

MEMBER MEETING

December 7, 2017



THE WATER COUNCIL

HOST WELCOME



Dave O. Christianson
Partner
Wipfli LLP



GLOBALLY CONNECTED EPICENTER – PROGRESS FROM MISSIONS TO CHINA & ISRAEL

Dean Amhaus, President & CEO
Karen Frost, VP Business Development



THE WATER COUNCIL

International Engagement

Israel and China

Israel – Governor's Trade Mission



Israel – Governor's Trade Mission Reverse Pitch and FDI Sessions



China – WEDC / TWC

One Water, One World Conferences



- Nanjing
- Beijing

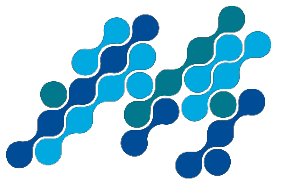


China – WEDC / TWC

One Water, One World Conferences



12th International Conference on China Urban Water Development

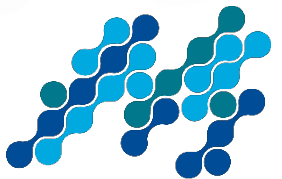


THE WATER COUNCIL



This could be you!
Join WEDC on an upcoming
Trade Mission or Venture

- Canada
- Mexico
- China
- More



THE WATER COUNCIL

THE CHANGING WORLD OF URBAN WATER MANAGEMENT

Kevin Shafer, Executive Director

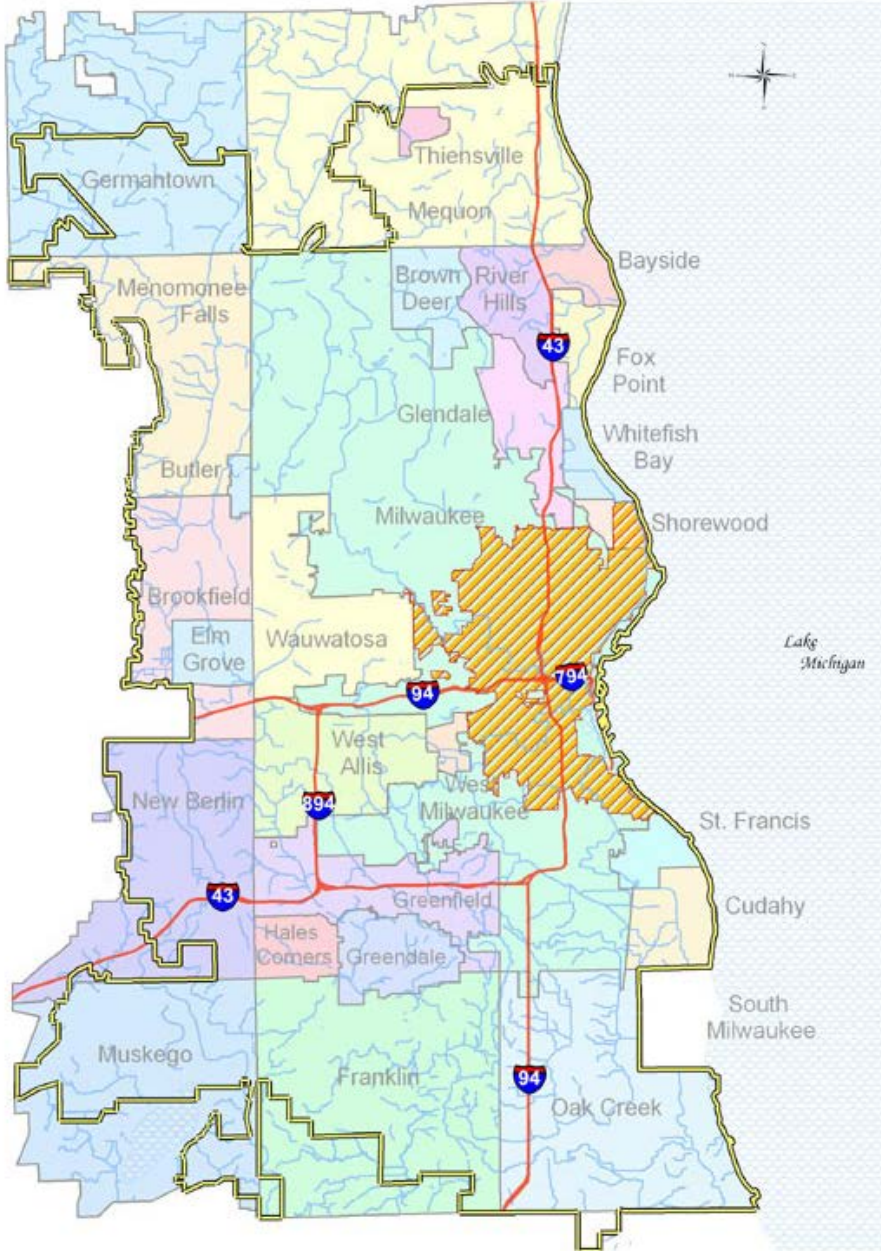


THE WATER COUNCIL

The Changing World of Urban Water Management



Milwaukee Metropolitan Sewerage District



We Serve:

- 1.1 Million Customers
- 28 Municipalities
- 411 Square Miles

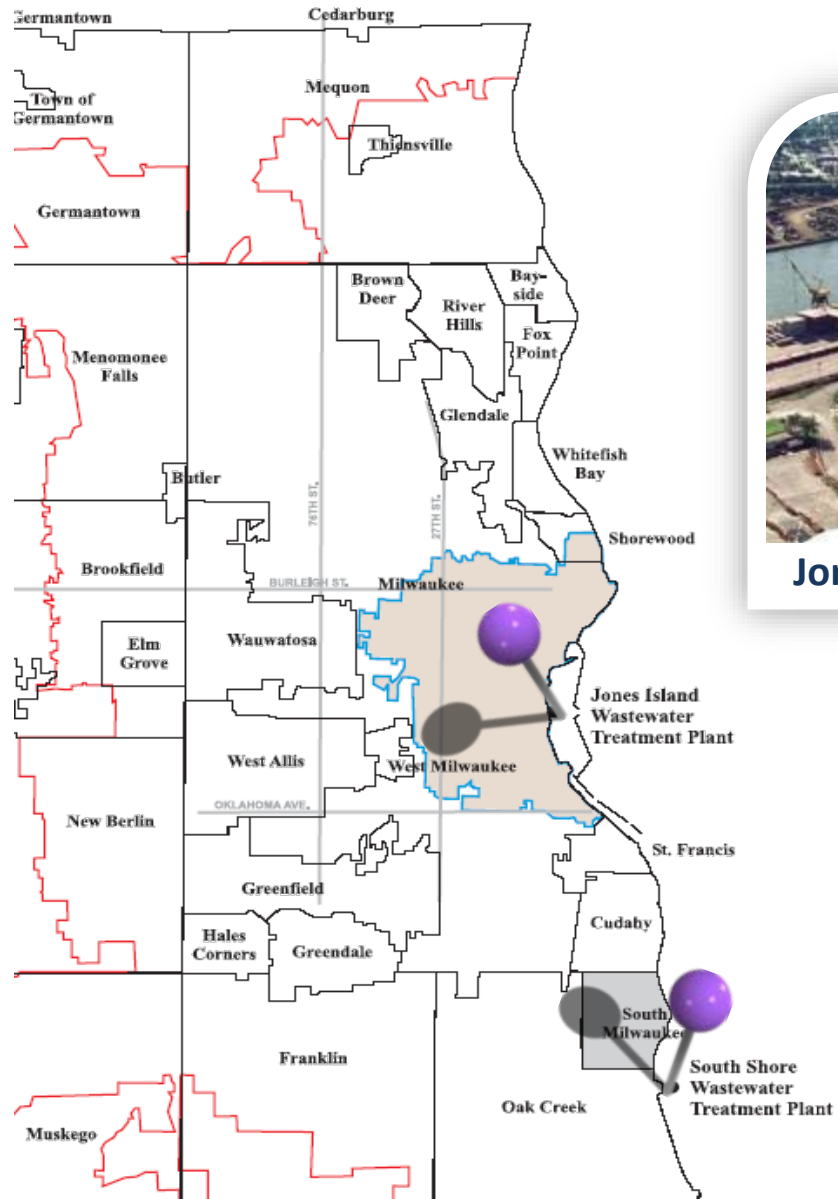
We Protect the Public & Lake Michigan:

- Convey/Store/Reclaim Wastewater
- Manage Flooding

We Have:

- 300 Miles of Sewers (municipalities and individuals have 6,000 miles!)
- 521 MG Tunnel System
- 2 Water Reclamation Facilities

MMSD's Water Reclamation Facilities (WRFs)



Jones Island



South Shore



Milorganite[®] 90 YEARS
CELEBRATING

The logo is set against a background of a lush green lawn and dark brown soil under a blue sky with white clouds. The number '90' is stylized, with the '0' containing a detailed illustration of a diamond. The word 'YEARS' is in a smaller, serif font to the right of the '0'. The word 'CELEBRATING' is in a smaller, sans-serif font below the '90'.



Deep Tunnels


300 Feet
Below ground

521 Million
Gallons of Storage

28.5 Miles
Long

17- to 32-feet
In Diameter

Designed to
minimize basement
backups and for 1-2
overflows per year.



98.4%

Capture & Clean

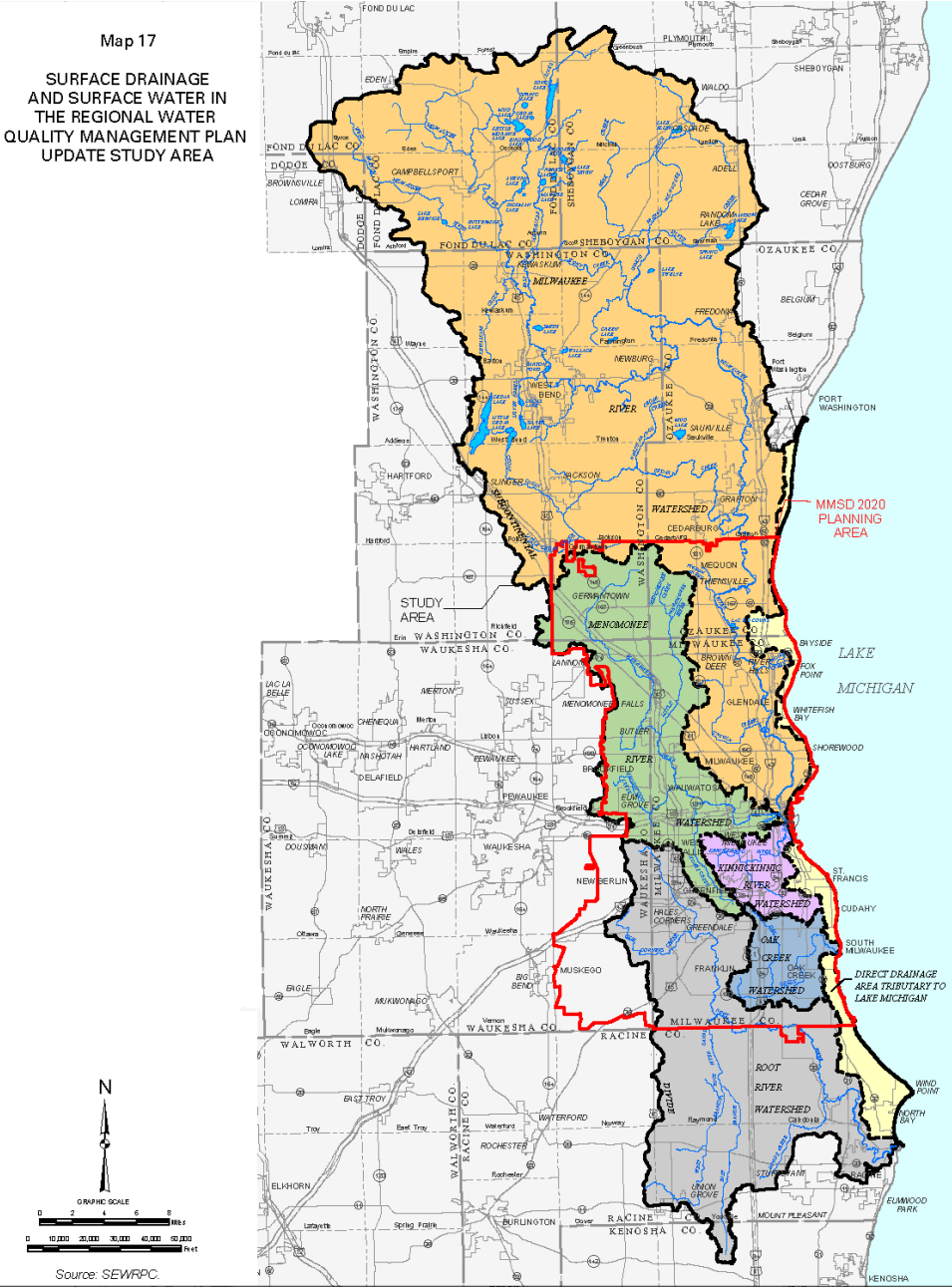
Since 1993

Photo by: David Stefanik

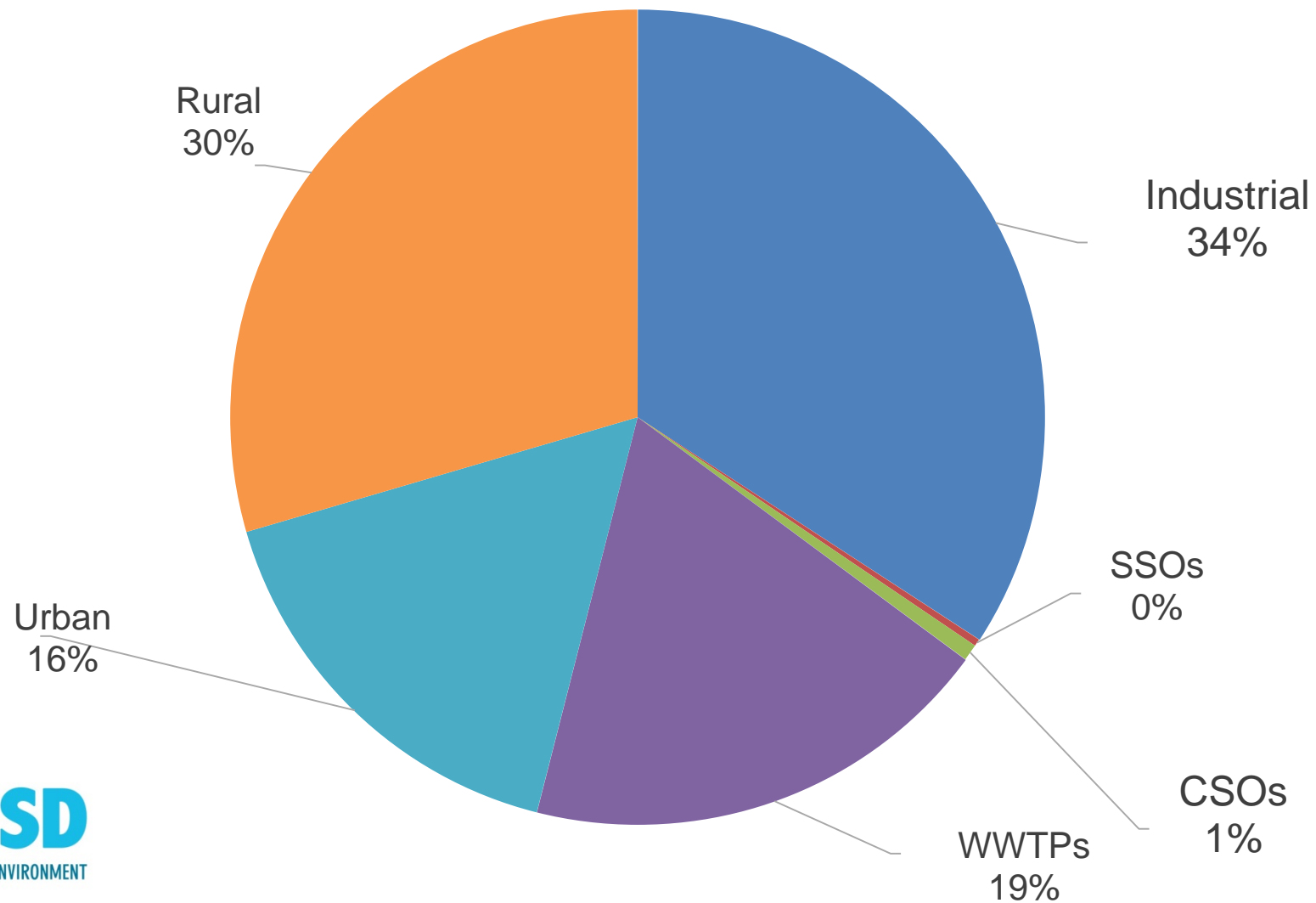


The Greater Milwaukee River Watersheds

<u>Watershed</u>	<u>Area (square miles)</u>
Kinnickinnic River	24.7
Menomonee River	135.8
Milwaukee River	700.0
Oak Creek	28.2
Root River	197.6
Lake Michigan Direct	40.7
Drainage Area	
Total	1,127.0
Number of Counties	9
Number of Local Municipalities	83



Milwaukee River Total Phosphorus



MMSD's 2035 Vision

(<http://v3.mmsd.com/NewsDetails.aspx>)

Integrated Watershed Management Goals:

Zero sanitary sewer overflows

Zero combined sewer overflows

Zero homes in the 100 year floodplain

Acquire an additional 10,000 acres of river buffers through Greenseams®

Use green infrastructure to capture the first 0.5 inch of rainfall

Harvest the first 0.25 gallons per square foot of area of rainfall

Energy Efficiency and Climate Mitigation & Adaptation Goals:

Meet 100% of MMSD's energy needs with renewable energy sources

Meet 80% of MMSD's energy needs with internal, renewable sources

Use the Greenseams® Program to provide for 30% sequestration of MMSD's carbon footprint

Reduce MMSD's carbon footprint by 90% from its 2005 baseline

Before



Lincoln Creek

- **Concrete Removal**
- **Minimized Floodplain**
- **Habitat Enhancement**

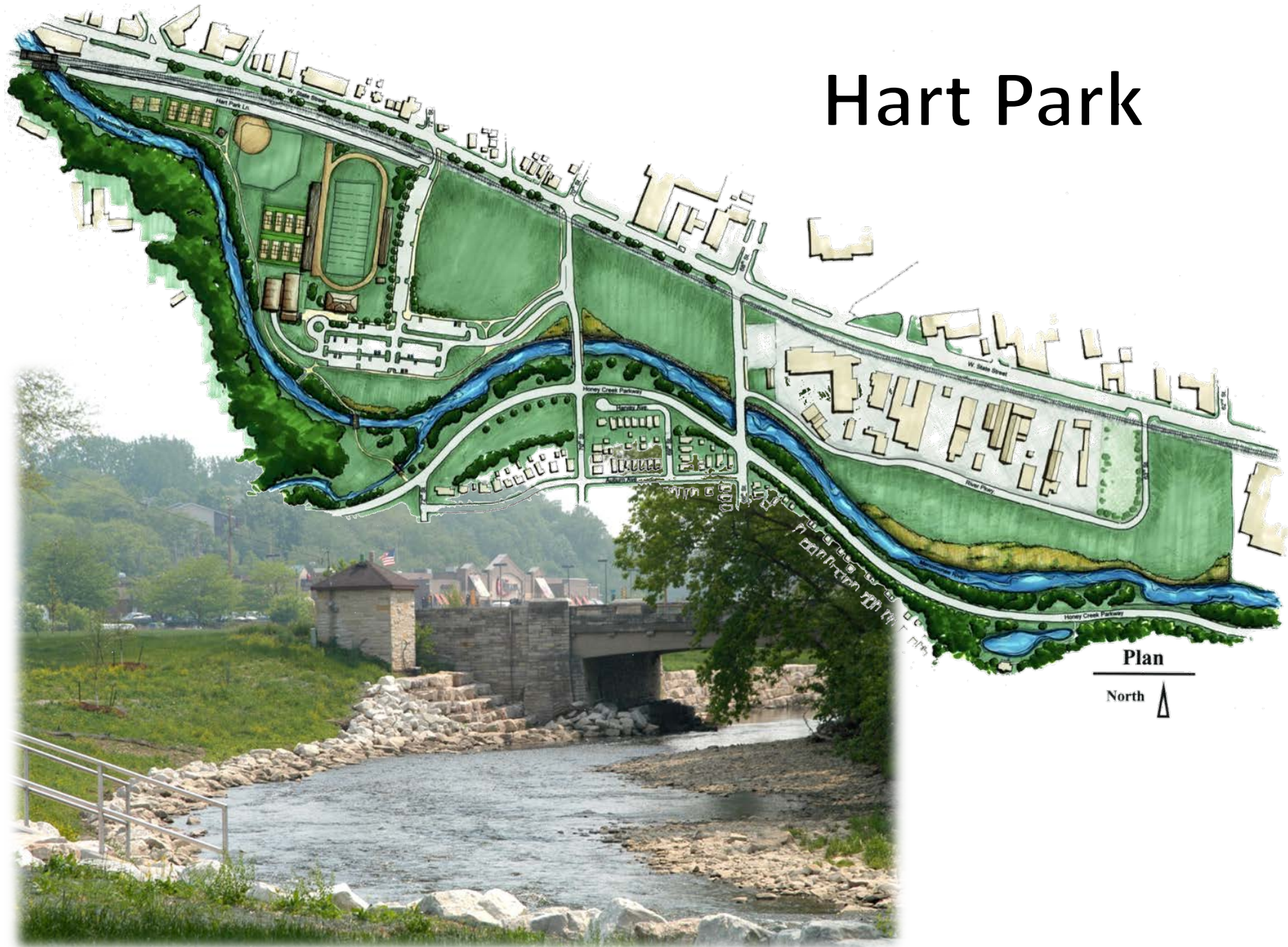
After



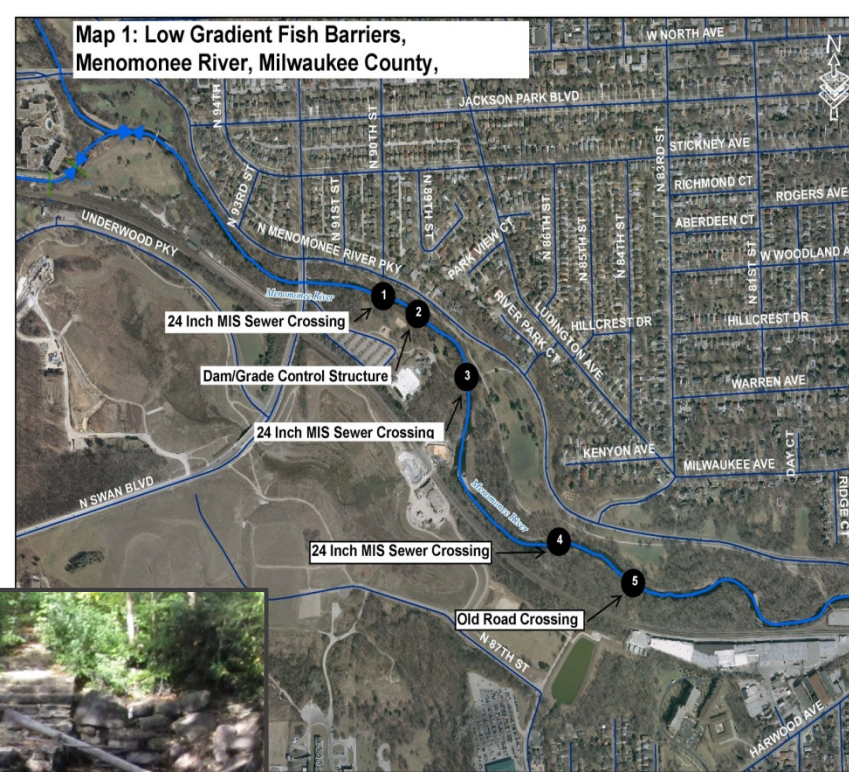
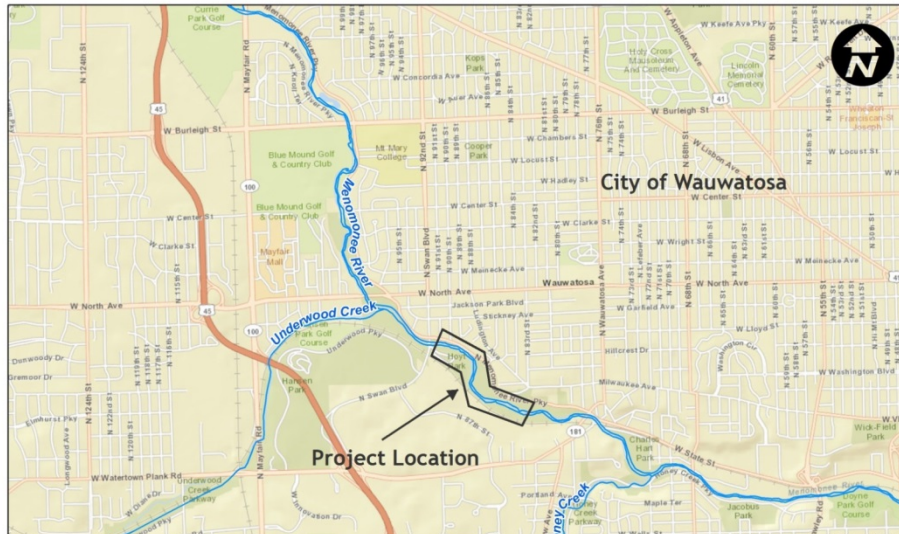
Valley Park Project



Hart Park







Menomonee River Low Gradient Removal Project

- Total Cost - \$990,439
- Partners:
 - NOAA - \$142,100
 - Fund For LM - \$200,000
 - SOGL - \$400,000
 - GLFT - \$25,000

Menomonee River - Concrete Removal



Kinnickinnic River - 2022



Schoonmaker Creek



Removal of Estabrook Dam





Managing Water Where it Falls



Green Infrastructure

Since 2002

31.9 Million Gallons



Green Roofs

Managing up to
512,000
Gal. Per Storm



22,187

Distributed
since 2002

Rain Barrels

Total Storage =

1,150,000

Gallons



Up to **12,000** gal. per Storm



100 Rain Barrels
23 Rain Gardens

MMSD's Fresh Coast 740 brings you

WEST ALLIS green summer 2015



Greenseams®

More than 3,300 Acres



Working Soils®

Agricultural Conservation Easements



Questions



Kevin Shafer
Executive Director
Milwaukee Metropolitan Sewerage District
kshafer@mmsd.com
414-225-2088

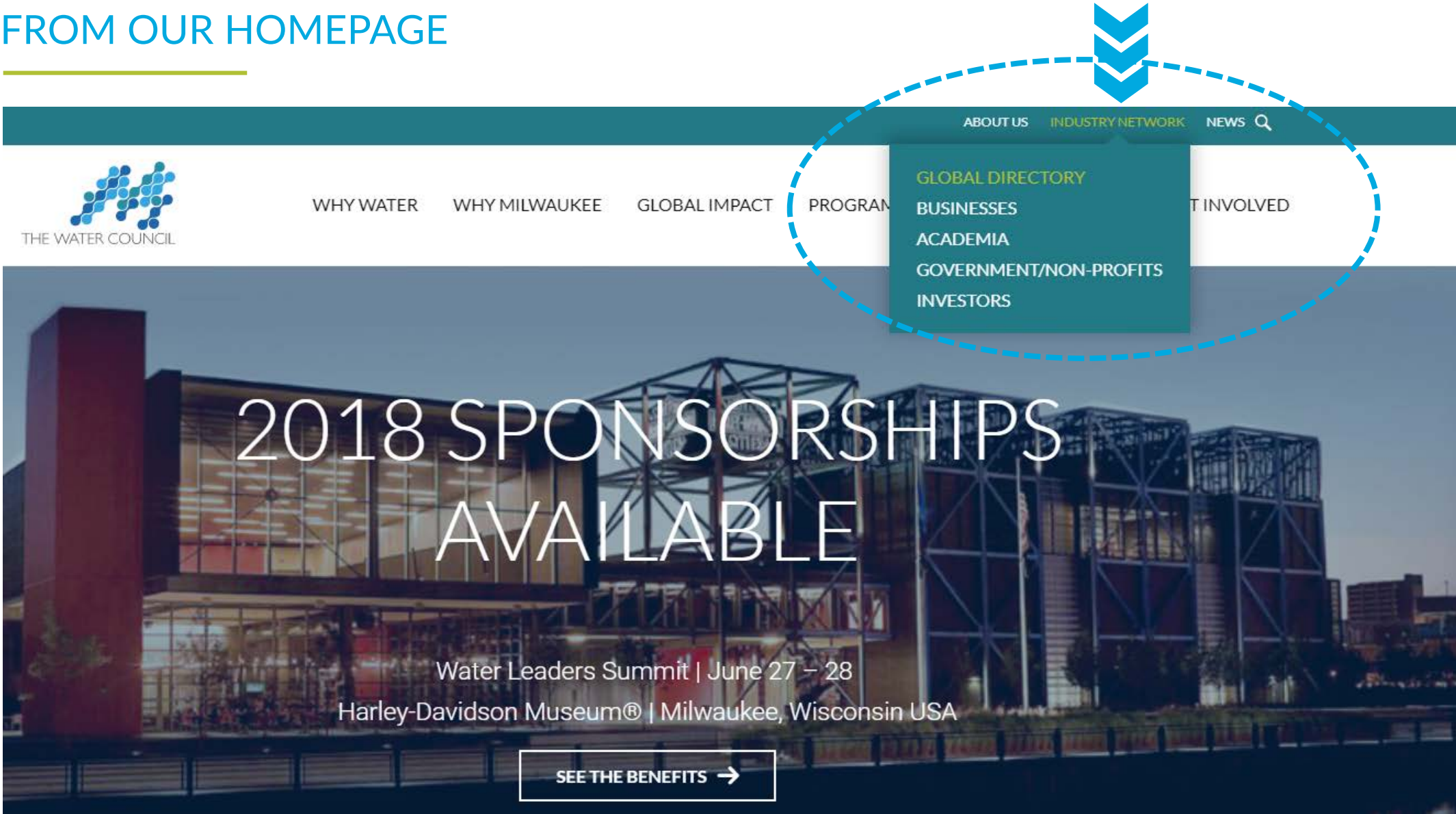
INTRODUCING THE NEW AND IMPROVED GLOBAL DIRECTORY

Meghan Jensen, VP Marketing &
Communications



THE WATER COUNCIL


HOW TO FIND THE DIRECTORY FROM OUR HOMEPAGE



THE NEW AND IMPROVED GLOBAL DIRECTORY

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SEARCH FOR COMPANIES, ACADEMIA, NON-PROFITS, AND GOVERNMENT AGENCIES COLLABORATING WITH THE WATER COUNCIL

MEMBER

NARROW YOUR SELECTION

434 Results

☒ MEMBER
 ☐ GLOBAL PARTNER
 ☐ STRATEGIC PARTNER

TYPE


☐ Academia
 ☐ Business
 ☐ Government & Utility
 ☐ Non-Profit
 ☐ Startup
 ☐ Wisconsin Water Tech Business


WATER TECH BUSINESSES


☐ Aquaculture Components/Systems
 ☐ Desalination Components/Systems
 ☐ Industrial Water Process Systems
 ☐ Industrial Water Treatment Components
 ☐ Large Water Users
 ☐ Residential Water Treatment Components
 ☐ Stormwater Components/Systems
 ☐ Technical Support Services for Water
 ☐ Wastewater Resource Recovery
 ☐ Wastewater Treatment Components/Systems
 ☐ Water Distribution Systems
 ☐ Water System Products: Mechanical
 ☐ Water System Products: Non-Mechanical
 ☐ Water-Energy Efficiency Components
 ☐ Well Monitoring Systems


WATER RELATED BUSINESSES


☐ Distributors of Water Industry Products

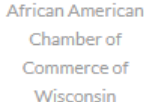


































































HOW TO SEARCH

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Search...

345 Results

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- ☒ Business
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Business X Wisconsin Water Tech Business X

AC Smith.
Innovation has a name.

ABB

Acceleration
Advisors LLC

ADVANCED
Chemical Systems

Aero-Stream LLC

ATC
AMERICAN TRANSMISSION COMPANY

ANDRUS.
INTELLECTUAL PROPERTY LAW

ANGUIL AQUA SYSTEMS

Anguil Aqua System

AQUARIUS
SYSTEMS
A Division of OGD Products Inc.

ARGON
INDUSTRIES

asa
ANALYTICS

Badger Meter

BMC

BAKER
manufacturing company LLC

BIOGILL
ENVIRONMENTAL
PTY LIMITED

Bradley

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MICROBE DETECTIVES

Member

Technical Support Services for Water

Company Size: Startup

BREW Accelerator Winner

@microbedetect

Visit Company Website

CONNECT →

MICROBE DETECTIVES

Microbe Detectives conducts microbial DNA analysis of water, soil, food, probiotics and membrane samples.



RELATED NEWS

WATER EXECUTIVE RALPH WAGNER JOINS MICROBE DETECTIVES AS VICE PRESIDENT OF BUSINESS DEVELOPMENT

On August 28, 2017

Mr. Ralph Wagner joined Microbe Detectives today as the Vice President of Business Development. He will be focusing on developing corporate partnerships to optimize wastewater treatment and resource

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○ Technical Support Services for Water

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CONSIDER IT LIKE THIS: OUR WEBSITE IS WORKING FOR YOU!

- Available to the public
- Added visibility
- Members receive full profile features to promote their organizations
- Personalized introductions by TWC team

www.thewatercouncil.com

DIRECT LINK:

<https://thewatercouncil.com/industry-network/global-directory/>

NEW MEMBERS

14 States, 8 Countries, 4 Continents

- PlasmaE– Milwaukee, WI
- BioGill Environmental – Sydney, Australia
- WEC Energy Group – Milwaukee, WI
- Symbiont – Milwaukee, WI
- Badger Mining Corporation – Berlin, WI
- Nanolytix – Toronto, Canada
- Ecolisense – Ontario, Canada
- Water Resources Monitoring Group – Lancaster, WI
- Pulsed Burst Systems – Richfield, WI
- Qingdao Guanghua Environmental Technology Co. – Qingdao, China
- Aquor – San Pedro Garza Gacia, Mexico
- Marcus Center for the Performing Arts – Milwaukee, WI
- SRL-Environmental LLC – Racine, WI

MemberDROPS



THE WATER COUNCIL

THANK YOU TO OUR HOST

WIPFLi^{LLP}
CPAs and Consultants



THE WATER COUNCIL