



NEW Water Update

Municipal & Industrial Partner Meeting

October 18, 2023



Today's Agenda

- Welcome / Updates – Tom Sigmund, Executive Director
- Adaptive Management Update – Jeff Smudde, Director of Environmental Programs
- Downtown Interceptor Renewal Project – Lisa Sarau, Staff Engineer
- Public Service Announcements (PSAs) – Tricia Garrison, Public Affairs & Education Manager

Executive Director Updates

- Dye Testing
- 2023-26 Strategic Plan
 - [On website here](#)
- Facility Plan update
- 2024 Draft Budget





2024 Draft Budget Update

2024 Draft Budget

Broad Categories	2023 Budget	2024 Budget	% Change
Municipal User Fees	\$ 41,083,772	\$ 43,652,808	6.3%
Mill Charges	\$ 5,201,740	\$ 5,529,340	6.3%
Other Revenues	\$ 988,310	\$ 1,270,921	28.6%
Reserve Transfers	\$ 1,469,795	\$ 1,237,973	-15.8%
Contribution to Capital Reserve	\$ (29,126)	\$ (25,076)	-13.9%
Total Revenues	\$ 48,714,492	\$ 51,665,965	6.1%





Capital Charge included in Parameter Rate			
Parameter	2023 Budget	2024 Budget	% Change
Volume (1,000 gals)	\$ 0.88669	\$ 1.01187	14.1%
Biochemical Oxygen Demand (lbs)	\$ 0.56491	\$ 0.60156	6.5%
Suspended Solids (lbs)	\$ 0.70913	\$ 0.70017	-1.3%
Phosphorus (lbs)	\$ 3.22273	\$ 2.60774	-19.1%
Total Kjeldahl Nitrogen (lbs)	\$ 0.75539	\$ 0.84268	11.6%

Capital Charge NOT included in Parameter Rate			
Parameter	2023 Budget	2024 Budget	% Change
Volume (1,000 gals)	\$ 0.74231	\$ 0.72409	-2.5%
Biochemical Oxygen Demand (lbs)	\$ 0.33401	\$ 0.30569	-8.5%
Suspended Solids (lbs)	\$ 0.37324	\$ 0.31326	-16.1%
Phosphorus (lbs)	\$ 2.01844	\$ 1.25768	-37.7%
Total Kjeldahl Nitrogen (lbs)	\$ 0.59012	\$ 0.53115	-10.0%

Capital Charge	\$ 14,622,367	\$ 19,643,411	34.34%
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NOTE: Capital Charge methodology changed for the 2024 budget, including 100% of the Capital as a fixed charge. Where as 2023 budget included 65% of Capital as a fixed charge and 35% of Capital included in the unit parameter rates

Parameter rates billed to customers do not include capital charge; that is billed separately



Adaptive Management Update

*Protecting our most
valuable resource,
water*



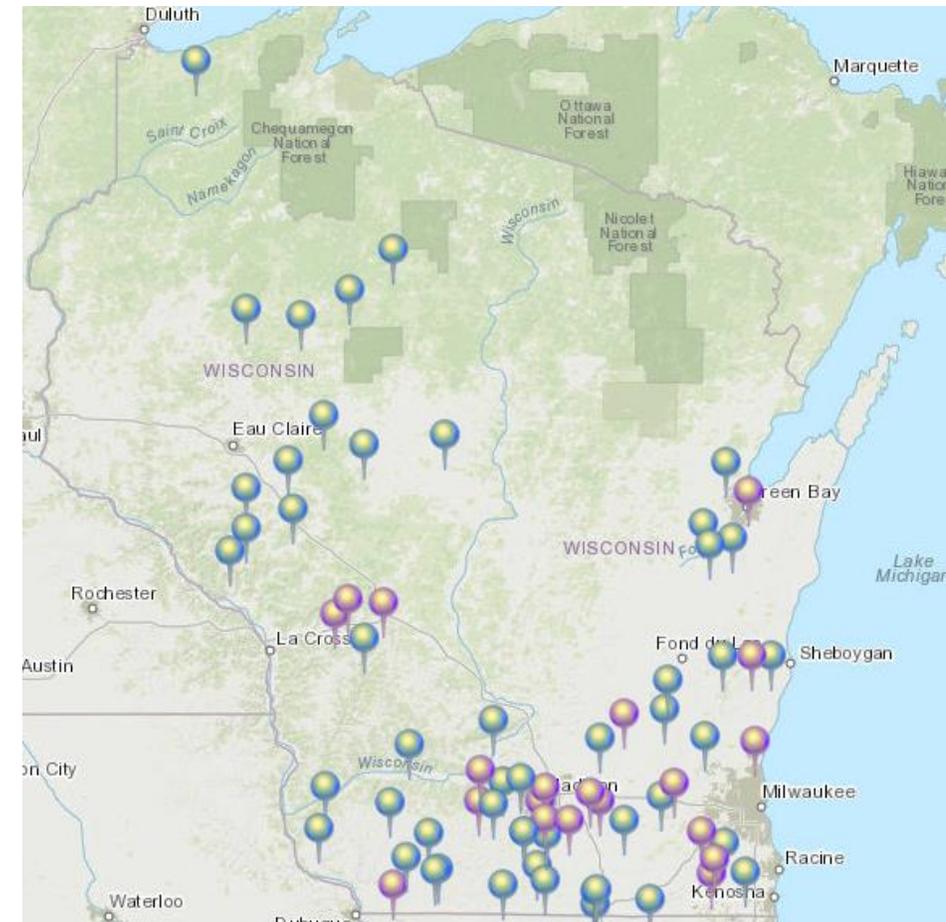


Watershed Contributions

- Spring & fall runoff events account for 70-80% of all nutrient & sediment loading annually
- Managing runoff quantity and quality is imperative to reducing excess nutrients and sediment from entering our impaired waterways

What is Adaptive Management?

- Voluntary compliance option for point source facilities to comply with phosphorus limits in NR217
- Watershed approach to control phosphorus and total suspended solids, where a point source facility funds management measures at other point or nonpoint sources
- Creates interim limits for the point source facilities for the duration of the compliance program
- Based on achieving the applicable water quality criteria in the receiving water and/or action area
- A strategy built on partnerships between point source facilities & landowners, municipalities, private & public entities

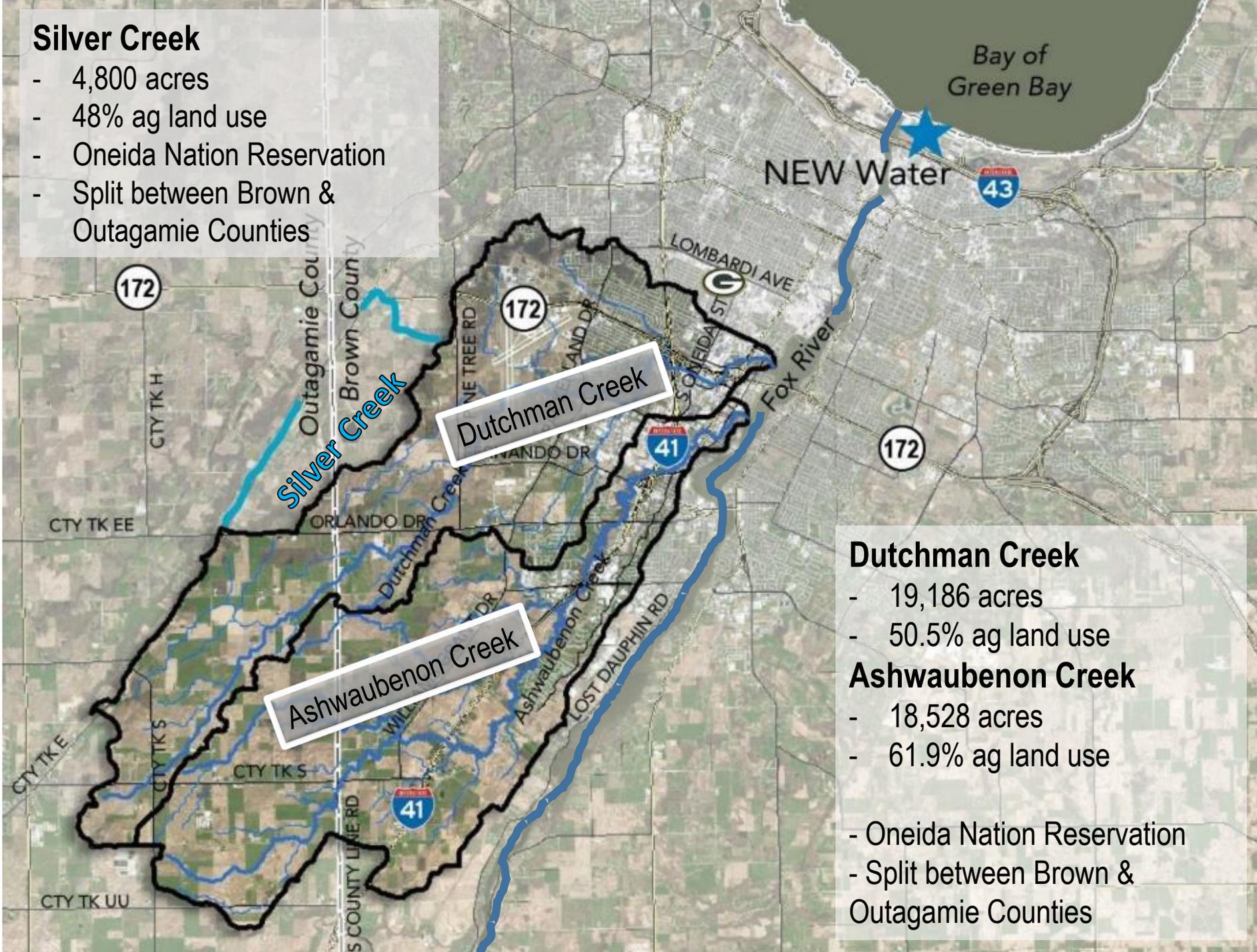


Map Key

-  Water Quality Trading site
-  Adaptive Management site

Silver Creek

- 4,800 acres
- 48% ag land use
- Oneida Nation Reservation
- Split between Brown & Outagamie Counties



Dutchman Creek

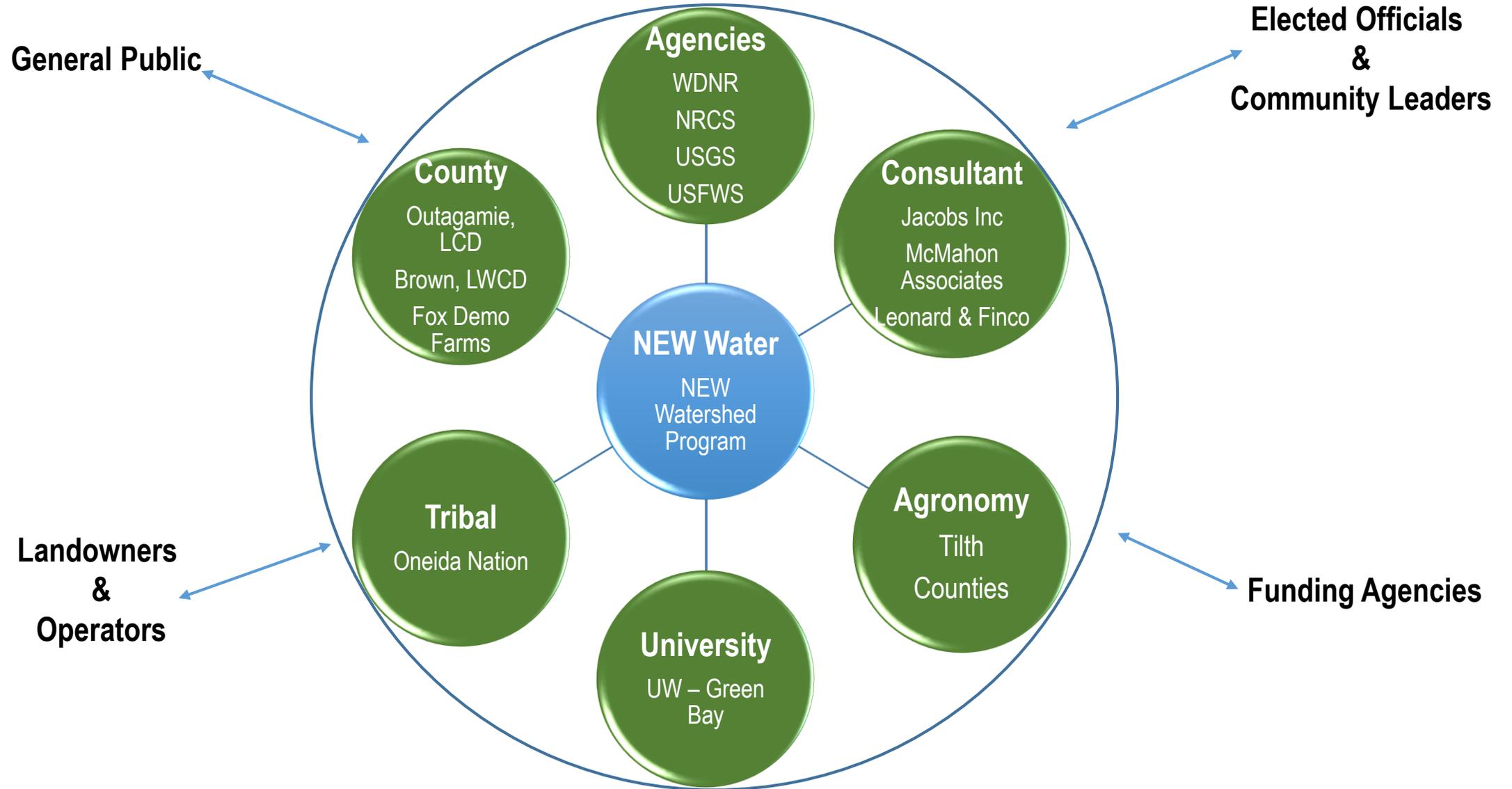
Ashwaubenon Creek

- Dutchman Creek**
 - 19,186 acres
 - 50.5% ag land use
- Ashwaubenon Creek**
 - 18,528 acres
 - 61.9% ag land use
 - Oneida Nation Reservation
 - Split between Brown & Outagamie Counties

NEW Watershed Program Goals

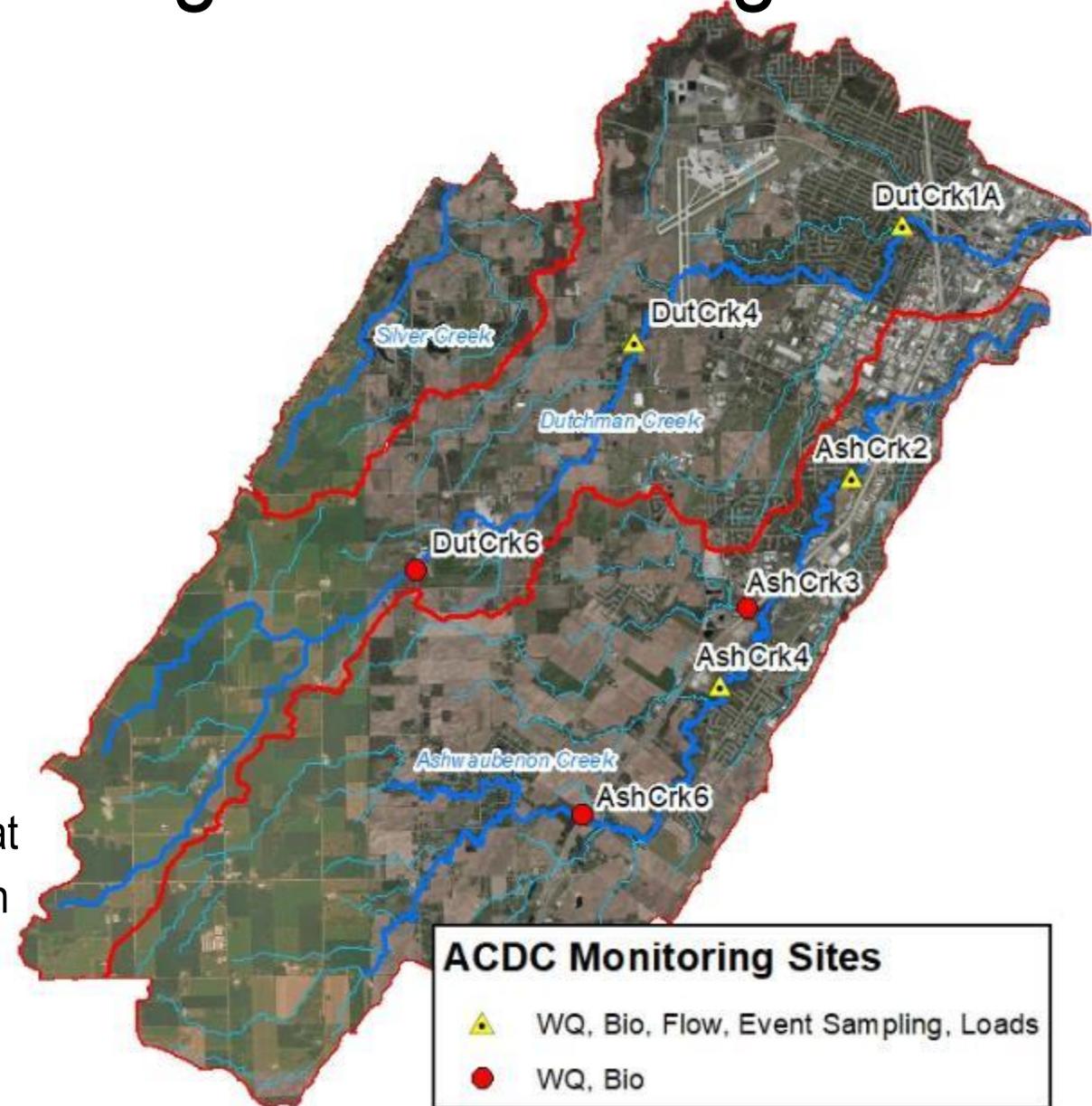
- Develop a diverse program team
 - Outagamie & Brown Counties, Oneida Nation, local agronomists, consultant team, NRCS, USGS, WDNR, non-profits, universities, transportation groups, municipalities and others
- Achieve the TMDL reduction targets
 - 18,911 lbs/yr of phosphorus
 - 3.9 million lbs/yr of sediment
- Measure water quality and biological improvements in ACDC and Lower Fox River
 - 0.075 mg/L TP in Ashwaubenon & Dutchman Creeks
- Financial model estimate
 - \$40 million dollars over 20 years

Core Program Collaborations



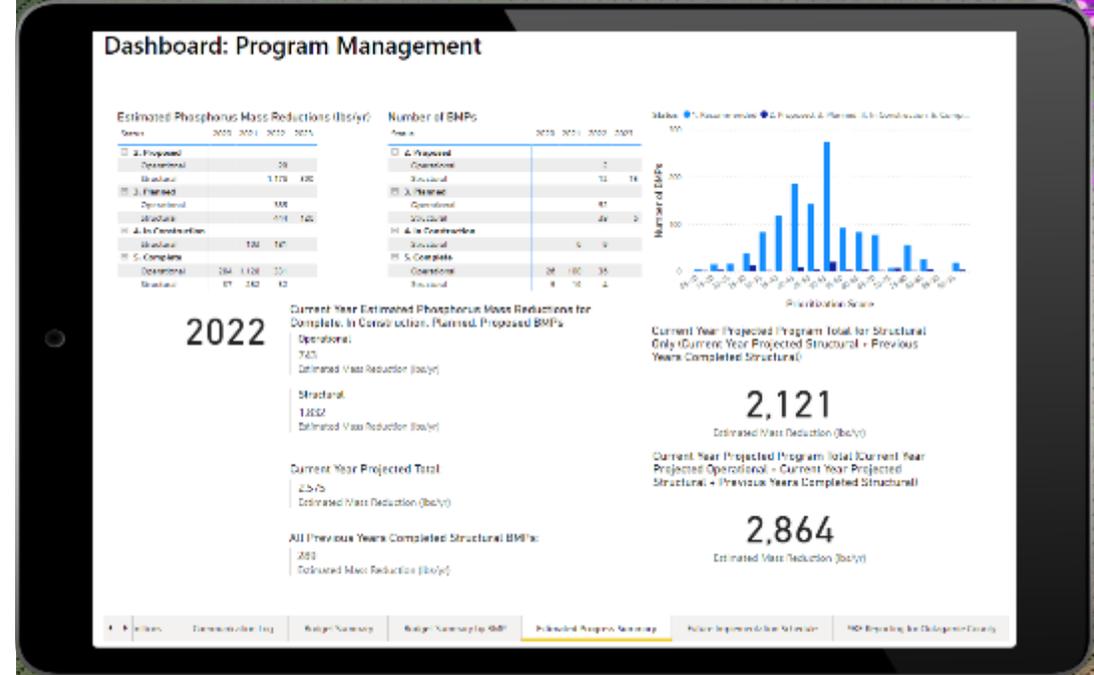
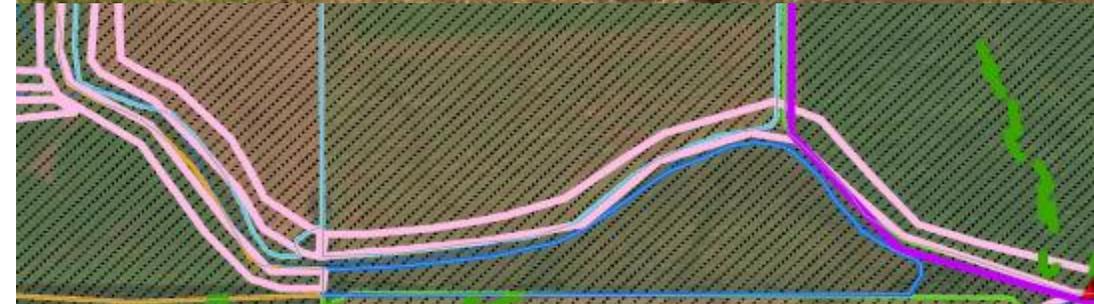
ACDC Water Quality & Biological Monitoring

- Water Quality
 - 7 water quality monitoring sites
 - TSS, TP, dissolved TP, TKN
 - Multi parameter sonde recordings
- USGS Gage Stations
 - 4 gage and event samplers
 - Installed and operational
- Biological Monitoring
 - Contract with UWGB & Oneida Nation to perform annual biological sampling
 - 2018 - Current
 - 9 sites sampled: fish, inverts, habitat
 - Samples sorted out for identification and review



Tools & Prioritization

- Innovative Tools
 - GIS database
 - ARC GIS Collector app
 - GIS database workflow integration
 - Custom cost share agreements
 - Custom operation & maintenance documents
 - GIS database and financial software integration
 - Metric tracking & data visualization
 - SharePoint Power Apps & Dashboards
- Prioritization
 - Field walks
 - Resource concerns
 - Practice implementation



Conservation Practices

- Structural (hard) Practices*
 - Grassed Waterways
 - Critical Area Plantings
 - Buffers/Filter Strips
 - WASCOBs/Infiltration Basins
 - Agricultural Runoff Treatment Systems
 - Two Stage Ditches
 - Streambank Stabilization/Restoration
 - Tile Drainage Treatment
 - Wetlands
 - Stormwater Management
- Operational (soft) Practices
 - Tillage/Residue Management
 - No-till/reduced till
 - Cover Crops
 - Inter-seeding, aerial seeding
 - Manure Application Methods & Timing
 - Low disturbance manure application



*Structural practices are tied to the deed for permanence

Successes in ACDC !

Two-stage ditches & buffers



WASCOBS



Grassed waterways



Planting into green



Cover crops/interseeding



No tillage

Low-disturbance manure application





Practice Funding Strategy



Structural Practices:

- 100% Structural practice cost:
 - NEW Water Cost Share
 - Natural Resource Conservation Service (NRCS) Cost Share
 - Environmental Quality Incentives Program (EQIP) Cost Share
 - Regional Conservation Partnership Program
- Signed Cost Share Agreement (CSA)
 - CSA with landowner
 - For private landowners, practice tied to deed
 - Have specific operation and maintenance documents to accompany practice

Operational Practices:

- NEW Water Cost Share:
 - Pay for Performance Program
 - NRCS EQIP
- Signed Cost Share Agreement
 - CSA with landowner or operator
 - Have specific operation and maintenance documents to accompany practice

Annual Grant Funding Received

GREEN
INFRASTRUCTURE
OPPORTUNITIES

OCTOBER 27, 2022

Protecting our most
valuable
resource, water.



TOTAL: \$2,045,446

2015

2016

2017

2018

2019

2020

2021

2022

ACDC Accomplishments

Program Installed
Operational Practices

6,243+ acres

Program Installed
Structural Practices

62

Acres of
Cover Crops
in 2022

1,589+ acres

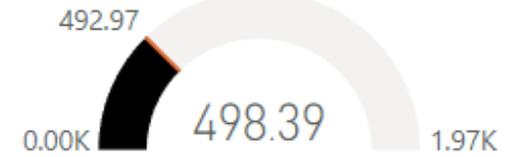
Acres of
No-Till
in 2022

564+ acres

Current Year TP Modeled or Estimated Reductions (lbs/yr)



Current Year TSS Modeled or Estimated Reductions (tons/yr)

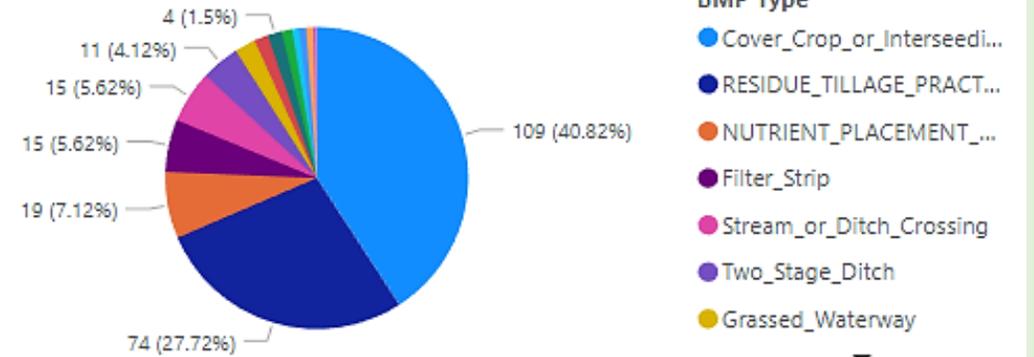


15 Clean Water Pledges Signed



**since 2020*

Count of BMP IDs by BMP Type



Teamwork Makes the Dream Work!

ACDC
Landowners & Farmers



Thank You (yawn?kó)!



LOWER FOX
Demonstration Farms Network

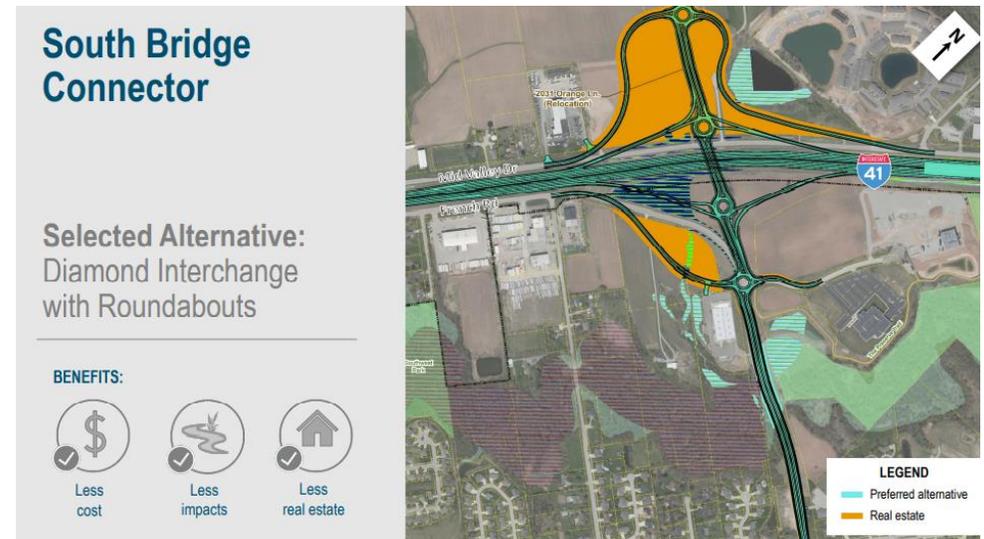


Extension
UNIVERSITY OF WISCONSIN-MADISON



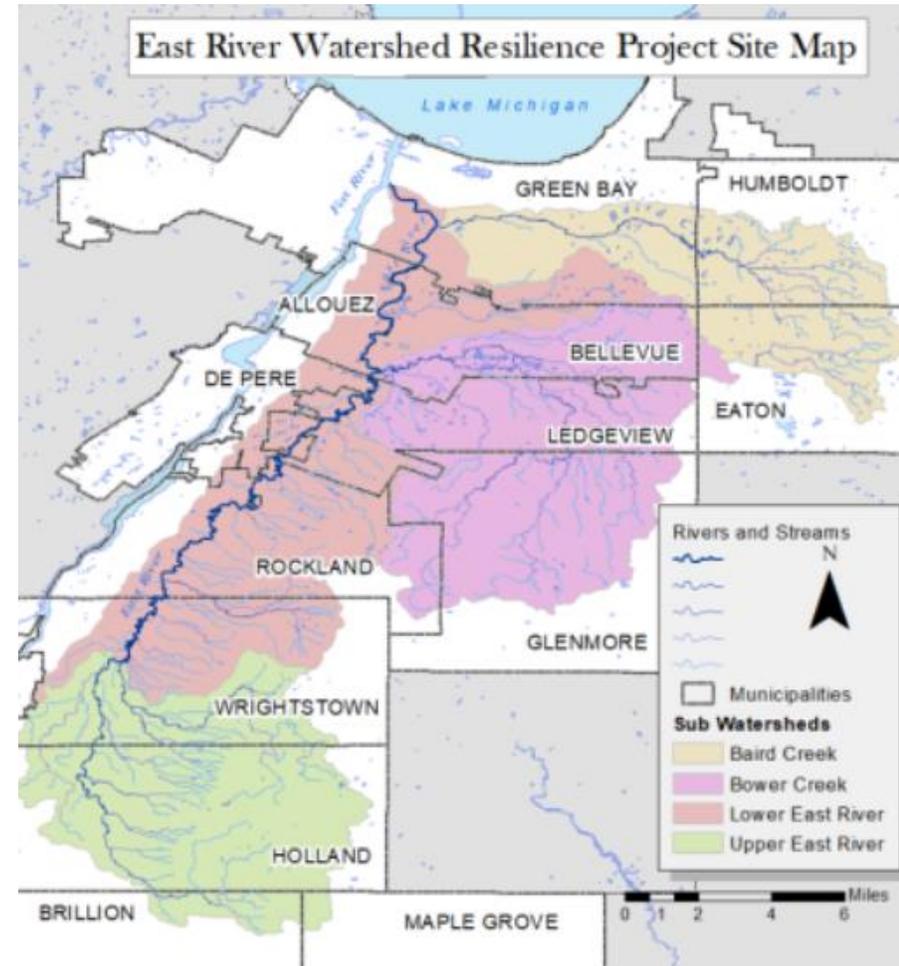
Other Watershed Efforts in ACDC

- Green Bay Austin Straubel International Airport
 - Alliance for Water Stewardship (AWS) certification process
 - Stormwater runoff – airport complex
 - Agricultural land
 - Conservation Practice Planning
- Wisconsin Department of Transportation (WisDOT)
 - I-41 Modernization and Rehabilitation Project
 - Lane expansion
 - South Bridge Connector
 - Stormwater Plan Involvement



Community Watershed Updates

- Tree Planting
 - EPA – USFS Grant
 - Grant #1: \$171,122
 - 1170 trees funded
 - Allouez, Ashwaubenon, Bellevue, De Pere, Green Bay, Howard, Ledgeview, and Oneida Nation
 - Grant #2: \$294,326 - 9/2023 thru 9/2025
 - 1860 trees proposed
 - Brown Co, De Pere, Green Bay, Allouez, Bellevue, Hobart, Howard, Pulaski, and Ledgeview
- East River Collaborative
 - Partnership with NEW Water, The Nature Conservancy, and UW-Sea Grant
 - Monthly newsletters
 - Seeking continued funding
- Ashwaubenon Creek and Dutchman Creek Mouth Habitat Project
 - WDNR AOC funding
 - NRDA funding
 - Ashwaubenon project lead



Thank You!

Questions / Comments?

Thank you to NEW Water Lab and Watershed Department staff, Outagamie & Brown County LCD Staff, Jacobs consulting staff, & many others for ongoing support executing this Program.

#LoveYourWatershed



Plant a tree or garden



Pick up yard waste



Clear & adopt a storm drain

[newwater.us/#LoveYourWatershed](https://www.newwater.us/#LoveYourWatershed)

NEW Water
The Water of the Green Bay
Watershed Area (1970s)

Stay tuned to NEW Water news
<https://www.newwater.us>





Downtown Interceptor Renewal Project

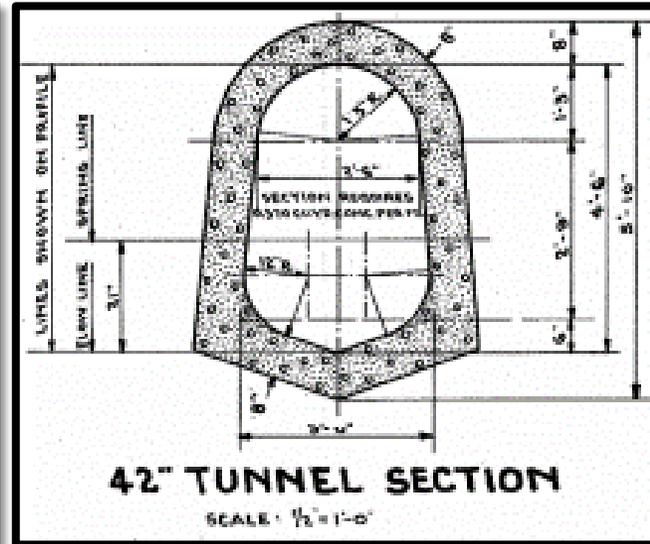
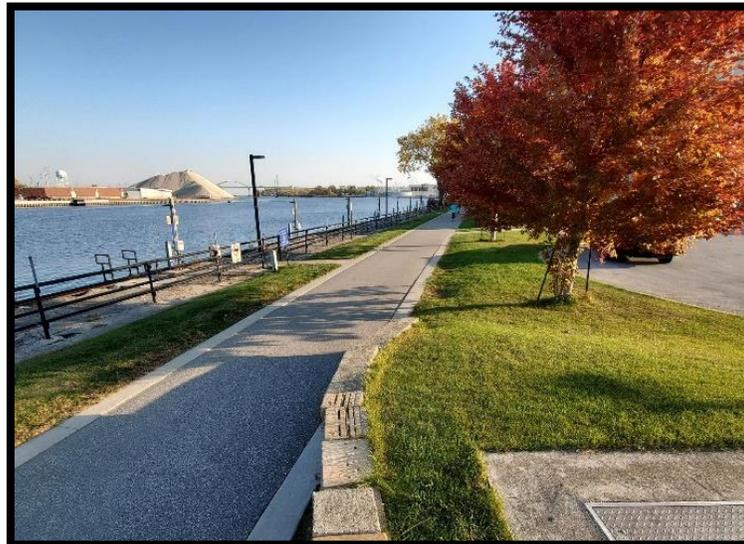
Project Overview – Interceptor Renewal

3 Sites:

Fox River Crossing (FRC)
2,055 ft, 60" circular sewer

East Fox River Interceptor (EFR)
4,172 ft, 42" and 48" horseshoe

East River Interceptor (ERI)
6,960 ft of 30" and 48" circular sewer



Fox River Crossing Interceptor

FRC-002 to QSI-010

- 2,055 ft of 60-inch circular sewer
- East of the Fox River
- Located primarily on Main Street
- Spiral Wound Lining



Spiral Wound Pipe Video

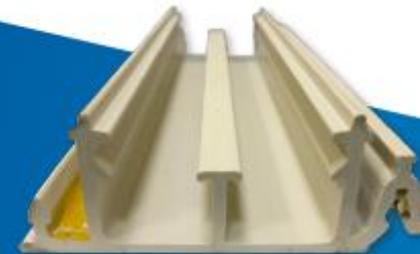


Spiral Wound Pipe

PVC PROFILE



SPR™ | 32" - 200+"



SPR™TF | 40" - 60"



SPR™EX | 6" - 42"



- PIPE GRADE PVC
- MECHANICAL LOCK WITH GASKETING MATERIAL
- IMPERVIOUS TO I/I & ROOT INTRUSION
- .009 MANNING'S N VALUE

LINING MATERIAL

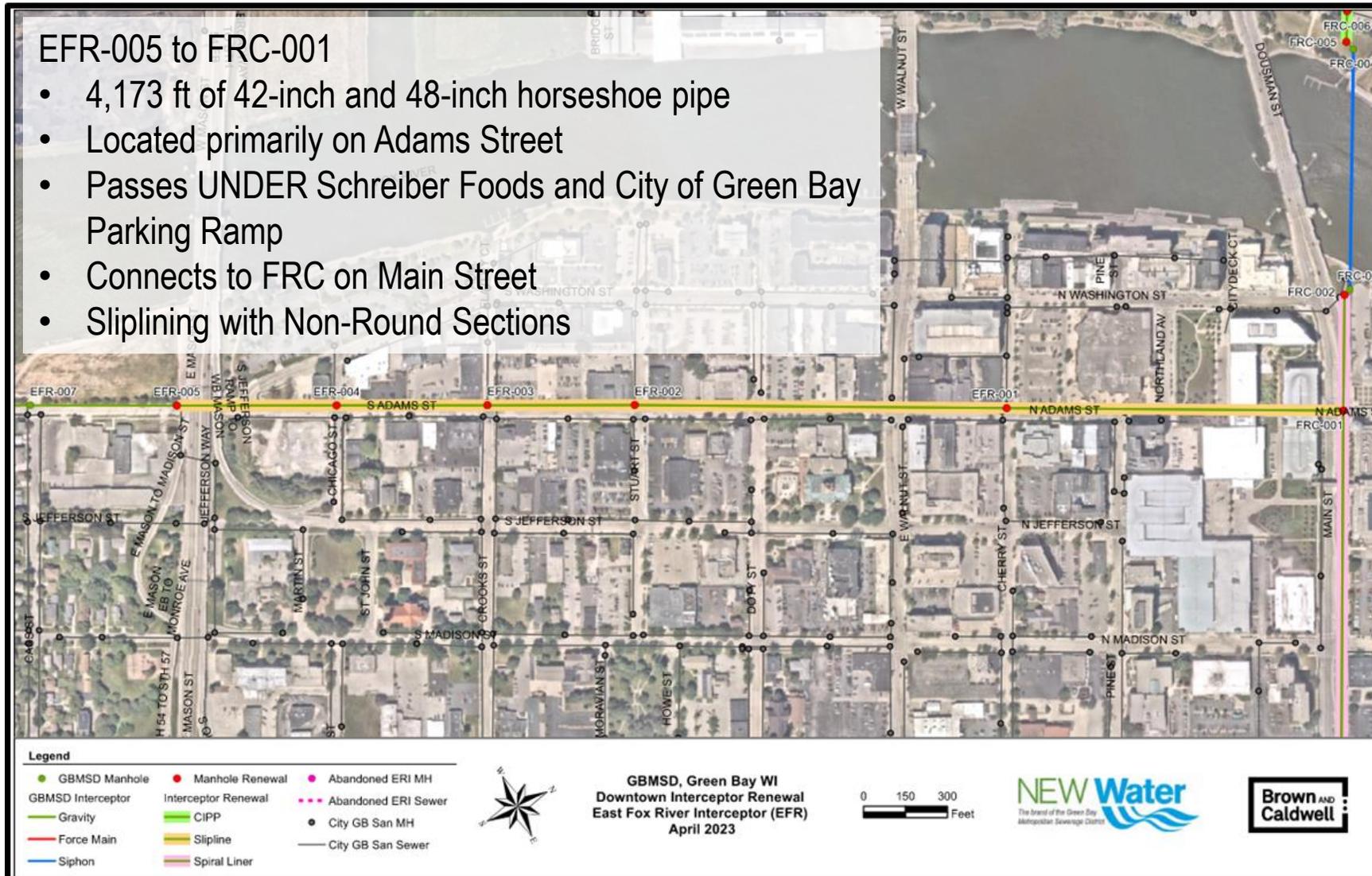
The liner material is a pipe grade PVC with a ribbed profile design, which is for added strength. The profile features a male and female lock along the edge of the material. These are interlocked as successive wraps of the strip are wound by the machine.



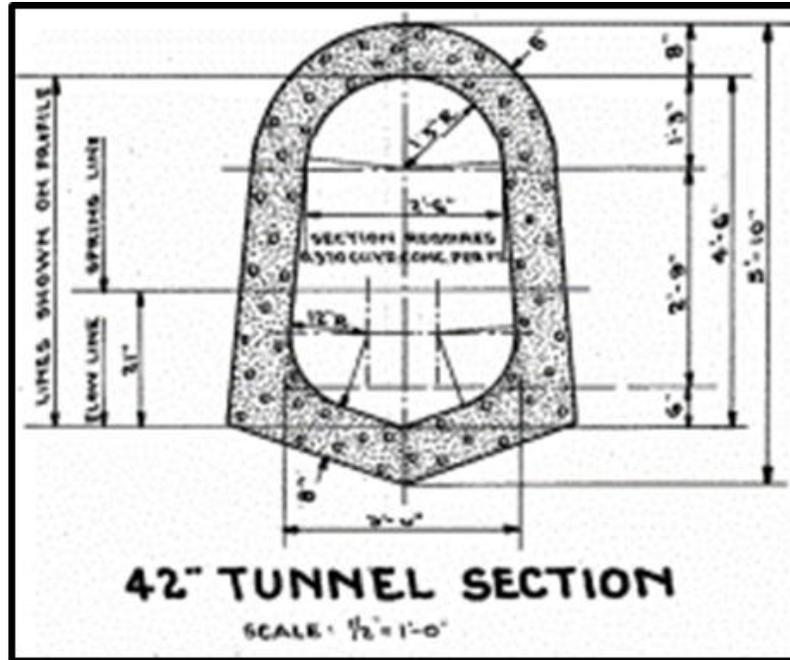
East Fox River Interceptor

EFR-005 to FRC-001

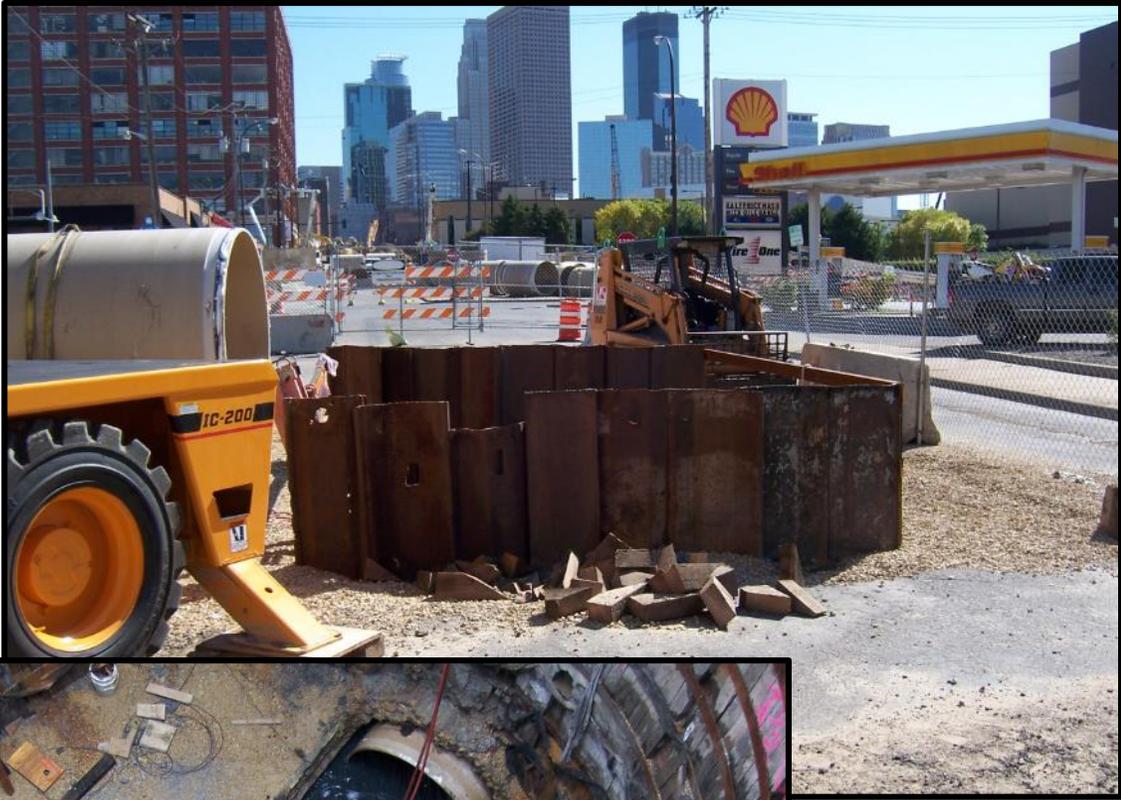
- 4,173 ft of 42-inch and 48-inch horseshoe pipe
- Located primarily on Adams Street
- Passes UNDER Schreiber Foods and City of Green Bay Parking Ramp
- Connects to FRC on Main Street
- Sliplining with Non-Round Sections



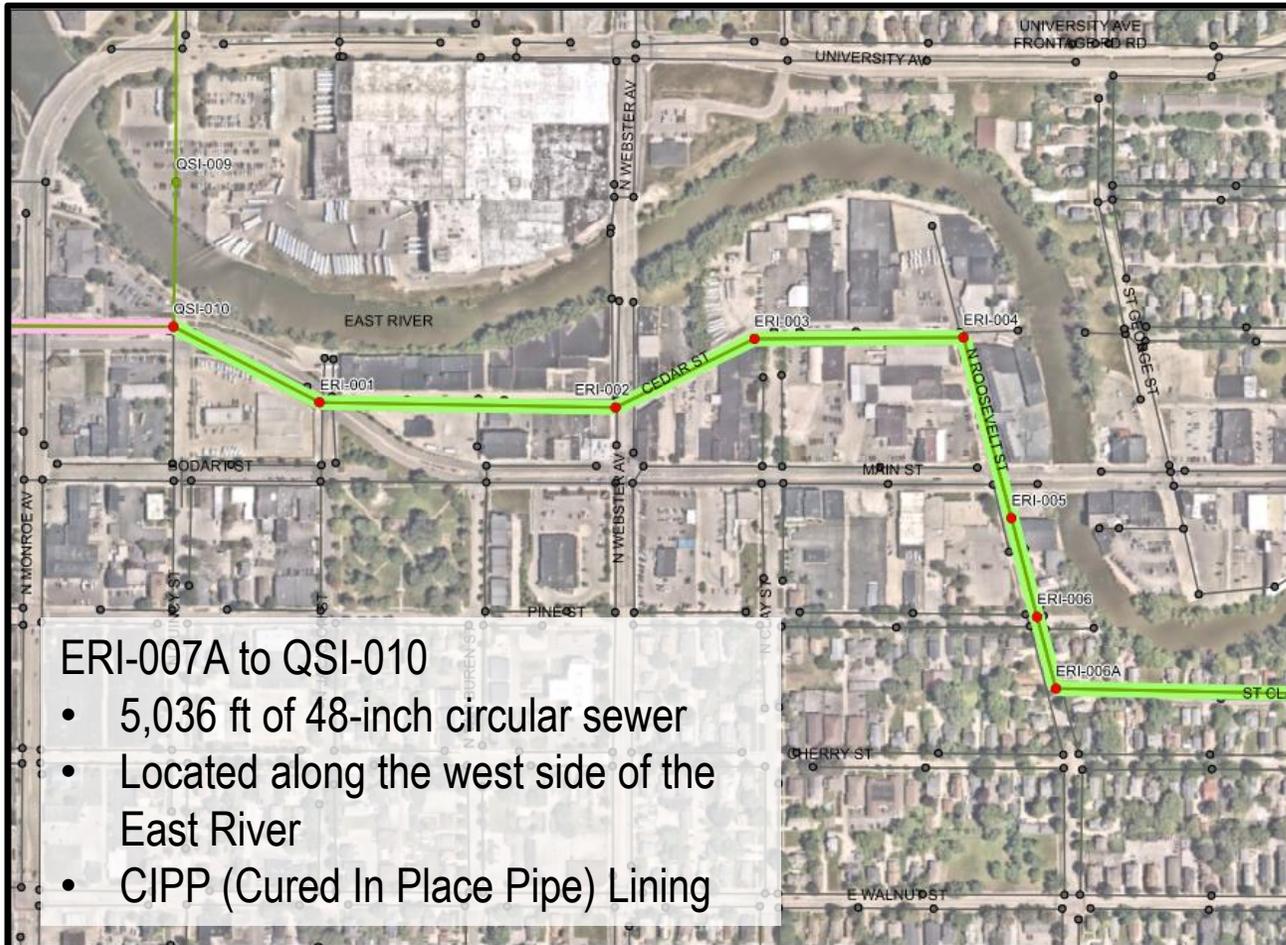
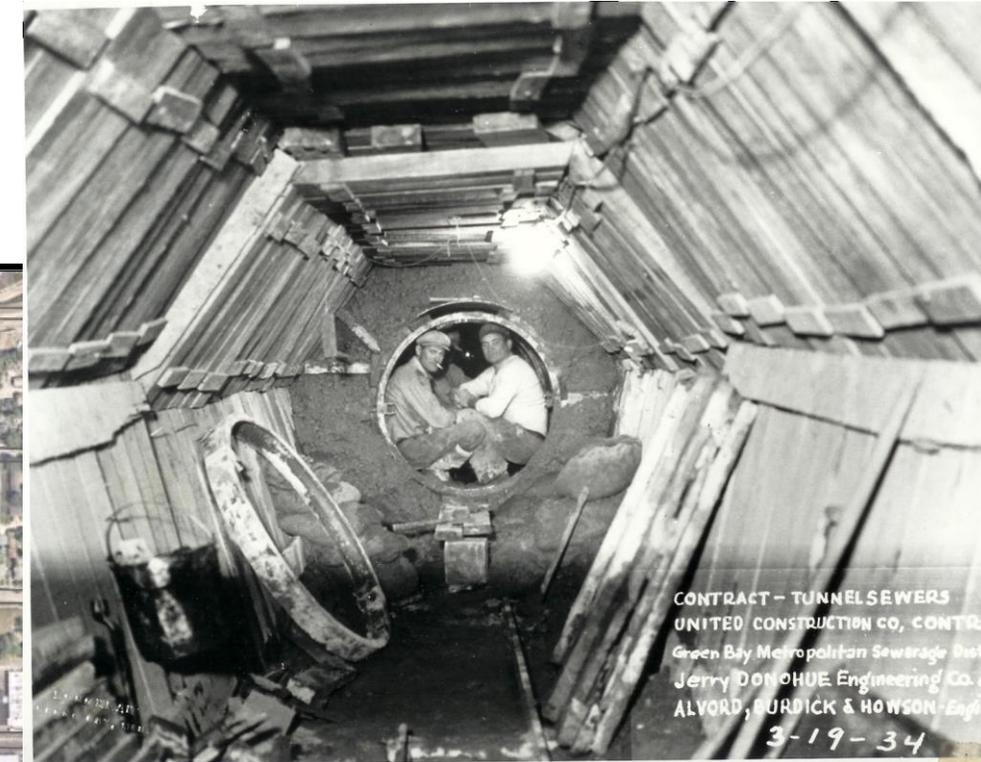
East Fox River Interceptor – Pipe Shape



Sliplining



East River Interceptor



ERI-007A to QSI-010

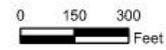
- 5,036 ft of 48-inch circular sewer
- Located along the west side of the East River
- CIPP (Cured In Place Pipe) Lining

Legend

GBMSD Manhole	Manhole Renewal	Abandoned ERI MH
GBMSD Interceptor	Interceptor Renewal	Abandoned ERI Sewer
Gravity	Slipline	City GB San MH
Force Main	Spiral Liner	City GB San Sewer
Siphon		



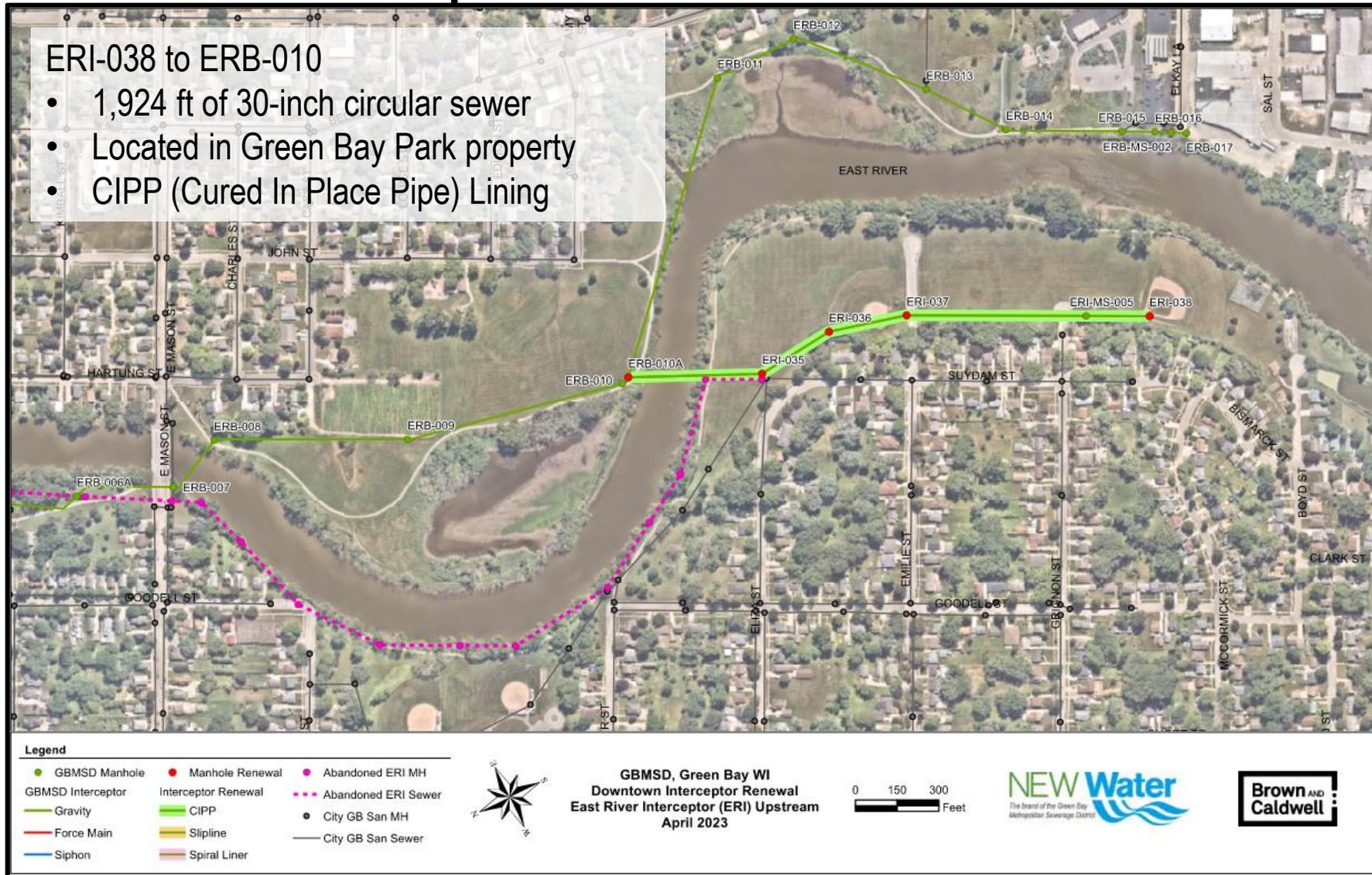
GBMSD, Green Bay WI
 Downtown Interceptor Renewal
 East River Interceptor (ERI) Downstream
 April 2023



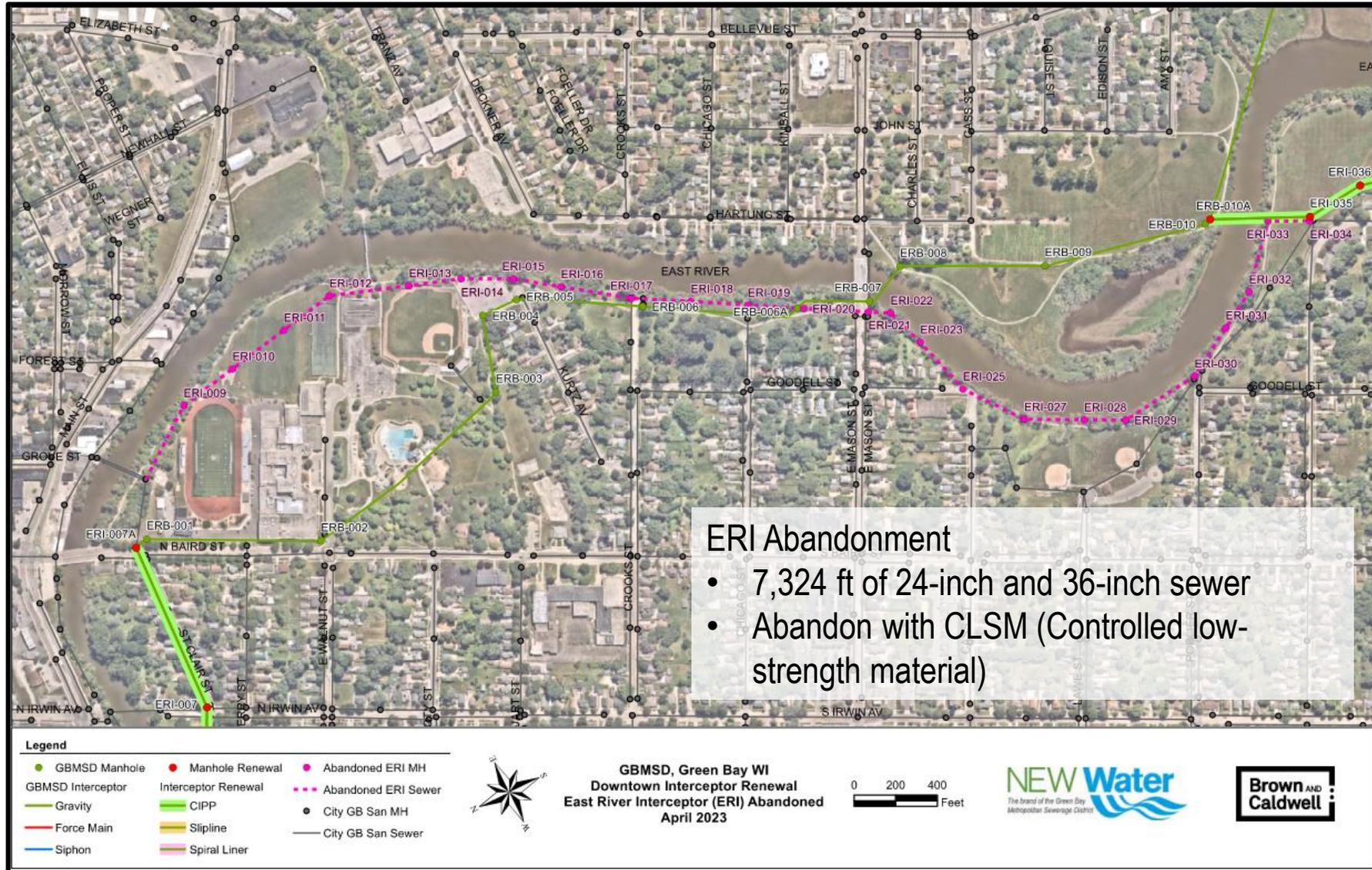
East River Interceptor

ERI-038 to ERB-010

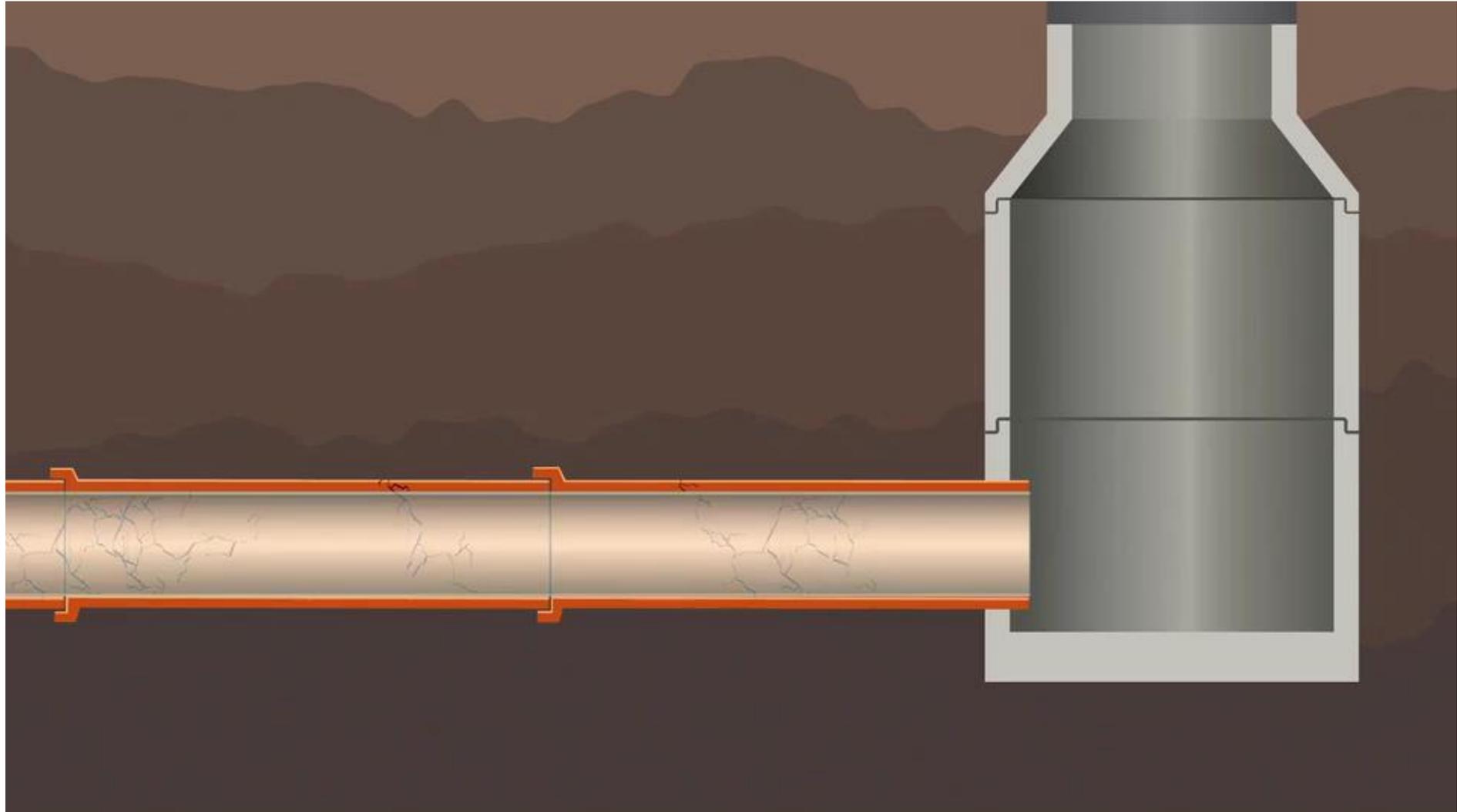
- 1,924 ft of 30-inch circular sewer
- Located in Green Bay Park property
- CIPP (Cured In Place Pipe) Lining



East River Interceptor - Abandonment



CIPP Lining



Project Challenges

- Legacy Sediment
- Temporary Conveyance of Wastewater
- Construction area space limitations



Manhole Renewal

- FRP Inserts
 - Monolithic structural system
 - Matches 50+ year pipeline design life
 - Little to no maintenance
 - Can be paired with any pipeline renewal method



Anticipated Construction Schedule

Milestone	Completion Date
Bidding	Early 2024
NTP	Summer/Fall 2024
Substantial Completion	Fall 2025
Final Completion	Dec. 31, 2025





Public Service Announcements

Don't be a TURKEY!



Learn how you can #LoveYourPipes during the holidays:
www.newwater.us/FOG



Don't pour Fats, Oils, and Grease (FOG) down the drain! These materials can harden and can cause clogged pipes and backups in your home.

Don't let a clog ruin your Thanksgiving!

Town of Pittsfield

ATTENTION Pittsfield Residents:

We need your assistance and cooperation. Excessive water is getting into our sanitary sewer system which can cause homeowner backups and cost you a lot of money.

How can you help? Make sure your sump pumps are properly installed.

Sump pumps move clear water from your home's foundation to the outside of your home. Sump pump connections to basement floor drains, laundry sinks, and other interior drains that discharge to the sanitary sewer are prohibited (Pittsfield Ordinance No. 217-6).

Important note: the sanitary sewer system is ONLY for used water from your toilet, shower, laundry, dishwasher, etc.

These images show prohibited sump pump connections:

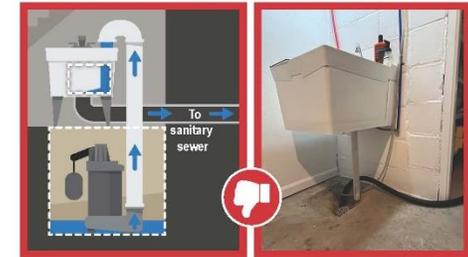


Image credits: graphics from Met Council, Minnesota; photo from NEW Water staff.

Sump pumps should NOT be connected to laundry sinks, floor drains, or any interior drain.

These images show acceptable sump pump connections:



A sump pump should discharge water to the outside of your home / building.

NEW Water cleans wastewater for 15 municipalities in Northeast Wisconsin, including the Town of Pittsfield. NEW Water works nonstop so that our community can flush the toilet, do the laundry, and run their businesses whenever they want.

Learn more at www.newwater.us





*Thank you for partnering to
protect our most valuable
resource, water*

Stay tuned to NEW Water news

Sign up for our E-newsletter, follow us on social media, get in touch

www.newwater.us



NEW Water
The brand of the Green Bay
Metropolitan Sewerage District

The logo graphic for NEW Water, featuring three stylized blue waves.