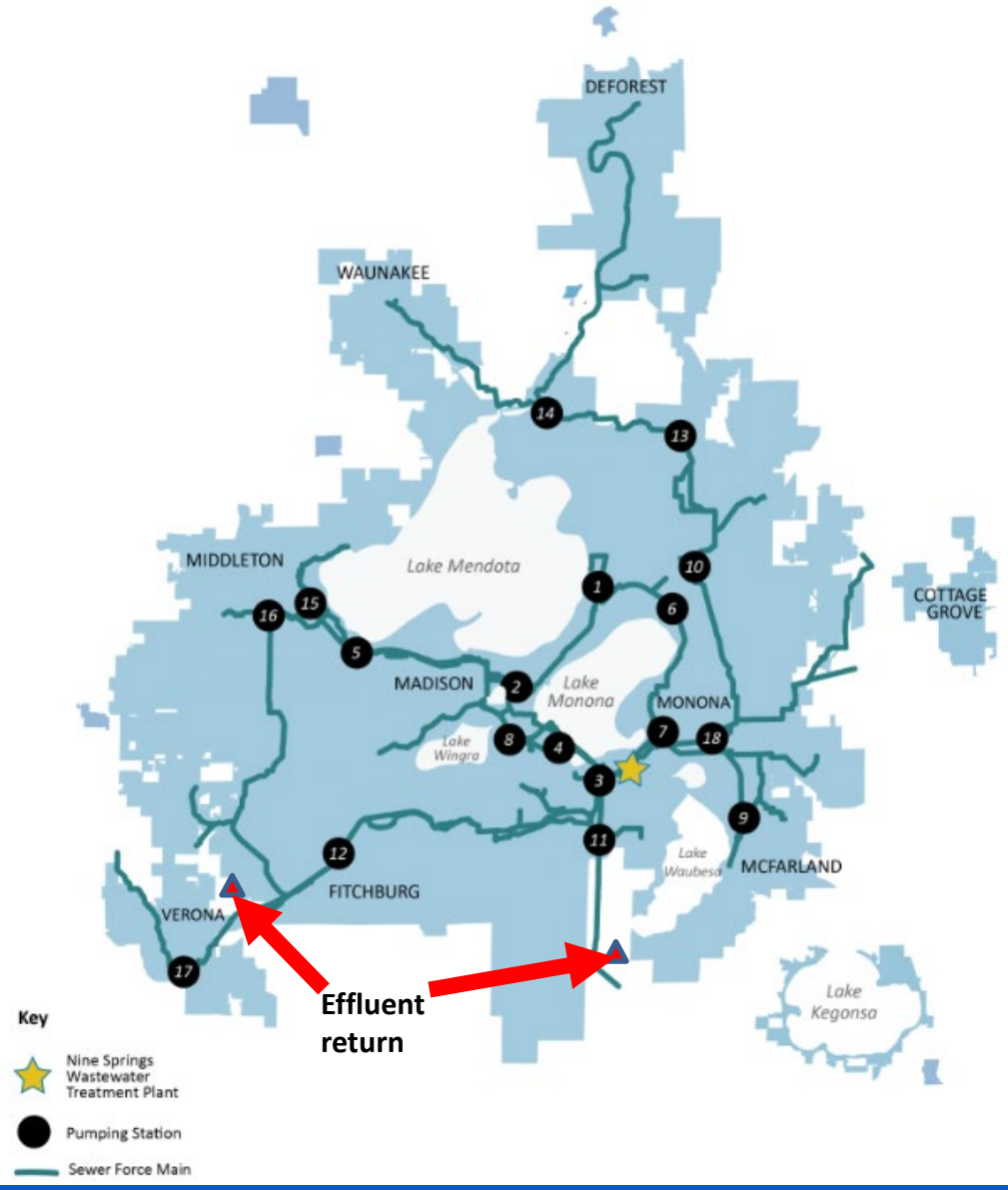
Public Hearing on Final Badger Mill Creek Phosphorus Compliance Solution

May 11, 2023

Madison Metropolitan Sewerage District

About the District:

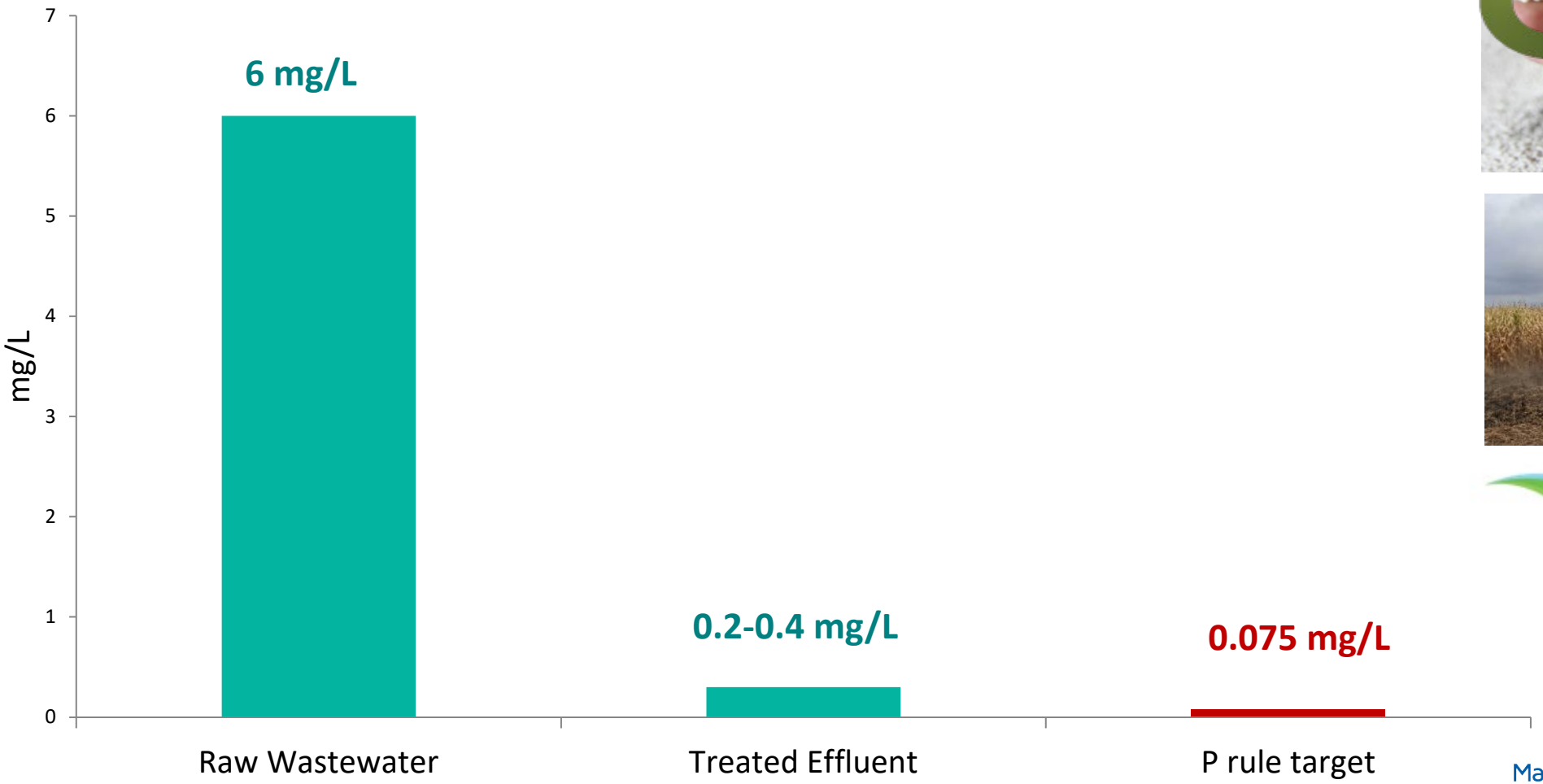
- Serve more than 400,000 people in 25 communities in 187 square miles
- Own & maintain over 760,000 feet of sewer pipes
- Own 18 pumping stations and maintains 46 other pumping stations
- Recover 13 billion gallons of water and 36 million gallons of biosolids yearly
- Operate around the clock, 365 days a year



Large service area, one plant, two effluent return locations

District committed to phosphorus reduction

Average Phosphorus Concentrations in District Wastewater



Yahara WINS

Madison Metropolitan Sewerage District

DNR compliance timeline

March 2021
Status Update

March 2022
Preliminary Compliance Alternatives Plan

May 2023
Final Compliance Alternatives Plan

Solution Implementation Phase

Sept. 2028
Achieve Compliance

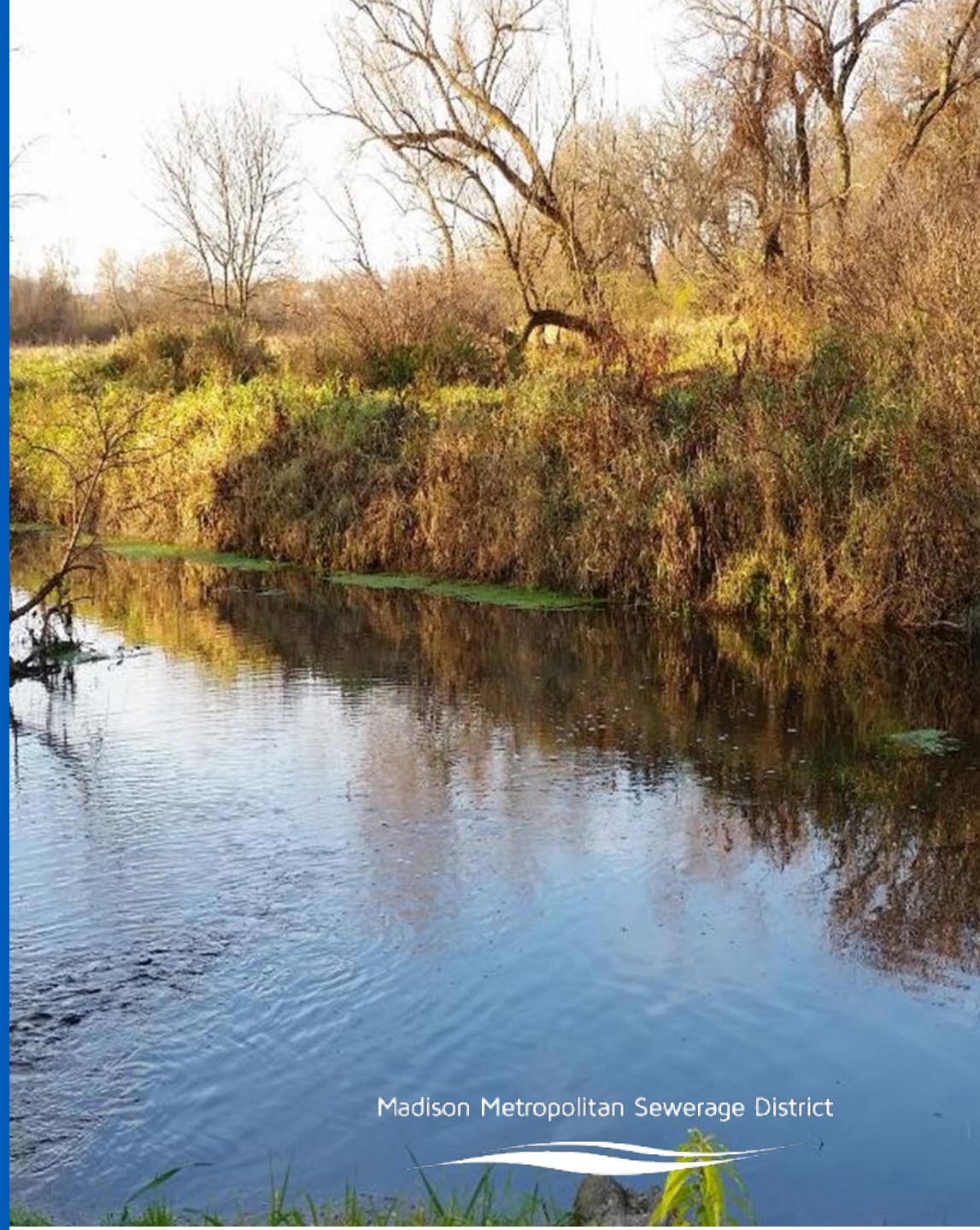
Community engagement and outreach

- Engaged in conversations to understand all interests around this topic.
- Specific engagement for groups, individuals, boards, organizations
- Have continued and will continue to engage with stakeholders and interested parties

The District has been working on this challenge for over 5 years

Final alternatives considered include:

- Watershed approaches
  - Adaptive management
  - Water quality trading
- Tertiary treatment
- Discontinuing effluent return



Watershed approaches:

- District is experienced with watershed approaches
- Adaptive management and water quality trading use similar practices to achieve success
- Based on the rules, there are not enough pounds available.

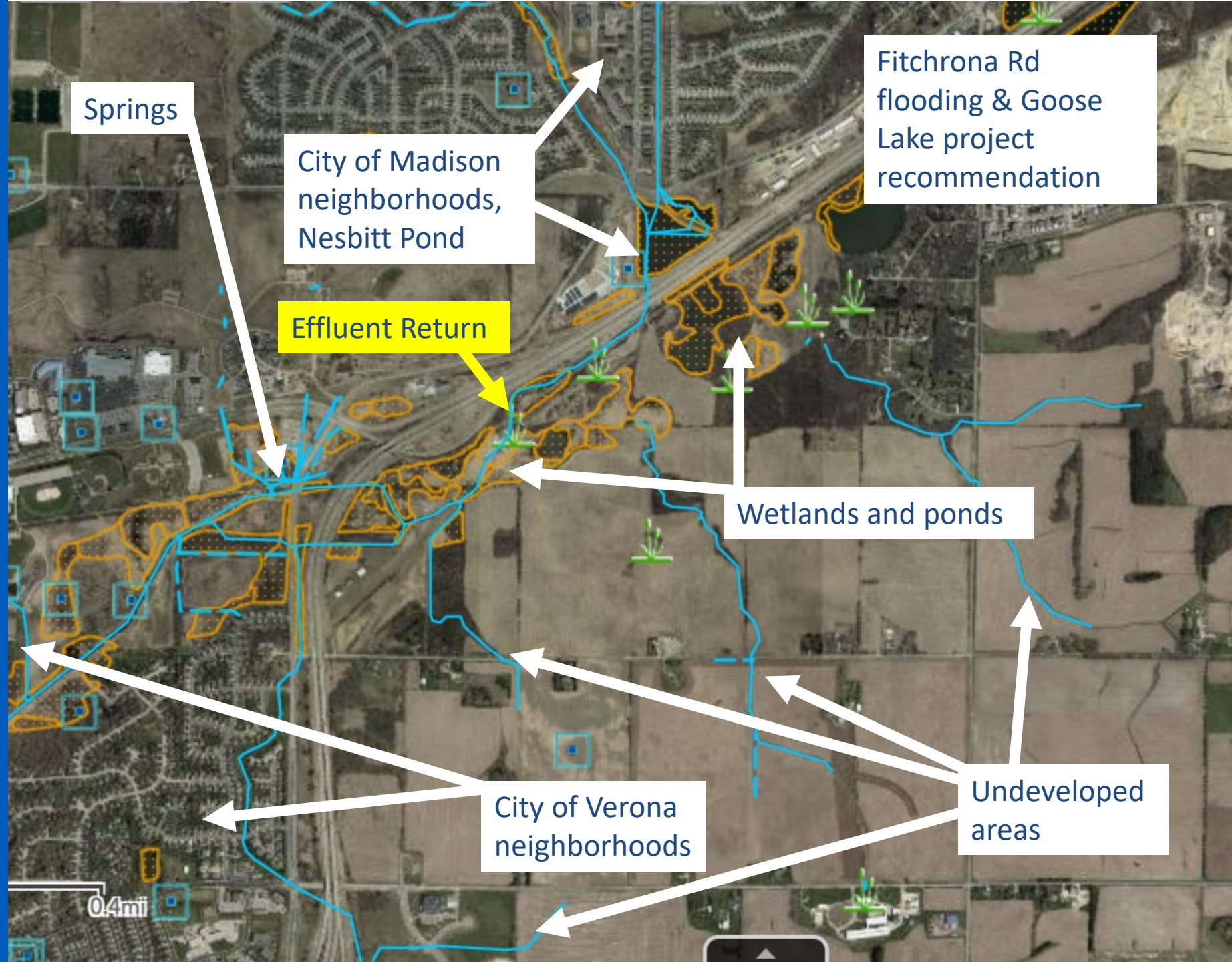
Treatment is a problematic compliance strategy:

- Does not help achieve compliance with other parameters
- Higher greenhouse gas emission, less resiliency, delays other capital projects, increases operational complexity
- Creates barriers for future compliance with anticipated stricter regulations
- Treatment will cost rate payers $24 million and increase rates 2.2%-3.7% over baseline.

Discontinuing flow to Badger Mill Creek

- Stormwater infiltration regulations and improvements have led to higher groundwater
- Increased rainfall has led to increased surface water and groundwater
- As a result, Badger Mill Creek's streamflow has steadily increased
- District consulted with experts to ground-truth data through an in-stream study with and without effluent return.
- Stream more natural without effluent

Many sources provide water to Badger Mill Creek



With additional effluent, Badfish Creek will experience:

- Same instream concentration of phosphorus and other parameters and same pumping rates.
- Maximum flow rate will not change
- Additional pounds of phosphorus reduction occurring through the Yahara WINS project.

Many enhancement opportunities exist

Stormwater & groundwater

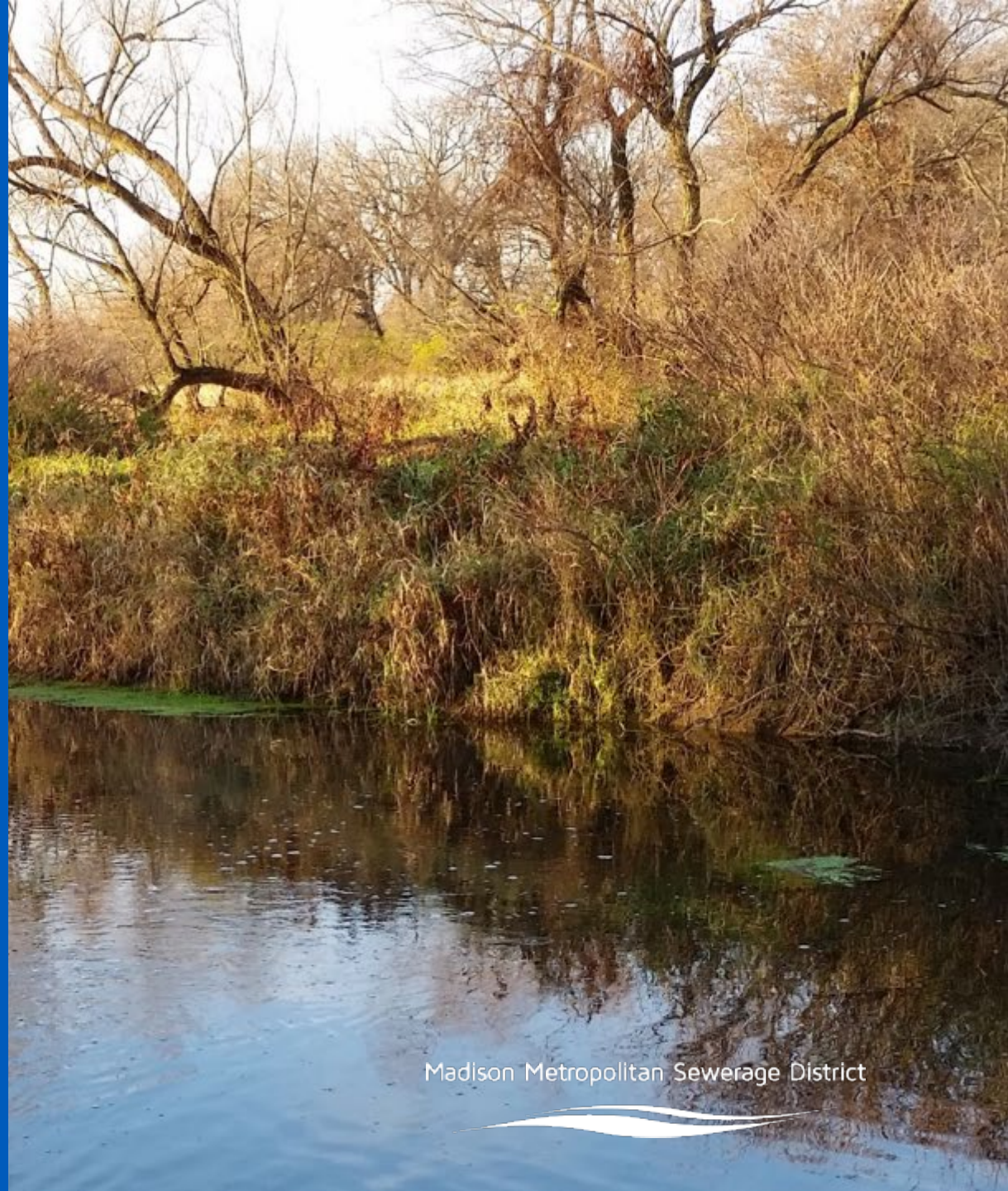
Habitat Improvement

Sediment/debris/garbage removal

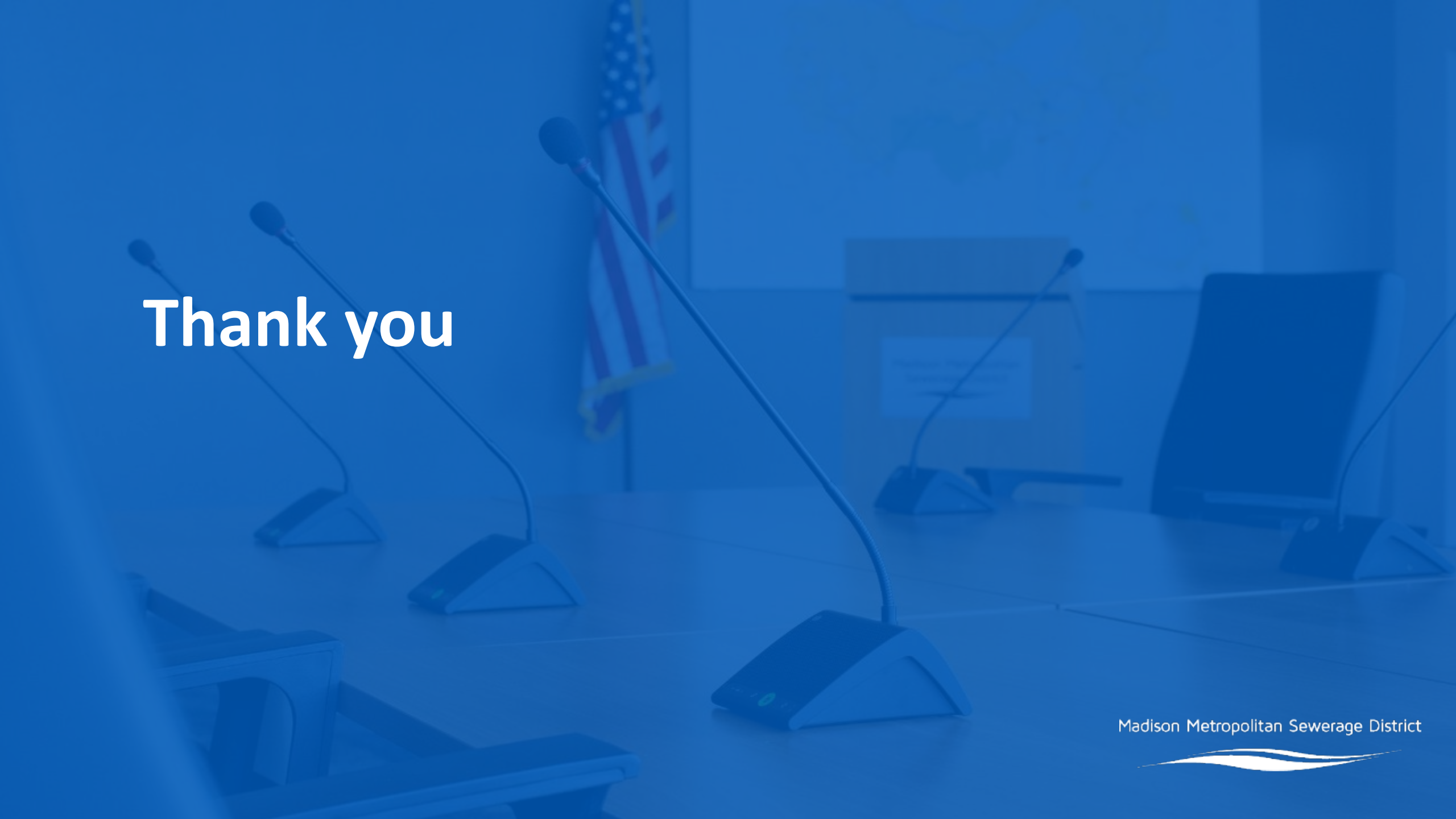
Bridge in channel

Recommended solution:

Eliminate BMC return & provide $1 Million for projects to support stream health and resiliency.



Thank you



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