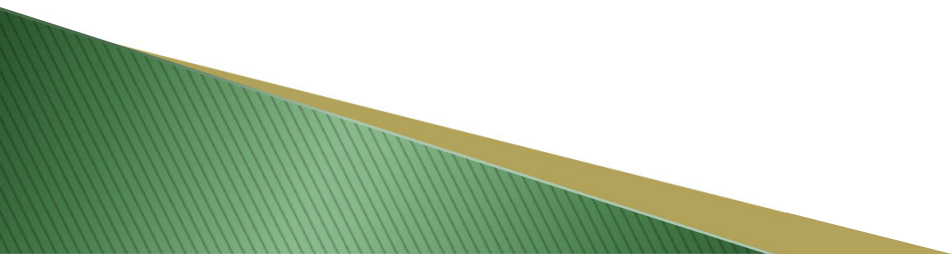




## Department of Public Works

Matthew S. Maederer, PE  
Director of Public Works/Village Engineer

# Mission / Goals

- The Village of Brown Deer Public Works Department exists to provide, control, and maintain reliable and cost-effective public works facilities and systems in a manner that emphasizes customer satisfaction, public service, and the long-term best interest of the community.
  - The Department shall continue to investigate and research methods, markets & technology to report and recommend improvements to policies & operations to the Village Board
- 

# 2023 / Annual Goals

- Eliminate Sanitary Sewer Overflows (SSOs)
  - ✓ Private Property Inflow/Infiltration (PPI/I) Program Construction Project
- **Ditch Rehab Program Continuation & Stormwater BMPs/NR216 Compliance**
  - **Beaver Creek & Southbranch Creek Naturalization**
- Emerald Ash Borer (EAB) Treatment Continuation
  - ✓ Pierner Place
- Annual Report & Monthly Report Development
  - ✓ Website Update - Construction Updates
  - ✓ <http://www.browndeerwi.org/departments/public-work/>
- Increase Landscaping Efforts
  - ✓ Seasonal Employees & Contractor Services

# Organizational Chart

Matthew S. Maederer, PE  
Director of Public  
Works/Village Engineer



Dana Faulkner  
Sewer Tech.



Colleen Banach  
Engineering Tech



Dan Bishop  
Ops Supervisor



Erika Petras  
Admin. Assistant



Roger Johnson  
Mechanic



Jeff Wille  
Laborer/Driver



Brian Bublitz  
Laborer/Driver



Jeff Wergin  
Laborer/Driver



Randy Bersch  
Laborer/Driver



Scott Schilling  
Laborer/Driver



Al Fromm  
Laborer/Driver



Rob Yenter  
Utility Technician

## Recycling Attendants

- Frank Perkins
- Mustafa Tehrani

## Seasonal Employees

- Aaron Weichart
- Jake Harrison
- Wyley Radtke
- Max Kilmer
- Johnny Pierson

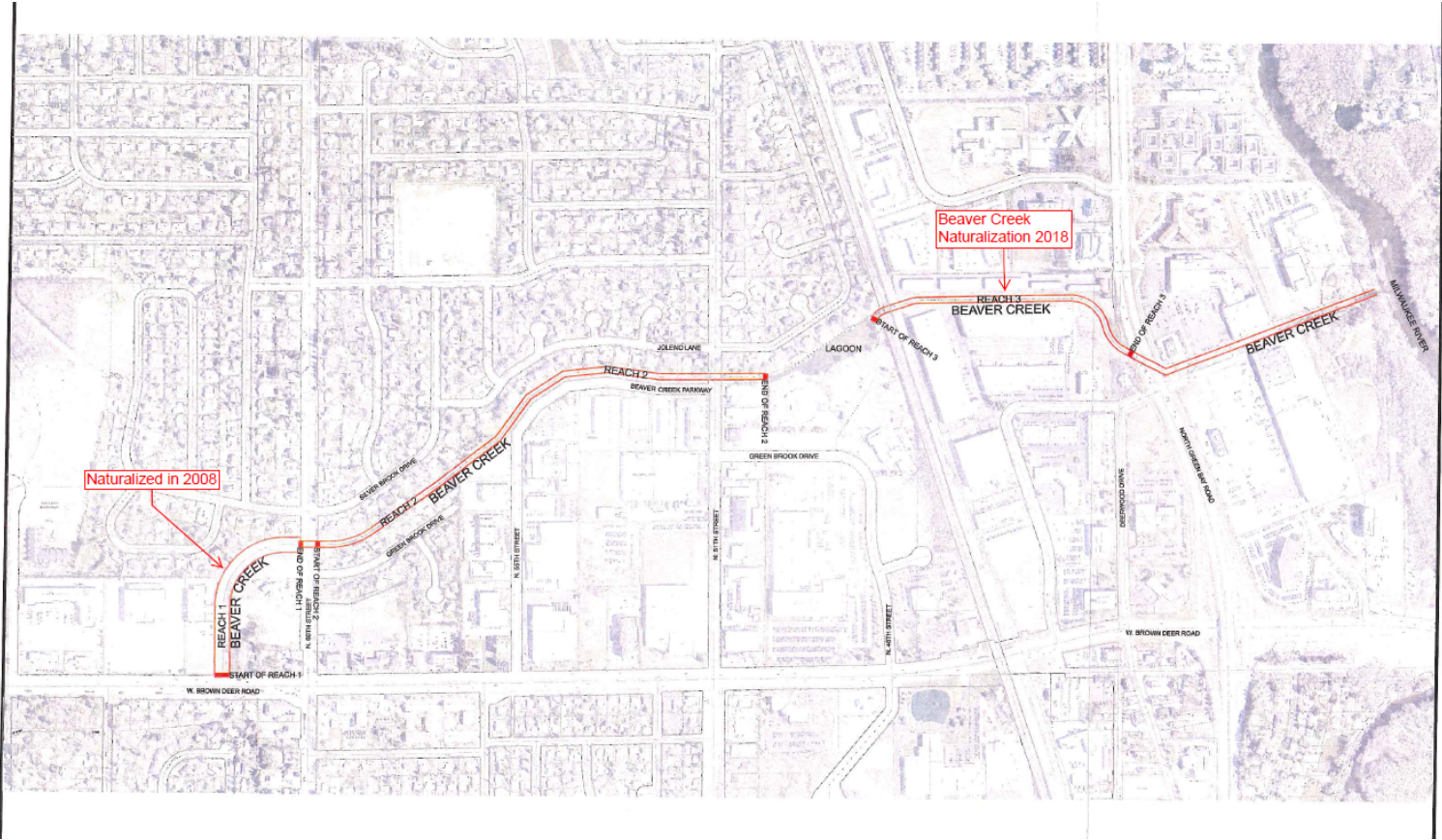
# Activities: General Fund

Division	Description
Administration	Staff Vacation, Admin. Assistant, "Other" Dept. Assistance (i.e. Police, Fire, School District, Community Services, Park & Rec., Manager's Office, Elections, Events)
Streets & Traffic Operations	Pot-Hole Repairs, Asphalt Patching, Sign Installation/Repairs
Sidewalk Maintenance	Sidewalk Repairs/Patching
Winter Operations	Plowing, Salting, Sidewalk Clearing
Forestry Operations	Tree Trimming, Removals, Replanting, & EAB Treatments
Municipal Complex	Maintenance & Mechanic
Refuse	Advanced Disposal (2018)

# Activities: Enterprise Funds

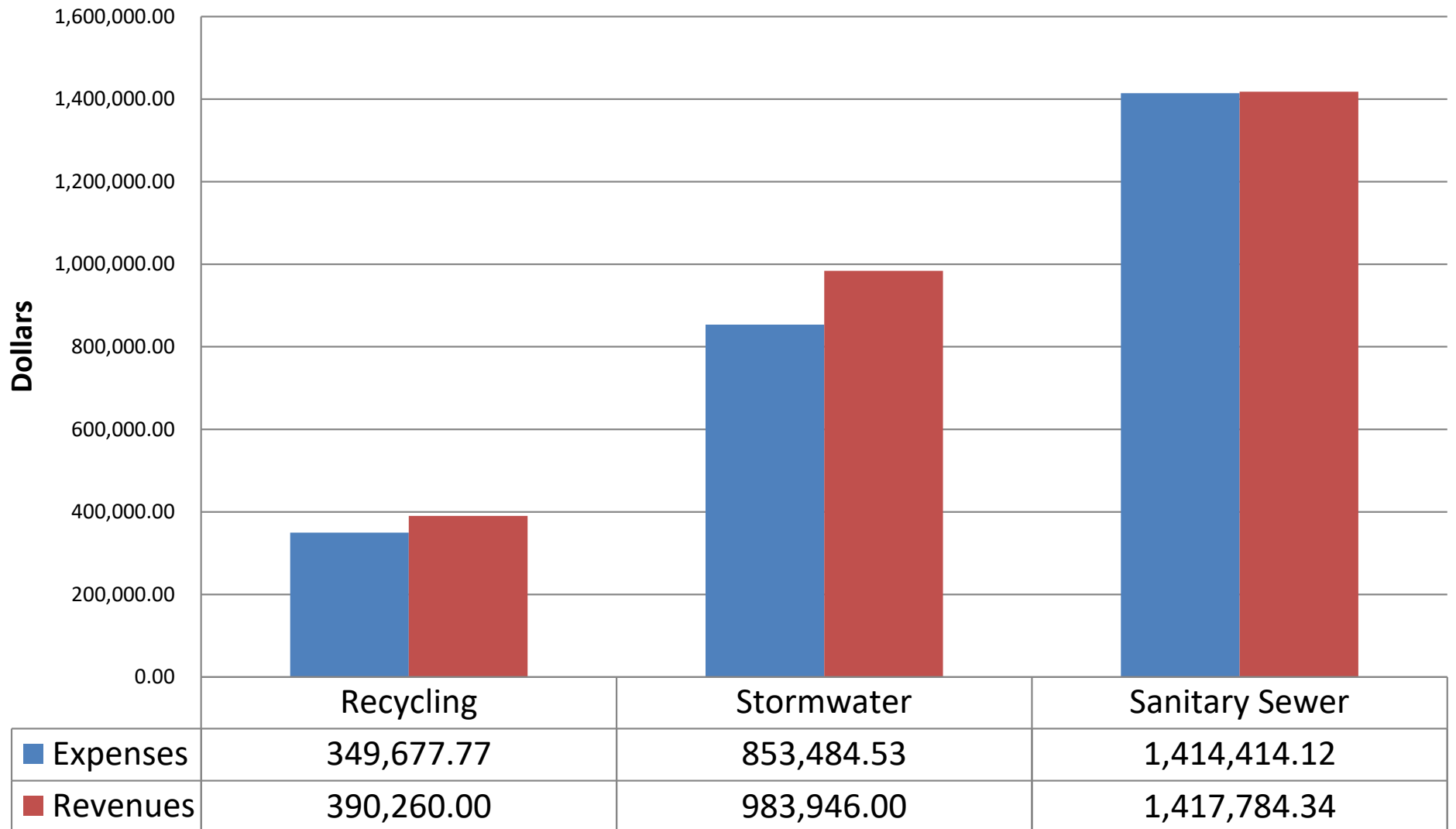
Enterprise Fund	Description
Sanitary Sewer	PPI/I Program, CMOM Requirements, Lateral Relays, CIPP Lining
Stormwater	Re-Ditching Program, Street Sweeping, Catch Basin Cleaning, WPDES Requirements (NR 216), BMP Maintenance/Installation (Natural Area Maintenance)
Recycling	Advanced Disposal (2018) Recycling Center Operation

# Activities: Capital Improvement Program (CIP)



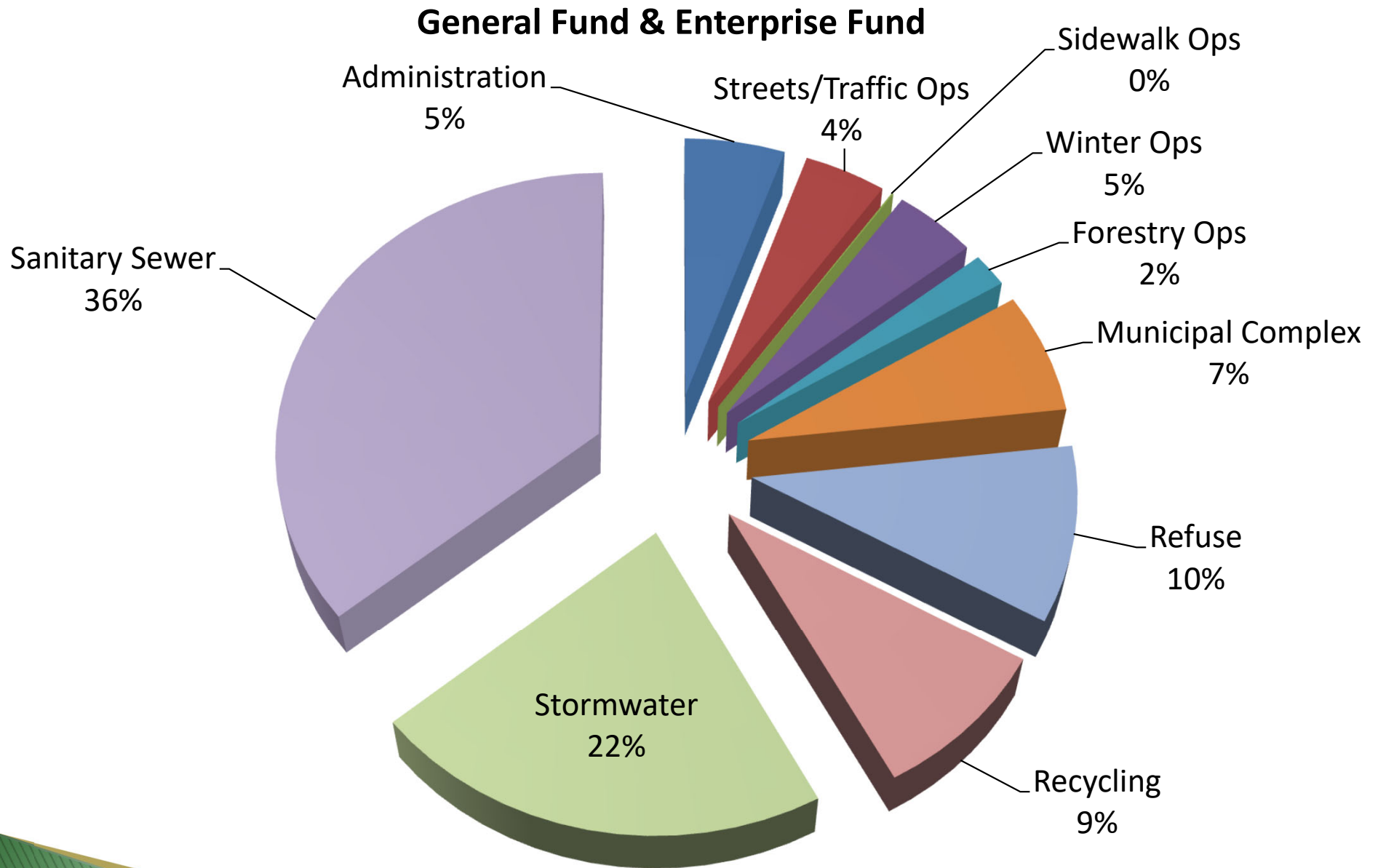
# Inputs: Enterprise Fund Revenue & Expenses

## Enterprise Funds Expenses & Revenues





# Inputs: General Fund & Enterprise Operations



# Outputs: General & Enterprise Funds

Task	2019	2020	2021	2022
Catch Basins Cleaned (EA)	538	538	538	538
Street Sweeping (Tons)	70	81.24	21.76	23.23
Roads Re-Paved (miles)	1.5	3.0	1.0	1.73
Sidewalks Added (miles)	1.0	1.5	1.0	0.52
Salt Usage (Tons) 16/17	1,000.71	842.13	762.78	836.5
Yardwaste Collected (Tons)	766.49	757.24	810.35	785.61
Recyclables Collected (Tons)	970.98	999.39	1,018	1,002.08
Refuse Collected (Tons)	2,855	2,615	2,771.95	2,958.44
Trees Trimmed (EA)	200	168	150	175
Culverts Installed (EA)	47	42	15	102
Re-Ditching (LF)	5,000	9,000	4,000	9,978
Sewer TV (miles)	7.3	10.4	9.1	5.83
Sewer Cleaning (miles)	8.4	7.4	10.8	10.68
Sanitary Sewer Lateral Replacement (LF)	1,410	1,472	1,760	0



STORM WATER  
MANAGEMENT  
&  
TMDL IMPLEMENTATION  
PLAN



# MS4 MUNICIPAL SEPARATE STORM SEWER SYSTEM

# CSS COMBINED SEWER SYSTEM

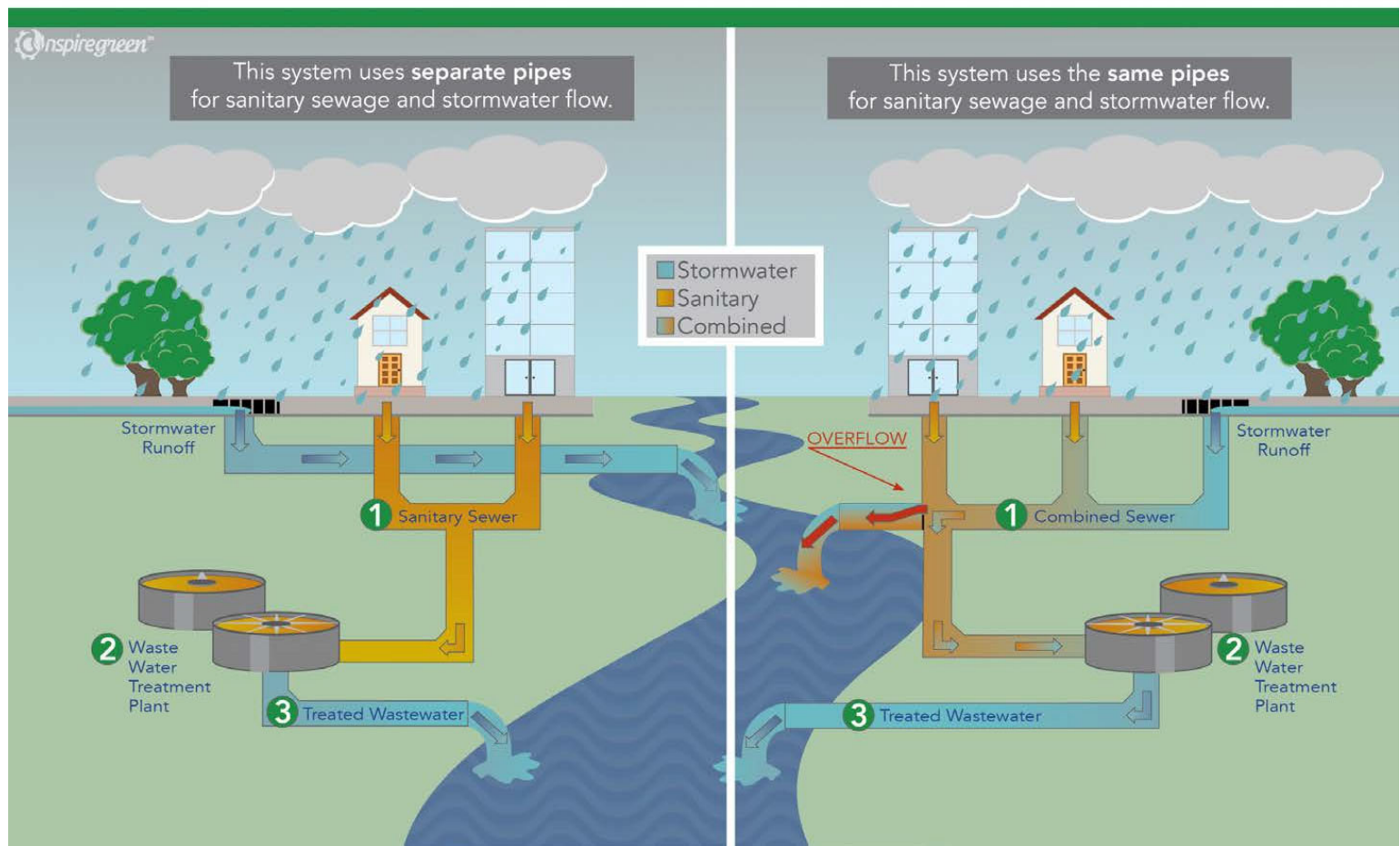


Photo Credit: Nspiregreen LLC

# Only Rain Into the Storm Drain!

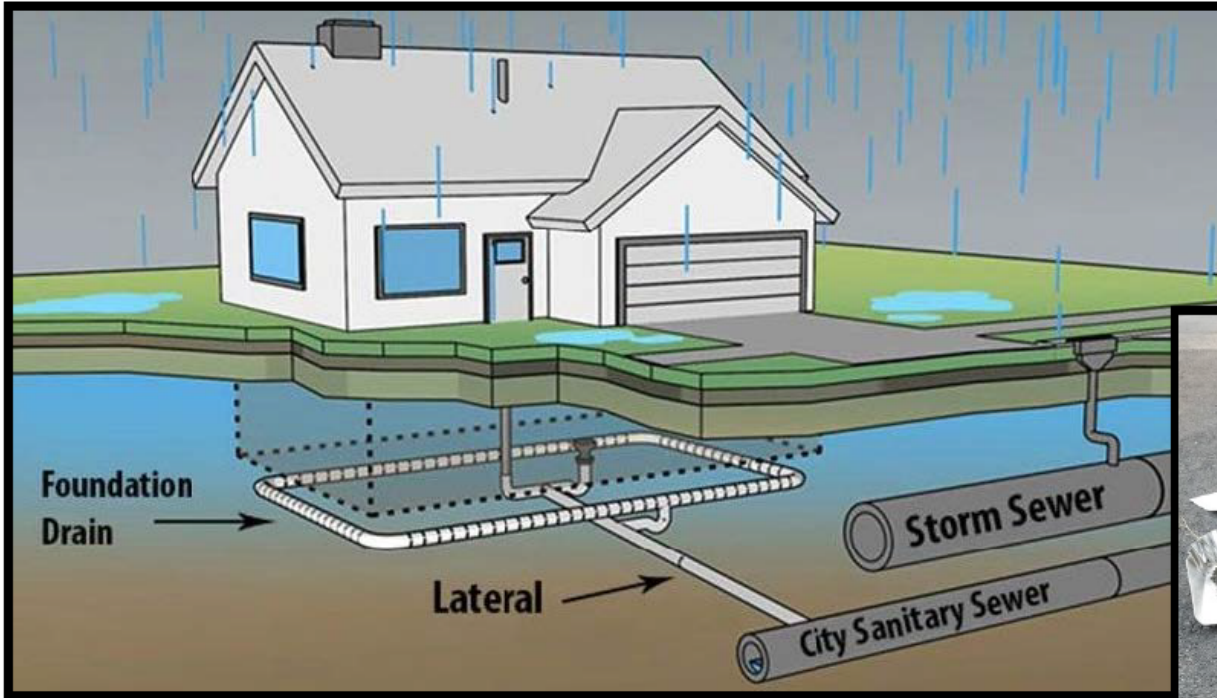


Photo Credit: MMSD, Sweet Water

# North Shore Group MS4 Permit

- Clean Water Act – Enforced by EPA
- DNR is the Enforcing Agency for Wisconsin
  - State code NR 216 and NR 151
- State complies with federal requirements through institution and enforcement of the MS4 permits
- North Shore Group:
  - Villages of:
    - **Brown Deer**, Bayside, Fox Point, River Hills, Shorewood, Whitefish Bay
  - City of Glendale

# Milwaukee River Basin TMDL

- ▶ Designated Uses for Surface Water
  - ▶ Recreation, aquatic life, drinking water
- ▶ TMDL = Total Maximum Daily Load
  - ▶ Amount of pollutants that streams, rivers, lakes can handle without detriment to designated uses

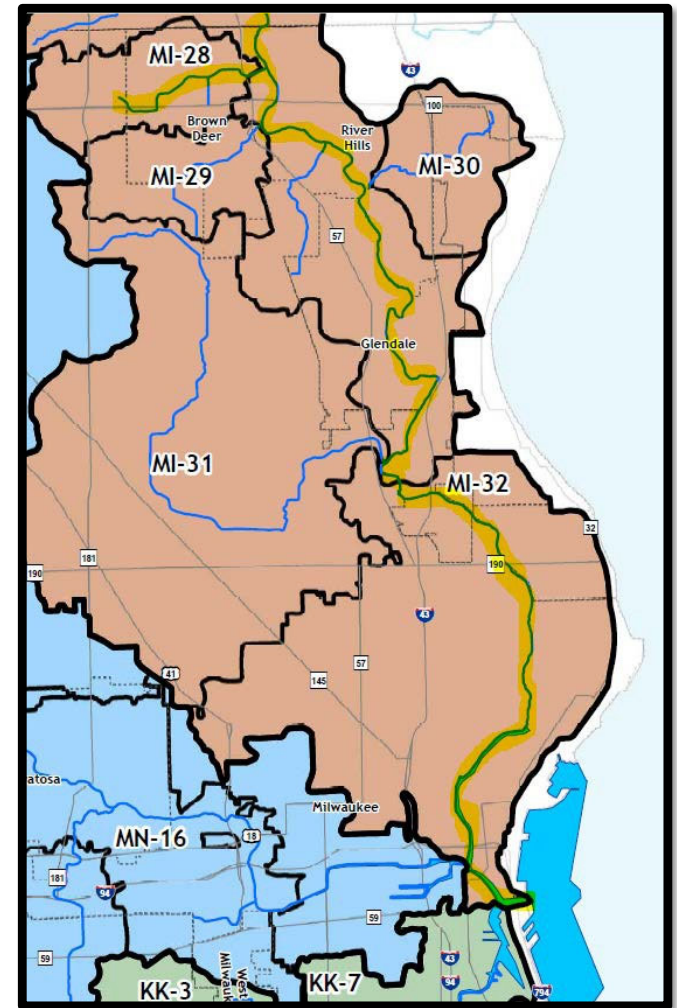


Photo Credit: Milwaukee River Basin TMDL

**Beaver Creek > Milwaukee River > Lake Michigan**

**South Branch Creek > Milwaukee River > Lake Michigan**

# Storm Water Modeling – TMDL

- TMDL divides the Milwaukee River drainage area into TMDL Reachsheds
- Each TMDL Reachshed is assigned pollutant reduction requirements

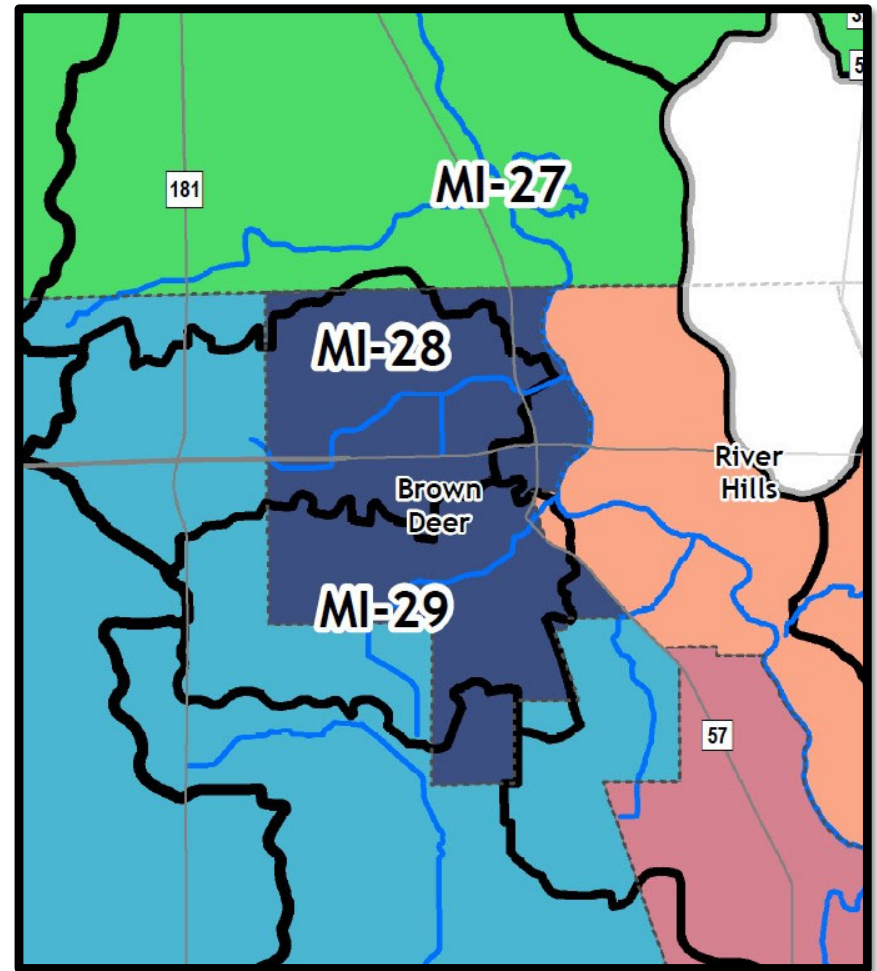
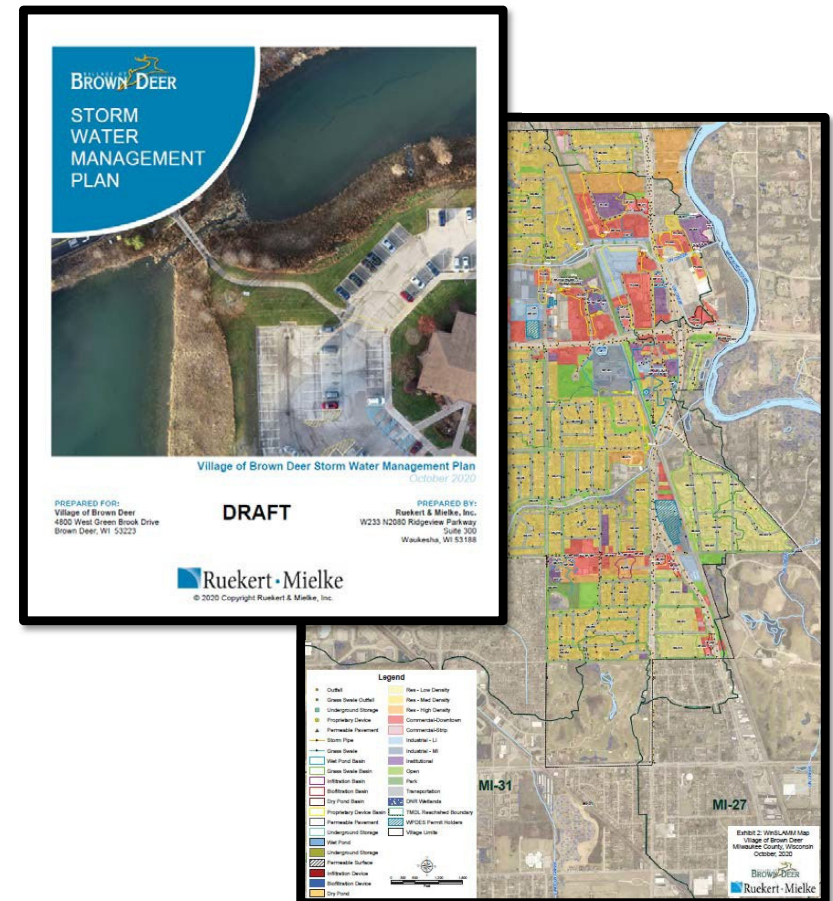


Photo Credit: Milwaukee River Basin TMDL



# Brown Deer's Storm Water Management Plan

- Village-wide storm water modeling
- Update MS4 map
- Update Ordinances
  - Adopted in April 2020
- Develop program and procedure documents to address MS4 permit sections



# MS4 Permit Sections

- Public Education & Outreach
  - Newsletters, website, presentations
- Public Involvement & Participation
  - Rain barrel workshop, river clean-ups
- Illicit Discharge Detection & Elimination
  - Test storm water outfalls for contaminants



Photo Credit: Urban Milwaukee

# MS4 Permit Sections – Continued

- Construction Site Pollution Control
  - Ordinance, municipal permits
  - Erosion control inspections
- Post-Construction Storm Water Management
  - Requirement for storm water treatment such as ponds, permeable pavement

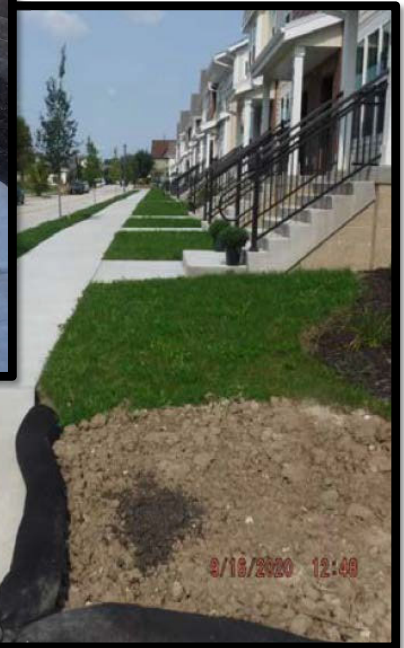


Photo Credit: D. Klemm, R/M

# MS4 Permit Sections – Continued

## ■ Pollution Prevention

- Winter road management
  - Salt spreader calibration & reporting
- Nutrient management
- Street sweeping & catch basin cleaning
- Leaf management
- Storm water pollution prevention plans
- Internal training & education

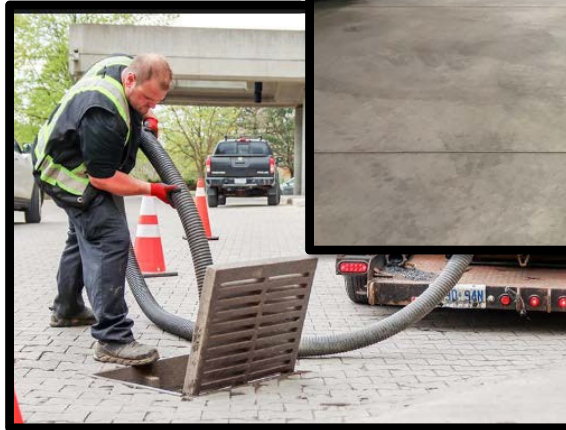
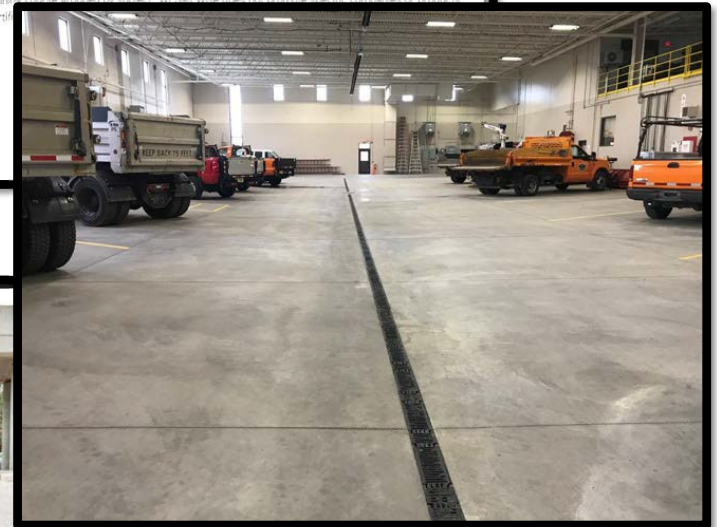
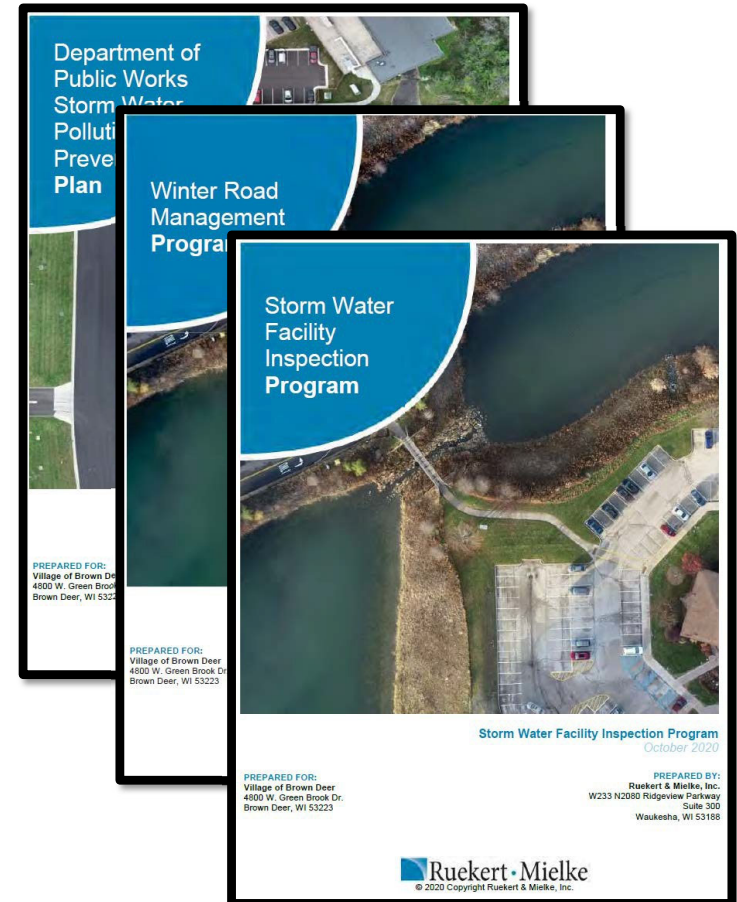


Photo Credit: Wisconsin Salt Wise, MetroJetVac, R/M

# Brown Deer Achievements

- ▶ Updated Municipal–Wide Storm Water Management Plan
- ▶ Draft report completed in October 2020
- ▶ Accepted by WDNR in 2021



# Brown Deer Achievements – Continued

- Support for DPW Operations
  - Many MS4 requirements tie directly to DPW activities
- Beaver Creek Naturalization & Stabilization
- Planning for South Branch Creek Improvement
- Public Education Partnerships
  - SweetWater - Respect Our Waters Program



Photo Credit: C. Poniewaz, Ruekert & Mielke

# Brown Deer Modeling Results

Total Suspended Solids (TSS)		
TMDL Reached	Reduction Required	Reduction Achieved
MI-27	73%	<b>60%</b>
MI-28	73%	<b>42%</b>
MI-29	71%	<b>70%</b>
MI-31	71%	<b>89%</b>

Total Phosphorus (TP)		
TMDL Reached	Reduction Required	Reduction Achieved
MI-27	54%	<b>56%</b>
MI-28	88%	<b>41%</b>
MI-29	88%	<b>72%</b>
MI-31	86%	<b>87%</b>

\*Results are pending WDNR review & approval

# Next Steps

- Continue partnerships with North Shore Group & Sweet Water
- Emerging bacteria requirements
  - Impaired Waters Strategy
  - Bacteria Ordinance
  - Bacteria Testing
- Continue North Shore Group MS4 Permit



Photo Credit: Ruekert & Mielke, Inc.





Photo Credit: Ruekert & Mielke



# ***Molson Coors Beverage Company***

Lauren Hill  
Environmental and Sustainability Engineer  
Milwaukee Brewery

# ESG

## GOAL SETTING

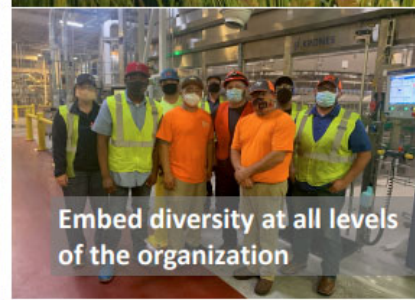
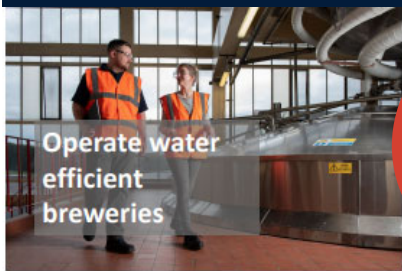
### Our Risk and Materiality Matrix



OUR IMPRINT.  
People & Planet

Wherever we produce and sell our products, we leave an imprint on our communities, consumers and employees, and on our business and the environment.

This is what we call Our Imprint.



# *Taking Action*

IMPRINT MONTH

## OUR IMPRINT MONTH

### TAKING CARE OF OUR PEOPLE AND PLANET

Throughout the month of September, Molson Coors employees around the globe will volunteer to celebrate Imprint Month.

Milwaukee Volunteer Imprint  
Month 2022 with Sweet Water

Village of Brown Deer River Clean-Up  
Thursday, September 15, 2021  
12:00 - 4:00 PM

#UNITINGTOGETHER



SIGN UP  
TO VOLUNTEER



 **MOLSON  
COORS** beverage  
company

©2021 Molson Coors



# sweet water

SOUTHEASTERN WISCONSIN WATERSHEDS TRUST, INC.

+70 volunteers

20 teams

+400 storm drains  
stenciled with "No  
Dumping"

Distributed educational  
door hangers



***2017***

BAYVIEW AND  
WASHINGTON HEIGHTS  
NEIGHBORHOODS OF  
MILWAUKEE 2017





# 2018

## VILLAGE OF BROWN DEER



### Need

The Village of Brown Deer has limited time and resources

The Creek area has not been clean for 10 years

Neighbors have been calling and asking for years



### Activity

Trash removal (in creek and along banks)

Cutting down branches and brush in the river

Gathering trash and brush and bringing up to either the banks



### Benefit

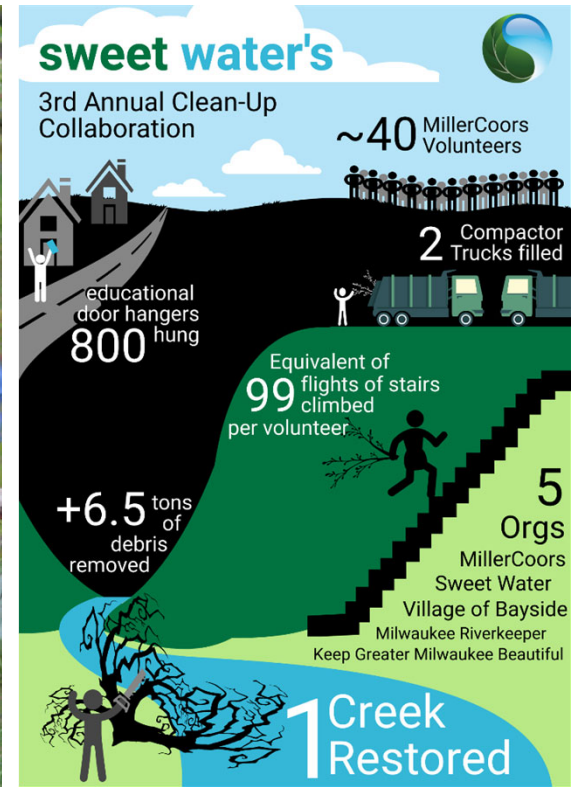
Improved water quality

Improved health of the creeks

Flood prevention







**2019**

BAYSIDE



2020

(VIRTUAL)  
LUNCH AND LEARN  
WATER CONSERVATION CHALLENGE

## Thanks for celebrating Our Imprint Month!

 Parker, Alex  
Digital Communications Mgr

Our (virtual) Imprint Month wrapped up last week with a great lunch-and-learn attended by more than 700 people. The enthusiasm and volume of questions about Our Imprint and our work with Change the Course showed how important programs like these are.

Throughout the course of Our Imprint Month, we [profiled colleagues](#) working to help us meet our sustainability and responsibility goals and shared information with the public our goals and Imprint strategy. We also encouraged Molson Coors employees to take part in our water conservation challenge – for a chance to win up to \$10,000 for a water conservation group of their choice. Thanks to everyone who participated on Facebook, Twitter and Yammer.

Congratulations to Matt Pomerleau, environmental and sustainability engineer at the Shenandoah brewery, for winning the grand prize! He'll be able to donate \$10,000 to an organization working to create healthier waterways. Our runners-up were [Tom Sisinroy](#) (\$7,500), manufacturing development specialist for Rocky Mountain Metal Container, and Angela Verish (\$2,500), sales analyst in Chicago, also won donations for water conservation organizations. Thank you to everyone who participated! You really made a difference.

Lastly, for those who attended last Wednesday's lunch-and-learn, stay tuned for the deck on Coors Seltzer.



Angela Verish shows one way she conserves water -- with great product placement!

20 volunteers

4 hours

8 bags of  
trash/debris

2 bicycles

3 tires

2 traffic cones

1 street sign

***2021***

LINCOLN CREEK

MILWAUKEE





45 volunteers



3.5 hours



50 cubic yards of woody debris



18 bags of trash and litter



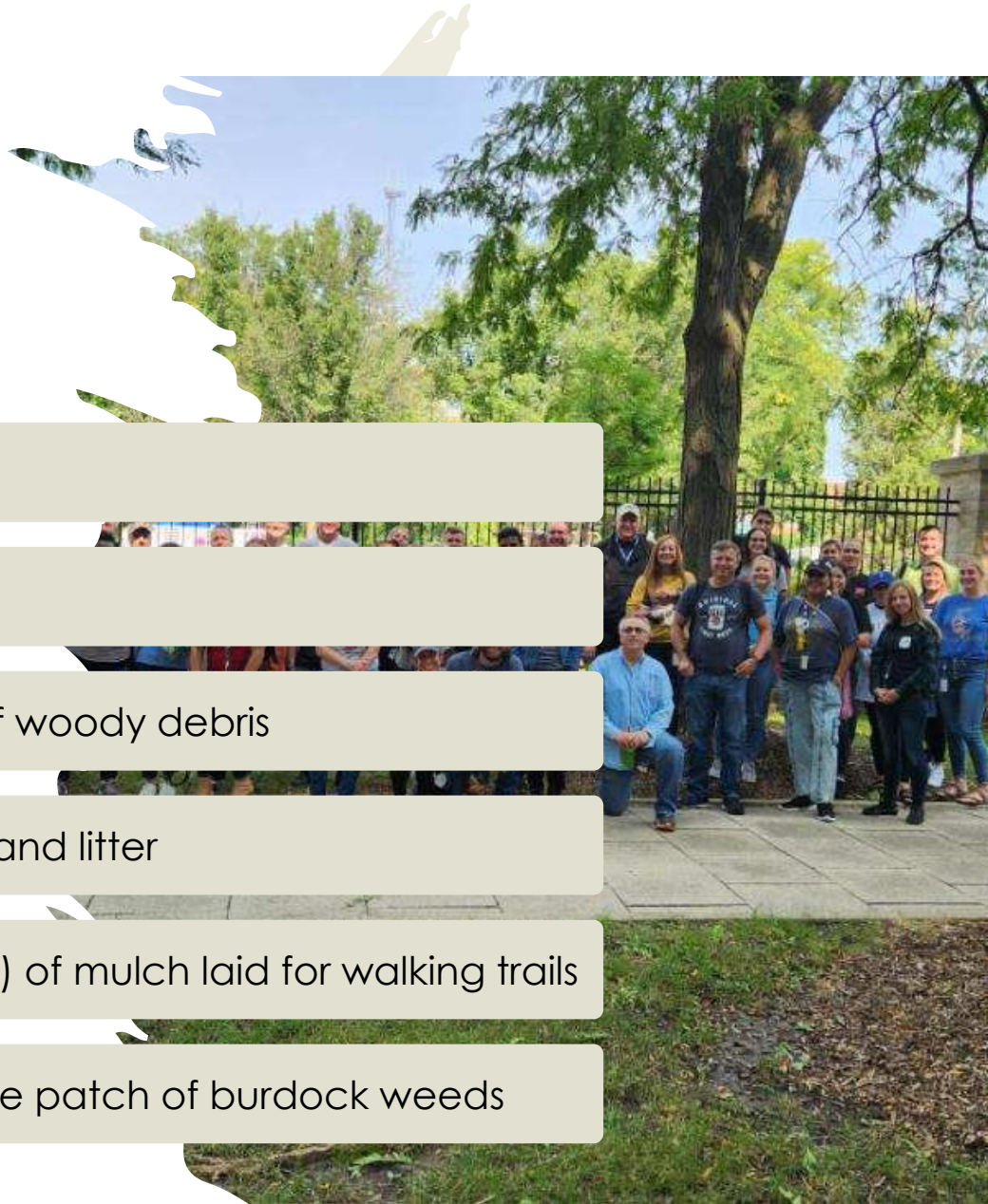
6,500 feet (10 CY) of mulch laid for walking trails



Eliminated a large patch of burdock weeds

# 2022

## BROWN DEER





## *2022 Event Planning and Coordination*



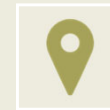
Registration/  
attendance



Waivers



Transportation  
and parking



Site  
identification



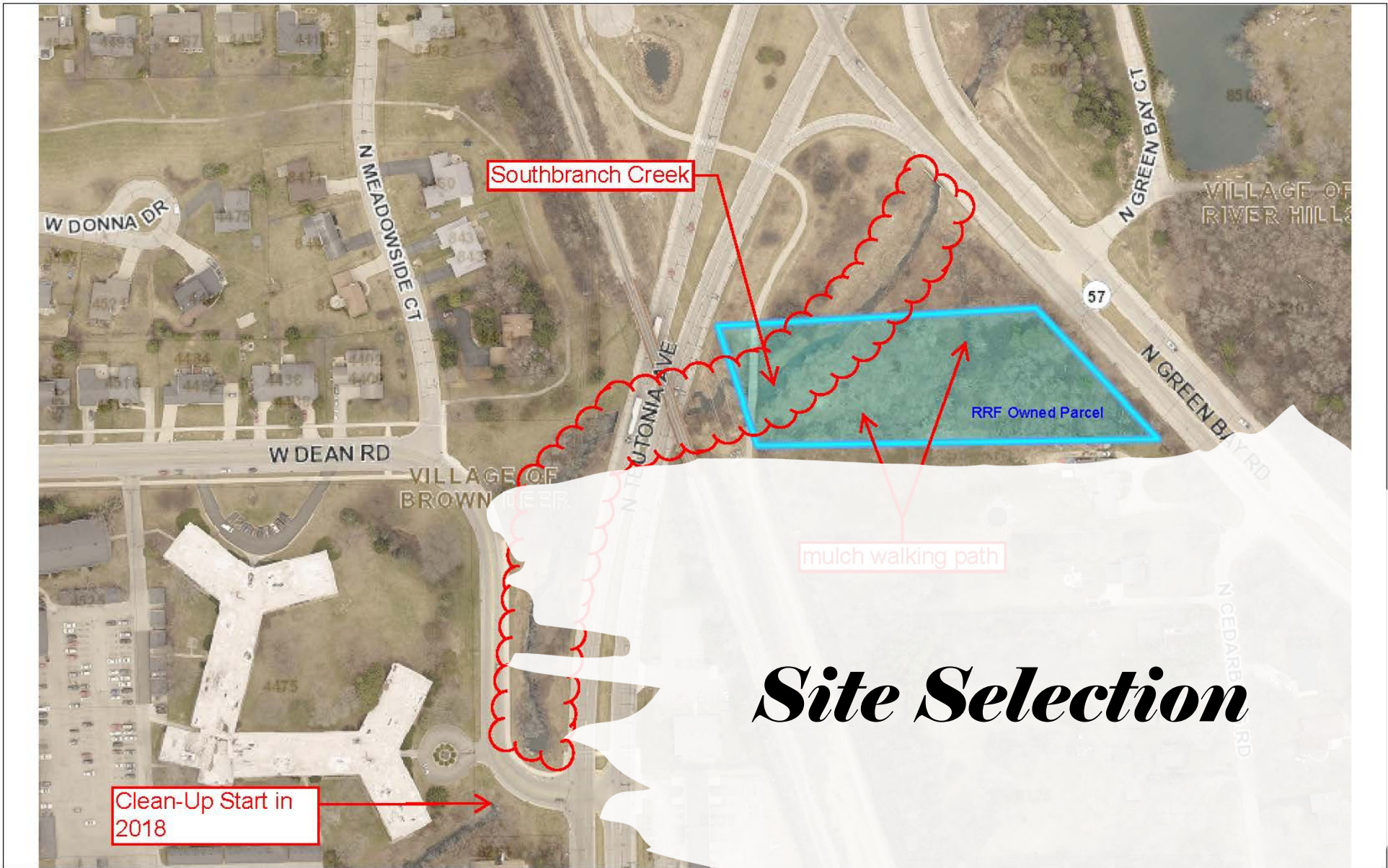
Volunteer  
activities



Educational  
materials



Supplies/tools



# Site Selection

## MillerCoors River Clean-Up

Southbranch Creek w/ RRF

DISCLAIMER: The Village of Brown Deer does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.



SCALE: 1" = 200'



Village of Brown Deer  
 4800 West Green Brook Drive  
 Brown Deer, WI 53223  
 (414) 371-3000

Print Date: 8/31/2022

**OUR IMPRINT MONTH**  
**TAKING CARE OF OUR PEOPLE AND PLANET**

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Milwaukee Volunteer Imprint Month 2022 with Sweet Water

Village of Brown Deer River Clean-Up  
Thursday, September 15, 2021  
12:00 - 4:00 PM

**SIGN UP TO VOLUNTEER**



#UNITINGTOGETHER

# *Registration & Waivers*

INTERNAL COMMUNICATIONS AND TRACKING



## *Supplies/Tools*

- Molson Coors
  - Waters
  - Bug Spray/Sunscreen
  - Hi-Visibility Vests
  - Gloves
- Brown Deer
  - Heavy Equipment
  - Trash/Debris Removal
- Keep Greater Milwaukee Beautiful
  - Rakes (leaf and garden),
  - brooms,
  - mulch and street shovels,
  - litter grabbers, buckets
  - Trash bags & gloves
  - wheelbarrow
- Milwaukee Riverkeeper
  - Waders





## *Varied Activity Intensity*

**Activities:** We'll be partnering with Southeastern Wisconsin Watershed Trust, Inc. and the City of Brown Deer on the following activities of varying difficulty levels:

- **Group 1: River Debris and Trash Clearing / Team Leader – Jacob Fincher 262-716-2211**
- **Group 2: Walking Path Mulching and Brush Clearing / Team Leader – Joan Giuliani 414-234-6874**
- **Group 3: Stormwater Education Distribution / Team Leader – Lauren Hill 219-226-8182**

It's not in rain, it doesn't belong in the drain!



Notice your neighborhood storm drain lately?


Rain or melting snow wash soil, litter, pet waste, fertilizers, and lawn clippings off the pavement and into your storm drain. When the storm drain empties into lakes and streams, these materials become pollutants that can kill fish, close beaches, and increase weed and algae.

Luckily, there are steps that you can take today to reduce these threats.

It's simple, easy, and important! Visit [www.adoptyourdrain.com](http://www.adoptyourdrain.com) to find out more and to adopt a storm drain in your neighborhood.

What you can do to help:

- Do not use the storm drain for disposing of motor oil, antifreeze, pesticides, paints, or other materials.
- Clean up lawn clippings that pile-up on your driveway, sidewalk or into the street.
- Minimize your use of salt on sidewalks and driveways during the winter.
- Dispose of pet waste by putting it in the trash, flushing it down the toilet, or by burying it.
- Redirect downspouts from paved areas to your lawn or garden.
- Wash your car on the lawn, not the driveway.



# *Educational Materials*

DISTRIBUTED TO RESIDENTS WITHIN THE PROJECT AREA



# ***2023 Looking Ahead***

+150 volunteers currently registered

Storm drain stenciling

Woody debris and tree/branch removal from waterways

***Thank you  
for your  
time!***

QUESTIONS?

