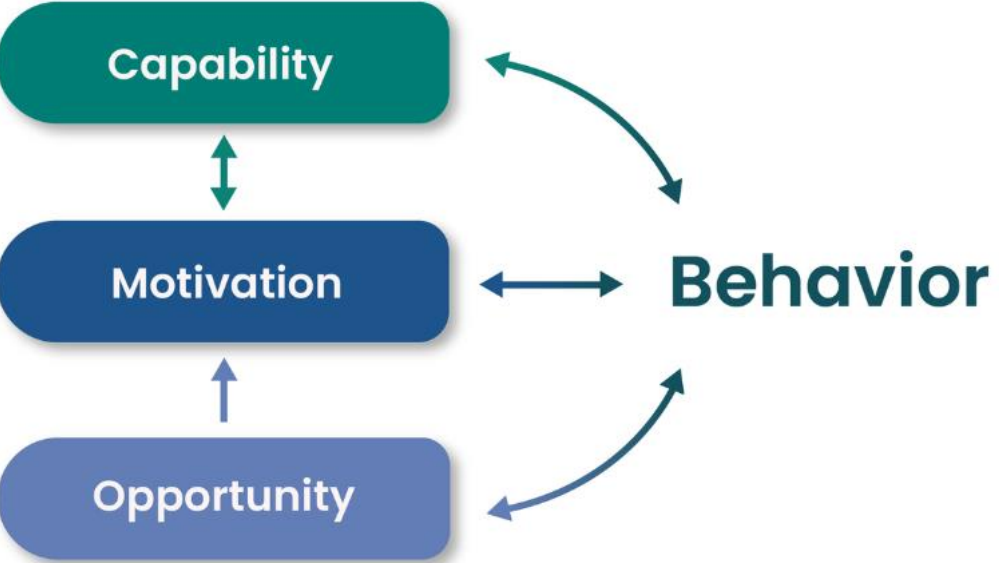
# Information Alone ≠ Action



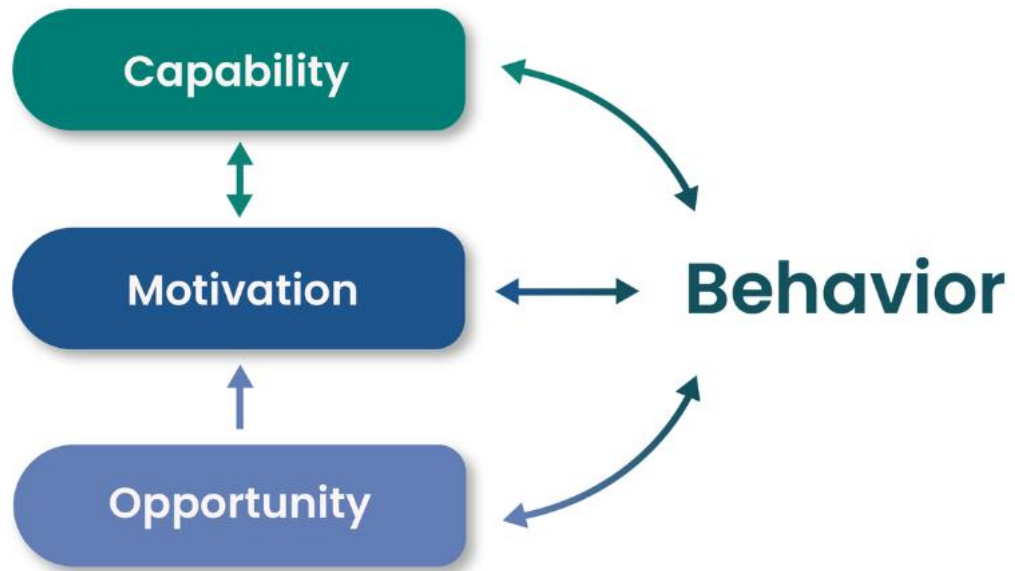
# Opportunity



# Capability



# Motivation



# Beyond the Grand Opening...

- Sustained partnership:
  - Year-round programming opportunities
  - Incorporation into Public Market tours & City Public Art tours
  - Inclusion in events
- Promote 'virtual walk-through'/digital brochure



# Thank You Questions?

**Special Invite to the Commission**

In-Person Preview – Details Shared by Email

**Grand Opening Public/Community Event**

Date TBA



# Thank you

Madison Metropolitan  
Sewerage District



# Capital Projects Update

April 30, 2026

Madison Metropolitan  
Sewerage District



Presented by Lisa Coleman,  
Engineering Manager



# Preview

- **Overview of Projects in Planning/Design/Construction**
- **Projects completed + bids received**
- **Project highlights**



# Planning

## Treatment Plant

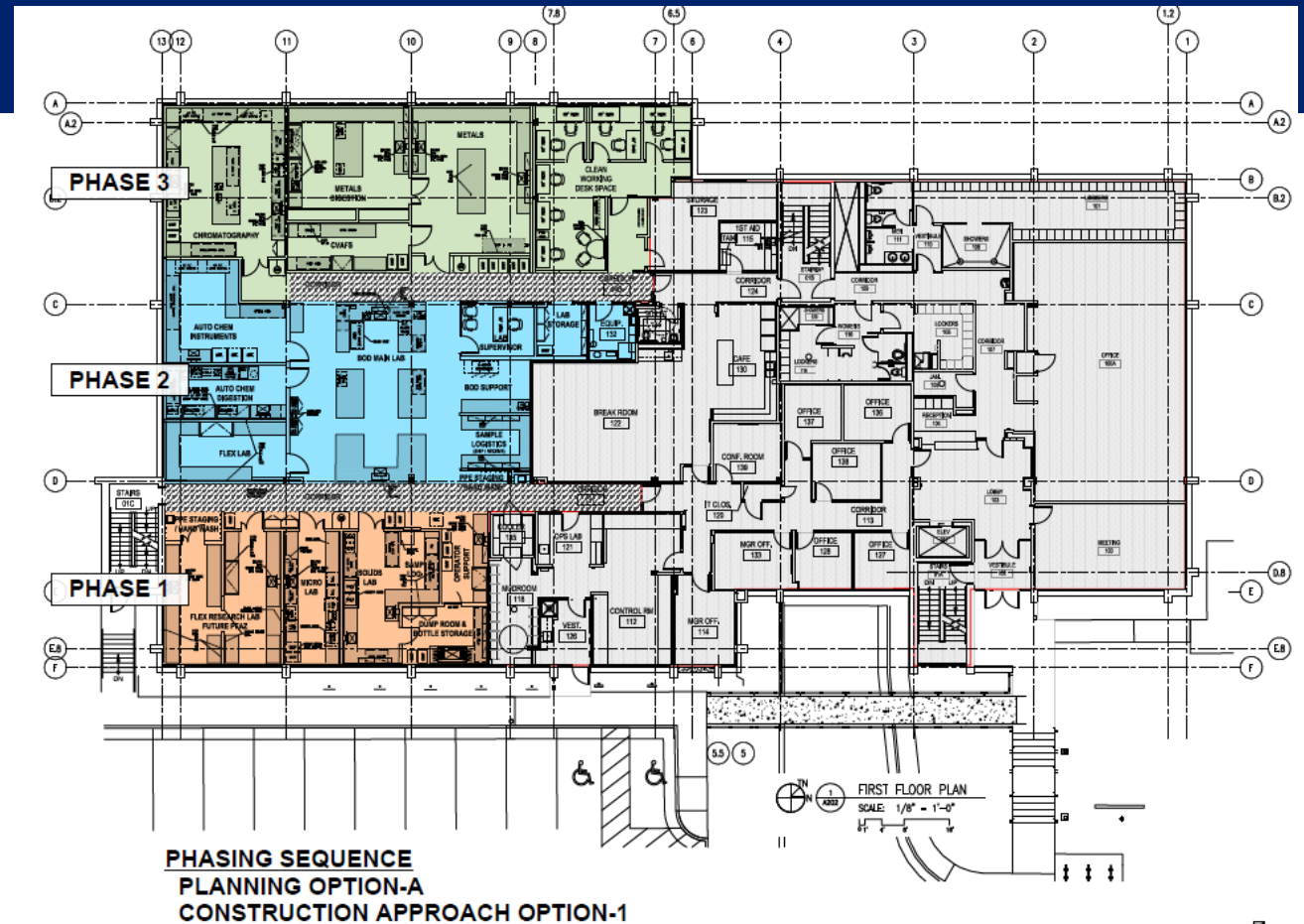
- Laboratory Remodel
- Biosolids Facility Plan

## Interceptors

- MH Rehab on Old West Interceptor
- SEI McFarland Relief Rehabilitation

## Pumping Stations & Force Mains

- PS 11 and PS 12 Surge Valve Access Platforms
- Pumping Station 2 Force Main Condition Assessment*



# In design

## Treatment Plant

- Liquid Processing Phase 2
- Dryer and Seeding Modifications

## Interceptors

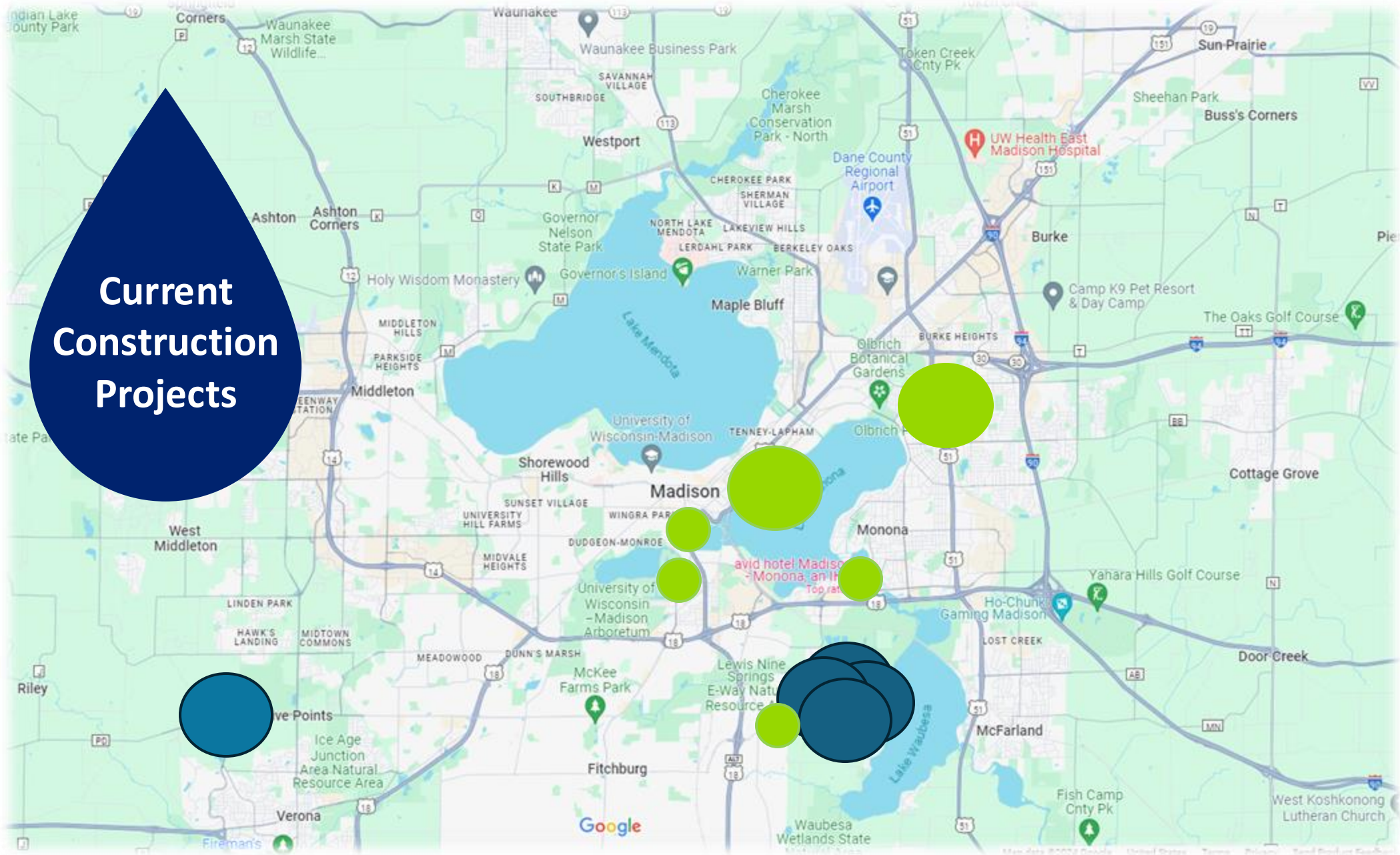
- East Interceptor Rehab PS07 to MH07-103
- Southeast Interceptor Relo at Yahara River
- NEI – Truax Extension Rehab
- NSVI Capacity Improvements (Phase 1)
- NSVI Capacity Improvements (Phase 2)
- West Interceptor Rehab (2 projects)

## Pumping Stations & Force Mains

- PS 2 VFD Replacements



# Current Construction Projects



# Under construction

## Treatment Plant

- W4 System Improvements
- Lagoon Dikes Improvements
- NSWWTP Electrical Service Equipment Repl.
- Sludge Thickeners No. 1 and No. 2 Drive & Mech Repl

## Interceptors

- Lower Badger Mill Creek Interceptor – Phase 6

## Pumping Stations and Force Mains

- Pumping Station 10 Force Main Repairs/FM Assessment
- Pumping Station Bar Screens
- Cross Town Force Main Air Release Valve Saddle Tap Repl
- Pumping Station 17 Firm Capacity



# Projects completed to date in 2026

## Treatment Plant

*-Flow Splitter Improvements (substantially complete)*

## Interceptors

*-Southeast Interceptor Rehab on USH 51 (Ph 1)*

## Pumping Stations and Force Mains

*-Pumping Station 17 Force Main Relief Ph 2*



# 2025 Bids

## **Lagoon Dikes Improvements (Ph 1)**

- Bid Cost \$637,000 (RG Huston Co.)

## **Pumping Station Bar Screens**

- Bid Cost \$7,172,500 (August Winter and Sons)





# Project Highlights

# Biosolids Facilities Plan

Workshop #1 - Projections and Regulatory Outlook	<ul style="list-style-type: none"> <li>Review current and potential future land application requirements</li> <li>Review PFAS and other CEC regulatory trends nationwide and locally</li> <li>Deliverable: TM No. 1</li> </ul>
Workshop #2 - Summary of Anticipated Alternative Evaluations	<ul style="list-style-type: none"> <li>Summary of existing and future deficiencies</li> <li>Review the existing biosolids schematics</li> <li>Review alternate potential schematics</li> <li>Review technical alternatives to be evaluated</li> <li>Deliverable: TM No. 2</li> </ul>
Workshop #3 - Sludge Thickening and Pre-Conditioning	<ul style="list-style-type: none"> <li><b>[OPTIONAL]</b> Consider alternatives to primary sludge gravity thickening and consolidating WAS thickening <i>[not in the RFP's scope]</i></li> <li>Review WAS thickening alternatives - RDTs, S Disk, centrifuges, volute press</li> <li>Review WAS conditioning: Hydrodynamic, THP, others</li> <li>Deliverables: TM No. 3 <i>(could include optional content noted)</i></li> </ul>
Workshop #4 - Stabilization/Digestion Processes	<ul style="list-style-type: none"> <li>Review existing operations</li> <li>Expand existing for all sludge flows (Class A)</li> <li>Consider alternate schemes: All conventional mesophilic, all thermophilic, TPAD, high-solids, Lystek (Class A liquid), other</li> <li>Deliverable: TM No. 4</li> </ul>
Workshop #5 - Digestion Mixing and Heating Systems	<ul style="list-style-type: none"> <li>Mixing Technologies: internal draft tube, linear motion, top-entry propeller, pumed recirculation, high-solids</li> <li>Heating [coordinate with Heat &amp; Power]: Review digestion processalts as well as hot water, steam, and combinations</li> <li>Deliverable: TM No. 4</li> </ul>
Workshop #6 - Biosolids Thickening, Dewatering, and Drying Processes	<ul style="list-style-type: none"> <li>Thickening: Consider RDTs, S Disk, centrifuges, volute press</li> <li>Dewatering: Consider centrifuge, BFP, volute press, screw press</li> <li>Drying: Belt, screw/paddle, drum dryers, fluid bed, ELODE, others</li> <li>Storage: Tanks, structures, silos, pelletizer Options, others</li> <li>Recycle load impacts on low-DO operations, Ostara, etc.</li> <li>Deliverable: TM No. 4</li> </ul>
Workshop #7 - Advanced Treatment Processes	<ul style="list-style-type: none"> <li>Combustion: Pyrolysis, gasification, incineration</li> <li>Other: Super critical water oxidation</li> <li>Deliverable: TM No. 5</li> </ul>
Workshop #8 - Overall Process Summaries	<ul style="list-style-type: none"> <li>Review the major biosolids alternatives</li> <li>Capital planning/project phasing</li> <li>Draft Facilities Plan</li> </ul>

**Scope:** Evaluate alternatives for managing Biosolids through 2050. Includes projections/regulatory outlook; review of ex. facilities; evaluation of predigestion, digestion, and post-digestion; consideration of advanced treatment processes for PFAS.

## Schedule and Status

- Professional services contract signed April 2025
- Draft Facility Plan expected August 2026, Final October 2026
- Amendment to look at Heat & Power synergy
- Public Hearing: September 2026

**Engineer:** Strand Associates

## Budget

Total Project Cost: \$750K

Engineering Contract \$506K

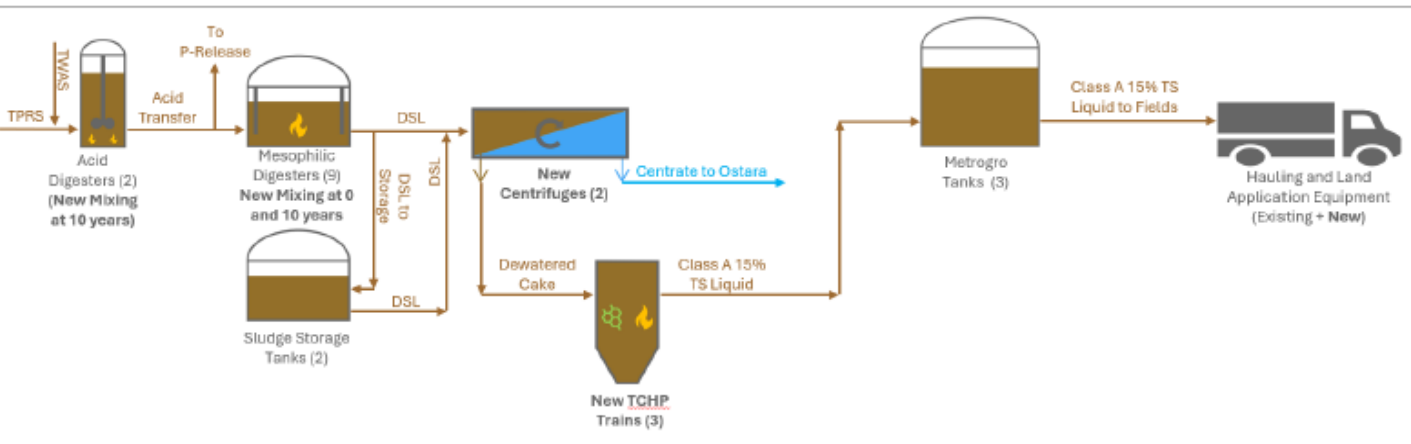
# Biosolids Facilities Plan, continued



Figure 2.05-2 Alternative SM-4-Class A Liquid Program Schematic Diagram

## Conclusions and Decisions so far:

- Projects will be capital investment intensive
- Amendment to look at options to combine planned infrastructure improvements from Biosolids and Heat & Power in a way that makes sense and reduces costs
- Continue liquid land application but move from Class B to Class A (Lystek)
  - Higher solids content helps relieve some of the pressure on storage/hauling/application
- Take interim steps before investing in drying or advanced treatment



# Electrical Equipment Service Replacement



**Scope:** Replace major equipment feeding electricity to the plant, including switchgear and transformers

## Schedule and Status

- Began construction August 2024
- Substantial completion expected 3/2027
- Final completion expected 5/2027
- Coordination with MG&E work

**Contractor:** Wil-Surge Electric

## Budget

Total Project Cost: \$12M

Construction Contract \$9.2M



# Questions?

Madison Metropolitan  
Sewerage District



# Thank you

Madison Metropolitan  
Sewerage District





# Operations Report

Presented by Alan Grooms,  
Director of Operations & Maintenance



Shaded area represents one standard deviation around the 3-year average



Total Suspended Solids



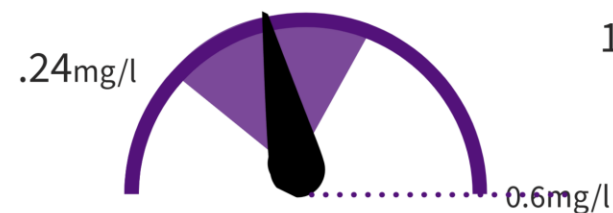
Ammonia



CBOD5



Chloride



Phosphorus



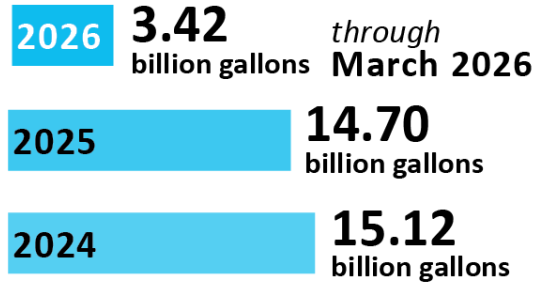
Effluent f-coli

6-month average Nov. 2025 - Present

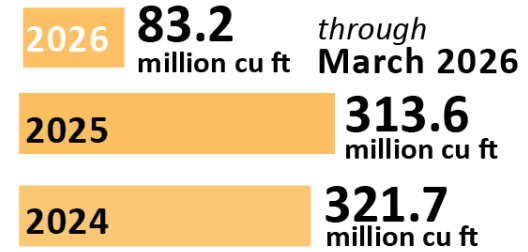
# March Plant Performance



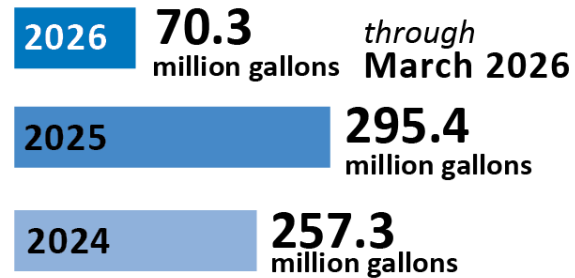
## CLEAN WATER



## BIOGAS

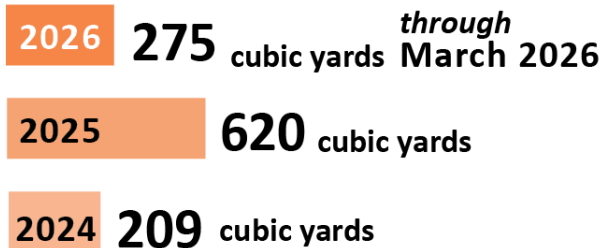


## REUSED EFFLUENT

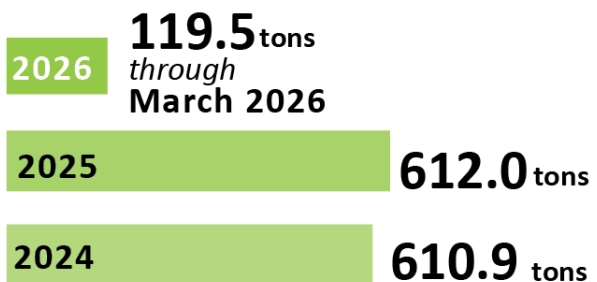




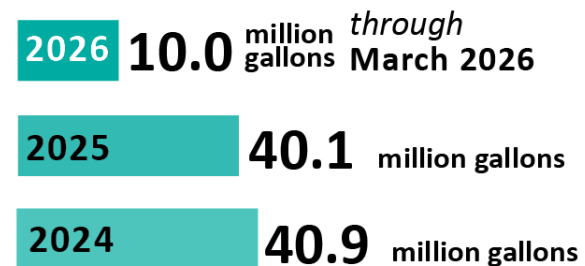
### METROGRO CAKE



### STRUVITE



### METROGRO



***The Commission is in Closed Session***

