

# Submittal of Annual Reports and other Compliance Documents for Municipal Separate Storm Sewer System (MS4) Permits

NOTE: Missing or incomplete fields are highlighted at the bottom of each page. You may save, close and return to your draft permit as often as necessary to complete your application. After 120 days your draft is deleted.

## Reporting Information

**Submittal Type:** Annual Report

**Project Name:**

**County:** Waukesha

**Municipality:** Mukwonago, Village

**Facility Number:** 35717

**Reporting Year:** 2018

## Required Attachments and Supplemental Information

Please complete the contents of each tab to submit your MS4 permit compliance document. The information included in this checklist is necessary for a complete submittal. A complete and detailed submittal will help us review about your MS4 permit document. To help us make a decision in the shortest amount of time possible, the following information must be submitted:

### Annual Report

- Review related web site and instructions for Municipal storm water permit eReporting [Exit Form]
- Complete all required fields on the annual report form and upload required attachments
- Attach the following items as appropriate using the attachments tab above
  - a. Construction Site Pollution Control Annual Report Summary
  - b. Illicit Discharge Detection and Elimination Annual Report Summary
  - c. Leaf and Yard Waste Management
  - d. Municipal Cooperation Attachment
  - e. Municipal Facility Inspections
  - f. Pollution Prevention Annual Report Summary
  - g. Post-Construction Storm Water Management Annual Report Summary
  - h. Public Education and Outreach Annual Report Summary
  - i. Public Involvement and Participation Annual Report Summary
  - j. Storm Water Consortium/Group Report
  - k. Storm Sewer System Map Annual Report Attachment
  - l. Storm Water Quality Management Annual Report Attachment
  - m. TMDL Attachment
  - n. Winter Road Maintenance
  - o. Other Annual Report Attachment
- Sign and Submit form

**Municipal Contact Information- Complete**

**Notice:** Pursuant to s. NR 216.07(8), Wis. Adm. Code, an owner or operator of a Municipal Separate Storm Sewer System (MS4) is required to submit an annual report to the Department of Natural Resources (Department) by March 31 of each year to report on activities for the previous calendar year ("reporting year"). This form is being provided by the Department for the user's convenience for reporting on activities undertaken in each reporting year of the permit term. Personal information collected will be used for administrative purposes and may be provided to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

**Note:** Compliance items must be submitted using the Attachments tab.

**Municipality Information**

**Name of Municipality:** Mukwonago, Village  
**Facility ID # or (FIN):** 35717  
**Updated Information:**  Check to update mailing address information  
**Mailing Address:** 440 River Crest Court  
**Mailing Address 2:**  
**City:** Mukwonago  
**State:** Wisconsin  
**Zip Code:** 53149 XXXXX or XXXXX-XXXX

**Primary Municipal Contact Person (Authorized Representative for MS4 Permit)**

The "Authorized Representative" or "Authorized Municipal Contact" includes the municipal official that was charged with compliance and oversight of the permit conditions, and has signature authority for submitting permit documents to the Department (i.e., Mayor, Municipal Administrator, Director of Public Works, City Engineer).

Select to **create new** primary contact

**First Name:** Ron  
**Last Name:** Bittner  
 Select to **update** current contact information  
**Title:** PW Director  
**Mailing Address:** 440 River Crest Court  
**Mailing Address 2:**  
**City:** Mukwonago  
**State:** WI  
**Zip Code:** 53149 XXXXX or XXXXX-XXXX  
**Phone Number:** 262-363-6447 **Ext:** XXX-XXX-XXXX  
**Email:** rbittner@villageofmukwonago.com

**Additional Contacts Information (Optional)**

- I&E Program  
 IDDE Program

**Individual with responsibility for:  
(Check all that apply)**

- IDDE Response Procedure Manual
- Municipal-wide Water Quality Plan
- Ordinances
- Pollution Prevention Program
- Post-Construction Program
- Winter roadway maintenance

**First Name:**

**Last Name:**

**Title:**

**Mailing Address:**

**Mailing Address 2:**

**City:**

**State:**

**Zip Code:**

 XXXXX OR XXXXX-XXXX

**Phone Number:**

 Ext:  XXX-XXX-XXXX

**Email:**

1. Does the municipality rely on another entity to satisfy some of the permit requirements? If yes, enter entity name (government, consultant, group/organization).

Yes  No

Public Education and

Outreach: Waukesha County

Public Involvement and Participation:

Waukesha County

Illicit Discharge Detection and Elimination:

Construction Site Pollutant Control:

Ruerkert & Mielke, INC.

Post-Construction Storm Water Management:

Pollution Prevention

2. Has there been any changes to the municipality's participation in group efforts towards permit compliances (i.e., the municipality has added or dropped consortium membership)?

Yes  No

### Missing Information

Do not close your work until you **SAVE**.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7.

Form 3400-224 (09/17)

## Minimum Control Measures- Section 1 : Complete

### 1. Public Education and Outreach

a. Complete the following information on Public Education and Outreach Activities related to storm water. Select the Mechanism that best describes how the topic message was conveyed to your population. Use the **Add Activity** to add multiple Mechanisms. For Quantity, choose the range for the number of Mechanisms chosen (i.e., number of workshops, events).

<b>Topic:</b> Detection and elimination of illicit discharges			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
<u>Active distribution of print media</u> (mailings, newsletters, etc)	<u>1 - 9</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Educational activities (School presentations, summer camps, etc)</u>	<u>1 - 9</u>	<u>20 - 49</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Targeted group training (contractors, consultants, etc.)</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Other</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic:</b> Management of materials that may cause storm water pollution from automobiles, pet waste, household hazardous waste and household practices			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
<u>Direct one-on-one communication</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Government event (public hearing, council meeting, etc.)</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Workshops</u>	<u>1 - 9</u>	<u>20 - 49</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Signage</u>	<u>20 - 49</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Educational activities (School presentations, summer camps, etc)</u>	<u>20 - 49</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Informational booth at event</u>	<u>20 - 49</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Other</u>	<u>1 - 9</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups

Business  Developers  Industries  Restaurants  Other:

<b>Topic: Beneficial onsite reuse of leaves and grass clippings/proper use of lawn and garden fertilizers and pesticides</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Passive print media (brochures at front desk, posters, etc.)	1 - 9	20 - 49	<input checked="" type="radio"/> Yes <input type="radio"/> No
Informational booth at event	1 - 9	20 - 49	<input checked="" type="radio"/> Yes <input type="radio"/> No
Workshops	1 - 9	50 - 99	<input checked="" type="radio"/> Yes <input type="radio"/> No
Educational activities (School presentations, summer camps, etc)	20 - 49	100 +	<input checked="" type="radio"/> Yes <input type="radio"/> No
Direct one-on-one communication	1 - 9	1 - 9	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable audiences targeted for this topic.

Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic: Management of stream banks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Informational booth at event	20 - 49	100 +	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic: Infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Direct one-on-one communication	1 - 9	1 - 9	<input type="radio"/> Yes <input checked="" type="radio"/> No
Informational booth at event	1 - 9	20 - 49	<input checked="" type="radio"/> Yes <input type="radio"/> No
Passive print media (brochures at front desk, posters, etc.)	1 - 9	10 - 19	<input checked="" type="radio"/> Yes <input type="radio"/> No
Educational activities (School presentations, summer camps, etc)	1 - 9	100 +	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural
  Contractors
  General Public
  Public Employees
  Residential
  School Groups  
 Business
  Developers
  Industries
  Restaurants
  Other:

**Topic:** Inform and where appropriate educate those responsible for the design, installation, and maintenance of construction site erosion control practices and storm water management facilities on how to design, install and maintain the practices

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Direct one-on-one communication</u>	<u>1 - 9</u>	<u>10 - 19</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Workshops</u>	<u>1 - 9</u>	<u>100 +</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Tours</u>	<u>1 - 9</u>	<u>20 - 49</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural
  Contractors
  General Public
  Public Employees
  Residential
  School Groups  
 Business
  Developers
  Industries
  Restaurants
  Other:

**Topic:** Identify businesses and activities that may pose a storm water contamination concern, and where appropriate, educate specific audiences on methods of storm water pollution prevention

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Workshops</u>	<u>1 - 9</u>	<u>10 - 19</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural
  Contractors
  General Public
  Public Employees
  Residential
  School Groups  
 Business
  Developers
  Industries
  Restaurants
  Other:

**Topic:** Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Direct one-on-one communication</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Government event (public hearing, council meeting, etc.)</u>	<u>1 - 9</u>	<u>1 - 9</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Educational activities (School presentations, summer camps, etc)</u>	<u>1 - 9</u>	<u>20 - 49</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural
  Contractors
  General Public
  Public Employees
  Residential
  School Groups  
 Business
  Developers
  Industries
  Restaurants
  Other:

<b>Topic: Other (describe):</b> <input type="text"/>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Select...	Select...	Select...	<input type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

b. Brief Public Education and Outreach program information for inclusion in the Annual Report. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

The Village contracts with Waukesha County for public education and outreach. Please see the attached summery report.

### Missing Information

Do not close your work until you **SAVE**.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/17)

### Minimum Control Measures - Section 2 : Complete

#### 2. Public Involvement and Participation

a. Describe how the municipality has kept the following local officials and municipal staff aware of the municipal storm water discharge permit programs and its requirements.

Elected Officials

Village Board, Committee and Plan Commission meetings.

Municipal Officials

Village Development meetings. Waukesha County provides partner updates to 108 individuals 6 times a year, conducts an annual meeting and a stormwater workshop.

Appropriate Staff ( such as operators, Department heads, and those that interact with public)

Village Development and staff meetings. Waukesha County provides bi-monthly updates, conducts an annual meeting and a stormwater workshop.

b. Complete the following information on Public Involvement Activities related to storm water. Select the mechanism that best describes how the topic message was conveyed to your population. Use the Add Activity to add multiple mechanisms. For Quantity, choose the range for number Mechanisms chosen (i.e., number of workshops, events).

<b>Topic: Storm Water Management Plan and/or updates</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Website	<u>1 - 9</u>	<u>100 +</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Government Event (Public Hearing, Council Meeting, etc)	<u>1 - 9</u>	<u>10 - 19</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic: Storm water related ordinance and/or updates</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Website	<u>1 - 9</u>	<u>100 +</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Government Event (Public Hearing, Council Meeting, etc)	<u>1 - 9</u>	<u>10 - 19</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic: MS4 Annual Report</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Website	<u>1 - 9</u>	<u>100 +</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Government Event (Public Hearing, Council Meeting, etc)	<u>1 - 9</u>	<u>10 - 19</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

<b>Topic: Volunteer Opportunities</b>			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Clean-up events	<u>1 - 9</u>	<u>20 - 49</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:



<b>Topic: Other (describe) :</b> _____			
<b>Mechanism</b>	<b>Quantity</b> (optional)	<b>Est. People Reached</b> (optional)	<b>Regional Effort?</b> (optional)
Select...	Select...	Select...	<input type="radio"/> Yes <input type="radio"/> No

Select all applicable participants targeted for this topic .

- Agricultural  Contractors  General Public  Public Employees  Residential  School Groups  
 Business  Developers  Industries  Restaurants  Other:

c. Brief Public Involvement and Participation program information for inclusion in the Annual Report.  
 If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

Village community groups conduct cleanup events. Waukesha utilizes up to 50 volunteers for w...

### Missing Information

Do not close your work until you SAVE.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/17)

## Minimum Control Measures - Section 3 : Complete

### 3. Illicit Discharge Detection and Elimination

- a. How many total outfalls does the municipality have?   Unsure
- b. How many outfalls did the municipality evaluate as part of their routine ongoing field screening program?   Unsure
- c. From the municipality's routine screening, how many were confirmed illicit discharges?   Unsure
- d. How many illicit discharge complaints did the municipality receive?   Unsure
- e. From the complaint received, how many were confirmed illicit discharges?   Unsure
- f. How many of the identified Illicit discharges did the municipality eliminate in the reporting year?   Unsure
- g. How many of the following enforcement mechanisms did the municipality use to enforce its illicit discharge ordinance? Check all that apply and enter the number of each used in the reporting year.  Unsure
- |  |                                |
|--|--------------------------------|
| <input checked="" type="checkbox"/> Verbal Warning         | <input type="text" value="1"/> |
| <input type="checkbox"/> Written Warning (including email) | <input type="text"/>           |
| <input type="checkbox"/> Notice of Violation               | <input type="text"/>           |

Civil Penalty/ Citation

No Enforcement Action Taken

Additional Information: \_\_\_\_\_

- h. Brief Illicit Discharge Detection and Elimination program information for inclusion in the Annual Report. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

Village staff evaluated priority outfalls throughout the village. Five outfalls exhibited flow, all within allowable limits. The screening reports are attached.

## Missing Information

Do not close your work until you SAVE.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/17)

## Minimum Control Measures - Section 4 : Complete

### 4. Construction Site Pollutant Control

- a. How many total construction sites were active at any point in the reporting year?   Unsure
- b. How many construction sites did the municipality issue permits for in the reporting year?   Unsure
- c. Do the above numbers include sites <1 acre?  Yes  No  Unsure
- d. How many erosion control inspections did the municipality complete in the reporting year?   Unsure

- e. What types of enforcement actions does the municipality have available to compel compliance with the regulatory mechanism? Check all that apply and enter the number of each used in the reporting year.  Unsure

<input checked="" type="checkbox"/> Verbal Warning	<input type="text" value="0"/>
<input checked="" type="checkbox"/> Written Warning (including email)	<input type="text" value="105"/>
<input checked="" type="checkbox"/> Notice of Violation	<input type="text" value="1"/>
<input checked="" type="checkbox"/> Civil Penalty/ Citation	<input type="text" value="0"/>
<input checked="" type="checkbox"/> Stop Work Order	<input type="text" value="0"/>
<input checked="" type="checkbox"/> Forfeiture of Deposit	<input type="text" value="0"/>
<input type="checkbox"/> No Authority	<input type="text"/>
<input type="checkbox"/> Other - Describe below	<input type="text"/>

- f. Brief Construction Site Pollutant Control program information for inclusion in the Annual Report. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

The Village contracts with R&M Inc. for erosion control services. Weekly inspections are performed for village projects. Monthly inspections are completed for development sites.

**Missing Information**

Do not close your work until you **SAVE**.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/17)

**Minimum Control Measures - Section 5 : Complete**

**5. Post-Construction Storm Water Management**

a. How many new construction sites with new structural storm water management practices\* have received local approvals ?   Unsure

\*Structural practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state (such as ponds, swales, infiltration basins, permeable pavement, catch basin sumps, etc.)

b. How many privately owned storm water facility inspections were completed in the reporting year ?   Unsure

c. What types of enforcement actions does the municipality have available to compel compliance with the regulatory mechanism?  Unsure  
Check all that apply and enter the number of each used in the reporting year.

- Verbal Warning
- Written Warning (including email)
- Notice of Violation
- Civil Penalty/ Citation
- Forfeiture of Deposit
- Complete Maintenance
- Bill Responsible Party
- No Authority
- Other - Describe below

d. Brief Post-Construction Storm Water Management program information for inclusion in the Annual Report . If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

**Missing Information**

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

**Minimum Control Measures - Section 6 : Complete**

**6. Pollution Prevention**

**Storm Water Management Facility Inspections (ponds, biofilters, etc.)  Not Applicable**

- a. Enter the total number of municipally owned or operated structural storm water facilities ?   Unsure
- b. How many new municipally owned storm water facilities were installed in the reporting year ?   Unsure
- c. How many municipally owned storm water devices were inspected in the reporting year?   Unsure
- d. What elements are looked at during inspections (200 character limit)?
- e. How many of these facilities required maintenance?   Unsure

**Public Works Yards & Other Municipally Owned Properties (SWPPP Plan Review)  Not Applicable**

- f. How many inspections of municipal properties been conducted in the reporting year?   Unsure
- g. Have amendments to the SWPPPs been made?  Yes  No  Unsure
- h. If yes, describe what changes have been made (200 character limit):

**Collection Services - Street Sweeping / Cleaning Program  Not Applicable**

- i. Did the municipality conduct street sweeping/cleaning during the reporting year?  
 Yes  No  Unsure
- j. If known, how many tons of material was removed?   Unsure
- k. Does the municipality have a low hazard exemption for this material?  Yes  No
- l. If street cleaning is identified as a storm water best management practice in the pollutant loading analysis, was street cleaning completed at the assumed frequency?  
 Yes  
 No - Explain \_\_\_\_\_  
 Not Applicable

**Collection Services - Catch Basin Sump Cleaning Program  Not Applicable**

- m. Did the municipality conduct catch basin sump cleaning during the reporting year?

Yes  No  Unsure

- n. How many catch basin sumps were cleaned in the reporting year?   Unsure
- o. If known, how many tons of material was collected?   Unsure
- p. Does the municipality have a low hazard exemption for this material?  Yes  No
- q. If catch basin sump cleaning is identified as a storm water best management practice in the pollutant loading analysis, was cleaning completed at the assumed frequency?  
 Yes  
 No - Explain \_\_\_\_\_  
 Not Applicable

**Collection Services - Leaf Collection Program**  Not Applicable

- r. Does the municipality conduct curbside leaf collection?  Yes  No  Unsure
- s. Does the municipality notify homeowners about pickup?  Yes  No  Unsure
- t. Where are the residents directed to store the leaves for collection?  
 Pile on terrace  Pile in street  Bags on terrace  Unsure  
 Other - Describe Reusable containers
- u. What is the frequency of collection?  
 Two village wide events were held in November for leaf collection.
- v. Is collection followed by street sweeping/cleaning?  Yes  No  Unsure

**Winter Road Management**  Not Applicable

\*Note: We are requesting information that goes beyond the reporting year, answer the best you can.

- w. How many lane-miles of roadway is the municipality responsible for doing snow and ice control?   Unsure
- x. Provide amount of de-icing products used by month last winter season?  
 Solids (tons) (ex. sand, or salt-sand)

Product	Oct	Nov	Dec	Jan	Feb	Mar
Salt	<input type="text" value="0"/>	<input type="text" value="85"/>	<input type="text" value="39"/>	<input type="text" value="335"/>	<input type="text" value="250"/>	<input type="text" value="27"/>

Liquids (gallons) (ex. brine)

	Oct	Nov	Dec	Jan	Feb	Mar
Brine	<input type="text" value="0"/>	<input type="text" value="3965"/>	<input type="text" value="842"/>	<input type="text" value="6153"/>	<input type="text" value="7789"/>	<input type="text" value="1836"/>

- y. Was salt applying machinery calibrated in the reporting year?  Yes  No  Unsure
- z. Have municipal personnel attended salt reduction strategy training in the reporting year?  Yes  No  Unsure

If yes, describe what training was provided (200 character limit):

When:

How many attended:

### Internal (Staff) Education & Communication

- aa. Has training or education on SWPPPs for municipal facilities been held for municipal or other personnel?  Yes  No  Unsure

If yes, describe what training was provided (200 character limit):

New employees are trained on best practices for yard house keeping during quarterly inspections and as tasks are performed.

When:

Quarterly inspections

How many attended:

2

- ab. Brief Pollution Prevention program information for inclusion in the Annual Report. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

Quarterly inspection are conducted by supervision and attended by staff as preventive training. An emphasis is placed on good house keeping and preventive measures.

### Missing Information

Do not close your work until you **SAVE**.

Note: For the minimum control measures, you must fill out all questions in sections 1 through 7

Form 3400-224 (09/17)

## Minimum Control Measures - Section 7 : Complete

### 7. Storm Sewer System Map

- a. Did the municipality update their storm sewer map this year?  Yes  No  Unsure

If yes, check the areas the map items that got updated or changed:

- Storm water treatment facilities  
 Storm pipes  
 Vegetated swales  
 Outfalls  
 Other - Describe below

- b. Brief Storm Sewer System Map information for inclusion in the Annual Report. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

New development added BMPs, storm pipe and catch basins. An updated PDF is included with this report.

**Missing Information**

Do not close your work until you SAVE.

Form 3400-224 (09/17)

**Final Evaluation - Complete****Fiscal Analysis**

Complete the fiscal analysis table provided below. For municipalities that do not break out funding into permit program elements, please enter the monetary amount to your best estimate of what funding may be going towards these programs.

Annual Expenditure Reporting Year	Budget Reporting Year	Budget Upcoming Year	Source of Funds
-----------------------------------	-----------------------	----------------------	-----------------

**Element: Public Education and Outreach**

750	750	750	<u>General revenue fund</u>
75	75	75	<u>Storm water utility</u>

**Element: Public Involvement and Participation**

750	750	750	<u>General revenue fund</u>
75	75	75	<u>Storm water utility</u>

**Element: Illicit Discharge Detection and Elimination**

3500	3500	3500	<u>General revenue fund</u>
350	350	350	<u>Storm water utility</u>

**Element: Construction Site Pollutant Control**

10000	10000	10000	<u>Tax Incremental Finance District.</u>
20000	20000	20000	<u>Permit fee and/or deposit/escrow</u>
5000	5000	5000	<u>General revenue fund</u>

**Element: Post-Construction Storm Water Management**

500	500	500	<u>Storm water utility</u>
8000	3000	6000	<u>General revenue fund</u>

**Element: Pollution Prevention**

500	500	500	<u>Storm water utility</u>
-----	-----	-----	----------------------------

11047	15894	16915	<u>General revenue fund</u>
-------	-------	-------	-----------------------------

**Element: Storm Water Quality Management**

100	100	100	<u>Storm water utility</u>
8243	9259	8257	<u>General revenue fund</u>

**Element: Storm Sewer System Map**

500	500	500	<u>General revenue fund</u>
-----	-----	-----	-----------------------------

**Other (describe)**

			<u>Select...</u>
--	--	--	------------------

Please provide a justification for a "0" entered in the Fiscal Analysis

**Water Quality**

**a:** Were there any known water quality improvements in the receiving waters to which the municipality's storm sewer system directly discharges to?

Yes  No  Unsure      If Yes, explain below:

**b:** Were there any known water quality degradation in the receiving waters to which the municipality's storm sewer system directly discharges to?

Yes  No  Unsure      If Yes, explain below:

**c:** Have any of the receiving waters that the municipality discharges to been added to the impaired waters list during the reporting year?

Yes  No  Unsure

**d:** Has the municipality evaluated their storm water practices to reduce the pollutants of concern?

Yes  No  Unsure

**Additional Information**

Based on the municipality's storm water program evaluation, describe any proposed changes to the municipality's storm water program. If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

The Village is retrofitting a pond in 2019 to increase the removal of TSS with the aid of an Urban Non Point Source grant.



## Missing Information

Do not close your work until you SAVE.

Form 3400-224 (09/17)

### Requests for Assistance on Understanding Permit Programs

Would the municipality like the Department to contact them about providing more information on understanding any of the Municipal Separate Storm Sewer Permit programs?

Please select all that apply:

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Pollutant Control
- Post-Construction Storm Water Management
- Pollution Prevention
- Storm Water Quality Management
- Storm Sewer System Map
- Water Quality Concerns
- Compliance Schedule Items Due
- MS4 Program Evaluation

Do not close your work until you **SAVE**.

## Required Attachments and Supplemental Information

Any other MS4 program information for inclusion in the Annual Report may be attached on here. Use the Add Additional Attachments to add multiple documents.

Upload Required Attachments (15 MB per file limit) - [Help reduce file size and trouble shoot file uploads](#)

\*Required Item

Note: To replace an existing file, use the 'Click here to attach file ' link or press the to delete an item.

### Storm Sewer System Map

 File Attachment

[MukwonagoMS4\\_2019.pdf](#)

### Attach Documents

#### AR EOFIN

 File Attachment

[PublicEducationOutreach.pdf](#)

#### AR CSPCFIN

 File Attachment

[ConstructionSitePollutionControl.pdf](#)

#### AR PCSSWFIN

 File Attachment

[PostConstructionStormwater.pdf](#)

#### AR IDDEFIN

 File Attachment

[IDDE.pdf](#)

#### AR PPFIN

 File Attachment

[PollutionPrevention.pdf](#)

#### AR WintRdMainFIN

 File Attachment


[WinterRoadMaintenace.pdf](#)

#### AR LeafYardMgmtFIN

 File Attachment

[LeafYardWaste.pdf](#)

## AR MuniFacInspFIN

 File Attachment

[MinicipalFacilityInspections.pdf](#)

---

## AR OtherFIN

 File Attachment

[MukwonagoImpairedWatersStrategy20181116.pdf](#)

(To remove additional items, use your cursor to hover over the attachment section. When the drop down arrow appears, select remove item)

## **Missing Information**

Draft and Share PDF Report with Municipality's Governing Body.

Press the button below to create a PDF. The PDF will be sent to the email address associated with the WAMS ID that is signed in. After the annual report has been approved by the governing body, you will have to come back to the MS4 eReporting system to submit the report to the DNR.

[Draft and Share PDF Report with Municipality's Governing Body](#)

## Sign and Submit Your Application

### Steps to Complete the signature process

1. Read and Accept the Terms and Conditions
2. Press the Submit and Send to the DNR button

**NOTE:** For security purposes all email correspondence will be sent to the address you used when registering your WAMS ID. This may be a different email than that provided in the application. For information on your WAMS account click [HERE](#).

### Terms and Conditions

**Certification:** I hereby certify that I am an authorized representative of the municipality covered under Mukwonago, Village MS4 Permit for which this annual report or other compliance document is being submitted, and that the information contained in this submittal and all attachments were gathered and prepared under my direction or supervision. Based on my inquiry of the person or persons under my direction or supervision involved in the preparation of this document, to the best of my knowledge, the information is true, accurate, and complete. I further certify that the municipality's governing body or delegated representatives have reviewed or been apprised of the contents of this annual report. I understand that Wisconsin law provides severe penalties for submitting false information.

Signee (must check current role prior to accepting terms and conditions)

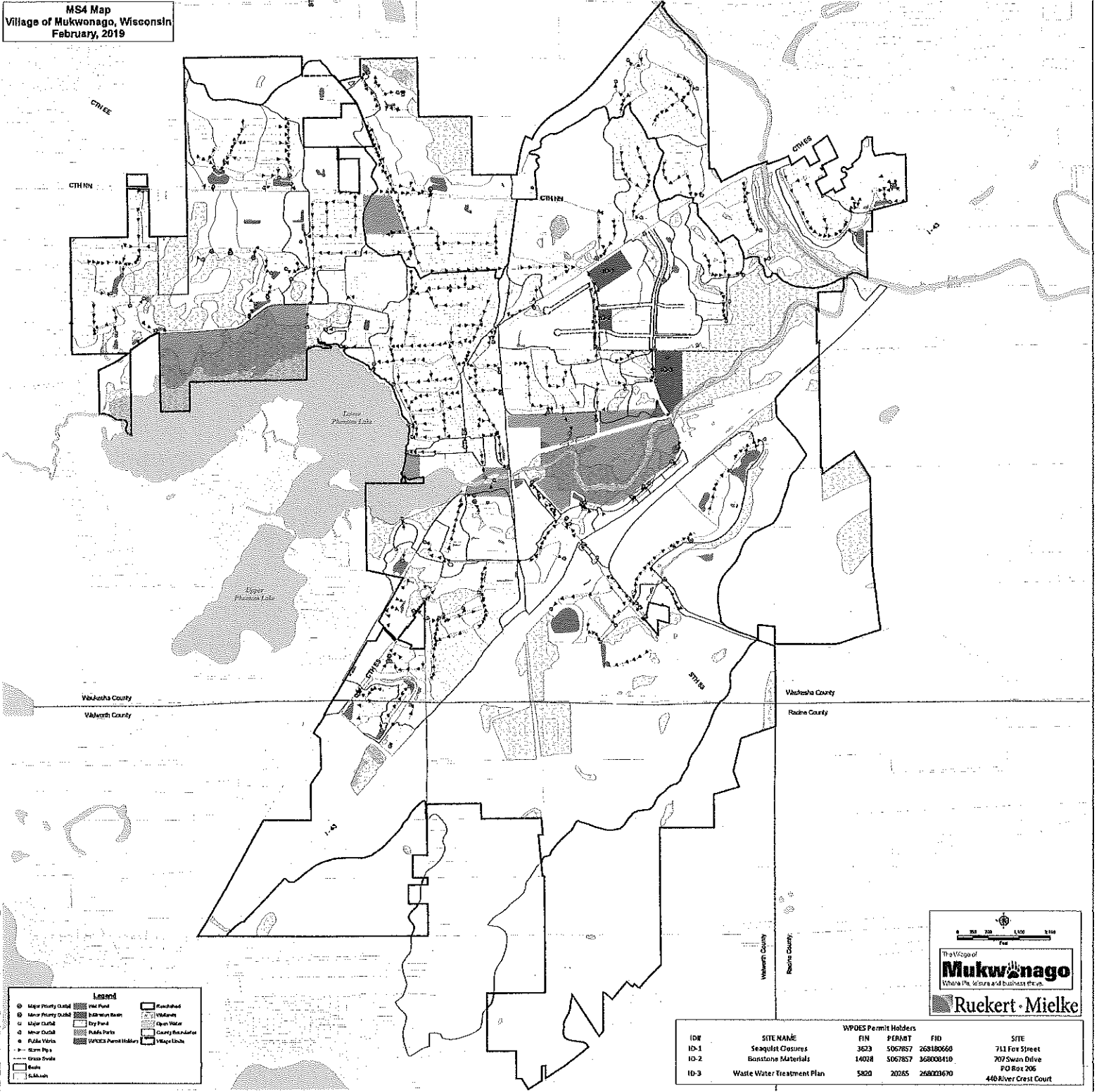
- Authorized municipal contact using WAMS ID.
- Delegation of Signature Authority ( Form 3400-220 ) for agent signing on the behalf of the authorized municipal contact.
- Agent seeking to share this item with authorized municipal contact (authorized municipal contact must get WAMS id and complete signature).

Authorized Signature.

- I accept the above terms and conditions.

After providing the final authorized signature, the system will send an email to the authorized party and any agents. This email will include a copy to the final read only version of this application.

**MS4 Map**  
**Village of Mukwonago, Wisconsin**  
**February, 2019**



**Legend**

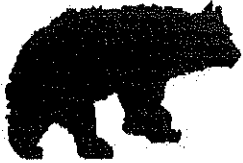
Major Priority District	Wetland	Wetland
Minor Priority District	Wetland	Wetland
Major District	Wetland	Wetland
Minor District	Wetland	Wetland
Public Works	Wetland	Wetland
Storm Pipe	Wetland	Wetland
Green Space	Wetland	Wetland
Wetland	Wetland	Wetland
Subdiv	Wetland	Wetland

0 500 750 1000 1500 2000 Feet

The Village of **Mukwonago**  
 Where life, leisure and business thrive.

**Ruekert · Mielke**

ID#	SITE NAME	FIN	PERMIT	FID	SITE
ID-1	Sequester Closures	3623	5067857	268180666	711 Fox Street
ID-2	Basestone Materials	14028	5067857	368003410	707 Swan Drive PO Box 206
ID-3	Waste Water Treatment Plan	5820	20285	268003470	440 River Crest Court



## 2018 Stormwater Activity Summary Report

### Public Education and Outreach:

The Village contracts and participates in the Waukesha County program for education and outreach. Information regarding events and programs are linked on the Villages website and available at the Village Hall.

### Target Audience: General Public

- In working to earn their Bronze Award, a girl scout troop learned about the environmental effects of pet waste and participated in the assembly of a pet waste station.
- A local business and community group conducted spring cleanup events.
- The Village hosted Waukesha County at National Night Out where an interactive booth was displayed.
- Host site for Waukesha County hazardous waste collection and electronics recycling programs.
- Staff met with residents regarding rain garden installation.
- Staff met with Home Owners Associations regarding the importance of BMP maintenance and inspections.

### Target Audience: Contractors Developers

- Promote green infrastructure during pre-development meeting.
- Inform developers as to village and private green infrastructure on adjacent properties.

## **2018 Activity Summary Report Waukesha County Storm Water Education Program**

As part of the agreements Waukesha County has with 26 participating communities, and as required in our storm water discharge permits from DNR, an annual report of storm water education activities is required. This report represents a summary of the activities Waukesha County has been involved with during 2018, sorted by the target audience.

### **Target Audience: Contractors, Developers, Consultants and Municipal officials**

- Held annual storm water workshop in March, focused on green infrastructure. Workshop was filled with 110 people and received very positive ratings in evaluations.
- Hosted grand opening of new exhibit area in Retzer Nature Center for elected officials.
- Hosted Southeast Area Land Conservation Tour with 30 people in attendance.

### **Target Audience: General Public**

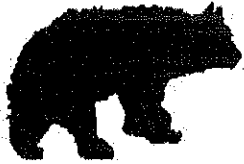
- Two groups in two different communities stenciled storm drains with “dump no waste” message.
- Produced and released 8 different news articles or ads on various topics such as rain gardens, rain barrels, soil health and aquatic invasive species.
- Distributed over 77,700 tax inserts with recycling and storm water information
- Presented hands-on programs on storm water runoff and pollution prevention actions to 798 county residents at 23 different events/locations.
- Toured the display boards to 22 different community events/locations with an estimated audience of over 16,000 people. The display covers basic storm drain and runoff information as well as specific information on rain gardens, rain barrels, shoreland restoration, pet waste, car washing, fertilizer, chemical use and more.
- Opened new permanent display at Retzer Nature Center with an estimated attendance of over 16000.
- Offered 2 programs on rain gardens and rain barrels to 83 people.
- Sold 21 rain barrels in promotional 1 day sale.
- Provided equipment and maintained 35 stream monitoring sites throughout the county. Of these, 5 sites were monitored at level 2. Nineteen new volunteers were trained this year at level 1. One site received state funding for phosphorus sampling.
- Taught 1 yard care/composting classes with 57 people attending.
- Sold 18 compost bins through special sales.
- Composted over 3000 tons of community yard waste at the Waukesha County Yard Waste Composting site in the Town of Genesee.
- Collected over 211,000 pounds of household and agricultural hazardous waste from 4 permanent county collection points and several seasonal sites with a total of over 4800 participants.

- Taught 2 Green Cleaning classes to 25 people.

#### **Teachers and Students**

- Trained 34 local teachers through a bus tour of local sites. Sites included Retzer Nature Center, EB Shurts Building and Carroll Universities Prairie Springs Field Station.
- Trained 12 teachers/naturalists in Project WET (Water Education for Teachers), a hands-on supplement of water related educational activities.
- Presented at 45 schools to over 2200 students information on runoff pollution and how to prevent it.
- Provided field experience in water testing for 10 schools and over 870 students.
- Funded four school water projects through the Green Schools program. Through this program, the county offers technical and financial assistance in recycling, waste reduction, water conservation and water pollution control activities. Projects included rain garden plants for St. Mary's Menomonee Falls and Menomonee Falls High School, and rain barrels for Prairie Hill Waldorf and Pewaukee Schools.





## 2018 Stormwater Activity Summary Report

### Construction Site Pollution Control:

- There was a total of 21 active sites during the reporting year.
- Ten new permits were issued.
- 178 inspections completed by Ruekert & Mielke, Inc. the village's contracted engineering firm.
- 105 inspection reports identified erosion control violations.
- One notice of violation was issued regarding unresolved violations. The issue was resolved shortly after the developer received the letter outlining the next step unless the site was brought into compliance.
- Ruekert & Mielke, Inc staff inspect the Village's project best management practices within 24 hours after each rain event of 0.5 inch or more, and at least once each week.
- Private development sites best management practices shall be inspected within 24 hours after each rain event of 0.5 inch or more that results in runoff, and at least once each week by a qualified inspector.
- Development sites are inspected monthly by R & M staff unless reported violations require weekly site visits.
- Construction review technicians (CRT) are updated on site erosion control issues and provide another source for issues and corrective actions.



## 2018 Stormwater Activity Summary Report

### Post Construction Stormwater Management:

- The Village began construction on an industrial complex in the spring of 2018. The site contains five lots served by two regional ponds and 1-3 additional lots with onsite stormwater BMPs.
- Storm water maintenance agreements and as-builts for new developments are enter in Village's GIS as data becomes available.
- Private BMP inspections are the responsibility of their owners.
- Village staff visually monitor private sites for compliance while completing IDDE inspections.
- Village staff inspect and provide general maintenance for Village owned structures.

## STORMWATER POND INSPECTION

Pond Information							
Pond ID:	0005	Pond Type:	Wet Pond				
Location:	East Veterans Way, West of Hawks Ridge Condos						
Subdivision:	Village Owned	Watershed:	Fox				
Capacity:		Acres:					
Overflow Elev:		100 Year Elev:					
Year Constructed:		Date Input:					
Water Quality:		Private:					
Inspection Details							
Inspector Name(s):	Ron Bittner						
Inspection Date:	10/23/2018	Start Time:	08:31 AM	End Time:	09:23 AM		
Weather Condition:	Sunny 38			Last Rainfall Date:	10/18/2018		
Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
Dry Pond							
1. Standing water or wet spots?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Sediment or trash accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Low flow channels unobstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wet Pond							
1. Removal of floating debris required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Visible oil/chemical presence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Evidence of wave action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Safety shelf erosion or failure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Infiltration Basin							
1. Standing water or wet spots?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Sediment or trash accumulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Under drain functioning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
<b>Vegetation</b>							
1. Adequate vegetation cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Appropriate vegetation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Presence of invasive or undesirable vegetation/woody growth?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Excessive nuisance aquatic vegetation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Other?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Sediment Forebays</b>							
1. Is sediment accumulation >50%? If yes, then maintenance is needed immediately.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Evidence of excessive velocity/scour?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Maintenance access clear of obstructions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Embankment &amp; Emergency Spillway</b>							
1. Is the spillway level?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Adequate Freeboard? (min 1' from top of bank to highest outlet)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Embankment erosion evident?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Cracking, bulging or sliding of embankment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Evidence of animal burrows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Seepage evident on exterior face of embankment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Vertical & horizontal alignment of top of dam as per plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. Emergency spillway clear of obstructions & debris?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Maintenance access clear of obstruction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### STORMWATER POND INSPECTION

Issue	Checked			Maintenance Needed			Comments
	Y	N	N/A	Y	N	N/A	
<b>Riser &amp; Outfall Spillway</b>							
1. Low flow orifice obstructed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Low flow trash rack debris/corrosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Weir trash rack debris/corrosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Excessive sediment accumulation inside the riser?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Sediment accumulation in outlet pipe?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Outfall channels functioning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Under drain functioning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Slope protection or rip-rap failures?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Other</b>							
1. Encroachments on pond or easement area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Complaints from residents?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Odor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Mowing required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Graffiti removal needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Insects in excess?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Public hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Summary:	There is a pond retrofit scheduled for 2019. Pond maintenance and inlet repairs will be scheduled at the same time.						
Inspector Remarks:	Excessive woody vegetation around pond. Due to design, mechanical removal IVs limited resulting in hand work.						



2018



2018



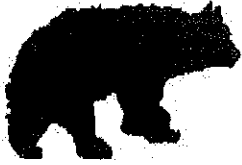
2018



2018



2018



## 2018 Stormwater Activity Summary Report

### IDDE:

- There are 128 outfalls in the village. 14 of the 31 major outfalls and 97 minor outfalls are identified as priority.
- The village is divided into five zones for outfall inspections.
- Village wide priority outfalls and outfalls within the designated zone are inspected annually. In 2018.
- The 14 priority (9 major and 5 minor) and three additional out falls from zone 3 were inspected.
- Five inspections exhibited minor flows and were within allowable limits. Screening sheets are included in the summary.

One self-reported Illicit discharge was reported by Walmart # 1571 resulting in a verbal warning. A sewer lateral back up caused raw sewage to weep from an inspection cover in the parking lot towards a private stormwater pond. Reports are included from village staff and a corresponding email from store management about environmental cleanup and disposal.



## ILLICIT DISCHARGE FIELD SCREENING SHEET

### SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: GSOF004	
Today's date: 10/24/2018		Time (Military): 10:58 AM	
Investigators: Ron Bittner		Form completed by: Ron Bittner	
Temperature (°F): 43	Rainfall (in.): Last 24 hours: 0.0    Last 48 hours: 0.0		
Nearest Intersection / Location: Holz Pkwy. & Fox Street			
Photo #s:		Land use in drainage area: Industrial, Multi and Single family	
Notes (e.g., origin of outfall, if known):			

### SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Closed Pipe <input checked="" type="checkbox"/> Open Drainage				No
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

### SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						49	7.0	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY	SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL
Is Any Physical Indicator Present in the flow? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Are Any Physical Indicators that are not related to flow present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>INDICATOR</b>	<b>INDICATOR</b>
<b>DESCRIPTION</b>	<b>DESCRIPTION</b>
<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"/> 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/Stains <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <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 checked="" type="checkbox"/> Abnormal Vegetation <input checked="" type="checkbox"/> Excessive <input type="checkbox"/> Inhibited
<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"/> Suds <input type="checkbox"/> Floatables <input type="checkbox"/> Yellow <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____

### SECTION 6: DATA COLLECTION

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
3. Samples Taken:	<input checked="" type="checkbox"/> Copper (mg/l) 0.0 <input checked="" type="checkbox"/> Phenols Chemical <input type="checkbox"/> Surfactants <input checked="" type="checkbox"/> Detergents (mg/l) 0.0 <input type="checkbox"/> Potassium (mg/l) <input type="checkbox"/> Ecoli <input checked="" type="checkbox"/> Chlorine 0.0 <input type="checkbox"/> Coliform

### SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



Culverts east side of Holz Pkwy.

## ILLICIT DISCHARGE FIELD SCREENING SHEET

### SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST252001	
Today's date: 10/24/2018		Time (Military): 11:40 AM	
Investigators: Ron Bittner		Form completed by: Ron Bittner	
Temperature (°F): 48	Rainfall (in.): Last 24 hours: 0.0    Last 48 hours: 0.0		
Nearest Intersection / Location: McKenzie Dr. & Perkins Dr.			
Photo #s:		Land use in drainage area: Commercial, Institutional, Industrial	
Notes (e.g., origin of outfall, if known):			

### SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (In.)	Submerged
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	Concrete		4x 48	No
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

### SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						53	7.0	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY		SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL	
Is Any Physical Indicator Present in the flow? <input type="checkbox"/> Yes <input type="checkbox"/> No		Are Any Physical Indicators that are not related to flow present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
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"/> 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/Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <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 checked="" type="checkbox"/> Abnormal Vegetation	<input type="checkbox"/> Excessive <input checked="" type="checkbox"/> Inhibited
<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"/> Suds <input type="checkbox"/> Floatables <input type="checkbox"/> Yellow <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____

### SECTION 6: DATA COLLECTION

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
3. Samples Taken:	<input checked="" type="checkbox"/> Copper (mg/l) 0.0 <input checked="" type="checkbox"/> Phenols Chemical <input type="checkbox"/> Surfactants <input checked="" type="checkbox"/> Detergents (mg/l) 0.0 <input type="checkbox"/> Potassium (mg/l) <input type="checkbox"/> Ecoli <input checked="" type="checkbox"/> Chlorine 0.0 <input type="checkbox"/> Coliform

### SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



Outfall East side of Mackenzie Dr.



Outfall East side of Mackenzie Dr.

## ILLICIT DISCHARGE FIELD SCREENING SHEET

### SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: ST363008	
Today's date: 10/23/2018		Time (Military): 01:34 PM	
Investigators: Ron Bittner		Form completed by: Ron Bittner	
Temperature (°F): 48	Rainfall (in.): Last 24 hours: 0.0      Last 48 hours: 0.0		
Nearest Intersection / Location: Dewey Dr. West termini			
Photo #s:		Land use in drainage area: Industrial, Undeveloped Industrial Land	
Notes (e.g., origin of outfall, if known):			

### SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (In.)	Submerged
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	Concrete	Round	48	Yes
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

### SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						58	7.0	0.0

#### SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Is Any Physical Indicator Present in the flow?     YES     NO

#### SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL

Are Any Physical Indicators that are not related to flow present?     YES     NO

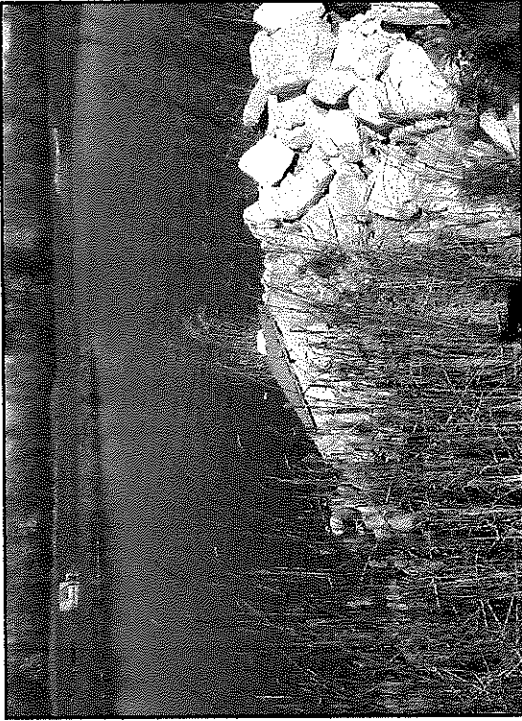
INDICATOR	DESCRIPTION	INDICATOR	DESCRIPTION
<input type="checkbox"/> Odor	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/Sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other : _____	<input type="checkbox"/> Outfall Damage	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion <input type="checkbox"/> Peeling Paint
<input type="checkbox"/> 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/Stains	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <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"/> 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"/> Suds <input type="checkbox"/> Floatables <input type="checkbox"/> Yellow <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____

### SECTION 6: DATA COLLECTION

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
3. Samples Taken:	<input checked="" type="checkbox"/> Copper (mg/l) 0.0 <input checked="" type="checkbox"/> Phenols Chemical <input type="checkbox"/> Surfactants <input checked="" type="checkbox"/> Detergents (mg/l) 0.0 <input type="checkbox"/> Potassium (mg/l) <input type="checkbox"/> Ecoli <input checked="" type="checkbox"/> Chlorine 0.0 <input type="checkbox"/> Coliform

### SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?

Under drains collect ground water from the road bed and drain to a catch basin upstream of this outfall. Sample was collected from the last manhole upstream of the outfall.



Outfall into pond

## ILLICIT DISCHARGE FIELD SCREENING SHEET

### SECTION 1: BACKGROUND DATA

Subwatershed: Fox		Outfall ID: ST361002	
Today's date: 10/24/2018		Time (Military): 02:12 PM	
Investigators: Ron Bittner		Form completed by: Ron Bittner	
Temperature (°F): 49	Rainfall (in.): Last 24 hours: 0.0    Last 48 hours: 0.0		
Nearest Intersection / Location: Wolf Run east termini			
Photo #s:		Land use in drainage area: Commercial	
Notes (e.g., origin of outfall, if known):			

### SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (In.)	Submerged
<input checked="" type="checkbox"/> Closed Pipe <input type="checkbox"/> Open Drainage	Concrete	Round	54	No
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

### SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						61	7.0	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY	SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL
Is Any Physical Indicator Present in the flow? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are Any Physical Indicators that are not related to flow present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>INDICATOR</b>	<b>INDICATOR</b>
<b>DESCRIPTION</b>	<b>DESCRIPTION</b>
<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"/> 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/Stains <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <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"/> 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"/> Suds <input type="checkbox"/> Floatables <input type="checkbox"/> Yellow <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____

### SECTION 6: DATA COLLECTION

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
3. Samples Taken:	<input checked="" type="checkbox"/> Copper (mg/l) 0.0 <input checked="" type="checkbox"/> Phenols Chemical <input type="checkbox"/> Surfactants <input checked="" type="checkbox"/> Detergents (mg/l) 0.0 <input type="checkbox"/> Potassium (mg/l) <input type="checkbox"/> Ecoli <input checked="" type="checkbox"/> Chlorine 0.0 <input type="checkbox"/> Coliform

### SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



Outfall from Walmart, Home Depot pond



## ILLCIT DISCHARGE FIELD SCREENING SHEET

### SECTION 1: BACKGROUND DATA

Subwatershed: Mukwonago		Outfall ID: GSOF002	
Today's date: 10/24/2018		Time (Military): 10:43 AM	
Investigators: Ron Bittner		Form completed by: Ron Bittner	
Temperature (°F): 43	Rainfall (in.): Last 24 hours: 0.0    Last 48 hours: 0.0		
Nearest Intersection / Location: Holz Pkwy. & Perkins Dr.			
Photo #s:		Land use in drainage area: Industrial	
Notes (e.g., origin of outfall, if known):			

### SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Closed Pipe <input checked="" type="checkbox"/> Open Drainage				No
Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description	<input checked="" type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

### SECTION 3: QUANTITATIVE CHARACTERIZATION

Flow Depth (ft)	Flow Width (ft)	Measured Length (ft)	Time of Travel (sec)	Volume (cu ft)	Time To Fill (sec)	Temperature (F)	pH	Ammonia (PPM)
						47	7.0	0.0

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY	SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALL
Is Any Physical Indicator Present in the flow? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Are Any Physical Indicators that are not related to flow present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INDICATOR	INDICATOR
DESCRIPTION	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"/> 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/Stains <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <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 checked="" type="checkbox"/> Abnormal Vegetation <input type="checkbox"/> Excessive <input checked="" type="checkbox"/> Inhibited
<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"/> Suds <input type="checkbox"/> Floatables <input type="checkbox"/> Yellow <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____

### SECTION 6: DATA COLLECTION

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
3. Samples Taken:	<input checked="" type="checkbox"/> Copper (mg/l) 0.0 <input checked="" type="checkbox"/> Phenols Chemical <input type="checkbox"/> Surfactants <input checked="" type="checkbox"/> Detergents (mg/l) 0.0 <input type="checkbox"/> Potassium (mg/l) <input type="checkbox"/> Ecoli <input checked="" type="checkbox"/> Chlorine 0.0 <input type="checkbox"/> Coliform

### SECTION 7: COMMENTS OR OTHER CONCERNS (e.g., trash or needed infrastructure repairs)?



Culverts east side of Holz Pkwy.



## Illicit Discharge Report

**3/2/2018**

12:29 PM: There was a message on our voice mail form the Mukwonago Walmart. Dawn the caller stated there was water coming out from a utility access hole in front of the store. Utilities also received the call and the Director dispatched staff to investigate.

2:35 PM: I received a call form Dave Brown the Utilities Director, who relayed the flow was coming from a private sanitary manhole.

2:45 PM: I left for the scene after calling the Building Inspection Supervisor to meet me there.

2:55 PM: Upon arriving at Walmart, contact was made with store management. After initial discussion, we went outside to observe the issue. They had already placed a call to the corporate office for a maintenance request and received a call from a plumber who stated he would be there on that afternoon or Monday. I advised Monday would not be acceptable and another call was made to corporate escalating the situation to an emergency request.

3:05 PM: Inspection supervision arrived on the scene and requests were made for grease trap cleaning records. Village staff suggested store management close that portion of parking lot due to health and safety concerns. Management agreed and started the process immediately. Requests were made for documentation when available as to plumbing services and arrival times.

3:20 PM: Village staff left the scene as Walmart staff was closing the affected section of parking lot.

**3/3/2018**

3:15 PM: I received the attached email from Mr. Sandleback the store manager.

Respectfully Submitted  
Village of Mukwonago

Ron Bittner  
Public Works Director/Weed Commissioner

## Ron Bittner

---

**From:** Michael Sandleback - MRSANDL.s01571 <mrsandl.s01571.us@wal-mart.com>  
**Sent:** Saturday, March 3, 2018 3:15 PM  
**To:** Ron Bittner  
**Subject:** Parking Lot

Ron,  
At approximately 4pm the plumber from Ideal Mechanical arrived to unclog the main line. He was unable to initially resolve, so he had to call Roto Rooter for assistance. At 8:30 pm they were successfully able to unclog the main line. They did not leave paperwork, and from the reports that I received from my managers, they were unaware of what caused the clog.

The hazmat team, Clean Harbors Environmental, arrived approximately 8:45pm and began cleaning/removing the waste residue. The hazmat team completed cleaning at approximately 01:00am. Due to Federal/State laws, the hazmat team has to keep all collected waste onsite until a lab has verified the contents for proper disposal. The waste is secured in our environmental cage located by the Auto Care Center. The estimated time for pickup is on Wednesday March 7th.

Thank you again for all the help and support. Please let me know if there is anything else I need to do.

Thank you

**Michael Sandleback Store Manager #1571**  
Phone 262.363.7500 Fax 262.363.2837

**Walmart** \*

250 Wolf Run  
Mukwonago, WI 53149  
**Save money. Live better.**

# **Incident Report**

## **Walmart Sanitary Sewer Overflow**

- 12:40 pm      Dave made myself and Matt aware that they had water flowing out of a manhole by the general merchandise entrance. We were instructed to check it out after lunch.
- 1:15 pm      Confirmed that there was water flowing from manhole near general merchandise entrance. Checked several manholes to see where the blockage was occurring. Found that our sanitary main in East Wolf Run was flowing fine. Next to no flow coming from their western sampling manhole which led me to believe that there was a blockage between that manhole and the one near the general merchandise entrance.
- 1:30 pm      Spoke with Dawn and made her aware that the issue was not our problem because the pipe was owned by Walmart. Told her that they needed to contact a plumber to have fixed quickly. Also recommended that they have the plumber televise the pipe to make sure there is not a defect that is causing this problem. From the conversation I got the feeling that this was not a urgent issue on their part.

1:45 pm Checked overflowing manhole to confirm it was sewage and not a leaking water pipe that had made its way to the sewer. It was indeed sewage. Attached are a couple pictures of the overflow going to the storm sewer.

2:30 pm Informed Dave of the situation and he informed Ron the DPW Director that there was sewage flowing into the storm system.





## 2018 Stormwater Activity Summary Report

### Pollution Prevention:

- There are 67 BMPs in the village.
- Three vortechnic devices are owned and maintained by the village. Annual inspections and cleaning operations conducted and documented.
- Four infiltration and 10 wet ponds are owned and maintained by the Village.
- Four rounds of street and lot sweeping were completed in 2018 with 67 tons of debris collected.
- Street sweeping operations are conducted just prior to leaf fall and collection.
- 191 catch basins were cleaned, inspected and documented with 4 tons of debris collected.



P.O. BOX 329  
WHITEWATER, WI 53190  
262-473-4700 • Fax: 262-473-6775  
www.johnsdisposal.com  
email: office@johnsdisposal.com

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## DISPOSAL SERVICE, INC.

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Hello,

Here are the 2018 weights for Street Sweepings for the Village of Mukwonago.

Date:	Tonnage:
6/5/18	11.90
9/6/18	14.10
9/10/18	14.43
11/16/18	14.76
11/21/18	12.43

Thanks,

Johns Disposal

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**Residential • Commercial • Industrial • Recycling • Refuse Disposal**

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## 2018 Stormwater Activity Summary Report

### Winter Road Maintenance:

- 91 lane miles are maintained for snow and ice control by anti-icing, plowing and salting operations.
- 663 tons of salt and 6044 gallons of pre-wet salt brine was applied during 22 snow/ice control operations.
- 14,500 gallons of salt brine was applied to 382 lane miles over 13 anti-icing operations.
- Salt is only applied in enough quantities to provide safe driving conditions while considering the environmental effects of chloride.
- Salt, prewet and anti-icing brine application equipment is calibrated annually.
- Efficient cutting edges are installed on plows reducing the residual snow on the street allowing less salt to be required during operations.
- Anti-icing operations are conducted when weather conditions are appropriate.
- Route drivers are updated on weather conditions as events unfold to ensure proper product applications.
- Snow removal operations are conducted in the downtown when pedestrian safety is an issue.
- Removed snow is stored at a lot near River Crest Court and Main St.
- The Town of Vernon purchases salt brine from the village for the pre-wet and anti-icing program.







## 2018 Stormwater Activity Summary Report

### Leaf and Yard Waste:

The Village contracts for residential yard waste collections with Johns Disposal Inc...

- Five curbside collection events were held in 2018.
- Two collections are scheduled in November targeting leaf collection.
- 171 Tons of yard waste was collected.
- 99.4 tons were collected during the fourth quarter of 2018 compared to 86.8 tons collected during the same time frame in 2017.
- Leaves that accumulate in the streets are removed by village staff with a vacuum sweeper. The sweeper is run at a lower RPM during leaf collection operations to prevent contamination from normal street debris.
- Park leaves are mulched and left on site.

# THE VILLAGE OF MUKWONAGO

## Fourth Quarter 2018 Recycling Report

Single Stream, Tons	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Mixed Paper	308.6	76.7	76.0	82.1	73.8
Cardboard	117.0	29.1	28.8	31.1	28.0
Glass	142.1	35.3	35.0	37.8	34.0
#1 Plastic	25.7	6.4	6.3	6.8	6.1
#2 Natural HDPE	7.6	1.9	1.9	2.0	1.8
#2 Colored HDPE	8.5	2.1	2.1	2.3	2.0
#3-7 Plastic	7.0	1.7	1.7	1.9	1.7
Rigid Plastic	3.0	0.8	0.7	0.8	0.7
Tin Cans	16.7	4.1	4.1	4.4	4.0
Al Cans	5.4	1.3	1.3	1.4	1.3
<b>Single Stream Total</b>	<b>642</b>	<b>160</b>	<b>158</b>	<b>171</b>	<b>153</b>
Recycled Bulk, Tons	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Scrap Metal	9.7	4.5	1.4	3.0	0.8
Tires	2.0	0.9	0.3	0.6	0.2
Batteries	0.5	0.3	0.1	0.2	0.0
Drain Oil	0.2	0.1	0.0	0.1	0.0
<b>Recycled Bulk Total</b>	<b>12</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>1</b>
<b>Total Recyclables</b>	<b>654</b>	<b>165</b>	<b>160</b>	<b>175</b>	<b>154</b>
<b>Total Garbage**</b>	<b>2463</b>	<b>517</b>	<b>623</b>	<b>715</b>	<b>608</b>

\*\*Total garbage weight includes weekly garbage and residual garbage removed from recyclables.

Population      7355      *Year to date pounds per capita recycled. WI DNR requires 107 pounds per year.*      **174.5**

Yard Waste	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
	171.3	0.0	50.7	21.2	99.4

Recycling Compliance	Year Total	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Warning Tags	42	14	14	10	4
Written Warnings	7	4	3	0	0

Report completed by:  
 Johns Disposal Service, Inc.  
 PO Box 329  
 Whitewater, WI 53190  
 (262) 473-4700





## 2018 Stormwater Activity Summary Report

### Municipal Facility Inspections.

- Municipal yard inspections are conducted quarterly by department supervision.
- One to two staff members participate in inspections as training.
- Good housekeeping practices are maintained.
- Street sweeping debris is tarped until it's removed by Johns Disposal to Mallard Ridge Landfill.
- Asphalt lot areas are swept as part of the street sweeping operation.
- Stock piles are stored in concrete block bins and tarped depending on product.
- Salt storage facility is monitored during snow and ice control operations and inspected annually as required by the state.
- Salt loading area is maintained, and spilled material is swept back into the shed.
- Salt brine manufacturing and storage are located indoors.
- The fueling station contains two double walled 500-gallon tanks, diesel and unleaded.
- Spill kits are located at the fueling station and inside the shop.
- Waste oil is stored in a steel tank with spill containment indoors.
- No equipment washing takes place outdoors.
- Equipment maintenance and repairs are conducted indoors.
- Shop floor drains have oil separators and are monitored during the quarterly inspection. Cleaned as needed or annually at a minimum.

## STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 CTH NN East Mukwonago, WI 53149
Inspector/Title:	Mike Jambretz Crewperson
Date:	3/13/18
Last Inspection (Date):	12/1/17

### Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes  No

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes  No

(Indicate any items that are *not* included):

### Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Floor drains are clean	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Vehicle washing completed inside building	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Vehicle washing drains to sanitary system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Vehicle fueling center has canopy/cover	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Containers of hazardous materials are in good condition	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Full dumpsters are hauled out on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Street sweepings are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Bulk storage piles are stabilized/vegetated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Materials stored under cover/inside buildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	



5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Underground runoff containment is emptied on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Old salt/sand shed cleaned as needed

### Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3	Storm water pond inlets/outlets are stable	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
4	Storm water berms are vegetated	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
5	Storm water pond berms are stable (no erosion, tree roots or animal borrows)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
8	Infiltration basins/rain gardens drain down within 24 hours ( <i>based on post-rain event observations</i> )	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Employees know where written program is located	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Written program is evaluated annually	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Employee Training

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Annual or more frequent training provided to employees on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

	Recommendations/Correction	Completed On (Date)	Initials
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## STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 CTH NN East Mukwonago, WI 53149
Inspector/Title:	Mike Jambretz Crewperson
Date:	6/20/18
Last Inspection (Date):	03/13/17

### Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes  No

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes  No

(Indicate any items that are *not* included):

### Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Floor drains are clean	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Cleaned 6-19
4	Vehicle washing completed inside building	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Vehicle washing drains to sanitary system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Vehicle fueling center has canopy/cover	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Containers of hazardous materials are in good condition	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Full dumpsters are hauled out on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Street sweepings are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Bulk storage piles are stabilized/vegetated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Materials stored under cover/inside buildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Underground runoff containment is emptied on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Old salt/sand shed cleaned as needed

### Runoff Controls

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3	Storm water pond inlets/outlets are stable	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
4	Storm water berms are vegetated	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
5	Storm water pond berms are stable (no erosion, tree roots or animal borrows)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
8	Infiltration basins/rain gardens drain down within 24 hours ( <i>based on post-rain event observations</i> )	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Spills Program

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Employees know where written program is located	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Written program is evaluated annually	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Employee Training

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Annual or more frequent training provided to employees on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

	Recommendations/Correction	Completed On (Date)	Initials
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## STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Ron Bittner Public Works Director (Brennen & Jason)
Date:	10/2/18
Last Inspection (Date):	6/20/18

### Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes  No

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes  No   
(Indicate any items that are *not* included):

### Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Floor drains are clean	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Vehicle washing completed inside building	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Vehicle washing drains to sanitary system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Vehicle fueling center has canopy/cover	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Hazardous Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Containers of hazardous materials are in good condition	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Waste Management

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Full dumpsters are hauled out on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Street sweepings are covered	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Purchase new tarp and cover Pile
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Material Storage

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Bulk storage piles are stabilized/vegetated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Materials stored under cover/inside buildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	



5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Underground runoff containment is emptied on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Old salt/sand shed cleaned as needed

### Runoff Controls

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3	Storm water pond inlets/outlets are stable	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
4	Storm water berms are vegetated	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
5	Storm water pond berms are stable (no erosion, tree roots or animal borrows)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
8	Infiltration basins/rain gardens drain down within 24 hours ( <i>based on post-rain event observations</i> )	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Spills Program

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Employees know where written program is located	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Written program is evaluated annually	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Employee Training

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
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1	New employees are trained on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Annual or more frequent training provided to employees on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

	Recommendations/Correction	Completed On (Date)	Initials
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## STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INSPECTION FORM FOR MUNICIPAL FACILITIES

Site:	Village of Mukwonago DPW Shop and Yard
Location:	630 East Veterans Way Mukwonago, WI 53149
Inspector/Title:	Randy Peterson/Mechanic
Date:	12-27-2018
Last Inspection (Date):	10-2-2018

### Storm Water Pollution Prevention Plan

Has a storm water pollution prevention plan been developed for this site? Yes  No

Title of Plan: Village of Mukwonago SWPPP for Municipal Facilities

Date of Plan: April 2016

Does the SWPP include a site map, list of pollutant sources, pollutant control practices to be inspected, and maintenance procedures? Yes  No

(Indicate any items that are *not* included):

### Vehicle Maintenance, Washing and Fueling

	Activity/Practice	Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Vehicle maintenance area drains to sanitary sewer system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Vehicle maintenance area has oil-grease separator in floor drains	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Floor drains are clean	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Vehicle washing completed inside building	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
5	Vehicle washing drains to sanitary system	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Vehicle fueling center has canopy/cover	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Vehicle fueling center has clearly labeled spill kit nearby	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
8	Vehicle fueling center has oil-grease separators in nearby storm drains	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Hazardous Waste Management

Activity/Practice		Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Hazardous materials and containers are stored indoors	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Containers of hazardous materials are in good condition	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Waste Management

Activity/Practice		Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Dumpsters are covered	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Full dumpsters are hauled out on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Piles of miscellaneous debris are sorted and disposed of on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Street sweepings are covered	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
5	Street sweepings are stored in containers or have barriers or perimeter controls to minimize runoff impacts	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Material Storage

Activity/Practice		Inspected?	Activity/ Practice Adequate?	Corrective Action Needed & Notes
1	Runoff from bulk storage is contained on low side by barriers, bays or other perimeter controls	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Bulk storage piles are stabilized/vegetated	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Materials stored under cover/inside buildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4	Area near salt shed is clear of excess/spilled/tracked salt	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

5	Excess/spilled/tracked salt is swept up and added to bulk salt pile	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
6	Underground runoff containment is emptied on a regular basis	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Old salt/sand shed cleaned as needed

### Runoff Controls

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes
1	Grass filter strips have at least 70% uniform vegetation growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
2	Grass filter strips typically have 6 inches or more of vegetation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3	Storm water pond inlets/outlets are stable	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
4	Storm water berms are vegetated	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
5	Storm water pond berms are stable (no erosion, tree roots or animal borrows)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
6	Infiltration basins/rain gardens have at least 70% plant growth	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
7	Infiltration basins/rain gardens are maintained regularly, and in the spring and fall	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	
8	Infiltration basins/rain gardens drain down within 24 hours ( <i>based on post-rain event observations</i> )	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### Spills Program

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes
1	Written program is available for employees	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Employees know where written program is located	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3	Written program is evaluated annually	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

### Employee Training

	Activity/Practice	Inspected?	Activity/Practice Adequate?	Corrective Action Needed & Notes

1	New employees are trained on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2	Annual or more frequent training provided to employees on SWPPP	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

	Recommendations/Correction	Completed On (Date)	Initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

**VILLAGE OF MUKWONAGO  
IMPAIRED WATERS STRATEGY  
NOVEMBER 2018**

IMPAIRED WATERS REQUIREMENT IN THE MS4 STORM WATER PERMIT

The Village of Mukwonago is required to reduce the pollutants found in urban storm water runoff that flow through the Village's municipal storm sewer system and ultimately reach the local surface waters per the WPDES Municipal Separate Storm Sewer System (MS4) Permit No. WI-S050075-2. Section 1.5 of the MS4 permit requires the Village to identify any waterbodies that are listed on the most recent version of the Wisconsin Department of Resources' (WDNR) Impaired Waters List and develop a strategy to reduce the pollutants of concern that may be discharged to these waterbodies through the Village's municipal storm sewer system. This strategy is required to be submitted with the Village's MS4 permit Annual Report by March 31 of each year. The WDNR is required by the U.S. Environmental Protection Agency (EPA) to monitor waterbodies and determine if the waterbody is meeting water quality standards and/or supporting healthy, swimmable, fishable conditions. A revised Impaired Waters List is required to be submitted to EPA every 2 years. WDNR uses the WisCALM stream assessment methodology to determine if previously unlisted waterbodies should be listed, if previously listed waterbodies should continue to be listed, or if previously listed waterbodies have improved to the point where the waterbody can be removed from the Impaired Waters List (or "de-listed"). The 2018 Impaired Waters List was approved by EPA in August 2018 and was considered for the development of this report.

WATERWAYS IN VILLAGE OF MUKWONAGO

The Village of Mukwonago has many water resources located within its boundaries, providing recreational and viewing opportunities to residents and visitors alike. The majority of land, and therefore storm sewer system, in the Village drains to Lower Phantom Lake. Lower Phantom Lake is not currently included on the Impaired Waters List. The Village drains to five waterbodies:

1. Lower Phantom Lake
2. Mukwonago River
3. Tributary to the (IL) Fox River
4. Tributary to Honey Creek
5. (IL) Fox River

Of these five waterbodies, only the (IL) Fox River is currently included on the 2018 Impaired Waters List. In-stream assessments and data collection have revealed the condition of this river to be "impaired", meaning the water quality standards are not currently being met or the physical, biological and/or chemical conditions of the creek are not suitable to support the type of species associated with the waterbody's designated use.

### Mukwonago River Drainage Area

The Mukwonago River Watershed is 86 square miles and its land use is primarily agricultural (46%), forests (26%), and wetlands (11%). Only four percent of the land is made up of suburban land use, although the development has been increasingly rapidly in recent years.

### Lower Phantom Lake

Lower Phantom Lake is a 373-acre lake on the Mukwonago River managed for fishing and boating that is not currently listed as impaired. The lake is a result of impoundment by a dam on the east end of the lake, in the Village of Mukwonago. Public access to Lower Phantom Lake is by a fishing pier and boat ramp in Phantom Glen Park, which the Village of Mukwonago improved in 2018. New storm water treatment features were included to capture TSS, phosphorus and other urban storm water pollutants from the parking lot from reaching the lake. Access to the lake is also available at several road ends.

The Phantom Lakes Management District educates residents on lake management and water quality efforts, including the annual aquatic plant harvesting program. Harvesting efforts cut and remove aquatic plants each year, removing sources of phosphorus that would otherwise decompose and recycle in the lake.

### Mukwonago River

The Mukwonago River is a 16.8-mile river that runs through Walworth and Waukesha County to the confluence with the Fox River north of I-43 in the northeast area of the Village of Mukwonago. Upper and Lower Phantom Lake discharges to the Mukwonago River in the Village of Mukwonago. The Mukwonago River is not considered impaired and is currently one of the cleanest and most biodiverse streams in southeastern Wisconsin.

### (IL) Fox River Drainage Area

The Middle Fox River – Illinois Watershed is 248 square miles in size, and its land use is primarily rural with agricultural using 41%. Grasslands, wetlands, and forests make up another 45%, and urban areas make up almost 4%. The entire portion of the Fox River that stretched through this watershed is listed as impaired.



Tributary to (IL) Fox River (Unnamed 769000)

A tributary to the (IL) Fox River (Unnamed 769000) runs through the south end of the Vernon Wildlife to the confluence with the Fox River in the northeast corner of the Village. The stream is 2.52 miles long and is categorized as coldwater, cool-cold headwater, warm headwater. The stream is not listed as an impaired waterway.

Sugar and Honey Creek Drainage Area

The Sugar and Honey Creeks Watershed covers 170 square miles primarily in Walworth County. Echo Lake is the downstream limit of the watershed, and Sugar Creek and Honey Creek come together at the Honey Lake impoundment before emptying in to the lake. Land use within the watershed boundaries is mainly rural agriculture (58%) with urban lands covering just over 1%.

Tributary to Honey Creek (Unnamed, WBIC 5038568)

An intermittent tributary stream (Unnamed WBIC 5038568) to Honey Creek is located in the far south area of the Village. This stream is not currently on the Impaired Waters List.

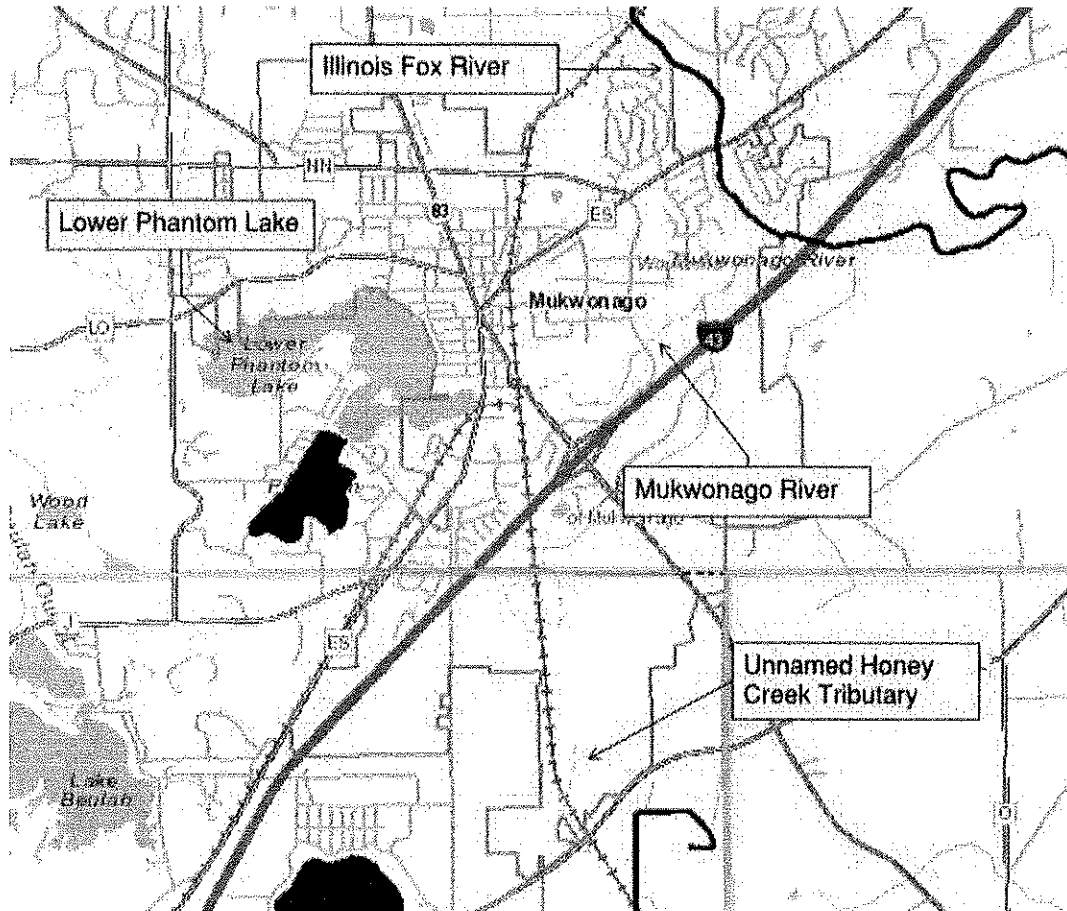
IMPAIRED WATERS IN THE VILLAGE OF MUKWONAGO

(IL) Fox River

The Fox River begins near the Washington County-Waukesha County border, north of the City of Pewaukee. The river flows in a southerly direction through Waukesha, Racine and Kenosha Counties, crosses the Illinois border, then flows into the Illinois River prior to the confluence of the Illinois River and the Mississippi River. This river is referred to as the “(Illinois) Fox River” to avoid confusion with a different major river in northeastern Wisconsin, also called the “Fox River”, which discharges to Green Bay.

The impaired 20.11-mile-long segment of the Fox River that stretches from southern Waukesha and passes through the northeastern area of the Village of Mukwonago is considered a warm mainstem in poor condition. The areas of the City that drain directly to the Fox River include industrial, residential and some transportation and commercial land uses. The river has been listed on the Impaired Waters List for Contaminated Fish Tissue due to PCBs since 2008. PCB contamination in the river would typically not come from a storm water or runoff source. The Fox River has been listed on the Impaired Waters List for total phosphorus since 2014, however the impacts from the high phosphorus levels has not been identified in a specific impairment type. More data in the future may identify the impacts that the high phosphorus levels are having on this stretch of the river.

**Exhibit 1-1 Village of Mukwonago Impaired Waterways Map  
(Impaired waterways are shown in red.)**



Source: Wisconsin Department of Natural Resources Surface Water Data Viewer

**Table 1-1: Middle Fox River – Illinois Drainage Area Impairments by Waterbody**

<b>WATERBODY</b>	<b>POLLUTANT</b>	<b>IMPAIRMENT INDICATOR</b>	<b>SOURCE</b>
<b>(IL) FOX RIVER</b>	PCBs Total Phosphorus	Contaminated Fish Tissue N/A	N/A Nonpoint source

POLLUTANTS OF CONCERN & SOURCES

There are two general types of water pollution: point source and nonpoint source. Point source pollution comes from identifiable, localized sources that discharge directly into a waterbody, usually through a distinct outfall. Industries and wastewater treatment facilities are two common point sources. Storm water runoff from certain urban areas is also considered a point source.

Nonpoint source pollution comes from land use activities such as agriculture and other non-localized sources. Most nonpoint source pollution occurs as a result of runoff. When rain or melted snow moves over and through the ground, the water carries any pollutants it comes into contact with into nearby waterways.

Section 303(d) of the Federal Clean Water Act requires each state to identify those waters within its boundaries which are not meeting their designated uses due to an exceedance of water quality standards for any applicable pollutant. Essentially, the Clean Water Act required Wisconsin to identify waterways that are too polluted to function as originally intended. There are currently over 1,050 waterbodies on Wisconsin’s Impaired Waters List.

The primary pollutants of concern currently being addressed through urban storm water and rural runoff controls are sediment (TSS), total phosphorus (TP), Chlorides and Bacteria (e. coli and fecal coliform). Sources of bacteria, phosphorus, chlorides and sediment loadings include discharges from regulated wastewater treatment facilities, regulated industrial sites and runoff from agricultural land, urban land (both regulated municipal storm sewer system areas and non-regulated areas), and natural areas (i.e., forests and wetlands).

TSS / Sediment

Many waterbodies in Wisconsin are impaired due to excess sediment loading. Sediment that is suspended in the water scatters and absorbs sunlight, reducing the amount of light that reaches submerged aquatic vegetation, which reduces its photosynthetic rate and growth. Bottom-rooted aquatic plants, or macrophytes, produce oxygen, provide food and habitat for fish and other aquatic life, stabilize bottom sediments, protect shorelines from erosion and take up nutrients that would otherwise contribute to nuisance algae growth. As photosynthetic rates decrease, less oxygen is released into the water by the plants. If light is completely blocked from bottom dwelling plants, the plants will stop producing oxygen and will die. As the plants decompose, bacteria will use up even more oxygen from the water. Reduced water clarity can also have direct impacts on aquatic fauna including fish, waterfowl, frogs, turtles, and insects. Suspended sediments interfere with the ability of fish and waterfowl to see and catch food and

can clog the gills of fish and invertebrates, making it difficult for them to breathe. When sediments settle to the bottom of a river, they can smother the eggs of fish and aquatic insects, as well as suffocate newly hatched insect larvae. Settling sediments can also fill in spaces between rocks, which could have been used by aquatic organisms for homes. Excess sediments can also cause an increase in surface water temperature. As the sediment particles absorb heat from sunlight, dissolved oxygen levels can fall even farther (warmer waters hold less dissolved oxygen), and further harm aquatic life.

Sediment and TSS that enter local waterways also carry nutrients, heavy metals and other pollutants into waterbodies. A large proportion of the phosphorus that moves from land to water is attached to sediment particles. This phenomenon can be seen in both spatial and temporal patterns of phosphorus and sediment movement. In general, this means that managing sediment sources can help manage phosphorus sources.

A municipal separate storm sewer system (MS4) discharges storm water directly into local streams, lakes and wetlands without being treated first to remove pollutants, letting the sediment and attached pollutants reach the waterway unimpeded. Urban runoff consists of a variety of pollutants, including sediment, excess nutrients (including phosphorus), metals, chlorides, PAHs, grease and oil, and more. Many of these attach to small soil particles, which wash off roads, parking lots, sidewalks, parks and lawns and into the storm sewer system.

Construction sites have traditionally been a source of a significant portion of the sediment reaching the local waterways in an urban area. The impact of past land uses can affect the quality of the soil on-site, such as past contamination from industrial uses, spills and underground fuel tanks. Inorganic pollutants and metals attached to sediment are transported to streams, lakes and wetlands during rain events and springtime snow melt. In the past 20 years, significant strides have been made to control sediment and erosion on construction sites. New products and practices to keep sediment on-site have become routine for many contractors, developers, engineers, inspectors and reviewers. As more people recognize the benefit of using these practices, construction sites will have less of an overall impact on these waterways.

Other sources of pollutants found in urban runoff include excess nutrients and inorganic materials which accumulate on roads, parking lots, sidewalks, lawns, and other areas that drain to the storm sewer system. Tiny exhaust particles, bits of tire rubber, rust pieces and dripping oil or grease are examples of residue from cars, trucks and other vehicles that are deposited on the ground until rain or melting snow wash these pieces down the road and into the storm sewer. Excess nutrients from lawn fertilizers, urban wildlife such as geese, raccoons and sea gulls, and pet waste can accumulate in the waterways in concentrations that are unhealthy for fish and aquatic organisms. At times, the runoff from these areas can be unhealthy for humans as well as animal life. Excessive runoff events can send high flows of water from storm sewers to small creeks, picking up sediments from bank erosion and depositing that sediment in calm, shallow pools downstream.

Many traditional sources of runoff pollution in an urban area are permitted through the local, state or federal authorities. Industrial and manufacturing sites, construction sites, and community-wide municipal storm sewer systems are entities that are required to obtain permit coverage from the appropriate governing body in Wisconsin. In addition to permit conditions to minimize the discharge of pollutants for these entities, there are many practices individuals and homeowners can do to minimize the overall impact of pollutants to the local waterways. A few examples include washing cars at commercial car wash locations or in the grass to allow water to soak into the ground, picking up after pets, and installing rain gardens and rain barrels sized for single family homes to minimize the amount of runoff that reaches the road and the storm sewer system.

### Phosphorous

Although phosphorus is an essential nutrient for plant growth, excess phosphorus is a concern for most aquatic ecosystems. Where human activities do not dominate the landscape, phosphorus is generally in short supply, limiting the growth of algae and aquatic plants. When a large amount of phosphorus enters a waterway, it essentially fertilizes the aquatic system. This results in the rapid growth of aquatic plants and algae often referred to as an algal bloom. This condition of nutrient enrichment and high plant productivity is referred to as eutrophication.

Eutrophication can be detrimental to aquatic life, reduce recreational opportunities, and affect the economic well-being of the surrounding community. Eutrophication is the process where a waterbody ages, changing from a waterbody with moderate depth, clarity and limited aquatic plant growth to an aging waterbody, filling in with sediment, reduced clarity and abundant plant growth. Overabundant aquatic plant growth in a waterbody can lead to several undesirable consequences. Excessive growth of vegetation at the surface in a waterbody blocks sunlight from penetrating the water, choking out beneficial submerged aquatic vegetation. Large areas of excessive vegetation growth, including plants such as Eurasian water milfoil (*Myriophyllum spicatum*), water celery (*Vallisneria sp.*), and many different pondweeds (*Potamogeton sp.*) can inhibit or prevent access to a waterway, which restricts use of the water for fishing, boating, and swimming. Algal blooms may include blue-green algae or cyanobacteria, which can produce toxins that can be harmful to fish and pose health risks to humans and pets, including symptoms of stomach aches, rashes, diarrhea and vomiting in severe exposure conditions. Algal blooms, particularly those that form surface scums, are visually unappealing and can have unpleasant odors. This makes recreational use of the waterbody undesirable, impacting the everyday quality of life for people who live close to the affected waterway. Efforts to remove aquatic plants or treat plants and algae with herbicides and algaecides can have secondary impacts on the aquatic ecosystem and can be costly. When the large masses of aquatic plants from the bloom die off, the decomposition of organic matter depletes the supply of dissolved oxygen in the water, suffocating fish and other aquatic life. Depending on the timing and severity of the low dissolved oxygen event, large fish kills can occur.

## Chlorides

There are several significant sources of chloride in the environment: road salt, water softeners, wastewater treatment plants, private onsite wastewater treatment systems, fertilizers, chemical manufacturing, food processing, etc.

Road salt is one of the most significant of these sources. The common practice of deicing as a part of winter road management programs came to be in the mid-1950s. Prior to this time, snow was generally allowed to build up on pavement surfaces, requiring cars and trucks to use chains on their tires to increase traction and to drive slower than on dry roads. As road salt became more common and the amount of lane miles increased, public concern over the impacts of chlorides to private property, public infrastructure and the environment developed.

Chloride has negative effects on metal and concrete, which causes damage to cars and can compromise the structural integrity of pavements, bridges, and other infrastructure. High chloride concentration in runoff can damage roadside vegetation, alter soil composition, and decrease soil fertility. Chloride from road salt enters waterways through runoff and accumulates in lakes, reservoirs, wetlands, and groundwater. Chloride accumulation is a human health concern with respect to drinking water and can be detrimental to wildlife health upon consumption of runoff from snow/ice melt. There are also certain chemicals added to road salt which cause additional pollution in waterways (i.e. ferrocyanide additive to prevent caking).

Runoff water from road salt applications will settle to the bottom of lakes and reservoirs because high chloride concentration increases the density of water causing chemical stratification in the waterbody. This inhibits the waterbody's natural annual turnover and mixing cycle. Without this mixing, dissolved oxygen cannot reach the lower layers of the waterbody. Lack of dissolved oxygen causes the lower layers to not be able to support aquatic life, leading to chronic aquatic toxicity.

More directly, chronic exposures to high chloride concentrations have been shown to have negative effects on aquatic organisms. Examples discussed in the SEWRPC report, *Prospectus for A Chloride Impact Study for the Southeastern Wisconsin Region*, include reductions in reproduction by water fleas, oligochaete worms, rotifers, ciliates and clams; changes in the time needed to reach maturity in water fleas and frogs; reduced survival of fathead minnow eggs; immobilization of zooplankton; and reduced rates of seed germination in aquatic plants. These effects can alter the overall ecosystem such that it cannot function, which impacts the biological communities present, again leading to chronic aquatic toxicity. Due to the magnitude of this problem, more emphasis on controlling chloride levels in storm water can be expected.

## ALTERNATIVES TO MINIMIZE IMPACTS OF POLLUTANTS AND RESTORE IMPAIRED WATERWAYS

There are many daily operational practices and individual restoration projects that can be considered for implementation to prevent further degradation and, over time, improve the conditions of currently impaired waterways to meet water quality standards and thrive as healthy swimmable, fishable waterways. Decades of development practices that did not consider the long-term sustainability of local waterways have resulted in impaired waterways across the country; significant changes to current practices and implementation of in-stream restoration projects will cost money and will take time. A coordinated, strategic approach to improving waterways will involve many partners, funding sources, creative approaches and designs, new technologies and the commitment of all involved.

Village staff have worked diligently since 2007 to implement programs to meet the conditions of the MS4 permit and continue to evaluate operational changes and water quality improvement projects in more efficient, effective and cost-effective ways. Some of the practices the Village of Mukwonago has been implementing to reduce TSS, phosphorus and chlorides from flowing through the municipal storm sewer system and reaching local waterways include:

1. Retrofitting snow plow equipment and using salt brine to reduce the amount of chlorides being applied to the environment during winter precipitation events.
2. Conducting routine erosion control inspections to prevent the release of TSS, phosphorus and associated pollutants from construction sites to local waterways.
3. Requiring post-construction storm water controls through the Village's storm water ordinance (80% TSS control for new development and 40% TSS control for redevelopment).
4. Street sweeping to remove TSS and other pollutants that have accumulated on Village streets.
5. Inspecting and cleaning of catch basins to prevent built-up sediment and other pollutants from being flushed downstream in large rain events.
6. Inspecting and removing built-up sediment and other pollutants from roadside swales.
7. Inspecting and repairing/maintaining storm water treatment facilities to ensure optimum performance as designed throughout the year.

Continued evaluation of these activities and possible efficiencies through new technologies, shared resources and operational changes will help identify areas of improvement for these pollution prevention programs. In addition to existing pollution prevention practices, future storm water improvement projects are planned to be implemented both in conjunction with road reconstruction projects and as stand-alone construction projects to retrofit current older development that did not have water quality controls originally associated with it. These projects are scheduled by Village staff and included in the long-term capital improvement plan,

to be funded in part by revenue from the Village storm water utility and in part by potential grant awards.

NON-TRADITIONAL PROJECTS TO IMPROVE THE CONDITIONS OF IMPAIRED WATERS IN THE VILLAGE INCLUDE:

1. Reviewing and revising storm water and zoning ordinances to remove any barriers to green storm water infrastructure implementation by property owners and developers.
2. Reviewing and requiring post-construction storm water controls that specifically target pollutants listed in the impaired waters list for new and redevelopment projects in the appropriate drainage areas. Infiltration should be evaluated as solutions to storm water quality requirements in all areas of the Village to meet state and local requirements, but particularly in the areas that drain to the (IL) Fox River.
3. Promoting storm water runoff controls on developed residential properties through outreach and potential training opportunities. Continued participation and implementation of the Waukesha County Storm Water Education Program will help Village residents know and understand the opportunities that may be feasible to implement on their own properties to help prevent pollutants from reaching local waterways.
4. Conducting streambank inventories to identify failing or eroding streambanks that may require restoration. Identified locations would be included in future capital improvement plans and potential grant applications for implementation.

Resources:

- WDNR Surface Water Data Viewer, <https://dnrmmaps.wi.gov/H5/?Viewer=SWDV> Website
- SEWRPC A Lake Management Plan for the Phantom Lakes:  
[http://www.sewrpc.org/SEWRPCFiles/Publications/CAPR/capr-230\\_vol-02\\_lake\\_management\\_plan\\_for\\_phantom\\_lakes.pdf](http://www.sewrpc.org/SEWRPCFiles/Publications/CAPR/capr-230_vol-02_lake_management_plan_for_phantom_lakes.pdf)





Village of Mukwonago Office of the Village Public Works Dept.

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Suzan Limberg, WT/3  
Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707-7921

October 5, 2018

Subject: Village of Mukwonago, Waukesha County Re-application for Coverage under MS4  
General Permit No. WI-S050075-3

Dear Ms. Limberg:

This letter serves as the Re-application for Coverage under the Municipal Separate Storm Sewer System (MS4) General Permit No. WI-S050075-3, per NR 216.09, Wisconsin Administrative Code. The information requested in the Re-application Notification letter received from the Wisconsin Department of Natural Resources is included.

The primary contact for the MS4 permit programs at the Village of Mukwonago is:

Ron Bittner, Public Works Director  
440 River Crest Court  
Mukwonago, WI 53149  
262-363-6447  
[rbittner@villageofmukwonago.com](mailto:rbittner@villageofmukwonago.com)

The Village works collaboratively with Waukesha County on the Stormwater Education Program.

The Village updates the MS4 map throughout the year with any new developments and/or new storm water facilities. The updated MS4 map will be submitted with the annual report as needed. The Village is considering updating the post-construction storm water ordinance to better reflect the peak flow control needs of the Village. The Village will submit an impaired waters strategy with the 2018 MS4 Annual Report in March 2019 to address areas that drain to the Fox River.

Please contact me to discuss any questions about the Village's MS4 permit program.

Sincerely,

Ron Bittner  
Public Works Director

Cc: Rebecca Alonge/Maureen McBroom, Ruckert & Mielke, Inc.