

IDDE INSPECTION SUMMARY REPORT



2024 Illicit Discharge Detection & Elimination Inspection Summary Report *December 2024*

PREPARED FOR:

City of Greenfield
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Greenfield, WI 53220

PREPARED BY:

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INTRODUCTION

The Wisconsin Department of Natural Resources (WDNR) has issued a Wisconsin Pollutant Discharge Elimination System (WPDES) permit WI-S065404-2 to the Menomonee River Watershed Group. The City of Greenfield is one of eleven municipalities covered under this watershed permit. One of the requirements of this permit is that the City must implement an illicit discharge detection and elimination program designed to identify and eliminate illicit connections to the City's storm sewer system.

Ruekert & Mielke, Inc. was contracted to perform illicit discharge field screenings on eight outfalls (K015, K044, M001, M002, R057, R087, R091, and R146) that are identified on the storm water management planning area map for the City of Greenfield which is attached as part of this report. In addition to this effort, outfall M007 was tested as a follow-up to the 2023 illicit discharge detection and elimination inspections.

Initial inspections were completed on August 12, 13, and 21 2024. Inspections were performed on a day where there had been no measurable rainfall for a minimum of 72 hours leading up to the inspections. Each outfall that was inspected was physically examined and evaluated using an illicit discharge field screening form as a guide for detecting and documenting illicit and non-illicit discharges. This same form was also used to document outfall characteristics such as material, shape, and dimensions. When discharge was identified within an inspected outfall, a 250-milliliter grab sample was taken and evaluated for pH (digital pH meter), temperature (digital thermometer), ammonia (salicylate method), detergent (methylene blue method), phenol (4-aminoantipyrine method), soluble copper (bathocuproine method), and free/total chlorine (DPD method), as well as any other characteristics identified by sight and smell.

In cases where a TMDL outfall was flowing, additional grab samples were collected. Samples were provided to the Wisconsin State Laboratory of Hygiene for E. coli and genetic bacteria testing. A summary of the analysis results can be found in the attached laboratory report.

Photographs of all outfalls were taken, labeled with their individual outfall identifier number, and attached to the corresponding illicit discharge field screening sheet. All completed field screening sheets and corresponding photographs are included with this summary report.

The evaluation methods and results are described below.

DESIGNATION OF SELECTED OUTFALLS

The City of Greenfield maintains a layer in their GIS system for the purpose of mapping its MS4 outfall locations. In addition to identifying each outfall location geographically, this map layer also provides some limited attribute data used to aid in classifying the outfall. This data includes outfall ID, outfall class, tributary area, pipe size and watershed/TMDL reach.

In addition to the GIS MS4 outfall layer, the City of Greenfield maintains a separate, non-map based MS4 outfall database. This database contains attribute data used to aid in classifying the outfall. This data includes outfall ID, outfall class, tributary area, HIDP calculation and score data, a summary of past IDDE testing results, and proposed program scheduling data such as inspection category and inspection year.

The City of Greenfield uses a combination of these two datasets to inventory, schedule, monitor, track, display, and report on MS4 outfalls for the IDDE program. It is the City of Greenfield's intention to periodically perform an MS4 outfall reassessment. While a specific timeline has not been established, it will likely coincide with MS4 permit cycles and/or when there have been sufficient changes in the MS4 system to warrant a reassessment.

FIELD INSPECTION METHODOLOGY

As a condition of the current WPDES permit, the WDNR requires the City of Greenfield to implement a dry weather outfall screening program and to establish written IDDE field screening procedures.

All illicit discharge field screenings shall be performed during dry weather periods to minimize potential interference from non-illicit sources such as runoff and groundwater. Generally, testing will be done no sooner than 72 hours after a precipitation event that produces measurable rainfall based on NOAA's National Weather Service data for the Mitchell Field location. During the field screening, an illicit discharge field screening form will be used to record visual observations for items such as surface sheen, odor, and additional parameters at each outfall.

If outfalls are found to be inaccessible or submerged, an attempt will be made to inspect and sample, when needed, at the nearest upstream location.

EVALUATION RESULTS

There are nine outfalls identified on the attached 2024 IDDE Outfall Locations map, all of which were evaluated under this effort.

The result of this evaluation identified six outfalls that were flowing – K015, K044, M001, R057, R091, and R146. All outfalls had samples taken and evaluated as part of this effort.

Outfall M002 and R087 were identified as not flowing with no sampling needed.

Outfall M007 was reinspected as a follow up from the 2023 Follow Up Investigation. This outfall was not flowing with no sampling needed.

Test results are represented in the table below.

Highlighted cells indicate results that exceeded the WDNR action limit

	Ammonia (mg/L)	Phenols (mg/L)	Chlorine (mg/L)	Copper (mg/L)	Detergent (mg/L)	Temperature (°F)	pH
WDNR Action Limit	0.1	(+)	(+)	0.1	0.5	N/A	<6, >9
Outfall ID							
K015	0.00	0.00	0.00	0.00	0.25	75	7.5
K044	0.00	0.00	0.00	0.00	0.25	74	7.9
M001	0.00	0.00	0.00	0.00	0.00	72	7.8
M002	-	-	-	-	-	-	-
M007	-	-	-	-	-	-	-
R057	0.00	0.00	0.00	0.00	0.25	74	8.0
R087	-	-	-	-	-	-	-
R091	0.00	0.00	0.00	0.00	0.25	74	8.0
R146	0.00	0.00	0.00	0.00	0.25	75	8.1

The table below represents the WDNR action limits for a positive hit on a flowing outfall. The WDNR recommends additional investigation on outfalls with a hit outside of their action limits.

Parameter	Action limits per the WDNR's March 2012 guidance
Ammonia	0.1 mg/L
Detergents	0.5 mg/L
pH	less than 6 or greater than 9
Total Chlorine	positive test
Total Copper	0.1 mg/L
Phenol	positive test
Fluoride	Fluoride in drinking water is typically between 1 mg/L and 1.5 mg/l. The more restrictive 0.25 mg/l action limit was carried over from the City's 2018 Water Quality Plan
Potassium	10 mg/L
Total Coliform	10,000 cfu/100 mL

The City of Greenfield requested that during initial outfall inspections, outfalls with flow and within the TMDL be sent for lab E. coli and genetic testing. The table below represents the E. coli and Human Bacteroides test results provided by Wisconsin State Laboratory of Hygiene.

Highlighted cells indicate results that exceeded the WDNR action limit of 10,000 MPN/100 mL

Outfall ID	Wisconsin State Laboratory of Hygiene 08/14/2024	
	E. coli (CFU/100mL)	Human Bacteroides Species
K015	61	Below LOD
K044	5650	Below LOD
M001	816	Below LOD

Test results collected from this effort registered below the WDNR action limits. Therefore, no additional follow-up investigations occurred.

The following paragraphs describe the six outfalls that were flowing, registered a pollutant of concern, and/or displayed a smell or visual indicator that could suggest that an illicit discharge was taking place.

Outfall K015

Outfall K015 consists of one 42-inch diameter concrete storm sewer pipe. At the time of inspection this outfall was flowing; therefore, a sample was taken and tested. The test results registered negative/neutral in all instances other than detergent, which registered at 0.25 mg/L. Accumulated sediment was noted in the flow line.

Samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. A summary of the analysis can be found in the attached laboratory report.

Outfall K044

Outfall K044 consists of one 48-inch diameter concrete storm sewer pipe. At the time of inspection this outfall was flowing; therefore, a sample was taken and tested. At the time of inspection this outfall was flowing and tested. The test results registered negative/neutral in all instances other than detergent, which registered at 0.25 mg/L.

Samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. A summary of the analysis can be found in the attached laboratory report.

Outfall M001

Outfall M001 consists of dual 60-inch round concrete storm sewer pipes. This outfall was submerged by 54-inches. The inspector was unable to determine if flow was present at the outfall; therefore, the next upstream manhole was inspected to determine flow. This upstream pipe was flowing, and a sample was taken and tested. The test results registered negative/neutral in all instances. Spalling, cracking or chipping at the outfall was noted as well as an odor from the pool.

Samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. A summary of the analysis can be found in the attached laboratory report.

Outfall R057

Outfall R057 consists of one 38x60-inch concrete storm sewer pipe. At the time of inspection this outfall was flowing; therefore, a sample was taken and tested. The test results registered negative/neutral in all instances other than detergent, which registered at 0.25 mg/L. Spalling, cracking or chipping at the outfall was noted as well as approximately 3-inches of gravel present within the flow line.

Outfall R091

Outfall R091 consists of one 60-inch diameter concrete storm sewer pipe. At the time of inspection, this outfall was flowing; therefore, a sample was taken and tested. The test results for this outfall registered negative/neutral in all instances other than detergent, which registered at 0.25 mg/L. Suds and surface scum were present in the flow and the pool.

Outfall R146

Outfall R146 consists of one 48-inch diameter concrete storm sewer pipe. At the time of inspection, this outfall was flowing; therefore, a sample was taken and tested. The test results for this outfall registered negative/neutral in all instances other than detergent, which registered at 0.25 mg/L.

Overall Pipe Condition

The overall outfall pipe material is relatively sound throughout the City. In a few instances, some defects such as chips, cracks, and missing concrete were identified as part of the investigations. These concerns are noted on the corresponding field screening forms for each specific, impacted outfall.

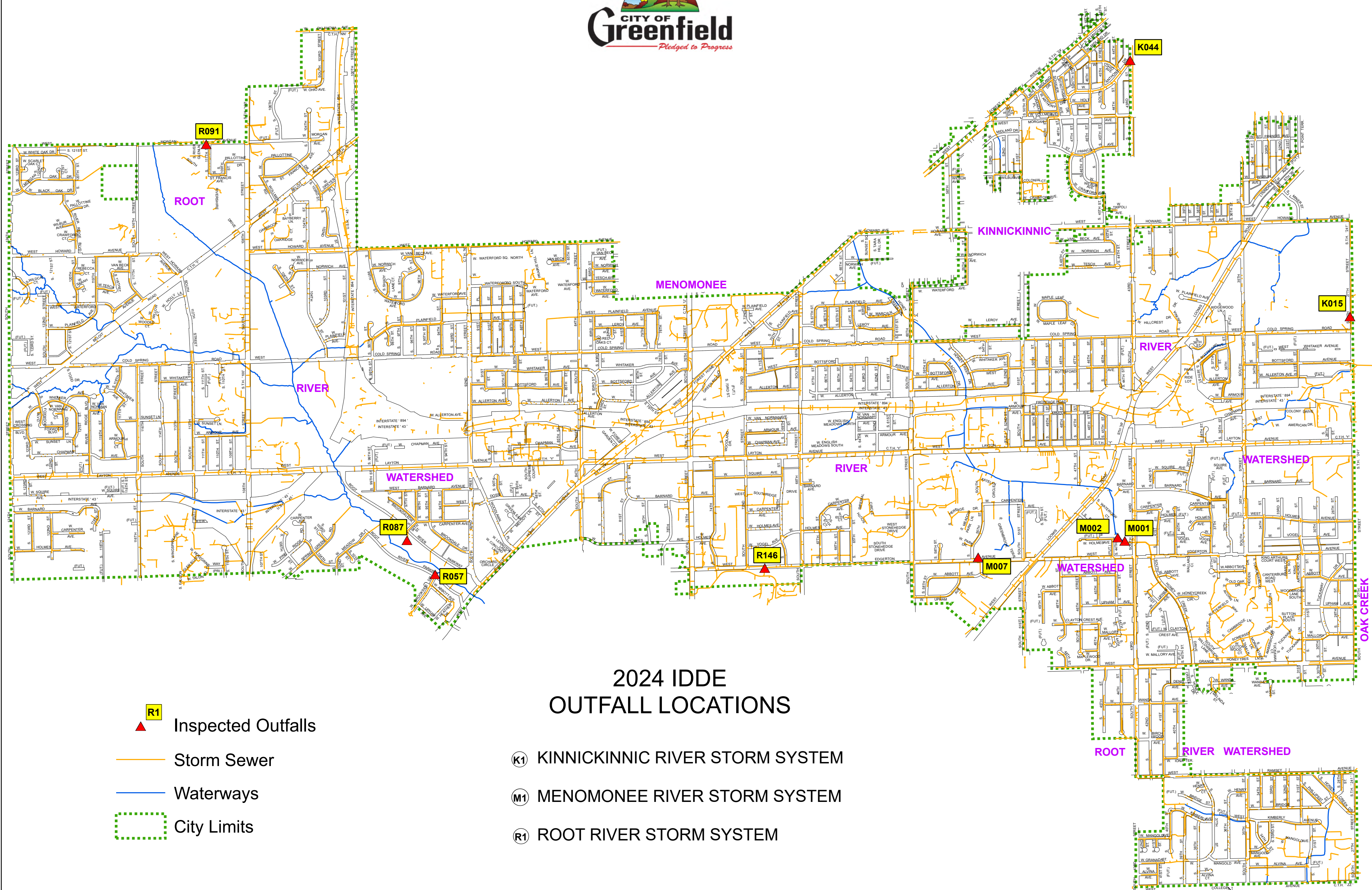
ATTACHMENTS

2024 IDDE Outfall Locations Map (prepared by Ruekert & Mielke, Inc.)

Illicit Discharge Field Screening Reports

Wisconsin State Laboratory of Hygiene Laboratory Report

2024 IDDE Outfall Locations Map (prepared by Ruekert & Mielke, Inc.)



R1
▲ Inspected Outfalls

— Storm Sewer

— Waterways

--- City Limits

2024 IDDE OUTFALL LOCATIONS

K1 KINNICKINNIC RIVER STORM SYSTEM

M1 MENOMONEE RIVER STORM SYSTEM

R1 ROOT RIVER STORM SYSTEM



0 800 1,600 3,200 4,800
Feet

Illicit Discharge Field Screening Reports

City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: K015
Inspection Date & Time: 08/13/2024	Temperature (°F): 74
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: S 27th St. and Coldspring Rd.	
Notes (e.g., origin of outfall, if known): Manhole at the car dealership entrance.	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	42"	no	
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
0.09	0.23	0.33	0.006831	4	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input checked="" type="checkbox"/> Other: Accumulated sediment in the flow line.
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. If yes, collected from: <input checked="" type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F): 75		pH: 7.5	Total Coliform:
Copper (mg/l): 0		Phenols (mg/l): 0	Detergents (mg/l): 0.25
Ammonia (mg/l): 0		Chlorine (mg/l): 0	
Other Results (include units):			

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Additional samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. Test results are provided in the corresponding summary report.

Photos:



City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: K044
Inspection Date & Time: 08/13/2024	Temperature (°F): 74
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: S 43rd St. and Anthony Dr.	
Notes (e.g., origin of outfall, if known): Manhole in the S 43rd St. median strip.	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	48"	no	
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
0.15	2	0.5	0.15	40	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. If yes, collected from: <input checked="" type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole			
3. Measurements: Sample Temperature (°F): 74		pH: 7.9		Total Coliform:	
Copper (mg/l): 0		Phenols (mg/l): 0		Detergents (mg/l): 0.25	
Ammonia (mg/l): 0		Chlorine (mg/l): 0			
Other Results (include units):					

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Additional samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. Test results are provided in the corresponding summary report.

Photos:



City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: M001
Inspection Date & Time: 08/13/2024	Temperature (°F): 70
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: Creekwood Park- S 43rd St. and Edgerton Ave.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	60"	yes	4.5
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input type="checkbox"/> Trickle <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
4.5	5	1	22.5	24	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Outfall Damage	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Poor Pool Quality	<input checked="" type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. If yes, collected from: <input type="checkbox"/> Flow <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F): 72		pH: 7.8	
Copper (mg/l): 0		Phenols (mg/l): 0	
Ammonia (mg/l): 0		Detergents (mg/l): 0	
Chlorine (mg/l): 0			
Other Results (include units):			

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

This outfall was submerged. Flow was verified at the nearest upstream manhole, therefore, a sample was collected. Additional samples were collected and delivered to the Wisconsin State Laboratory of Hygiene for E. coli testing. Test results are provided in the corresponding summary report.

Photos:



City of Greenfield
ILLCIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: M002
Inspection Date & Time: 08/13/2024	Temperature (°F): 70
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: Creekwood Park S 43rd St. and Edgerton Ave.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	60"	yes	5
Flow Present? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input checked="" type="checkbox"/> Other: Garbage present in the nearest upstream manhole.

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. If yes, collected from: <input type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F):	pH:	Total Coliform:
Copper (mg/l):	Phenols (mg/l):	Detergents (mg/l):
Ammonia (mg/l):	Chlorine (mg/l):	
Other Results (include units):		

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Outfall was completely submerged and was not visible. The next upstream manholes were completely submerged as well, with no apparent flow.

Photos:



City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: M007
Inspection Date & Time: 08/13/2024	Temperature (°F): 70
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: S 55th St. and W Edgerton Ave.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	48	no	
Flow Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Outfall Damage	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. If yes, collected from: <input type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F):	pH:	Total Coliform:
Copper (mg/l):	Phenols (mg/l):	Detergents (mg/l):
Ammonia (mg/l):	Chlorine (mg/l):	
Other Results (include units):		

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

The end section had exposed rebar.

Photos:



City of Greenfield
ILLCIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: R057
Inspection Date & Time: 08/12/2024	Temperature (°F): 87
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: W Brookside Dr. and Root River Parkway	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	elliptical	38" x 60"	no	
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
0.04	3.3	1	0.132	6	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Outfall Damage	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input checked="" type="checkbox"/> Other: Up to 3 inches of gravel is in the flow line.
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2. If yes, collected from: <input checked="" type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F): 74	pH: 8	Total Coliform:
Copper (mg/l): 0	Phenols (mg/l): 0	Detergents (mg/l): 0.25
Ammonia (mg/l): 0	Chlorine (mg/l): 0	
Other Results (include units):		

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Flow was partially restricted by gravel in the end section and within the the flowline immediately downstream of the outfall.

Photos:



City of Greenfield
ILLCIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: R087
Inspection Date & Time: 08/12/2024	Temperature (°F): 84
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: Root River Parkway and S 96th St.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	elliptical	38" x 60"	yes	0.91
Flow Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Outfall Damage	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input checked="" type="checkbox"/> Other: Surface scum

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. If yes, collected from: <input type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F):		pH:	Total Coliform:
Copper (mg/l):		Phenols (mg/l):	Detergents (mg/l):
Ammonia (mg/l):		Chlorine (mg/l):	
Other Results (include units):			

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

This outfall was submerged. The nearest upstream manhole cover could not be opened at the time of inspection and the City was notified. The City DPW was able to open the manhole cover. This manhole was reinspected on 8/21 and there was no apparent flow.

Photos:



City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: R091
Inspection Date & Time: 08/12/2024	Temperature (°F): 74
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: S 111th St. and W Morgan Ave.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	round	60"	yes	2.3
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
2.3	4.3	1	9.89	10	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input checked="" type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input checked="" type="checkbox"/> Suds <input checked="" type="checkbox"/> Other: Surface scum

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2. If yes, collected from: <input checked="" type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F): 74	pH: 8	Total Coliform:
Copper (mg/l): 0	Phenols (mg/l): 0	Detergents (mg/l): 0.25
Ammonia (mg/l): 0	Chlorine (mg/l): 0	
Other Results (include units):		

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Flow from this outfall discharges to a small pool. The flow then splits into two smaller channels approximately 12 feet from the outfall pipe. Flow is partially restricted by riprap and where ground where it splits. The clarity of the flow was clear where it splits into the two smaller channels. A sample was collected approximately a foot below the flow surface at the pipe opening.

Photos:



City of Greenfield
ILLICIT DISCHARGE FIELD SCREENING SHEET

SECTION 1: BACKGROUND DATA

Inspection Type: Regular	Outfall ID: R146
Inspection Date & Time: 08/12/2024	Temperature (°F): 87
Investigators: Mark_Bruns	Form completed by: Mark_Bruns
Rainfall event in last 72 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment about rainfall:
Nearest intersection/location: Manhole at S 72nd St. and Edgerton Ave.	
Notes (e.g., origin of outfall, if known):	

SECTION 2: OUTFALL DESCRIPTION

Location Description	Material	Shape	Dimensions (in.)	Submerged?	Submerged Depth (ft.)
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	RCP	rectangular	48"	no	
Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, skip to Section 5					
Flow Description: <input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial					
Depth (ft.)	Width (ft.)	Length (ft.)	Volume (cu. ft.)	Time of Travel (sec.)	Time to Fill (sec.)
0.09	1.5	1	0.135	12	

SECTION 3: PHYSICAL INDICATORS PRESENT AT OUTFALL

INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Trash Rack Damage <input type="checkbox"/> Other:
<input type="checkbox"/> Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> Deposits or Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Paint <input type="checkbox"/> Flow Line <input type="checkbox"/> Other:
<input type="checkbox"/> Turbidity	<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque	<input type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited <input type="checkbox"/> Woody Growth
<input type="checkbox"/> Floatables	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (Oil Sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> Poor Pool Quality	<input type="checkbox"/> Odors <input type="checkbox"/> Yellow <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Suds <input type="checkbox"/> Other:

SECTION 4: LAB ANALYSIS

1. Sample for the lab? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2. If yes, collected from: <input checked="" type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Upstream Manhole	
3. Measurements: Sample Temperature (°F): 75	pH: 8.1	Total Coliform:
Copper (mg/l): 0	Phenols (mg/l): 0	Detergents (mg/l): 0.25
Ammonia (mg/l): 0	Chlorine (mg/l): 0	
Other Results (include units):		

Comments or Other Concerns (e.g., trash or needed infrastructure repairs):

Photos:



Wisconsin State Laboratory of Hygiene Laboratory Report



Laboratory Report

Environmental Health Division

WSLH Sample: 751003001

Report To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188

Invoice To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188
Customer ID: 553540

Field #: K015
Project No:
Collection End: 8/13/2024 10:40:00 AM
Collection Start: 08/13/2024 10:35:00
Collected By:
Date Received: 8/14/2024
Date Reported: 9/4/2024
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: NP-STORM WATER
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 08/14/24 1009
SAMPLE RECEIVED IN MISCELLANEOUS BOTTLE. RESULTS UNCERTAIN.

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/14/24 10:09	Analysis Date: 08/15/24 11:37	Prep Method:	SM9223BMPN		
E. Coli	SM9223BMPN	61	MPN/100 mL		1
Prep Date: 08/14/24 10:51	Analysis Date: 09/04/24 06:42	Prep Method:	Mieszkin et.al/Layton et.al		
Human Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		
Ruminant Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		

Environmental Health Division

WSLH Sample: 751003001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection

LOQ = Level of quantification (for PFAS the LOQ = MRL)

ND = None detected. Results are less than the LOD

F next to result = Result is between LOD and LOQ

Z next to result = Result is between 0 (zero) and LOD

if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: Jesse Wouters, Supervisor 608-224-6227



Laboratory Report

Environmental Health Division

WSLH Sample: 751003002

Report To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188

Invoice To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188
Customer ID: 553540

Field #: K044

Project No:

Collection End: 8/13/2024 2:30:00 PM

Collection Start:

Collected By:

Date Received: 8/14/2024

Date Reported: 9/4/2024

Sample Reason:

ID#:

Sample Location:

Sample Description:

Sample Type: NP-STORM WATER

Waterbody:

Point or Outfall:

Sample Depth:

Program Code:

Region Code:

County:

Sample Comments

Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 08/14/24 1009
SAMPLE RECEIVED IN MISCELLANEOUS BOTTLE. RESULTS UNCERTAIN.

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/14/24 10:09	Analysis Date: 08/15/24 11:37	Prep Method:	SM9223BMPN		
E. Coli	SM9223BMPN	5650	MPN/100 mL		100
Prep Date: 08/14/24 10:51	Analysis Date: 09/04/24 06:42	Prep Method:	Mieszkin et.al/Layton et.al		
Human Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		
Ruminant Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		

Environmental Health Division

WSLH Sample: 751003002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection

LOQ = Level of quantification (for PFAS the LOQ = MRL)

ND = None detected. Results are less than the LOD

F next to result = Result is between LOD and LOQ

Z next to result = Result is between 0 (zero) and LOD

if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: Jesse Wouters, Supervisor 608-224-6227



Laboratory Report

Environmental Health Division

WSLH Sample: 751003003

Report To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188

Invoice To:

ABBY HANSON
RUEKERT AND MIELKE INC
W233 N2080 RIDGEVIEW PKWY
SUITE 300
WAUKESHA, WI 53188
Customer ID: 553540

Field #: M001
Project No:
Collection End: 8/13/2024 9:15:00 AM
Collection Start:
Collected By:
Date Received: 8/14/2024
Date Reported: 9/4/2024
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: NP-STORM WATER
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 08/14/24 1009
SAMPLE RECEIVED IN MISCELLANEOUS BOTTLE. RESULTS UNCERTAIN.

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 08/14/24 10:09	Analysis Date: 08/15/24 11:37	Prep Method:	SM9223BMPN		
E. Coli	SM9223BMPN	816	MPN/100 mL		1
Prep Date: 08/14/24 10:51	Analysis Date: 09/04/24 06:42	Prep Method:	Mieszkin et.al/Layton et.al		
Human Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		
Ruminant Bacteroides species	Mieszkin et.al/Layton et.al	Below LOD	Gene Copies/100		



Laboratory Report

Environmental Health Division

WSLH Sample: 751003003

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection

LOQ = Level of quantification (for PFAS the LOQ = MRL)

ND = None detected. Results are less than the LOD

F next to result = Result is between LOD and LOQ

Z next to result = Result is between 0 (zero) and LOD

if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: Jesse Wouters, Supervisor 608-224-6227



**City of Greenfield
Engineering Division**

March 19, 2025

***2024 Illicit Discharge Detection & Elimination (IDDE)
Supplemental Report***

In addition to our routine Illicit Discharge Detection and Elimination (IDDE) screening program, we also respond to various complaints and spills throughout the course of a year. In addition to the standard report that details our routine screening program, this supplemental report is intended to provide a summary of our IDDE response efforts for events that occur outside of our routine screening program that originate from complaints and spills. Many of these instances are associated with spill reporting to/through the WI DNR Emergency Spill Hotline and notification process.

It should be noted that for many of the spill related incidents, Greenfield's role is often one of providing initial downstream containment and/or site assessment for WI DNR as they work to determine the responsible party and necessary course of action.

In 2024, the City responded to five (7) non-routine IDDE complaints and/or spills as shown in the table below and further detailed below:

Event	Date	Description
1	2/5/2024	Spill at I-894, under S 76 th St
2	7/11/2024	Notification from Milwaukee County about an ID near Hwy 100 and Layton
3	8/19/2024	Complaint about a restaurants food truck cleaning practices
4	8/21/2024	Resident complaint about excessive grass clippings discharge into roadway
5	11/21/2024	WI DNR notification about observed creek discharge discoloration
6	11/25/24	Notification from City of Milwaukee about ID near 9339 W Howard Ave
7	12/9/2024	Notification from City of Milwaukee about dye testing investigation at 4651 & 4663 W Crawford Ave

Event 1

A diesel fuel spill on I-894 under the S 76th St bridge. This was reported to Engineering staff by way of WI DNR Spill Hotline (# 20114 ID 20240205SE41-1). Riley Neumann with the WI DNR was the point of contact for the WI DNR response efforts. Engineering staff provided WI DNR with storm system and storm discharge location information. Spill drained to, and was contained in a WI DOT storm sewer the entire way to its discharge at the Root River. At the request of WI DNR, Engineering staff ran out to inspect the condition of the outfall. This incident was determined to be the responsibility of the WI DOT / WI DNR.



Event 2

Notification from Milwaukee County about an IDDE hit they discovered as part of their 2023 IDDE testing. Looking into the location identified by Milwaukee County, Engineering staff determine that the storm sewer in questions is owned by, and in WI DOT right-of-way. Milwaukee County was notified to contact WI DOT to investigate.



Event 3

Engineering staff received a complaint from a resident about a local restaurant cleaning their food trucks in the parking lot and the run-off carrying grease onto the sidewalk and into the roadway curb and gutter. Investigation by Engineering staff confirmed what resident reported. City Code Enforcement and Health Department were notified and also followed-up with property owner. The property owner was instructed to stop their cleaning practices that involve a hose that allow wash water to run off the property and to convert to cleaning practices that use a mop to clean the trucks. Property will be monitored.



Event 4

Engineering staff received a complaint from a resident about a neighbor who cut grass left a large amount of grass clippings in the roadway. Investigation by Engineering staff confirmed what resident reported. Engineering staff sent a letter to the subject property to notify them to stop the practice of discharging excess lawn clippings onto the roadway. It appears that the resident had let the area between the fence and curb grow very tall, and when cutting discharged it to the roadway. This appears to be an isolated incident that we believe has been resolved.



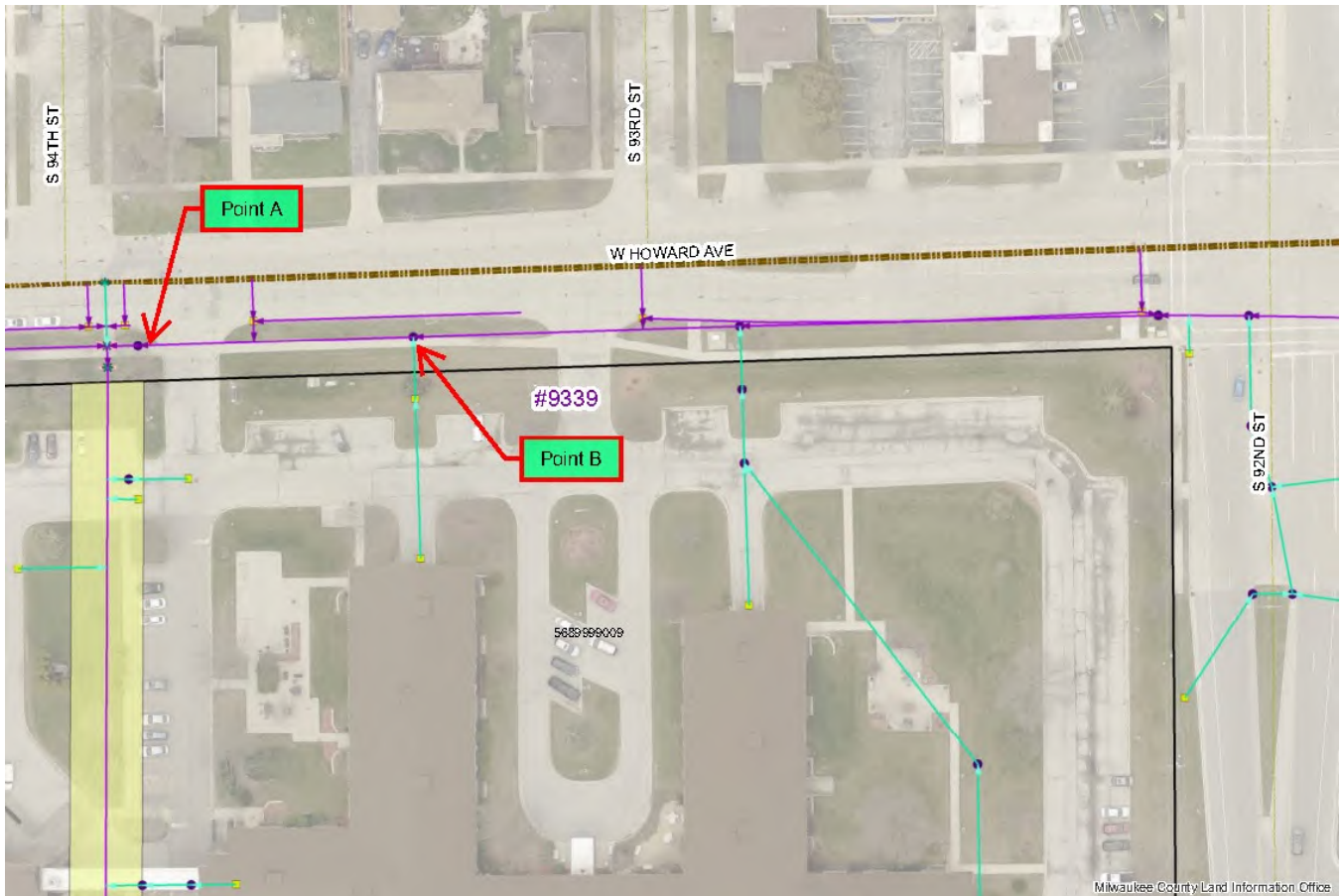
Event 5

A notification from the WI DNR about an observed discoloration in a creek near 20th & Grange. Engineering staff investigated and determined the creek discoloration was a result of runoff from a water main replacement program under the direction of Milwaukee Water Works (MWW). Engineering staff notified MWW to take the necessary corrective action.



Event 6

A notification from the City of Milwaukee about a positive chlorine reading they found during their routine testing that was determined to be coming from a Greenfield storm sewer, and more specifically from 9339 W Howard Ave. The initial notice was sent to the City in 2023 and was investigated and resolved at the time. Upon investigating this new notification, it was determined that an email from City of Milwaukee was sent by mistake as a result of a computer glitch, and that City of Milwaukee did not intend to send, and was not aware an additional email was sent in 2024.



Event 7

A notification from the City of Milwaukee about a Milwaukee dye testing effort at 4651/4663 W Crawford Ave. The dye testing effort follows smoke testing that suggested a potential issue at the house. Because this property is in Greenfield, but connects to a Milwaukee sanitary sewer, Greenfield was asked to assist Milwaukee during the dye testing effort in an effort to help gain access into the house. So far, the owner has been non-responsive, however the effort is on-going.

