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December 21, 2017

Felicia Chase
Water Enforcement & Compliance Assurance Branch
Water Division, Mail Code: WC-15J
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

RE: Forest Hill Public Yard SWPPP- 1 Speedway Road, Madison, WI

Dear Ms. Chase:

The City of Madison has developed a SWPPP for the Forest Hill Cemetery Public Works Site. Please review the following documents, and provide comment if our proposed actions are satisfactory to the EPA.

Sincerely,

Robert F. Phillips, P.E.
City Engineer

RFP:pdg



12/19/2017



Municipal Storm Water Pollution Prevention Plan

Forest Hill Cemetery Public Works Site



Municipal Storm Water Pollution Prevention Plan

Forest Hill Cemetery Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-3. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Parks Division at the Forest Hill Cemetery Public Works Site.

A copy of this SWPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Parks Department will create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Forest Hill Cemetery Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

Parks shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from various areas of the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Inspection and reporting of the facility

The P2 team member rosters are provided in Appendix 2.

3.0 Site Description

The Forest Hill Cemetery Public Works site is located on Madison's near west side at 1 Speedway Road in Madison, Wisconsin. The 94 acre parcel has frontage on Speedway Road and the facility is located within a 1.55 acre section on the southern edge of the parcel.

The Forest Hill Cemetery parcel is zoned CN (Conservancy District).

This site is operated by the Parks division.

Parks facilities on this site includes 1 building providing, vehicle and equipment storage. Parks uses the yard to store excess soil and sub-soil from the excavation of graves until the material can be transported to a fill site.

Figure 1 shows the 1.55-acre site boundary.



Figure 1
1.55-acre Forest Hill Cemetery Public Yard

3.1 Site Drainage

3.1.1 Outfalls

The Forest Hill Cemetery Public Works (FHCPW) site is located in Outfall Basin WI03-B-0365-A-MAD-C in the Lake Wingra (WI03) watershed. The FHCPW site makes up 0.08% of the basin's 202 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

Storm water runoff from the FHCPW site sheet flows off the site to the southeast. The storm water passes through a storm weeper and then is routed into drainage channel and into the Storm Sewer network. The storm sewer discharges into Lake Wingra.

3.1.2 Site Drainage

The site all drains to one location in the south east corner of the site. The water passes through a stone weeper and then through a rip rap channel with drop structures to route runoff down the hill and to the culvert under the former railroad corridor and into the storm sewer system.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;

3.2 SITE ACTIVITIES

The primary responsibilities of the Parks Division at the Forest Hill Cemetery Public Works facility is to maintain the cemetery grounds. Activities include lawn mowing, maintenance of the lawn equipment, fueling of mowers and other equipment, leaf management and snow removal. Additionally, excess soil from the digging of graves in the cemetery is stockpiled in the public works facility. Currently this stockpile is kept uncovered and without containment. Occasionally the stock pile is removed and used as clean fill.

3.3 Potential Pollutants

A site activity and materials inventory that have the potential to contaminate storm water and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility (to be included in this document in Appendices 8-10).

4. Best Management Practices

There is currently 1 structural control to treat stormwater at the Forest Hill Cemetery Site. This device is a stone weeper which is inspected quarterly and will be maintained annually at a minimum.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate storm water outfalls for the presence of non-storm water discharges, and
- b) Evaluate the effectiveness of the company's pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of stone weeper and the apron of the storm pipe in the drainage channel. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

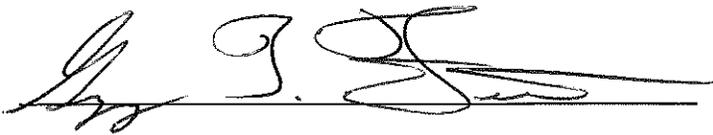
This SWPPP becomes effective as of **01/01/2018**.

7.0 Record Keeping and Reporting

The quarterly inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.



Greg Fries, P.E. Assistant City Engineer

12/20/17

Date

Appendix 1- MS4 Permit

WPDES Permit No. \VI-S058416-3
Page 1 of 29



PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM WPDES PERMIT NO. WI-S058416-3

In compliance with the provisions of ch. 283, Wisconsin Statutes, and chs. NR 151 and 216, Wisconsin Administrative Code,

THE CITIES OF FITCHBURG, MADISON, MIDDLETON, MONONA, SUN PRAIRIE, AND VERONA; THE VILLAGES OF DEFOREST, MAPLE BLUFF, MCFARLAND, SHOREWOOD HILLS, AND WAUNAKEE; THE TOWNS OF BLOOMING GROVE, BURKE, MADISON, MIDDLETON, WESTPORT, AND WINDSOR; DANE COUNTY; AND THE UNIVERSITY OF WISCONSIN- MADISON

are permitted to discharge storm water from

ALL PORTIONS OF THE CO-PERMITTEES' MUNICIPAL SEPARATE STORM SEWER SYSTEMS

owned or operated by the co-permittees listed above to the following waters of the state and associated tributaries:

BADFISH CREEK
BLACK EARTH CREEK
MAUNESHA RIVER
MIDDLE SUGAR RIVER
SIX MILE, PHEASANT BRANCH AND DORN CREEKS
UPPER KOSHKONONG CREEK
UPPER SUGAR RIVER
YAHARA RIVER AND LAKE KEGONSA
YAHARA RIVER AND LAKE MENDOTA
YAHARA RIVER AND LAKE MONONA
YAHARA RIVER AND LAKE WAUBESA

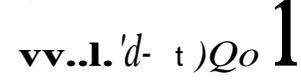
in accordance with the conditions set forth in this permit.

This permit to discharge shall expire at midnight, June 30, 2014.

To retain authorization to discharge after this expiration date an application shall be filed by the co-permittees for reissuance of this permit in accordance with the requirements of s. NR 216.09, Wis. Adm. Code, at least 180 days prior to this permit's expiration date.

State of Wisconsin Department of Natural Resources
For the Secretary

By: 
Lloyd E. ... al Region Director

Dated: 

EFFECTIVE DATE: July 1, 2009

EXPIRATION DATE: June 30, 2014

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Description and Purpose of this WPDES Municipal Storm Water Discharge Permit

Each municipality listed as a co-permittee under this permit submitted a reissuance application letter to the Department pursuant to s. NR 216.09, Wis. Adm. Code, to be covered under a group WPDES Municipal Storm **Water Discharge Permit for storm water discharges from the group's municipal separate storm sewer systems (MS4s)** to waters of the state. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. **Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.**

This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A municipality that is a co-permittee under this permit is only responsible for permit conditions relating to discharges from the MS4 under its jurisdiction for which it is the owner or operator.

The co-permittees under this permit are continuing to work together under an intermunicipal agreement to refine and implement an extensive joint information and education plan and have agreed to cooperate as appropriate on permit requirements. This permit authorizes and regulates the discharge of storm water from the co-permittees' MS4s, in accordance with subch. I of ch. NR 216, Wis. Adm. Code. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Many of the permit requirements are focused **on pollution prevention efforts. Major components of the permit include storm water management programs to address public information and education, public involvement and participation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial reporting. However, the implementation of the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, are expected to require a combination of treatment practices to be implemented to meet the total suspended solids (TSS) performance standards.**

Note: Wisconsin Administrative Codes referenced in this permit are available online at:
<http://www.legis.state.wi.us/rsb/>

A. APPLICABILITY

- (1) **WATERS OF THE STATE:** This permit regulates the discharge of storm water to waters of the state from the MS4s of the co-permittees under this permit. For the purposes of this permit, "waters of the state" means **all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface water or groundwater, natural or artificial, public or private** within the state or under its jurisdiction, except those waters that are entirely confined and retained completely upon the property of a person.
- (2) **PREVIOUS GROUP PERMIT:** This permit replaces WPDES Permit No. WI-S058416-2 issued on April 28, 2004.
- (3) **PERMITTED AREA:** This permit covers all areas under the ownership, control or jurisdiction of the **co-permittees that contribute to discharges from a "municipal separate storm sewer system" or "MS4."** "Municipal separate storm sewer system" or "MS4," means **a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches,** constructed channels or storm drains, that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water.
- (4) **CO-PERMITTEES:** The co-permittees under this permit consist of the following municipalities: The Cities of Fitchburg, Madison, Middleton, Monona, Sun Prairie, and Verona; the Villages of DeForest, Maple Bluff, McFarland, Shorewood Hills, and Waunakee; the Towns of Blooming Grove, Burke, Madison, Middleton, Westport, and Windsor; Dane County; and the University of Wisconsin-Madison.
- (5) **DANE COUNTY:** Specifically for Dane County as a co-permittee, this permit only authorizes discharges of storm water from the MS4 owned or operated by Dane County that occur within the geographical boundaries of the other co-permittees.
- (6) **COMPLIANCE DATES:** Unless specified otherwise in Section G., all co-permittees under this permit shall comply with the provisions and requirements of this permit as of its effective date and thereafter.
- (7) **AUTHORIZED DISCHARGES:** This permit only authorizes storm water discharges to waters of the state from the co-permittees' MS4s as provided under subch. I of ch. NR 216, Wis. Adm. Code. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process **wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges that are not considered illicit discharges.**
- (8) **WATER QUALITY STANDARDS:** This permit specifies the conditions under which storm water may be discharged to waters of the state for the purpose of achieving water quality standards contained in chs. NR 102 to 105 and NR 140, Wis. Adm. Code. Compliance with water quality standards will be addressed by adherence to the provisions and storm water management program requirements of this permit. If the Department of Natural Resources determines that the discharge of storm water from a co-permittee's MS4 contributes to an exceedance of any applicable water quality standard, the Department of Natural Resources may require the co-permittee to develop an action plan to adequately address the identified water quality concern, or submit valid and verifiable data and information that are representative of ambient conditions to indicate that the receiving water is attaining the water quality standard.
- (9) **GENERAL STORM WATER DISCHARGE LIMITATIONS:** Each co-permittee shall take all reasonable and necessary actions to prevent discharges from its MS4 that may adversely affect receiving water quality or aquatic life including:
 - (a) Solids that may settle to form putrescent or otherwise objectionable sludge deposits.
 - (b) Oil, grease, and other floating material that form noticeable accumulations of debris, scum, foam, **or sheen.**

- (c) Color or odor that is unnatural and to such a degree as to create a nuisance.
 - (d) Toxic substances in amounts toxic to aquatic life, wildlife, or humans.
 - (e) Nutrients conducive to the excessive growth of aquatic plants and algae to the extent that such growth is detrimental to desirable forms of aquatic life, creates conditions that are unsightly, or are **a nuisance**.
 - (f) Any other substances that may impair, or threaten to impair, beneficial uses of the receiving water.
- (10) OTHER REGULATORY PROGRAMS: Nothing in this permit shall exempt a co-permittee from the responsibility to comply with other federal, state or local laws.
- (II) CO-PERMITTEE COOPERATION: To the maximum extent practicable, co-permittees are encouraged to cooperate with other co-permittees to jointly meet the requirements of this permit. Co-permittees **may, by written agreement, implement conditions of this permit with another co-permittee or contract** with another entity to perform one or more of the conditions of this permit. However, each co-permittee is ultimately responsible for compliance with the conditions of this permit.
- (12) OUTSTANDING AND EXCEPTIONAL RESOURCE WATERS
- (a) The co-permittee shall determine whether any part of its MS4 discharges to an outstanding resource water (ORW) or exceptional resource water (ERW). ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code. An unofficial list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/>. Black Earth Creek is an ORW and Sixmile Creek and the Sugar River are ERWs.
 - (b) The co-permittee may not establish a new MS4 discharge of pollutants to an outstanding resource water (ORW) or an exceptional resource water (ERW) unless the storm water management programs required under this permit are designed to ensure that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background levels within the ORW or ERW.
 - I. "New MS4 discharge of pollutants" means an MS4 discharge that would first occur after the co-permittee's effective date of coverage under this permit to a surface water to which the MS4 did not previously discharge storm water, and does not include an increase in an MS4's discharge, whether at an existing discharge point or at a new location to a surface water to which the MS4 discharged on or before coverage under this permit.
 - (c) If the co-permittee has an existing MS4 discharge to an ERW, it may increase the discharge of pollutants if the increased discharge would not result in a violation of water quality standards.
 - (d) If the co-permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants, either at the existing point of discharge or a new location, provided all of the following **are met**:
 - 1. The pollutant concentration within the receiving water and under the influence of the existing discharge would not increase as compared to the level that existed prior to coverage under this **permit**.
 - 2. The increased discharge would not result in a violation of water quality standards.

(13) IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

- (a) Each co-permittee shall determine whether any part of its MS4 discharges to an impaired water body listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(1). Impaired waters are those that are not meeting applicable water quality standards. A list of Wisconsin impaired water bodies may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/303d/2008/2008Updates.htm>.

Note: At the time of permit issuance, the following waters were listed as impaired: Pheasant Branch Creek, Darn Creek, Tolken Creek, Maunsha River, Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River and Rock River. Darn Creek has also been labeled as Spring (Darn) Creek in some publications. The Department has proposed that the following beaches be listed as impaired due to E. coli: Spring Harbor, James Madison and Marshall Park beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra. The Department's proposed listing does not classify the beaches as impaired until such time that USEPA approves of the listing.

- (b) If the co-permittee's MS4 discharges to an impaired water body, the co-permittee shall include a **written section in its biennial report that discusses the management practices and control measures** it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. This section of the co-permittee's biennial report shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4's discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these control measures and practices were chosen as opposed to other alternatives. Pollutant(s) of concern means a pollutant that is causing impairment of a water body.
- (c) After the co-permittee's effective date of coverage under this permit, the co-permittee may not establish a new MS4 discharge of a pollutant of concern to an impaired water body or increase the discharge of a pollutant of concern to an impaired water body unless the new or increased discharge does not contribute to the receiving water's impairment, or the US Environmental Agency and the Department have approved a total maximum daily load (TMDL) for the impaired water body.
- (d) Co-permittees whose MS4 discharges to an impaired water body for which US Environmental Protection Agency and the Department have approved a TMDL shall assess whether the TMDL wasteload allocation for the MS4 is being met through the existing storm water management **controls or whether additional control measures are necessary. The co-permittee's assessment of** whether the TMDL wasteload allocation is being met shall focus on the adequacy of the co-permittee's implementation and maintenance of the storm water controls. Approved TMDLs are listed on the Department Internet site at:
http://dnr.wi.gov/org/water/wm/wgs/303d/Approved_TMDLs.html
- (e) If the co-permittee's existing storm water management controls are adequate to meet a wasteload allocation, then the co-permittee shall submit documentation to that effect with the biennial report. **If the co-permittee's existing storm water management controls are not adequate to meet a** wasteload allocation for its MS4, then the co-permittee shall develop a proposed storm water management plan to comply with the wasteload allocation. The co-permittee shall submit the proposed storm water management plan to the Department within 3 years of the TMDL being approved by both the Department and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:

- I. Baseline conditions showing the wasteload allocation area boundary, drainage basins and land **uses.**

2. Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department to quantify loadings.
 3. **Identification of storm water management practices or control measures necessary to achieve the wasteload allocation, including locations and estimated costs of implementing the practices or control measures.**
 4. Proposed schedule for implementing the storm water management practices or control measures necessary to achieve the wasteload allocation.
- (f) A co-permittee shall implement storm water management practices necessary to achieve compliance with the wasteload allocation as soon as practicable after the Department has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Department under section (13)(e).
- (14) **WETLANDS:** The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.
 - (15) **ENDANGERED AND THREATENED RESOURCES:** The co-permittee's MS4 discharge shall comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.
 - (16) **HISTORIC PROPERTY:** The co-permittee's MS4 discharge may not affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., unless the Department determines that the MS4 discharge will not have an adverse effect on any historic property pursuant to s. 44.40 (3), Wis. Stats.
 - (17) **EXCLUSIONS:** The following are excluded from coverage (i.e. are not authorized) under this permit:
 - (a) **Combined Sewer and Sanitary Sewer Systems:** Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Stats.
 - (b) **Agricultural Facilities and Practices:** Discharges from "agricultural facilities" and "agricultural practices." **"Agricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable growing.**
 - (c) **Other Excluded Discharges:** Storm water discharges from industrial operations or land disturbing construction activities that require separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge from an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the co-permittee's responsibility to regulate construction sites within its jurisdiction in accordance with sections C.(4) and C.(5) of this permit.
 - (d) **Non-MS4 Discharge:** Storm water discharges that do not enter an MS4.

B. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

In addition to the requirements specified in Sections A. and C. through I., each co-permittee shall:

- (1) Minimize the discharge of pollutants from its MS4.
- (2) Implement the stormwater management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of annexation by the co-permittee.
- (3) Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of installation or taking jurisdiction of a new or existing MS4.
- (4) Individually or as agreed upon by the co-permittees, provide adequate financing, staff, equipment, and support capabilities to implement the requirements of this permit.
- (5) Comply with the conditions of this permit relating to discharges from the MS4 where it is the owner or operator.
- (6) Implement a storm water management program, as required by this permit, in portions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and from those portions of the MS4 that **it owns or operates. This legal authority may be a statute, ordinance, permit, order or intermunicipal agreement, a series of contracts, or administrative rule in order to:**
 - (a) Control the contribution of pollutants to and the discharge of pollutants from the MS4.
 - (b) Prohibit illicit discharges to the MS4.
 - (c) Control the discharge of spills, dumping and disposal of materials other than storm water into the MS4.
 - (d) Require compliance with conditions in ordinances, permits, contracts, orders or administrative rules.**
 - (e) Require compliance with the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (f) Require compliance with the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (g) Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition of illicit discharges to the MS4.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section B. (7).

- (8) Attend and participate in quarterly meetings of the co-permittees. Unless an alternative quarterly date or dates are agreed upon by the co-permittees, the quarterly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a quarterly meeting may be cancelled due to a lack of meeting agenda items. These meetings are to be used for review and approval **schedules, receive work progress reports, and discuss issues pertaining to this permit or other relevant** storm water management issues. Each co-permittee shall designate a representative to attend these meetings. The representative of the City of Madison shall facilitate the conduct of the meetings and provide a record of the proceedings in the form of minutes. The meetings shall be held at times and places determined by the co-permittees. Adequate notices of and agendas for the meetings shall be

provided by the facilitator to the designated representatives for each co-permittee.

- (9) Cooperate with other co-permittees on sharing information and resources to facilitate storm water management activities on a regional or watershed basis and to avoid duplicative efforts.
- (10) Fulfill the commitments of an intermunicipal agreement to cooperate on storm water information and education.
- (11) Notify the affected co-permittee in the case of discovering a potential illicit discharge originating from its jurisdiction and discharging to the MS4 of the affected co-permittee.
- (12) Work cooperatively with other affected co-permittees in the case of discovering a potential illicit discharge of unknown source to determine the best actions to resolve the illicit discharge.
- (13) Submit information requested by the Department of Natural Resources pertinent to the MS4, discharges from the system, activities related to implementation of the requirements of this permit, or other relevant **information**.
- (14) Meet with the Department of Natural Resources on an as needed basis to discuss implementation of this **permit or other relevant issues**.
- (15) Keep contact information up-to-date and notify the Department of Natural Resources in a timely manner when personnel changes occur for the appropriate contact person(s) knowledgeable about this permit and its implementation.
- (16) Respond to and resolve in a timely manner complaints received from citizens and concerns raised by the Department of Natural Resources relating to pollution and storm water issues within the co-permittee's jurisdiction.
- (17) Coordinate the requirements of this permit internally between the co-permittee's agencies, departments, and programs, and ensure that elected and municipal officials and appropriate staff are advised of the permit.
- (18) Implement the requirements of this permit in a manner that is consistent with the recommendations contained in priority watershed plans, the Dane County Water Quality Plan, and other storm water management plans funded by the Department of Natural Resources and applicable to the co-permittee.
- (19) Incorporate the requirements of this permit in the development of master plans, neighborhood plans, development plans, and any other comprehensive planning activity to address water quality impacts from storm water discharges associated with implementation of these plans.
- (20) Undertake actions required by this permit in manner that is consistent and in conformance with other applicable regulatory programs.

Note: Examples of other regulatory programs that may be applicable are the U.S. Army Corps of Engineers 404 permit program and permits required under ch. 30, Wis. Stats.

C. STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

(I) PUBLIC EDUCATION AND OUTREACH: Each co-permittee shall:

- (a) Continue to be a member of the Madison Area Municipal Storm Water Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program then they must develop and implement a work plan on their own that otherwise meets the requirements of section C.(I) of this permit.
- (b) Participate in the implementation of the *Madison Area Municipal Storm Water Partnership (MAMSWaP) Information and Education Plan 2009-2013 (January 2009)* prepared on behalf of the co-permittees (herein known as the information and education plan). By December 1 of each year, the co-permittees shall collectively develop a work plan to guide implementation of the information and education plan for the following calendar year. The information and education plan shall establish measurable goals and, at a minimum, include the following elements:
 1. Promote detection and elimination of illicit discharges and water quality impacts associated with **such discharges from municipal separate storm sewer systems.**
 2. Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
 3. Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
 4. Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
 5. Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
 6. 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.**
 7. Educate private businesses on methods of storm water pollution prevention.
 8. Promote environmentally sensitive land development designs by developers and designers.

Note: Copies of the information and education plan are available online at <http://www.danewaters.com/management/mamswap.aspx>.

- (c) Cooperate with and assist the person functioning in the Storm Water Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.
- (d) Within its jurisdiction, distribute and make available to the public the information and education materials created pursuant to the information and education plan and take actions identified in the plan for which it is responsible.
- (e) Provide and maintain a link to storm water information if a municipal website has been developed and activated by the co-permittee.

Note: The types of information to link on a website include municipal ordinances, local regulatory programs, **contact information, storm water informational and educational materials, waste oil and household hazardous waste collection sites, public participation opportunities, biennial reports, and other storm water** related websites. The Department of Natural Resources will work with the co-permittees on what information is appropriate for posting on the website.

- (2) **PUBLIC INVOLVEMENT AND PARTICIPATION:** Each co-permittee shall notify the public in its respective jurisdiction of activities required by this permit and shall encourage involvement and participation by the public regarding these activities. Information in the biennial report required under Section F. of this permit shall be an agenda item for discussion before the appropriate governing board or council of each co-permittee contemporaneous with the submittal of the biennial report to the Department of Natural Resources.
- (3) **ILLICIT DISCHARGE DETECTION AND ELIMINATION:** In consultation with the Department of Natural Resources, each co-permittee shall continue to implement a program to detect and remove illicit discharges and improper disposal of wastes into its respective MS4, or require the discharger to obtain a separate WPDES permit. For the purposes of this section, the following non-storm water discharges or flows are not considered illicit discharges unless identified by either a co-permittee or the Department of Natural Resources as a significant source of pollutants to waters of the State: **Landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn and garden watering, individual residential car washing, non-commercial charity car washing, flows from riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit issued by the Department of Natural Resources and in compliance with that permit.** Other occasional or incidental non-storm water discharges may be considered not illicit discharges on a case-by-case basis and with the concurrence of the Department of Natural Resources. Each co-permittee shall:
 - (a) Exercise the adequate legal authority to prevent, detect, and eliminate illicit connections and illicit discharges to its MS4.
 - (b) Continue to implement a strategy to prevent, detect, and eliminate all types of illicit connections and illicit discharges to its MS4 in accordance with this section.
 - (c) Document activities undertaken to meet the requirements of this section, including **methodologies used; date, time, and place of activities; personnel involved; observations; corrective actions; and any enforcement actions.**
 - (d) Conduct on-going field screening activities in areas or locations of the MS4 identified as having the highest potential for being sources of illicit discharges.
 - (e) Investigate portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water. Procedures may include sampling for the field screening parameters (pH, total chlorine, total copper, total phenol and detergents, unless the co-permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters), testing with fluorometric dyes or conducting inspections of the MS4 where safety and other considerations allow. The Department of Natural Resources shall be given advance notice of the time and location of dye testing within an MS4.
 - (f) Prevent, contain and respond to reports of spills that may discharge into the MS4.
 - (g) Immediately notify the Department of Natural Resources in accordance with ch. NR 706, Wis. Adm. Code, in the event that the co-permittee identifies a spill or release of a hazardous substance that results in the discharge of pollutants into waters of the state. The Department of Natural Resources shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
 - (h) Eliminate any detected leakage from sanitary conveyance systems to the MS4.

- (i) Eliminate illicit connections or discharges to the MS4 following detection. The elimination of an illicit connection or discharge shall be done as soon as possible upon identification of the responsible party. Prior to elimination of an illicit connection or discharge, the co-permittee shall require the party responsible for the illicit connection or discharge to take all reasonable measures to minimize the discharge of pollutants to the MS4 and waters of the state. If it will take more than 30 days to remove an illicit connection, the Department shall be contacted to discuss an appropriate action **and/or timeframe for removal.**
- Q) Promote reporting by the public of the presence of illicit discharges or water quality impacts associated with illicit discharges from the MS4. This may include storm water inlet stenciling, neighborhood watches, and/or a local hotline to report illegal dumping or discharges.
- (k) Consult with the Department of Natural Resources as necessary to resolve instances of a potential illicit discharge.
- (l) In the case of an illicit discharge that originates from the co-permittee's permitted area and that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality, the co-permittee shall notify the affected municipality within one working day.

Note: Chapter NR 815, Wis. Adm. Code, regulates injection wells including storm water injection wells. Construction or use of a well to dispose of storm water directly into groundwater is prohibited under s. NR 815.11(5), Wis. Adm. Code.

- (4) CONSTRUCTION SITE POLLUTION CONTROL: Except as specified for the University of Wisconsin-Madison under Section H. (19), each co-permittee shall enforce a program to require the **implementation and maintenance of erosion and sediment control storm water management practices** to reduce pollutants in storm water runoff from construction sites. The program shall apply to construction site activities undertaken by the co-permittee and those of other landowners. Each co-permittee shall:
 - (a) Exercise legal authority to enforce the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, ***Construction Site Storm Water Discharge Permits, to the landowner's construction projects.***
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from construction sites and that ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for erosion and sediment control practices that meet or exceed the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, and the requirements of subch. III of NR 216, Wis. **Adm. Code, *Construction Site Storm Water Discharge Permits, where applicable.***

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (4).

- (5) **POST-CONSTRUCTION SITE STORM WATER MANAGEMENT:** Except as specified for the University of Wisconsin -Madison under Section H. (19), each co-permittee shall enforce a program to address controls on storm water discharges from areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undertaken by the co-permittee and those of other landowners. The co-permittee shall:
- (a) Exercise legal authority to enforce the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, **to the landowner's construction projects.**
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from storm water runoff from new development and redevelopment, and that ensure the implementation of the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for source area controls and on-site storm water management practices that meet or exceed the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (e) Implement policies and take appropriate enforcement action to ensure long-term maintenance of **storm water management facilities.**
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards on ss. NR 151.12 and 151.24, Wis. Adm. Code, and the requirements of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, where applicable.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section **H.** (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (5).

- (6) **MUNICIPAL POLLUTION PREVENTION:** Each co-permittee shall implement their municipal operation and maintenance program to prevent or minimize pollutants entering the MS4 and waters of the **state. At a minimum, the co-permittee shall:**
- (a) Annually update their inventory of long-term storm water management practices owned, operated, **managed, or maintained by the co-permittee.**
 - (b) Implement maintenance procedures and schedules for practices identified under Section C. (6) (a), other source area controls, catch basin cleaning, and the physical condition of elements of the MS4 that may adversely affect water quality.
 - (c) Implement roadway maintenance procedures that include de-icing management with consideration of effects on water quality.
 - (d) Enforce collection procedures and/or instruction to citizens for on-site management of leaves, yard waste, and grass clippings.
 - (e) Carry out pollution prevention procedures at municipal garages, public works facilities, and storage **areas.**
 - (f) Conduct proper management of the storage of salt for roadway de-icing in accordance with ch. TRANS 277, Wis. Adm. Code.

- (g) Continue to implement pollution prevention procedures for the use and application of lawn and garden fertilizers on co-permittee-controlled properties. The application of lawn and garden feiilizers on municipally controlled properties, with pervious surface over 5 acres each, shall be done in accordance with s. NR 151.13(1)(b)3., Wis. Adm. Code.
- (h) Document the estimated amount of leaves collected, solids captured from street sweeping, solids removed fi-mn catch basins, and solids removed fi-om structural controls.
- (i) Continue development and implementation of policies and procedures to meet the developed urban area performance standard of s. NR 151.13(2)(b)2., Wis. Adm. Code. This section requires co-permittees to achieve, to the maximum extent practicable, a 40% reduction in total suspended solids discharged fi-om its MS4 to surface waters of the state as compared to no controls, by March 10, 2013.

Note: MS4 modeling guidance documents are available on the DNR web page at:
<http://www.dnr.state.wi.us/mnoff/stormwater/muni,htm>

D. STORM SEWER SYSTEM MAP REQUIREMENTS

- (1) Each co-permittee shall annually update and maintain a sufficiently sized and detailed map with a scale suitable for the level of detail to identify the information below. This map does not need to be submitted to the Department with the biennial report but shall be kept on file by the co-permittee and provided to the Department at no charge upon request. The map shall identify the following:
- (a) The name/label and outline of the storm water drainage basins, the watersheds and municipal separate **storm sewer systems**.
 - (b) Other major municipal, government or privately owned storm water conveyance systems lying within, but not owned or operated by the co-permittee shall be identified.
 - (c) A boundary defining the final urban storm water planning area and all municipal borders in the area.
 - (d) All known MS4 outfalls discharging to waters of the state. Indicate the pipe size and identify those outfalls that are considered major outfalls. A major outfall includes any of the following:
 - 1. A single pipe with an inside diameter \leq 36 inches and associated with a drainage area \geq 50 acres; a **similar conveyance (box culvert, ditch, etc., other than a round pipe) with a cross sectional area \geq 1018 sq. inches and associated with a drainage area $>$ 50 acres.**
 - 2. A single pipe serving land zoned for industrial activity with an inside diameter of \leq 12 inches and **associated with a drainage area $>$ 2 acres; or a similar conveyance, serving land zoned for industrial activity, with a cross sectional area \leq 113 sq. inches and associated with a drainage area **2 acres.****
 - (e) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (f) All municipally owned or operated structural storm water management facilities including detention basins, infiltration basins, and manufactured treatment devices. If the co-permittee will be taking credit for pollutant removal from a privately-owned facility to meet the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, it must be identified.
 - (g) The location of publicly owned parks, recreational areas and other open lands.
 - (h) The location of municipal garages, storage areas and other public works facilities.
 - (i) Geographic features including streets, highways, railroads, airports, and water features.
- (2) The City of Madison shall maintain the common storm sewer system map for the entire group permit area. Each co-permittee is responsible for providing biennial updates to the City of Madison for updating the **common storm sewer system map for inclusion in the biennial report as outlined in Section F. The common storm sewer system map shall contain the following components:**
- (a) Delineation and identification of storm water drainage basins including watersheds, sub-watersheds, and watersheds using the naming conventions developed by the City of Madison.
 - (b) Locations of major structural controls including retention, detention, and infiltration facilities.
 - (c) Locations of publicly owned parks, recreational areas, and other open lands such as environmental **corridors and conservancies.**
 - (d) Municipal boundaries for all co-permittees.

- (e) Central Urban Service Area boundaries.
 - (f) Geographic features including streets, highways, railroads, airports, and water features.
 - (g) Township and Range System.
 - (h) Ten foot contours intervals.
- (3) Each co-permittee shall ensure that the information provided on the common storm sewer system map for the co-permittee's areas of jurisdiction is updated biennially to reflect improvements to the MS4 by December 31, 2010 and every other December 31" thereafter. Each co-permittee shall be responsible for delivering hard copy changes for the storm sewer system map to the City of Madison by January 31, 2011 and every other January 31" thereafter.
- (4) The City of Madison shall submit the biennially updated common storm sewer system map to the Department of Natural Resources with the biennial report as outlined in Section F.

E. ASSESSMENT OF CONTROLS

(!) **BIENNIAL REVIEW:** Each co-permittee shall conduct a biennial review and assessment of its respective storm water management program in conjunction with preparation of the biennial report required in Section F. The assessment of the effectiveness of the storm water management program required in Section C. shall report on the prior 2 calendar years for the following:

(a) A description of the public information and education efforts as required under Section C.(!) and the status of implementation of the information and education plan, including an assessment of the effectiveness of reaching targeted audiences and delivery of intended messages.

Note: Dane County will provide the information for the assessment and biennial review of the information and education plan since it has taken the lead in the implementation of the plan. However, individual co-permittees will be expected to report on their respective public information and education efforts.

(b) A description of public involvement and participation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of efforts to involve the public and the level of participation.

(c) A description of illicit discharge detection and elimination program implementation under Section C. (3) with an assessment of the effectiveness of detection and elimination of illicit discharges, prevention of the improper disposal of waste and dumping, and the handling of spills.

(d) A description of construction site pollution control program implementation under Section C. (4) **with an assessment of program effectiveness in meeting the construction site performance standards** of s.s. NR 151.11 and 151.23, Wis. Adm. Code.

(e) A description of post-construction site storm water management program implementation under Section C. (5) with an assessment of program effectiveness in meeting the post-construction standards of s.s. NR 151.12 and 151.24, Wis. Adm. Code.

(f) A description of enforcement actions taken pursuant to the programs implemented under (c), (d), and (e) above and an assessment of the effectiveness of enforcement efforts.

(g) A description of pollution prevention efforts through the implementation of the municipal operation and maintenance program under Section C. (6) with an assessment of program effectiveness.

(h) An updated determination of whether the MS4 discharges to any impaired water, in accordance with section A.(13)(a) of this permit.

(2) **DEVELOPED URBAN AREA PERFORMANCE STANDARD:** To the maximum extent practicable, **implement storm water management practices necessary to achieve a 40% reduction in the annual** average mass of total suspended solids discharging from the co-permittee's MS4 to surface waters of the state as compared to implementing no storm water management controls, by March 10, 2013. Each co-permittee shall conduct an assessment of compliance with the 40% total suspended solids reduction requirement. The assessment shall be submitted to the Department by March 31, 2011 and shall include the following:

(a) Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department of Natural Resources.

(b) Identification of storm water management practices necessary to achieve the 40% total suspended solids reduction requirement, including locations and estimated costs of implementing the practices.

(c) Identification of storm water management practices that are or will be implemented to control the discharge of pollutants of concern to impaired water bodies as identified in Section A.(13).

- (d) Proposed schedule for implementing the storm water management practices necessary to achieve the 40% total suspended solids reduction requirement.

Note: Department guidance for modeling MS4 urban areas and treatment systems is available on the Department's municipal storm water web page at: <http://www.dnr.state.wi.us/runoff/stormwater/muni.htm>

- (3) REPORTING ON ASSESSMENT: The information in the biennial assessment of controls under Section E. (I) shall be included in the biennial report required under Section F. The biennial report that is due on March 31, 2011, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (1) **REPORT DUE DATE:** Each co-permittee shall submit its own biennial report to the Department by March 31, 2011 and by March 31" of every other year that follows (odd calendar years). The Department will provide co-permittees with an electronic biennial report form. Each co-permittee shall invite the municipal governing body, interest groups and the general public to review and comment on the biennial report.
- (2) **CERTIFICATION:** A duly authorized representative of the co-permittee shall sign and certify the biennial report and include a statement or resolution that the co-permittee's governing body or delegated representatives have reviewed or been apprised of the content of the biennial report.
- (3) **CONTENTS:** The biennial report shall cover the prior 2 calendar years and include the following:
 - (a) **Proposed revisions to the storm water management program and a summary of any revisions made to the storm water management program.**
 - (b) The information in the biennial assessment of controls under Section E.
 - (c) A summary describing the number and nature of enforcement actions taken pursuant to the programs implemented under Section C. (3), (4), and (5).
 - (d) A summary of development and/or implementation of any municipal-wide storm water management plans prepared by the co-permittee, and a summary of implementation of any other plans guiding the co-permittee, such as the Lake Mendota Priority Watershed Plan, the Dane County Land and Water Resource Management Plan, and the Dane County Water Quality Plan.
 - (e) An updated listing and contact information for any new industrial facilities that may be regulated under subch. II of ch. NR 216, Wis. Adm. Code, and that have commenced operation in the prior 2 calendar years.
 - (f) A summary of any other activities undertaken to comply with the conditions of this permit.
 - (g) A fiscal analysis that includes the annual expenditures and budget for the prior two calendar years, and the budget for the next year.
- (4) **SUBMITTAL OF REPORT:** A signed copy of the biennial report shall be submitted to the Department of Natural Resources office listed below:

Storm Water Program
WDNR South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

G. SCHEDULE OF COMPLIANCE

Each co-permittee shall comply with the provisions and requirements of this permit as of the effective date of this permit, except compliance shall be achieved with the following conditions of this permit in accordance with the schedule indicated:

<u>Action to be taken</u>	Reference	<u>Due date</u>
<u>All Co-Permittees:</u>		
Annual I&E Work Plan	Section C. (1)(b)	December 1, annually
Biennial Report	Section F	March 31" of every odd calendar year (2011, 2013, etc.)
Developed Urban Area Assessment	Section E. (2)	March 31, 2011
Compliance with Developed Area Performance Standard of s. NR 151.13(2)(b)2.	Section C.(6)(i)	March 10, 2013
<u>City of Madison:</u>		
Common Storm Sewer Map	Section D. (4)	March 31" of every odd calendar year (2011, 2013, etc.)

H. SPECIAL RESPONSIBILITIES FOR CERTAIN CO-PERMITTEES

In addition to the requirements specified in Section A. through G. of this permit, co-permittees have additional or special requirements that apply to them as follows:

- (1) CITY OF FITCHBURG: Portions of the City of Fitchburg MS4 discharge into or upstream of impaired waters including Nine Springs Creek, Yahara River, and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (2) CITY OF MADISON: The City of Madison shall meet the following requirements:
 - (a) Facilitate and prepare and provide the agenda and minutes for the quarterly meetings required under Section B. (8).
 - (b) Manage and biennially update the common storm sewer system map required under Section D.(2) of this permit. Any apportioning of the funds needed to manage and update the storm sewer system map may be negotiated between the City of Madison and the co-permittees.
 - (c) Within the jurisdiction of the City of Madison, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek watershed. The City of Madison shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Badger Mill Creek watershed to the maximum extent practicable. The City of Madison shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Madison and to promote infiltration. The City of Madison shall notify the Department of Natural Resources of new development in the Badger Mill Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek watershed.
 - (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Madison MS4 discharges into or upstream of impaired waters including Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River, and Rock River. The following beaches in the City of Madison are proposed to be listed as impaired due to E. coli: Spring Harbor, and James Madison beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra.
- (3) CITY OF MIDDLETON: The City of Middleton shall meet the following requirements:
 - (a) Within the jurisdiction of the City of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The City of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The City of Middleton shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Middleton and to promote infiltration. The City of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Black Earth Creek watershed.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The City of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Middleton MS4 discharges directly into or upstream of impaired waters including Pheasant Branch Creek, Yahara River, Rock River and potentially in the future, Dorn Creek. Marshall Park beach on Lake Mendota is also proposed by the Department to be listed as impaired due to E. coli. MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (4) CITY OF MONONA: The City of Monona MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (5) CITY OF SUN PRAIRIE: The City of Sun Prairie shall meet the following requirements:
- (a) Within the jurisdiction of the City of Sun Prairie, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The City of Sun Prairie shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Token Creek watershed to the maximum extent practicable. The City of Sun Prairie shall work with developers, consultants, contractors, and others representing the development **community to prevent and reduce negative water quality impacts from storm water discharges within** the City of Sun Prairie and to promote infiltration. The City of Sun Prairie shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Token Creek watershed.
- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Sun Prairie MS4 discharges into or upstream of impaired waters including Token Creek, Maunsha River, Yahara River and Rock River, which are impaired waters. Note that a TMDL has been approved for Token Creek.
- (6) CITY OF VERONA: The City of Verona shall meet the following requirements:
- (a) Within the jurisdiction of the City of Verona, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek and Sugar River watersheds. The City of **Verona shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Badger Mill Creek and Sugar River watersheds to the maximum extent practicable. The City of Verona shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Verona and to promote infiltration. The City of Verona shall notify the Department of Natural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek and Sugar River watersheds.
- (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Waters (ORWs and ERWs). The City of Verona MS4 discharges into the Sugar River, which is an ERW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (7) VILLAGE OF DEFOREST: The Village of DeForest shall meet the following requirements:
- (a) Within the jurisdiction of the Village of DeForest, give special attention to activities affecting the quality of storm water discharges to the Yahara River and Token Creek watersheds. The Village of DeForest shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Village of DeForest shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of DeForest and to promote infiltration. The Village of DeForest shall notify the Department of Natural Resources of new development in to the

Yahara River and Token Creek watersheds early in the Village's review process to accommodate the Department of Natural Resources' input.

- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of DeForest MS4 discharges into or upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.
- (8) VILLAGE OF MAPLE BLUFF: The Village of Maple Bluff MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (9) VILLAGE OF McFARLAND: The Village of McFarland MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (10) VILLAGE OF SHOREWOOD HILLS: The Village of Shorewood Hills MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (II) VILLAGE OF WAUNAKEE: The Village of Waunakee shall meet the following requirements:
 - (a) Within the jurisdiction of the Village of Waunakee, give special attention to activities affecting the quality of storm water discharges in the Six Mile Creek watershed. The Village of Waunakee shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Six Mile Creek watershed to the maximum extent practicable. The Village of Waunakee shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of Waunakee and to promote infiltration. The Village of Waunakee shall notify the Department of Natural Resources of new development in the Six Mile Creek watershed early in the Village's review process to accommodate the Department of Natural Resources' input.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Village of Waunakee MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of Waunakee MS4 discharges upstream of impaired waters including Darn Creek, Yahara River and Rock River.
- (12) TOWN OF BLOOMING GROVE: The Town of Blooming Grove shall meet the following **requirements**:
 - (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
 - (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Blooming Grove MS4 discharges upstream of impaired waters including Nine Springs Creek, Yahara River and Rock River.
- (13) TOWN OF BURKE: The Town of Burke shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Burke, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The Town of Burke shall ensure that **post-construction site storm water management at new development facilitates infiltration within the** Token Creek watershed to the maximum extent practicable. The Town of Burke shall work with **developers, consultants, contractors, and others representing the development community to prevent** and reduce negative water quality impacts from storm water discharges within the Town of Burke and to promote infiltration. The Town of Burke shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the Town's review process to accommodate the Department Natural Resources' input.
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Burke MS4 discharges into or upstream of impaired waters including the Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

{14) TOWN OF MADISON: The Town of Madison shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Madison MS4 discharges into or upstream of impaired waters including the Nine Springs Creek, Yahara River and Rock River.

{15) TOWN OF MIDDLETON: The Town of Middleton shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The Town of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The Town of Middleton shall work with developers, consultants, contractors, and others representing the **development community to prevent and reduce negative water quality impacts from storm water** discharges within the Town of Middleton and to promote infiltration. The Town of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed **early in the Town's review process to accommodate the Department of Natural Resources' input.**
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Middleton MS4 discharges into or upstream of impaired waters including Pheasant Branch Creek, Yahara River and Rock River.

(16) TOWN OF WESTPORT: The Town of Westport shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Westport, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westport shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Six Mile Creek watersheds to the maximum extent practicable. The Town of Westport shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Westport and to promote infiltration. The Town of Westport shall notify the Department of Natural Resources of new development in the Yahara River and Six Mile Creek watersheds early in the Town's review process to accommodate the Department of Natural Resources' input.
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Westport MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Westport MS4 discharges into or upstream of impaired waters including Darn Creek, Yahara River and Rock River.

(17) TOWN OF WINDSOR: The Town of Windsor shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Windsor, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Token Creek watersheds. The Town of **Windsor shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Town of Windsor shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Windsor and to promote infiltration. The Town of Windsor shall notify the Department of Natural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Department of **Natural Resources' input.**
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Windsor MS4 discharges upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

(18) DANE COUNTY: Dane County shall meet the following requirements:

- (a) As specified in the information and education agreement, maintain a half-time position to provide public information and education services under this permit on behalf of the co-permittees.
 - (b) In consultation with the Department of Natural Resources and other co-permittees, function as the lead agency in implementation of the information and education plan prepared on behalf of the co-permittees.
 - (c) Provide updates on the status and implementation of the information and education plan at the quarterly meetings, and provide information on plan implementation for the biennial report required under Section F.
 - (d) For activities under the jurisdiction of Dane County and within the area covered by this permit, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek, Black Earth Creek, Six Mile Creek, Token Creek, and Upper Yahara River watersheds. **Dane County shall ensure that post-construction site storm water management at new development facilitates infiltration within the watersheds of these waterways to the maximum extent practicable. Dane County shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Department of Natural Resources of new development in these watersheds early in the County's review process to accommodate the Department of Natural Resources' input.**
 - (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Dane County MS4 discharges upstream of impaired waters including the Yahara River and Rock River.
- (19) UNIVERSITY OF WISCONSIN-MADISON: In addition to the requirements specified in Sections A. through G. of this permit, the University of Wisconsin-Madison shall meet the following requirements:
- (a) Continue to implement the storm water management policies and procedures of the University of Wisconsin-Madison's storm water management program created pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of **Wisconsin- Madison, including revisions made to the program consistent with the requirements of this permit.**

Note: This requirement does not include the continuation of the monitoring program undertaken by the University of Wisconsin- Madison under joint WPDES Permit No. WI-S058416-1.

- (b) Continue to implement the illicit discharge detection and elimination program described in Pm18b. of the permit application submitted to the Department of Natural Resources on January 6, 2003, and as may be amended by October 1, 2004, to comply with the requirements of Section C. (3) of this permit. The University of Wisconsin-Madison shall not be required to perform the initial screening activity undertaken pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of Wisconsin-Madison. However, screening shall be required when unidentified flows are detected.
- (c) Continue to implement policies and procedures to the extent of its legal authority to control illicit discharges to and from those portions of the MS4 that it owns or operates consistent with the requirements of Section C.(3) of this permit.
- (d) Continue the implementation and administration of the municipal pollution prevention program described in Pm18e. of the permit application submitted to the Department of Natural Resources on January 6, 2003. The University of Wisconsin-Madison shall ensure that the program is consistent with the requirements of Section C. (6) of this permit to meet the performance standard specified in Section C. (6) U).

- (e) To the maximum extent practicable, the University of Wisconsin-Madison is encouraged to utilize the resources available through its academic and research programs to facilitate compliance with the requirements of this permit.

- (f) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The UW-Madison MS4 discharges upstream of impaired waters including the Yahara River and Rock River.

I. STANDARD CONDITIONS

The conditions ins. NR 205.07(1) and (3), Wis. Adm. Code, are hereby incorporated by reference in this permit. Each co-permittee shall be responsible for meeting these requirements within its jurisdiction where it owns or operates the MS4. Some of these requirements are outlined below in Section I.(1) through (17). Requirements not specifically outlined below can be found ins. NR 205.07(1) and (3), Wis. Adm. Code.

- (1) **DUTY TO COMPLY:** Each co-permittee shall comply with all conditions of this permit. Any permit **noncompliance is a violation of the permit and is grounds for enforcement action, permit revocation or modification, or denial of permit coverage at reissuance.**
- (2) **NONCOMPLIANCE NOTIFICATION:**
 - (a) In addition to immediately reporting hazardous substance spills to the Department of Natural Resources under Section I.(4), upon becoming aware of any permit noncompliance that may endanger public health or the environment, a co-permittee shall report this information by a telephone call to the Department regional storm water specialist within 24 hours. A written report describing the noncompliance shall be submitted to the Department regional storm water specialist within 5 days after the co-permittee becomes aware of the noncompliance. The Department of Natural Resources may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned **to reduce, eliminate, and prevent recurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.**
 - (b) Reports of any other noncompliance not covered under Section I. (2) (a) shall be submitted with the biennial report required in Section F. The reports shall contain all the information listed in Section I. (2) (a).
- (3) **DUTY TO MITIGATE:** Each co-permittee shall take all reasonable steps to minimize or prevent any adverse effect on the waters of the state resulting from noncompliance with this permit.
- (4) **SPILL REPORTING:** The co-permittee shall immediately notify the Department, in accordance with ch. NR 706, Wis. Adm. Code, in the event of a spill or accidental release of hazardous substances that has resulted or may result in a discharge of pollutants into waters of the state. The Department shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
- (5) **PROPER OPERATION AND MAINTENANCE:** Each co-permittee shall at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used by the co-permittee to achieve compliance with the conditions of this permit and the storm water management program. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with conditions of this permit.
- (6) **BYPASS:** A co-permittee may temporarily bypass a storm water treatment facility if necessary for maintenance, or due to runoff from a storm event that exceeds the design capacity of the treatment facility, or during an emergency.
- (7) **DUTY TO HALT OR REDUCE ACTIVITY:** Upon failure or impairment of a storm water **management practice identified in the storm water management program, a co-permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail use of the storm water management practice** until it can be restored or an alternative method of storm water pollution control is provided.
- (8) **REMOVED SUBSTANCES:** Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be handled and disposed of in a manner to

prevent any pollutant from the materials from entering the waters of the state, and in compliance with all applicable federal, state, and local regulations.

NOTE: Storage and/or treatment of material collected under Section I. (8) may be subject to solid waste rules found under the NR 500 series of the Wisconsin Administrative Code or the hazardous waste rules found under the NR 600 series of the Wisconsin Administrative Code.

- (9) **ADDITIONAL MONITORING:** If a co-permittee monitors any pollutant more frequently than required by this permit, the results of that monitoring shall be reported to the Department in the biennial report **required under section F.**
- (10) **INSPECTION AND ENTRY:** Each co-permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:
 - (a) Enter upon the co-permittee's premises where a regulated facility or activity is located or conducted, or where records are kept as required under the conditions of this permit.
 - (b) Have access to and copy, at reasonable times, any records that are required under the conditions of the permit.
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit.
 - (d) Sample or monitor at reasonable times and for the purposes of assuring permit compliance any substances or parameters at any location.
- (11) **DUTY TO PROVIDE INFORMATION:** Each co-permittee shall furnish the Department, within a **reasonable time, any information that the Department may request to determine whether cause exists for** modifying, revoking or reissuing this permit or to determine compliance with this permit. Each co-permittee shall also furnish the Department, upon request, copies of records required to be kept by the **co-permittee.**
- (12) **PROPERTY RIGHTS:** This permit does not convey any property rights of any sort, or any exclusive privilege. This permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.
- (13) **DUTY TO REAPPLY:** If a co-permittee wishes to retain authorization to discharge after the expiration date of this permit, the co-permittee shall reapply to the Department at least 180 days prior to expiration date of this permit for continued coverage under a reissued permit.
- (14) **OTHER INFORMATION:** When a co-permittee becomes aware that it has failed to submit any **relevant facts in a permit application or submitted incorrect information in a permit application or in any** report to the Department of Natural Resources, the co-permittee shall promptly submit such facts or correct information to the Department of Natural Resources.
- (15) **RECORD RETENTION:** Each co-permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 5 years from the date of the sample, measurement, report or application.
- (16) **PERMIT ACTIONS:** As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in part, for cause. If a co- **permittee files a request for a permit modification, revocation or reissuance, or a notification of planned** change or anticipated noncompliance, this action by itself does not relieve the co-permittee of any **permit condition.**
- (17) **SIGNATORY REQUIREMENT:** All applications, reports or information submitted to the Department of Natural Resources shall be signed for by a ranking elected official, or other person authorized by the co-permittee who has responsibility for the overall operation of the municipal separate

storm sewer systems and storm water management program activities regulated by this permit. The authorized representative shall certify that the information was gathered and prepared under his or her supervision and, based on inquiry of the people directly under their supervision that, to the best **of his or her knowledge, the information is true, accurate, and complete.**

- (18) ATTAINMENT OF WATER QUALITY STANDARDS AFTER PERMIT ISSUANCE: At any time after the effective date of this permit, the Department may determine that the discharge of storm water **from a co-permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an** exceedance of any applicable water quality standard. If such a determination is made, the Department may require the co-permittee to do either of the following:
- (a) Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.
 - (b) Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

Appendix 2 - SWPPP (P2) Team Roster

Streets Division

SWPPP Coordinator

Charlie Romines

Contact Info: 608-267-8804 (O)
 608-239-3598 (C)
 _____ (H)

Team Members

1. Darin Hall	Office – 266-4741	Cell 608-345-3118
2. Lisa Laschinger	Office - 267-9214	Cell 608-843-2375
3. Laura Bauer	Office - 288-6164	Cell 608-334-8870

Appendix 3: Spill Prevention, Control and Counter Measures Plan

Compliance Inspection

Review Page

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility's potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

1. July 1, 2021

2. July 1, 2024

3. July 1, 2027

4. July 1, 2030

5. July 1, 2033

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the FHCPW site flows to the stone weeper in the southeast corner of the site. The storm water is collected in drainage way and discharged to the city of Madison storm sewer network. The storm sewer discharges into Lake Wingra water to a greenway that routes water downhill and into the City of Madison storm sewer system. The storm sewer is under Pickford St. and then extend south of Arbor Dr. in a storm water easement and discharges into Lake Wingra. The maps provided in Appendix 6 show outfall location and drainage from the site to Lake Wingra.

Facility Storage

There are two- 500 gallon above ground fuel tanks.

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
Fuel tanks	Rupture	1000	1000	southeast	0

Spill Prevention Measures

Bollards are in place to reduce the risk of collision with the tanks.

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, brooms and shovels. Spill cleanup materials are located in the maintenance building.

Appendix 4: Fuel Transfer Procedure

APPENDIX 4: Fuel Transfer Procedures

General Safety Requirements

- A. No Smoking is permitted, Nor use of any Flame or Spark producing devices (i.e. Lighters, Cell Phones, . . .) at or near the Fueling Station at any time.
- B. Extreme caution must be taken during fuel transfer operations for any potential ignition source.
- C. Vehicle engines must shut off during fuel transfers.
- D. The fuel delivery hose must be attended to throughout the fueling process. Automatic trip-shutoff devices are not to be relied upon to prevent overfilling of vehicle or portable tanks.
- E. Portable tanks are to be placed on the pavement inside the containment structure while being filled. Do not fill portable tanks that are in, on, or around a vehicle or boat.
- F. Report any Spills or Leaks to the Fleet Services representatives immediately.

Fueling Operations:

- A. At the Fuel Pump, select the proper fuel (#1 Unleaded, #2 Diesel).
- B. Remove nozzle from dispenser and place in tank to be fueled.
- C. Do Not Over Fill Vehicle or Portable Tank.
- D. When fueling is complete, drain nozzle into tank and replace back in the dispenser.

Emergency Contacts

Fleet Services (608) 246-4546

National Response Center (800) 424-8802

Local Police, Fire, and EMS 9-1-1

Appendix 5: Site Inspection Form

STREETS STORMWATER MONTHLY INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION: <ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i>	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.	
Vehicle/Equipment Areas: Equipment cleaning: <i>Check NA if not performed on-site. Skip section.</i> Is equipment washed and/or cleaned only in designated areas? <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? Equipment fueling: <i>Check NA if not performed on-site. Skip section.</i> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	Findings and Remedial Action Documentation:

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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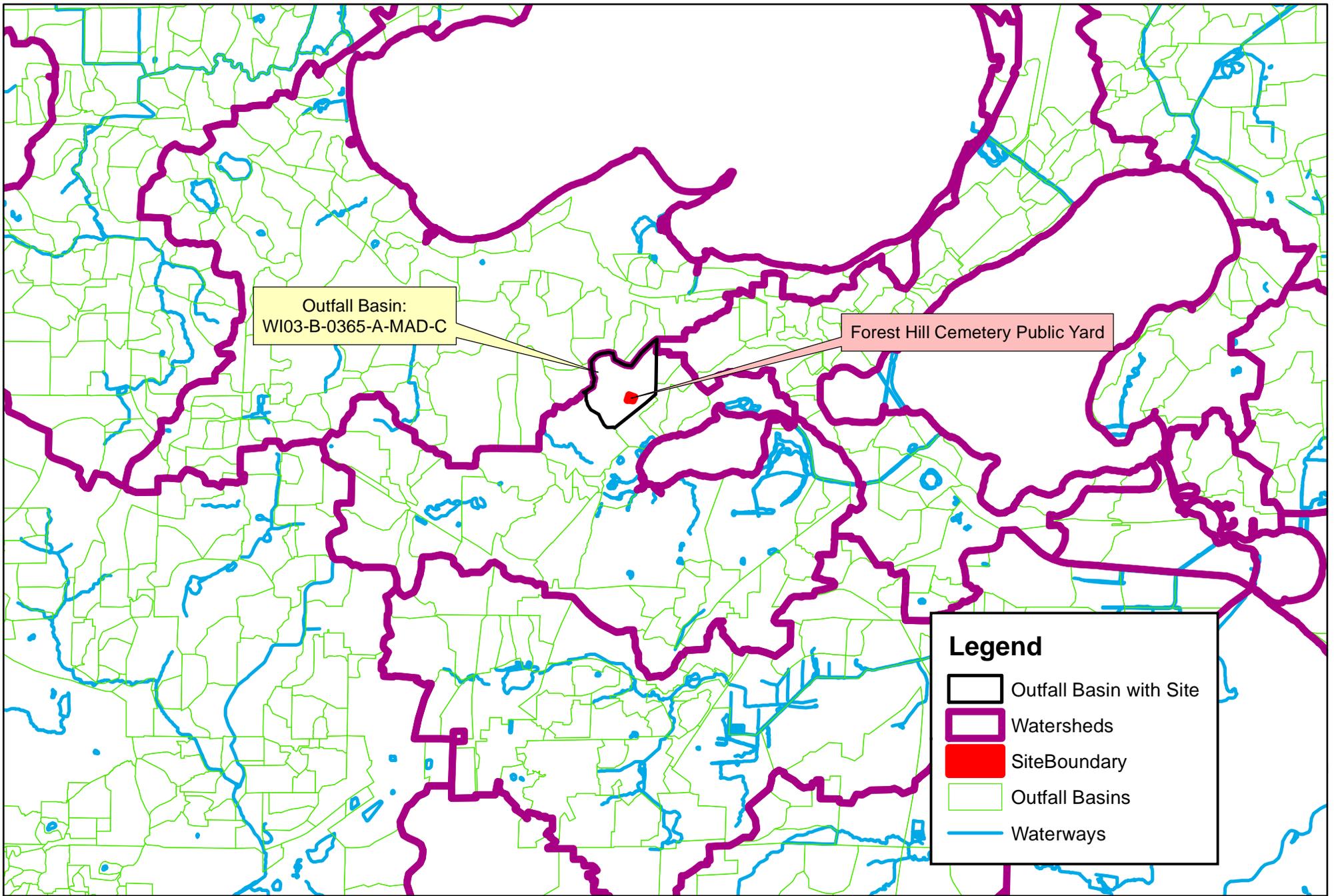
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

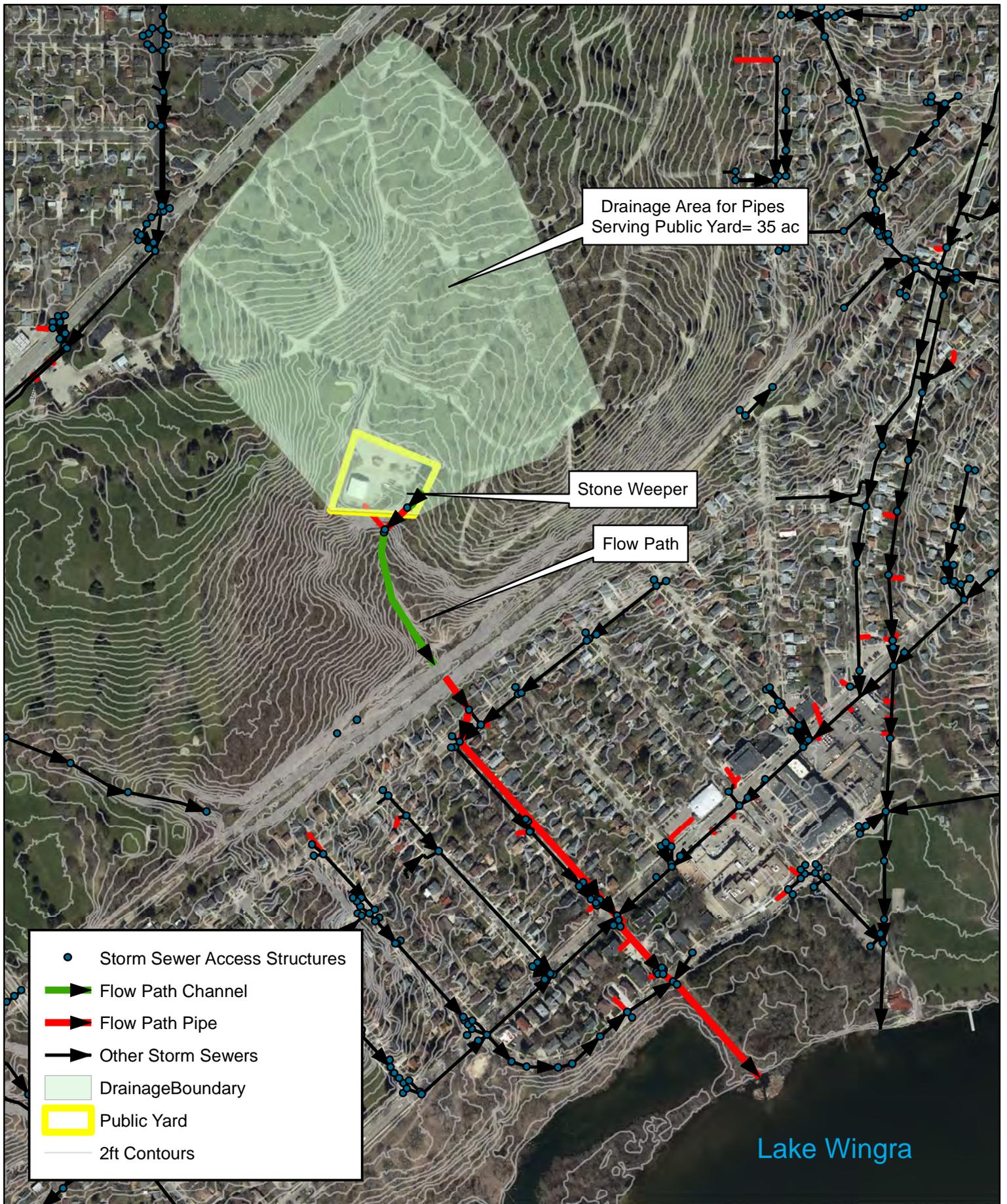
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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Appendix 6: Site Maps

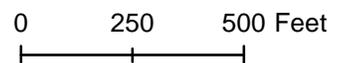


Appendix 6: Site Map
 Forest Hill Cemetery Public Yard
 Madison, WI





Forest Hill Cemetery Public Yard
 Drainage Direction
 Madison, WI



Appendix 7: Site Assessment

ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
	<i>Indoors</i>	<i>Outdoors</i>	<i>Sediment</i>	<i>Nutrients</i>	<i>Metals</i>	<i>Hydrocarbons</i>	<i>Toxins</i>	<i>other</i>	<i>Likelihood of Contact</i>	<i>Risk of release</i>	
Temporary Soil Stockpile	B-2	M-1	●	◐	-	-	-		●	◐	<ul style="list-style-type: none"> ● Stockpiled uncovered outside ● Runoff is treated with stone weeper (M-7)
Brick and Stone Storage		M-2, M-3	○	○	-	-	-		●	○	<ul style="list-style-type: none"> ● Stockpiled uncovered outside
Temporary Brush Pile		M-4	●	●	-	-	-		●	◐	<ul style="list-style-type: none"> ● Brush is stockpiled outside and then hauled off site to be shredded and used as mulch
Pea Gravel		M-5	◐	-	-	-	-		●	○	<ul style="list-style-type: none"> ● Stored outdoors uncovered in a bunker
Gasoline and Diesel Fuel Dispensing		M-6	-	-	●	●	●		●	○	<ul style="list-style-type: none"> ● Vehicles fueled outside
Sweeping Equipment Storage	B-3		●	◐	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	<ul style="list-style-type: none"> ● Building floor does not have a collection system
Pea Gravel		M-5	◐	-	-	-	-		●	○	<ul style="list-style-type: none"> ● Stored outdoors uncovered in a bunker
Gasoline and Diesel Fuel Dispensing		M-6			●	●	●		●	○	<ul style="list-style-type: none"> ● Vehicles fueled outside
Stone Weeper		M-7	●	●	-	-	-		●	◐	<ul style="list-style-type: none"> ● All runoff from yard flows through Weeper
Salt Storage	B-1		-	-	-	-	○	Sodium Chloride	○	○	<ul style="list-style-type: none"> ● Stored in building
Gasoline Can and Oil Storage	B-1		-	-	●	●	●		○	○	<ul style="list-style-type: none"> ● Stored in building

KEY

- High
- ◐ Medium
- Low
- Not Applicable



**Forest Hill Public Yard
Madison, WI**

- ★ Areas of Interest
- 2ft Contours





Forest Hill Yard
M-0 : Yard Entrance



Forest Hill Yard
M-1 : Temporary Soil Pile



Forest Hill Yard
M-2 : Brick and Stone Storage



Forest Hill Yard
M-3 : Brick and Stone Storage



Forest Hill Yard
M-4 : Temporary Brush Storage



Forest Hill Yard
M-6 : Fuel Dispensing Station



Forest Hill Yard
M-7 : Stone Weeper Before Drainage Way



Forest Hill Yard
B-1: Gasoline Cans Indoor Storage Area



Forest Hill Yard
B-1: Indoor Salt Storage



Forest Hill Yard
B-2 : Indoor Soil Storage



Forest Hill Yard
B-3 : Indoor Vehicle Storage

12/21/2018



Municipal Storm Water Pollution Prevention Plan

Goodman Public Works Site



Municipal Storm Water Pollution Prevention Plan

Goodman Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-3. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Parks Division at the Goodman Public Works Site.

A copy of this SWPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Parks Department will create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Goodman Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

Parks shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from various areas of the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Develop inspection protocols for the facility

The P2 team member rosters are provided in Appendix 2.

3.0 Site Description

The Goodman Public Works site is located on Madison's neasouth side at 1402 Wingra Creek Parkway, Wisconsin. The 28.5 acre parcel has frontage on Speedway Road and the facility is located within a 6.55 acre section on the southern edge of the parcel.

The Goodman parcel is zoned PR (Parks and Recreation).

This site is operated by the Parks division.

Parks facilities on this site includes 5 buildings providing, vehicle and equipment storage, office space and a workshop. Parks uses the yard to store trailers, landscape materials and for parking.

Figure 1 shows the 6.55-acre site boundary.



Figure 1

6.55-acre Goodman Public Works Facility

3.1 Site Drainage

3.1.1 Outfalls

The Goodman Public Works (GPW) site is located in Outfall Basin MO07-U-0205-D-MAD-C in the Lake Monona (MO07) watershed. The GPW site makes up 11% of the basin's 57.8 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

A portion of storm water runoff from the GPW site sheet flows off the site to a swale along the western edge of the property. The majority of the stormwater run off is collected in storm sewers and discharged to Wingra Creek.

3.1.2 Site Drainage

There are three storm sewer outfalls along the southeast corner of the site. The majority of the GPW drains through one of the three outfalls. There is a small rain garden that receives runoff from the roof of the main building and the entrance way.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;

3.2 SITE ACTIVITIES

The Goodman Public Works facility is a multipurpose location. Activities include maintenance vehicles and equipment used to maintain park facilities. Storage of lawn mower and bobcat attachments, rubber mulch, and small amounts of brush. Workshops for maintaining parks infrastructure and office space and parking for field operation staff.

3.3 Potential Pollutants

A site activity and materials inventory that have the potential to contaminate storm water and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility (to be included in this document in Appendices 8-10).

4. Best Management Practices

There is currently 1 structural control to treat stormwater at the Goodman Public Works Site. This device is a rain garden that collects roof runoff. It is inspected annually and maintained if not draining properly.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate storm water outfalls for the presence of non-storm water discharges, and
- b) Evaluate the effectiveness of the company's pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of stone weeper and the apron of the storm pipe in the drainage channel. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **01/01/2019**.

7.0 Record Keeping and Reporting

The quarterly inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.



Rob Phillips, P.E. City Engineer

12/21/18

Date

Appendix 1- MS4 Permit

WPDES Permit No. \VI-S058416-3
Page 1 of 29



PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM WPDES PERMIT NO. WI-S058416-3

In compliance with the provisions of ch. 283, Wisconsin Statutes, and chs. NR 151 and 216, Wisconsin Administrative Code,

THE CITIES OF FITCHBURG, MADISON, MIDDLETON, MONONA, SUN PRAIRIE, AND VERONA; THE VILLAGES OF DEFOREST, MAPLE BLUFF, MCFARLAND, SHOREWOOD HILLS, AND WAUNAKEE; THE TOWNS OF BLOOMING GROVE, BURKE, MADISON, MIDDLETON, WESTPORT, AND WINDSOR; DANE COUNTY; AND THE UNIVERSITY OF WISCONSIN- MADISON

are permitted to discharge storm water from

ALL PORTIONS OF THE CO-PERMITTEES' MUNICIPAL SEPARATE STORM SEWER SYSTEMS

owned or operated by the co-permittees listed above to the following waters of the state and associated tributaries:

BADFISH CREEK
BLACK EARTH CREEK
MAUNESHA RIVER
MIDDLE SUGAR RIVER
SIX MILE, PHEASANT BRANCH AND DORN CREEKS
UPPER KOSHKONONG CREEK
UPPER SUGAR RIVER
YAHARA RIVER AND LAKE KEGONSA
YAHARA RIVER AND LAKE MENDOTA
YAHARA RIVER AND LAKE MONONA
YAHARA RIVER AND LAKE WAUBESA

in accordance with the conditions set forth in this permit.

This permit to discharge shall expire at midnight, June 30, 2014.

To retain authorization to discharge after this expiration date an application shall be filed by the co-permittees for reissuance of this permit in accordance with the requirements of s. NR 216.09, Wis. Adm. Code, at least 180 days prior to this permit's expiration date.

State of Wisconsin Department of Natural Resources
For the Secretary

By: 
Lloyd E. [unclear] al Region Director

Dated: *vv..l. 'd- t)Qo 1*

EFFECTIVE DATE: July 1, 2009

EXPIRATION DATE: June 30, 2014

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Description and Purpose of this WPDES Municipal Storm Water Discharge Permit

Each municipality listed as a co-permittee under this permit submitted a reissuance application letter to the Department pursuant to s. NR 216.09, Wis. Adm. Code, to be covered under a group WPDES Municipal Storm **Water Discharge Permit for storm water discharges from the group's municipal separate storm sewer systems (MS4s)** to waters of the state. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. **Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.**

This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A municipality that is a co-permittee under this permit is only responsible for permit conditions relating to discharges from the MS4 under its jurisdiction for which it is the owner or operator.

The co-permittees under this permit are continuing to work together under an intermunicipal agreement to refine and implement an extensive joint information and education plan and have agreed to cooperate as appropriate on permit requirements. This permit authorizes and regulates the discharge of storm water from the co-permittees' MS4s, in accordance with subch. I of ch. NR 216, Wis. Adm. Code. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Many of the permit requirements are focused **on pollution prevention efforts. Major components of the permit include storm water management programs to address public information and education, public involvement and participation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial reporting. However, the implementation of the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, are expected to require a combination of treatment practices to be implemented to meet the total suspended solids (TSS) performance standards.**

Note: Wisconsin Administrative Codes referenced in this permit are available online at:
<http://www.legis.state.wi.us/rsb/>

A. APPLICABILITY

- (1) **WATERS OF THE STATE:** This permit regulates the discharge of storm water to waters of the state from the MS4s of the co-permittees under this permit. For the purposes of this permit, "waters of the state" means all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface water or groundwater, natural or artificial, public or private within the state or under its jurisdiction, except those waters that are entirely confined and retained completely upon the property of a person.
- (2) **PREVIOUS GROUP PERMIT:** This permit replaces WPDES Permit No. WI-S058416-2 issued on April 28, 2004.
- (3) **PERMITTED AREA:** This permit covers all areas under the ownership, control or jurisdiction of the co-permittees that contribute to discharges from a "municipal separate storm sewer system" or "MS4." "Municipal separate storm sewer system" or "MS4," means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water.
- (4) **CO-PERMITTEES:** The co-permittees under this permit consist of the following municipalities: The Cities of Fitchburg, Madison, Middleton, Monona, Sun Prairie, and Verona; the Villages of DeForest, Maple Bluff, McFarland, Shorewood Hills, and Waunakee; the Towns of Blooming Grove, Burke, Madison, Middleton, Westport, and Windsor; Dane County; and the University of Wisconsin-Madison.
- (5) **DANE COUNTY:** Specifically for Dane County as a co-permittee, this permit only authorizes discharges of storm water from the MS4 owned or operated by Dane County that occur within the geographical boundaries of the other co-permittees.
- (6) **COMPLIANCE DATES:** Unless specified otherwise in Section G., all co-permittees under this permit shall comply with the provisions and requirements of this permit as of its effective date and thereafter.
- (7) **AUTHORIZED DISCHARGES:** This permit only authorizes storm water discharges to waters of the state from the co-permittees' MS4s as provided under subch. I of ch. NR 216, Wis. Adm. Code. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process **wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges that are not considered illicit discharges.**
- (8) **WATER QUALITY STANDARDS:** This permit specifies the conditions under which storm water may be discharged to waters of the state for the purpose of achieving water quality standards contained in chs. NR 102 to 105 and NR 140, Wis. Adm. Code. Compliance with water quality standards will be addressed by adherence to the provisions and storm water management program requirements of this permit. If the Department of Natural Resources determines that the discharge of storm water from a co-permittee's MS4 contributes to an exceedance of any applicable water quality standard, the Department of Natural Resources may require the co-permittee to develop an action plan to adequately address the identified water quality concern, or submit valid and verifiable data and information that are representative of ambient conditions to indicate that the receiving water is attaining the water quality standard.
- (9) **GENERAL STORM WATER DISCHARGE LIMITATIONS:** Each co-permittee shall take all reasonable and necessary actions to prevent discharges from its MS4 that may adversely affect receiving water quality or aquatic life including:
 - (a) Solids that may settle to form putrescent or otherwise objectionable sludge deposits.
 - (b) Oil, grease, and other floating material that form noticeable accumulations of debris, scum, foam, **or sheen.**

- (c) Color or odor that is unnatural and to such a degree as to create a nuisance.
 - (d) Toxic substances in amounts toxic to aquatic life, wildlife, or humans.
 - (e) Nutrients conducive to the excessive growth of aquatic plants and algae to the extent that such growth is detrimental to desirable forms of aquatic life, creates conditions that are unsightly, or are **a nuisance**.
 - (f) Any other substances that may impair, or threaten to impair, beneficial uses of the receiving water.
- (10) OTHER REGULATORY PROGRAMS: Nothing in this permit shall exempt a co-permittee from the responsibility to comply with other federal, state or local laws.
- (II) CO-PERMITTEE COOPERATION: To the maximum extent practicable, co-permittees are encouraged to cooperate with other co-permittees to jointly meet the requirements of this permit. Co-permittees **may, by written agreement, implement conditions of this permit with another co-permittee or contract** with another entity to perform one or more of the conditions of this permit. However, each co-permittee is ultimately responsible for compliance with the conditions of this permit.
- (12) OUTSTANDING AND EXCEPTIONAL RESOURCE WATERS
- (a) The co-permittee shall determine whether any part of its MS4 discharges to an outstanding resource water (ORW) or exceptional resource water (ERW). ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code. An unofficial list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/>. Black Earth Creek is an ORW and Sixmile Creek and the Sugar River are ERWs.
 - (b) The co-permittee may not establish a new MS4 discharge of pollutants to an outstanding resource water (ORW) or an exceptional resource water (ERW) unless the storm water management programs required under this permit are designed to ensure that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background levels within the ORW or ERW.
 - I. "New MS4 discharge of pollutants" means an MS4 discharge that would first occur after the co-permittee's effective date of coverage under this permit to a surface water to which the MS4 did not previously discharge storm water, and does not include an increase in an MS4's discharge, whether at an existing discharge point or at a new location to a surface water to which the MS4 discharged on or before coverage under this permit.
 - (c) If the co-permittee has an existing MS4 discharge to an ERW, it may increase the discharge of pollutants if the increased discharge would not result in a violation of water quality standards.
 - (d) If the co-permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants, either at the existing point of discharge or a new location, provided all of the following **are met**:
 - 1. The pollutant concentration within the receiving water and under the influence of the existing discharge would not increase as compared to the level that existed prior to coverage under this **permit**.
 - 2. The increased discharge would not result in a violation of water quality standards.

(13) IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

- (a) Each co-permittee shall determine whether any part of its MS4 discharges to an impaired water body listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(1). Impaired waters are those that are not meeting applicable water quality standards. A list of Wisconsin impaired water bodies may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/303d/2008/2008Updates.htm>.

Note: At the time of permit issuance, the following waters were listed as impaired: Pheasant Branch Creek, Darn Creek, Tolken Creek, Mauneshia River, Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River and Rock River. Darn Creek has also been labeled as Spring (Darn) Creek in some publications. The Department has proposed that the following beaches be listed as impaired due to E. coli: Spring Harbor, James Madison and Marshall Park beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra. The Department's proposed listing does not classify the beaches as impaired until such time that USEPA approves of the listing.

- (b) If the co-permittee's MS4 discharges to an impaired water body, the co-permittee shall include a **written section in its biennial report that discusses the management practices and control measures** it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. This section of the co-permittee's biennial report shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4's discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these control measures and practices were chosen as opposed to other alternatives. Pollutant(s) of concern means a pollutant that is causing impairment of a water body.
- (c) After the co-permittee's effective date of coverage under this permit, the co-permittee may not establish a new MS4 discharge of a pollutant of concern to an impaired water body or increase the discharge of a pollutant of concern to an impaired water body unless the new or increased discharge does not contribute to the receiving water's impairment, or the US Environmental Agency and the Department have approved a total maximum daily load (TMDL) for the impaired water body.
- (d) Co-permittees whose MS4 discharges to an impaired water body for which US Environmental Protection Agency and the Department have approved a TMDL shall assess whether the TMDL wasteload allocation for the MS4 is being met through the existing storm water management **controls or whether additional control measures are necessary. The co-permittee's assessment of** whether the TMDL wasteload allocation is being met shall focus on the adequacy of the co-permittee's implementation and maintenance of the storm water controls. Approved TMDLs are listed on the Department Internet site at:
http://dnr.wi.gov/org/water/wm/wgs/303d/Approved_TMDLs.html
- (e) If the co-permittee's existing storm water management controls are adequate to meet a wasteload allocation, then the co-permittee shall submit documentation to that effect with the biennial report. **If the co-permittee's existing storm water management controls are not adequate to meet a** wasteload allocation for its MS4, then the co-permittee shall develop a proposed storm water management plan to comply with the wasteload allocation. The co-permittee shall submit the proposed storm water management plan to the Department within 3 years of the TMDL being approved by both the Department and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:

- I. Baseline conditions showing the wasteload allocation area boundary, drainage basins and land **uses.**

2. Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department to quantify loadings.
 3. **Identification of storm water management practices or control measures necessary to achieve the wasteload allocation, including locations and estimated costs of implementing the practices or control measures.**
 4. Proposed schedule for implementing the storm water management practices or control measures necessary to achieve the wasteload allocation.
- (f) A co-permittee shall implement storm water management practices necessary to achieve compliance with the wasteload allocation as soon as practicable after the Department has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Department under section (13)(e).
- (14) **WETLANDS:** The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.
 - (15) **ENDANGERED AND THREATENED RESOURCES:** The co-permittee's MS4 discharge shall comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.
 - (16) **HISTORIC PROPERTY:** The co-permittee's MS4 discharge may not affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., unless the Department determines that the MS4 discharge will not have an adverse effect on any historic property pursuant to s. 44.40 (3), Wis. Stats.
 - (17) **EXCLUSIONS:** The following are excluded from coverage (i.e. are not authorized) under this permit:
 - (a) **Combined Sewer and Sanitary Sewer Systems:** Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Stats.
 - (b) **Agricultural Facilities and Practices:** Discharges from "agricultural facilities" and "agricultural practices." **"Agricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable growing.**
 - (c) **Other Excluded Discharges:** Storm water discharges from industrial operations or land disturbing construction activities that require separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge from an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the co-permittee's responsibility to regulate construction sites within its jurisdiction in accordance with sections C.(4) and C.(5) of this permit.
 - (d) **Non-MS4 Discharge:** Storm water discharges that do not enter an MS4.

B. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

In addition to the requirements specified in Sections A. and C. through I., each co-permittee shall:

- (1) Minimize the discharge of pollutants from its MS4.
- (2) Implement the stormwater management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of annexation by the co-permittee.
- (3) Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of installation or taking jurisdiction of a new or existing MS4.
- (4) Individually or as agreed upon by the co-permittees, provide adequate financing, staff, equipment, and support capabilities to implement the requirements of this permit.
- (5) Comply with the conditions of this permit relating to discharges from the MS4 where it is the owner or operator.
- (6) Implement a storm water management program, as required by this permit, in portions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and from those portions of the MS4 that **it owns or operates. This legal authority may be a statute, ordinance, permit, order or intermunicipal agreement, a series of contracts, or administrative rule in order to:**
 - (a) Control the contribution of pollutants to and the discharge of pollutants from the MS4.
 - (b) Prohibit illicit discharges to the MS4.
 - (c) Control the discharge of spills, dumping and disposal of materials other than storm water into the MS4.
 - (d) Require compliance with conditions in ordinances, permits, contracts, orders or administrative rules.**
 - (e) Require compliance with the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (f) Require compliance with the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (g) Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition of illicit discharges to the MS4.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section B. (7).

- (8) Attend and participate in quarterly meetings of the co-permittees. Unless an alternative quarterly date or dates are agreed upon by the co-permittees, the quarterly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a quarterly meeting may be cancelled due to a lack of meeting agenda items. These meetings are to be used for review and approval **schedules, receive work progress reports, and discuss issues pertaining to this permit or other relevant** storm water management issues. Each co-permittee shall designate a representative to attend these meetings. The representative of the City of Madison shall facilitate the conduct of the meetings and provide a record of the proceedings in the form of minutes. The meetings shall be held at times and places determined by the co-permittees. Adequate notices of and agendas for the meetings shall be

provided by the facilitator to the designated representatives for each co-permittee.

- (9) Cooperate with other co-permittees on sharing information and resources to facilitate storm water management activities on a regional or watershed basis and to avoid duplicative efforts.
- (10) Fulfill the commitments of an intermunicipal agreement to cooperate on storm water information and education.
- (11) Notify the affected co-permittee in the case of discovering a potential illicit discharge originating from its jurisdiction and discharging to the MS4 of the affected co-permittee.
- (12) Work cooperatively with other affected co-permittees in the case of discovering a potential illicit discharge of known source to determine the best actions to resolve the illicit discharge.
- (13) Submit information requested by the Department of Natural Resources pertinent to the MS4, discharges from the system, activities related to implementation of the requirements of this permit, or other relevant **information**.
- (14) Meet with the Department of Natural Resources on an as needed basis to discuss implementation of this **permit or other relevant issues**.
- (15) Keep contact information up-to-date and notify the Department of Natural Resources in a timely manner when personnel changes occur for the appropriate contact person(s) knowledgeable about this permit and its implementation.
- (16) Respond to and resolve in a timely manner complaints received from citizens and concerns raised by the Department of Natural Resources relating to pollution and storm water issues within the co-permittee's jurisdiction.
- (17) Coordinate the requirements of this permit internally between the co-permittee's agencies, departments, and programs, and ensure that elected and municipal officials and appropriate staff are advised of the permit.
- (18) Implement the requirements of this permit in a manner that is consistent with the recommendations contained in priority watershed plans, the Dane County Water Quality Plan, and other storm water management plans funded by the Department of Natural Resources and applicable to the co-permittee.
- (19) Incorporate the requirements of this permit in the development of master plans, neighborhood plans, development plans, and any other comprehensive planning activity to address water quality impacts from storm water discharges associated with implementation of these plans.
- (20) Undertake actions required by this permit in a manner that is consistent and in conformance with other applicable regulatory programs.

Note: Examples of other regulatory programs that may be applicable are the U.S. Army Corps of Engineers 404 permit program and permits required under ch. 30, Wis. Stats.

C. STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

(I) PUBLIC EDUCATION AND OUTREACH: Each co-permittee shall:

- (a) Continue to be a member of the Madison Area Municipal Storm Water Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program then they must develop and implement a work plan on their own that otherwise meets the requirements of section C.(I) of this permit.
- (b) Participate in the implementation of the *Madison Area Municipal Storm Water Partnership (MAMSWaP) Information and Education Plan 2009-2013 (January 2009)* prepared on behalf of the co-permittees (herein known as the information and education plan). By December 1 of each year, the co-permittees shall collectively develop a work plan to guide implementation of the information and education plan for the following calendar year. The information and education plan shall establish measurable goals and, at a minimum, include the following elements:
 1. Promote detection and elimination of illicit discharges and water quality impacts associated with **such discharges from municipal separate storm sewer systems.**
 2. Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
 3. Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
 4. Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
 5. Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
 6. 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.**
 7. Educate private businesses on methods of storm water pollution prevention.
 8. Promote environmentally sensitive land development designs by developers and designers.

Note: Copies of the information and education plan are available online at <http://www.danewaters.com/management/mamswap.aspx>.

- (c) Cooperate with and assist the person functioning in the Storm Water Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.
- (d) Within its jurisdiction, distribute and make available to the public the information and education materials created pursuant to the information and education plan and take actions identified in the plan for which it is responsible.
- (e) Provide and maintain a link to storm water information if a municipal website has been developed and activated by the co-permittee.

Note: The types of information to link on a website include municipal ordinances, local regulatory programs, **contact information, storm water informational and educational materials, waste oil and household hazardous waste collection sites, public participation opportunities, biennial reports, and other storm water** related websites. The Department of Natural Resources will work with the co-permittees on what information is appropriate for posting on the website.

- (2) **PUBLIC INVOLVEMENT AND PARTICIPATION:** Each co-permittee shall notify the public in its respective jurisdiction of activities required by this permit and shall encourage involvement and participation by the public regarding these activities. Information in the biennial report required under Section F. of this permit shall be an agenda item for discussion before the appropriate governing board or council of each co-permittee contemporaneous with the submittal of the biennial report to the Department of Natural Resources.
- (3) **ILLICIT DISCHARGE DETECTION AND ELIMINATION:** In consultation with the Department of Natural Resources, each co-permittee shall continue to implement a program to detect and remove illicit discharges and improper disposal of wastes into its respective MS4, or require the discharger to obtain a separate WPDES permit. For the purposes of this section, the following non-storm water discharges or flows are not considered illicit discharges unless identified by either a co-permittee or the Department of Natural Resources as a significant source of pollutants to waters of the State: **Landscape irrigation, divetted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn and garden watering, individual residential car washing, non-commercial charity car washing, flows from riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit** issued by the Department of Natural Resources and in compliance with that permit. Other occasional or incidental non-storm water discharges may be considered not illicit discharges on a case-by-case basis and with the concurrence of the Department of Natural Resources. Each co-permittee shall:
 - (a) Exercise the adequate legal authority to prevent, detect, and eliminate illicit connections and illicit discharges to its MS4.
 - (b) Continue to implement a strategy to prevent, detect, and eliminate all types of illicit connections and illicit discharges to its MS4 in accordance with this section.
 - (c) Document activities undertaken to meet the requirements of this section, including methodologies **used; date, time, and place of activities; personnel involved; observations; corrective actions; and any enforcement actions.**
 - (d) Conduct on-going field screening activities in areas or locations of the MS4 identified as having the highest potential for being sources of illicit discharges.
 - (e) Investigate portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water. Procedures may include sampling for the field screening parameters (pH, total chlorine, total copper, total phenol and detergents, unless the co-permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters), testing with fluorometric dyes or conducting inspections of the MS4 where safety and other considerations allow. The Department of Natural Resources shall be given advance notice of the time and location of dye testing within an MS4.
 - (f) Prevent, contain and respond to reports of spills that may discharge into the MS4.
 - (g) Immediately notify the Department of Natural Resources in accordance with ch. NR 706, Wis. Adm. Code, in the event that the co-permittee identifies a spill or release of a hazardous substance that results in the discharge of pollutants into waters of the state. The Department of Natural Resources shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
 - (h) Eliminate any detected leakage from sanitary conveyance systems to the MS4.

- (i) Eliminate illicit connections or discharges to the MS4 following detection. The elimination of an illicit connection or discharge shall be done as soon as possible upon identification of the responsible party. Prior to elimination of an illicit connection or discharge, the co-permittee shall require the party responsible for the illicit connection or discharge to take all reasonable measures to minimize the discharge of pollutants to the MS4 and waters of the state. If it will take more than 30 days to remove an illicit connection, the Department shall be contacted to discuss an appropriate action **and/or timeframe for removal.**
- (j) Promote reporting by the public of the presence of illicit discharges or water quality impacts associated with illicit discharges from the MS4. This may include storm water inlet stenciling, neighborhood watches, and/or a local hotline to report illegal dumping or discharges.
- (k) Consult with the Department of Natural Resources as necessary to resolve instances of a potential illicit discharge.
- (l) In the case of an illicit discharge that originates from the co-permittee's permitted area and that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality, the co-permittee shall notify the affected municipality within one working day.

Note: Chapter NR 815, Wis. Adm. Code, regulates injection wells including storm water injection wells. Construction or use of a well to dispose of storm water directly into groundwater is prohibited under s. NR 815.11(5), Wis. Adm. Code.

- (4) CONSTRUCTION SITE POLLUTION CONTROL: Except as specified for the University of Wisconsin-Madison under Section H. (19), each co-permittee shall enforce a program to require the **implementation and maintenance of erosion and sediment control storm water management practices** to reduce pollutants in storm water runoff from construction sites. The program shall apply to construction site activities undertaken by the co-permittee and those of other landowners. Each co-permittee shall:
 - (a) Exercise legal authority to enforce the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, ***Construction Site Storm Water Discharge Permits, to the landowner's construction projects.***
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from construction sites and that ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for erosion and sediment control practices that meet or exceed the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, and the requirements of subch. III of NR 216, Wis. **Adm. Code, *Construction Site Storm Water Discharge Permits, where applicable.***

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (4).

- (5) **POST-CONSTRUCTION SITE STORM WATER MANAGEMENT:** Except as specified for the University of Wisconsin -Madison under Section H. (19), each co-permittee shall enforce a program to address controls on storm water discharges from areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undertaken by the co-permittee and those of other landowners. The co-permittee shall:
- (a) Exercise legal authority to enforce the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, **to the landowner's construction projects.**
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from storm water runoff from new development and redevelopment, and that ensure the implementation of the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for source area controls and on-site storm water management practices that meet or exceed the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (e) Implement policies and take appropriate enforcement action to ensure long-term maintenance of **storm water management facilities.**
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards on ss. NR 151.12 and 151.24, Wis. Adm. Code, and the requirements of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, where applicable.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section **H.** (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (5).

- (6) **MUNICIPAL POLLUTION PREVENTION:** Each co-permittee shall implement their municipal operation and maintenance program to prevent or minimize pollutants entering the MS4 and waters of the **state. At a minimum, the co-permittee shall:**
- (a) Annually update their inventory of long-term storm water management practices owned, operated, **managed, or maintained by the co-permittee.**
 - (b) Implement maintenance procedures and schedules for practices identified under Section C. (6) (a), other source area controls, catch basin cleaning, and the physical condition of elements of the MS4 that may adversely affect water quality.
 - (c) Implement roadway maintenance procedures that include de-icing management with consideration of effects on water quality.
 - (d) Enforce collection procedures and/or instruction to citizens for on-site management of leaves, yard waste, and grass clippings.
 - (e) Carry out pollution prevention procedures at municipal garages, public works facilities, and storage **areas.**
 - (f) Conduct proper management of the storage of salt for roadway de-icing in accordance with ch. TRANS 277, Wis. Adm. Code.

- (g) Continue to implement pollution prevention procedures for the use and application of lawn and garden fertilizers on co-permittee-controlled properties. The application of lawn and garden feiilizers on municipally controlled properties, with pervious surface over 5 acres each, shall be done in accordance with s. NR 151.13(1)(b)3., Wis. Adm. Code.
- (h) Document the estimated amount of leaves collected, solids captured from street sweeping, solids removed fi-mn catch basins, and solids removed fi-om structural controls.
- (i) Continue development and implementation of policies and procedures to meet the developed urban area performance standard of s. NR 151.13(2)(b)2., Wis. Adm. Code. This section requires co-permittees to achieve, to the maximum extent practicable, a 40% reduction in total suspended solids discharged fi-om its MS4 to surface waters of the state as compared to no controls, by March 10, 2013.

Note: MS4 modeling guidance documents are available on the DNR web page at:
<http://www.dnr.state.wi.us/mnoff/stormwater/muni,htm>

D. STORM SEWER SYSTEM MAP REQUIREMENTS

- (1) Each co-permittee shall annually update and maintain a sufficiently sized and detailed map with a scale suitable for the level of detail to identify the information below. This map does not need to be submitted to the Department with the biennial report but shall be kept on file by the co-permittee and provided to the Department at no charge upon request. The map shall identify the following:
- (a) The name/label and outline of the storm water drainage basins, the watersheds and municipal separate **storm sewer systems**.
 - (b) Other major municipal, government or privately owned storm water conveyance systems lying within, but not owned or operated by the co-permittee shall be identified.
 - (c) A boundary defining the final urban storm water planning area and all municipal borders in the area.
 - (d) All known MS4 outfalls discharging to waters of the state. Indicate the pipe size and identify those outfalls that are considered major outfalls. A major outfall includes any of the following:
 - 1. A single pipe with an inside diameter < 36 inches and associated with a drainage area > 50 acres; a **similar conveyance (box culvert, ditch, etc., other than a round pipe) with a cross sectional area > 1018 sq. inches and associated with a drainage area > 50 acres.**
 - 2. A single pipe serving land zoned for industrial activity with an inside diameter of < 12 inches and **associated with a drainage area > 2 acres; or a similar conveyance, serving land zoned for industrial activity, with a cross sectional area < 113 sq. inches and associated with a drainage area > 2 acres.**
 - (e) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (f) All municipally owned or operated structural storm water management facilities including detention basins, infiltration basins, and manufactured treatment devices. If the co-permittee will be taking credit for pollutant removal from a privately-owned facility to meet the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, it must be identified.
 - (g) The location of publicly owned parks, recreational areas and other open lands.
 - (h) The location of municipal garages, storage areas and other public works facilities.
 - (i) Geographic features including streets, highways, railroads, airports, and water features.
- (2) The City of Madison shall maintain the common storm sewer system map for the entire group permit area. Each co-permittee is responsible for providing biennial updates to the City of Madison for updating the **common storm sewer system map for inclusion in the biennial report as outlined in Section F. The common storm sewer system map shall contain the following components:**
- (a) Delineation and identification of storm water drainage basins including watersheds, sub-watersheds, and sewersheds using the naming conventions developed by the City of Madison.
 - (b) Locations of major structural controls including retention, detention, and infiltration facilities.
 - (c) Locations of publicly owned parks, recreational areas, and other open lands such as environmental **corridors and conservancies**.
 - (d) Municipal boundaries for all co-permittees.

- (e) Central Urban Service Area boundaries.
 - (f) Geographic features including streets, highways, railroads, airports, and water features.
 - (g) Township and Range System.
 - (h) Ten foot contours intervals.
- (3) Each co-permittee shall ensure that the information provided on the common storm sewer system map for the co-permittee's areas of jurisdiction is updated biennially to reflect improvements to the MS4 by December 31, 2010 and every other December 31" thereafter. Each co-permittee shall be responsible for delivering hard copy changes for the storm sewer system map to the City of Madison by January 31, 2011 and every other January 31" thereafter.
- (4) The City of Madison shall submit the biennially updated common storm sewer system map to the Department of Natural Resources with the biennial report as outlined in Section F.

E. ASSESSMENT OF CONTROLS

(!) **BIENNIAL REVIEW:** Each co-permittee shall conduct a biennial review and assessment of its respective storm water management program in conjunction with preparation of the biennial report required in Section F. The assessment of the effectiveness of the storm water management program required in Section C. shall report on the prior 2 calendar years for the following:

(a) A description of the public information and education efforts as required under Section C.(!) and the status of implementation of the information and education plan, including an assessment of the effectiveness of reaching targeted audiences and delivery of intended messages.

Note: Dane County will provide the information for the assessment and biennial review of the information and education plan since it has taken the lead in the implementation of the plan. However, individual co-permittees will be expected to report on their respective public information and education efforts.

(b) A description of public involvement and participation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of efforts to involve the public and the level of participation.

(c) A description of illicit discharge detection and elimination program implementation under Section C. (3) with an assessment of the effectiveness of detection and elimination of illicit discharges, prevention of the improper disposal of waste and dumping, and the handling of spills.

(d) A description of construction site pollution control program implementation under Section C. (4) **with an assessment of program effectiveness in meeting the construction site performance standards** of s.s. NR 151.11 and 151.23, Wis. Adm. Code.

(e) A description of post-construction site storm water management program implementation under Section C. (5) with an assessment of program effectiveness in meeting the post-construction standards of s.s. NR 151.12 and 151.24, Wis. Adm. Code.

(f) A description of enforcement actions taken pursuant to the programs implemented under (c), (d), and (e) above and an assessment of the effectiveness of enforcement efforts.

(g) A description of pollution prevention efforts through the implementation of the municipal operation and maintenance program under Section C. (6) with an assessment of program effectiveness.

(h) An updated determination of whether the MS4 discharges to any impaired water, in accordance with section A.(13)(a) of this permit.

(2) **DEVELOPED URBAN AREA PERFORMANCE STANDARD:** To the maximum extent practicable, **implement storm water management practices necessary to achieve a 40% reduction in the annual** average mass of total suspended solids discharging from the co-permittee's MS4 to surface waters of the state as compared to implementing no storm water management controls, by March 10, 2013. Each co-permittee shall conduct an assessment of compliance with the 40% total suspended solids reduction requirement. The assessment shall be submitted to the Department by March 31, 2012 and shall include the following:

(a) Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department of Natural Resources.

(b) Identification of storm water management practices necessary to achieve the 40% total suspended solids reduction requirement, including locations and estimated costs of implementing the practices.

(c) Identification of storm water management practices that are or will be implemented to control the discharge of pollutants of concern to impaired water bodies as identified in Section A.(13).

- (d) Proposed schedule for implementing the storm water management practices necessary to achieve the 40% total suspended solids reduction requirement.

Note: Department guidance for modeling MS4 urban areas and treatment systems is available on the Department's municipal storm water web page at: <http://www.dnr.state.wi.us/runoff/stormwater/muni.htm>

- (3) REPORTING ON ASSESSMENT: The information in the biennial assessment of controls under Section E. (I) shall be included in the biennial report required under Section F. The biennial report that is due on March 31, 2011, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (1) **REPORT DUE DATE:** Each co-permittee shall submit its own biennial report to the Department by March 31, 2011 and by March 31" of every other year that follows (odd calendar years). The Department will provide co-permittees with an electronic biennial report form. Each co-permittee shall invite the municipal governing body, interest groups and the general public to review and comment on the biennial report.
- (2) **CERTIFICATION:** A duly authorized representative of the co-permittee shall sign and certify the biennial report and include a statement or resolution that the co-permittee's governing body or delegated representatives have reviewed or been apprised of the content of the biennial report.
- (3) **CONTENTS:** The biennial report shall cover the prior 2 calendar years and include the following:
 - (a) **Proposed revisions to the storm water management program and a summary of any revisions made to the storm water management program.**
 - (b) The information in the biennial assessment of controls under Section E.
 - (c) A summary describing the number and nature of enforcement actions taken pursuant to the programs implemented under Section C. (3), (4), and (5).
 - (d) A summary of development and/or implementation of any municipal-wide storm water management plans prepared by the co-permittee, and a summary of implementation of any other plans guiding the co-permittee, such as the Lake Mendota Priority Watershed Plan, the Dane County Land and Water Resource Management Plan, and the Dane County Water Quality Plan.
 - (e) An updated listing and contact information for any new industrial facilities that may be regulated under subch. II of ch. NR 216, Wis. Adm. Code, and that have commenced operation in the prior 2 calendar years.
 - (f) A summary of any other activities undertaken to comply with the conditions of this permit.
 - (g) A fiscal analysis that includes the annual expenditures and budget for the prior two calendar years, and the budget for the next year.
- (4) **SUBMITTAL OF REPORT:** A signed copy of the biennial report shall be submitted to the Department of Natural Resources office listed below:

Storm Water Program
WDNR South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

G. SCHEDULE OF COMPLIANCE

Each co-permittee shall comply with the provisions and requirements of this permit as of the effective date of this permit, except compliance shall be achieved with the following conditions of this permit in accordance with the schedule indicated:

<u>Action to be taken</u>	Reference	<u>Due date</u>
<u>All Co-Permittees:</u>		
Annual I&E Work Plan	Section C. (1)(b)	December 1, annually
Biennial Report	Section F	March 31" of every odd calendar year (2011, 2013, etc.)
Developed Urban Area Assessment	Section E. (2)	March 31,2011
Compliance with Developed Area Performance Standard of s. NR 151.13(2)(b)2.	Section C.(6)(i)	March 10,2013
<u>City of Madison:</u>		
Common Storm Sewer Map	Section D. (4)	March 31" of every odd calendar year (2011, 2013, etc.)

H. SPECIAL RESPONSIBILITIES FOR CERTAIN CO-PERMITTEES

In addition to the requirements specified in Section A. through G. of this permit, co-permittees have additional or special requirements that apply to them as follows:

- (1) CITY OF FITCHBURG: Portions of the City of Fitchburg MS4 discharge into or upstream of impaired waters including Nine Springs Creek, Yahara River, and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (2) CITY OF MADISON: The City of Madison shall meet the following requirements:
 - (a) Facilitate and prepare and provide the agenda and minutes for the quarterly meetings required under Section B. (8).
 - (b) Manage and biennially update the common storm sewer system map required under Section D.(2) of this permit. Any apportioning of the funds needed to manage and update the storm sewer system map may be negotiated between the City of Madison and the co-permittees.
 - (c) Within the jurisdiction of the City of Madison, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek watershed. The City of Madison shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Badger Mill Creek watershed to the maximum extent practicable. The City of Madison shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Madison and to promote infiltration. The City of Madison shall notify the Department of Natural Resources of new development in the Badger Mill Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek watershed.
 - (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Madison MS4 discharges into or upstream of impaired waters including Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River, and Rock River. The following beaches in the City of Madison are proposed to be listed as impaired due to E. coli: Spring Harbor, and James Madison beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra.
- (3) CITY OF MIDDLETON: The City of Middleton shall meet the following requirements:
 - (a) Within the jurisdiction of the City of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The City of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The City of Middleton shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Middleton and to promote infiltration. The City of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Black Earth Creek watershed.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The City of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Middleton MS4 discharges directly into or upstream of impaired waters including Pheasant Branch Creek, Yahara River, Rock River and potentially in the future, Dorn Creek. Marshall Park beach on Lake Mendota is also proposed by the Department to be listed as impaired due to E. coli. MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (4) CITY OF MONONA: The City of Monona MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (5) CITY OF SUN PRAIRIE: The City of Sun Prairie shall meet the following requirements:
- (a) Within the jurisdiction of the City of Sun Prairie, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The City of Sun Prairie shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Token Creek watershed to the maximum extent practicable. The City of Sun Prairie shall work with developers, consultants, contractors, and others representing the development **community to prevent and reduce negative water quality impacts from storm water discharges within** the City of Sun Prairie and to promote infiltration. The City of Sun Prairie shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Token Creek watershed.
- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Sun Prairie MS4 discharges into or upstream of impaired waters including Token Creek, Maunsha River, Yahara River and Rock River, which are impaired waters. Note that a TMDL has been approved for Token Creek.
- (6) CITY OF VERONA: The City of Verona shall meet the following requirements:
- (a) Within the jurisdiction of the City of Verona, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek and Sugar River watersheds. The City of **Verona shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Badger Mill Creek and Sugar River watersheds to the maximum extent practicable. The City of Verona shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Verona and to promote infiltration. The City of Verona shall notify the Department of Natural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek and Sugar River watersheds.
- (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Waters (ORWs and ERWs). The City of Verona MS4 discharges into the Sugar River, which is an ERW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (7) VILLAGE OF DEFOREST: The Village of DeForest shall meet the following requirements:
- (a) Within the jurisdiction of the Village of DeForest, give special attention to activities affecting the quality of storm water discharges to the Yahara River and Token Creek watersheds. The Village of DeForest shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Village of DeForest shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of DeForest and to promote infiltration. The Village of DeForest shall notify the Department of Natural Resources of new development in to the

Yahara River and Token Creek watersheds early in the Village's review process to accommodate the Department of Natural Resources' input.

- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of DeForest MS4 discharges into or upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.
- (8) VILLAGE OF MAPLE BLUFF: The Village of Maple Bluff MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (9) VILLAGE OF McFARLAND: The Village of McFarland MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (10) VILLAGE OF SHOREWOOD HILLS: The Village of Shorewood Hills MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (II) VILLAGE OF WAUNAKEE: The Village of Waunakee shall meet the following requirements:
 - (a) Within the jurisdiction of the Village of Waunakee, give special attention to activities affecting the quality of storm water discharges in the Six Mile Creek watershed. The Village of Waunakee shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Six Mile Creek watershed to the maximum extent practicable. The Village of Waunakee shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of Waunakee and to promote infiltration. The Village of Waunakee shall notify the Department of Natural Resources of new development in the Six Mile Creek watershed early in the Village's review process to accommodate the Department of Natural Resources' input.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Village of Waunakee MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of Waunakee MS4 discharges upstream of impaired waters including Darn Creek, Yahara River and Rock River.
- (12) TOWN OF BLOOMING GROVE: The Town of Blooming Grove shall meet the following **requirements**:
 - (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
 - (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Blooming Grove MS4 discharges upstream of impaired waters including Nine Springs Creek, Yahara River and Rock River.
- (13) TOWN OF BURKE: The Town of Burke shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Burke, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The Town of Burke shall ensure that **post-construction site storm water management at new development facilitates infiltration within the** Token Creek watershed to the maximum extent practicable. The Town of Burke shall work with **developers, consultants, contractors, and others representing the development community to prevent** and reduce negative water quality impacts from storm water discharges within the Town of Burke and to promote infiltration. The Town of Burke shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the Town's review process to accommodate the Department Natural Resources' input.
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Burke MS4 discharges into or upstream of impaired waters including the Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

{14) TOWN OF MADISON: The Town of Madison shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Madison MS4 discharges into or upstream of impaired waters including the Nine Springs Creek, Yahara River and Rock River.

{15) TOWN OF MIDDLETON: The Town of Middleton shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The Town of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The Town of Middleton shall work with developers, consultants, contractors, and others representing the **development community to prevent and reduce negative water quality impacts from storm water** discharges within the Town of Middleton and to promote infiltration. The Town of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed **early in the Town's review process to accommodate the Department of Natural Resources' input.**
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Middleton MS4 discharges into or upstream of impaired waters including Pheasant Branch Creek, Yahara River and Rock River.

(16) TOWN OF WESTPORT: The Town of Westport shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Westport, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westport shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Six Mile Creek watersheds to the maximum extent practicable. The Town of Westport shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Westport and to promote infiltration. The Town of Westport shall notify the Department of Natural Resources of new development in the Yahara River and Six Mile Creek watersheds early in the Town's review process to accommodate the Department of Natural Resources' input.
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Westport MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Westport MS4 discharges into or upstream of impaired waters including Darn Creek, Yahara River and Rock River.

(17) TOWN OF WINDSOR: The Town of Windsor shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Windsor, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Token Creek watersheds. The Town of **Windsor shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Town of Windsor shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Windsor and to promote infiltration. The Town of Windsor shall notify the Department of Natural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Department of **Natural Resources' input.**
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Windsor MS4 discharges upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

(18) DANE COUNTY: Dane County shall meet the following requirements:

- (a) As specified in the information and education agreement, maintain a half-time position to provide public information and education services under this permit on behalf of the co-permittees.
 - (b) In consultation with the Department of Natural Resources and other co-permittees, function as the lead agency in implementation of the information and education plan prepared on behalf of the co-permittees.
 - (c) Provide updates on the status and implementation of the information and education plan at the quarterly meetings, and provide information on plan implementation for the biennial report required under Section F.
 - (d) For activities under the jurisdiction of Dane County and within the area covered by this permit, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek, Black Earth Creek, Six Mile Creek, Token Creek, and Upper Yahara River watersheds. **Dane County shall ensure that post-construction site storm water management at new development facilitates infiltration within the watersheds of these waterways to the maximum extent practicable. Dane County shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Department of Natural Resources of new development in these watersheds early in the County's review process to accommodate the Department of Natural Resources' input.**
 - (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Dane County MS4 discharges upstream of impaired waters including the Yahara River and Rock River.
- (19) UNIVERSITY OF WISCONSIN-MADISON: In addition to the requirements specified in Sections A. through G. of this permit, the University of Wisconsin-Madison shall meet the following requirements:
- (a) Continue to implement the storm water management policies and procedures of the University of Wisconsin-Madison's storm water management program created pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of **Wisconsin- Madison, including revisions made to the program consistent with the requirements of this permit.**

Note: This requirement does not include the continuation of the monitoring program undertaken by the University of Wisconsin- Madison under joint WPDES Permit No. WI-S058416-1.

- (b) Continue to implement the illicit discharge detection and elimination program described in Pm18b. of the permit application submitted to the Department of Natural Resources on January 6, 2003, and as may be amended by October 1, 2004, to comply with the requirements of Section C. (3) of this permit. The University of Wisconsin-Madison shall not be required to perform the initial screening activity undertaken pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of Wisconsin-Madison. However, screening shall be required when unidentified flows are detected.
- (c) Continue to implement policies and procedures to the extent of its legal authority to control illicit discharges to and from those portions of the MS4 that it owns or operates consistent with the requirements of Section C.(3) of this permit.
- (d) Continue the implementation and administration of the municipal pollution prevention program described in Pm18e. of the permit application submitted to the Department of Natural Resources on January 6, 2003. The University of Wisconsin-Madison shall ensure that the program is consistent with the requirements of Section C. (6) of this permit to meet the performance standard specified in Section C. (6) U).

- (e) To the maximum extent practicable, the University of Wisconsin-Madison is encouraged to utilize the resources available through its academic and research programs to facilitate compliance with the requirements of this permit.

- (f) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The UW-Madison MS4 discharges upstream of impaired waters including the Yahara River and Rock River.

I. STANDARD CONDITIONS

The conditions ins. NR 205.07(1) and (3), Wis. Adm. Code, are hereby incorporated by reference in this permit. Each co-permittee shall be responsible for meeting these requirements within its jurisdiction where it owns or operates the MS4. Some of these requirements are outlined below in Section I.(1) through (17). Requirements not specifically outlined below can be found ins. NR 205.07(1) and (3), Wis. Adm. Code.

- (1) **DUTY TO COMPLY:** Each co-permittee shall comply with all conditions of this permit. Any permit **noncompliance is a violation of the permit and is grounds for enforcement action, permit revocation or modification, or denial of permit coverage at reissuance.**
- (2) **NONCOMPLIANCE NOTIFICATION:**
 - (a) In addition to immediately reporting hazardous substance spills to the Department of Natural Resources under Section I.(4), upon becoming aware of any permit noncompliance that may endanger public health or the environment, a co-permittee shall report this information by a telephone call to the Department regional storm water specialist within 24 hours. A written report describing the noncompliance shall be submitted to the Department regional storm water specialist within 5 days after the co-permittee becomes aware of the noncompliance. The Department of Natural Resources may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned **to reduce, eliminate, and prevent recurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.**
 - (b) Reports of any other noncompliance not covered under Section I. (2) (a) shall be submitted with the biennial report required in Section F. The reports shall contain all the information listed in Section I. (2) (a).
- (3) **DUTY TO MITIGATE:** Each co-permittee shall take all reasonable steps to minimize or prevent any adverse effect on the waters of the state resulting from noncompliance with this permit.
- (4) **SPILL REPORTING:** The co-permittee shall immediately notify the Department, in accordance with ch. NR 706, Wis. Adm. Code, in the event of a spill or accidental release of hazardous substances that has resulted or may result in a discharge of pollutants into waters of the state. The Department shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
- (5) **PROPER OPERATION AND MAINTENANCE:** Each co-permittee shall at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used by the co-permittee to achieve compliance with the conditions of this permit and the storm water management program. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with conditions of this permit.
- (6) **BYPASS:** A co-permittee may temporarily bypass a storm water treatment facility if necessary for maintenance, or due to runoff from a storm event that exceeds the design capacity of the treatment facility, or during an emergency.
- (7) **DUTY TO HALT OR REDUCE ACTIVITY:** Upon failure or impairment of a storm water **management practice identified in the storm water management program, a co-permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail use of the storm water management practice** until it can be restored or an alternative method of storm water pollution control is provided.
- (8) **REMOVED SUBSTANCES:** Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be handled and disposed of in a manner to

prevent any pollutant from the materials from entering the waters of the state, and in compliance with all applicable federal, state, and local regulations.

NOTE: Storage and/or treatment of material collected under Section I. (8) may be subject to solid waste rules found under the NR 500 series of the Wisconsin Administrative Code or the hazardous waste rules found under the NR 600 series of the Wisconsin Administrative Code.

- (9) **ADDITIONAL MONITORING:** If a co-permittee monitors any pollutant more frequently than required by this permit, the results of that monitoring shall be reported to the Department in the biennial report **required under section F.**
- (10) **INSPECTION AND ENTRY:** Each co-permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:
 - (a) Enter upon the co-permittee's premises where a regulated facility or activity is located or conducted, or where records are kept as required under the conditions of this permit.
 - (b) Have access to and copy, at reasonable times, any records that are required under the conditions of the permit.
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit.
 - (d) Sample or monitor at reasonable times and for the purposes of assuring permit compliance any substances or parameters at any location.
- (11) **DUTY TO PROVIDE INFORMATION:** Each co-permittee shall furnish the Department, within a **reasonable time, any information that the Department may request to determine whether cause exists for** modifying, revoking or reissuing this permit or to determine compliance with this permit. Each co-permittee shall also furnish the Department, upon request, copies of records required to be kept by the **co-permittee.**
- (12) **PROPERTY RIGHTS:** This permit does not convey any property rights of any sort, or any exclusive privilege. This permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.
- (13) **DUTY TO REAPPLY:** If a co-permittee wishes to retain authorization to discharge after the expiration date of this permit, the co-permittee shall reapply to the Department at least 180 days prior to expiration date of this permit for continued coverage under a reissued permit.
- (14) **OTHER INFORMATION:** When a co-permittee becomes aware that it has failed to submit any **relevant facts in a permit application or submitted incorrect information in a permit application or in any** report to the Department of Natural Resources, the co-permittee shall promptly submit such facts or correct information to the Department of Natural Resources.
- (15) **RECORD RETENTION:** Each co-permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 5 years from the date of the sample, measurement, report or application.
- (16) **PERMIT ACTIONS:** As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in part, for cause. If a co- **permittee files a request for a permit modification, revocation or reissuance, or a notification of planned** change or anticipated noncompliance, this action by itself does not relieve the co-permittee of any **permit condition.**
- (17) **SIGNATORY REQUIREMENT:** All applications, reports or information submitted to the Department of Natural Resources shall be signed for by a ranking elected official, or other person authorized by the co-permittee who has responsibility for the overall operation of the municipal separate

storm sewer systems and storm water management program activities regulated by this permit. The authorized representative shall certify that the information was gathered and prepared under his or her supervision and, based on inquiry of the people directly under their supervision that, to the best **of his or her knowledge, the information is true, accurate, and complete.**

- (18) ATTAINMENT OF WATER QUALITY STANDARDS AFTER PERMIT ISSUANCE: At any time after the effective date of this permit, the Department may determine that the discharge of storm water **from a co-permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an** exceedance of any applicable water quality standard. If such a determination is made, the Department may require the co-permittee to do either of the following:
- (a) Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.
 - (b) Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

Appendix 2 - SWPPP (P2) Team Roster

Streets Division

SWPPP Coordinator

Lisa Laschinger

Contact Info: 608-267-9214 (O)
 608-843-2375 (C)
 _____ (H)

Team Members

1. Darin Hall	Office – 266-4741	Cell 608-345-3118
2. Phil Gaebler	Office - 266-4059	Cell 608-332-2032
3. Laura Bauer	Office - 288-6164	Cell 608-334-8870

Appendix 3: Spill Prevention, Control and Counter Measures Plan

Compliance Inspection

Review Page

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility's potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

1. July 1, 2022

2. July 1, 2025

3. July 1, 2028

4. July 1, 2031

5. July 1, 2034

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the west edge of the GPW site flows to the swale along the rail road tracks and then through the culvert under the bike path. The eastern portion of the site flows through one of the three concrete pipes discharging directly to Wingra Creek. The storm water is collected in drainage way and discharged to the city of Madison storm sewer network. The maps provided in Appendix 6 show outfall locations and drainage from the site to Wingra Creek and Lake Monona.

Facility Storage

There is one 300 gallon above ground oil storage tank.

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
Oil tank	Rupture	300	300	West to Swale	0

Spill Prevention Measures

Bollards are in place to reduce the risk of collision with the tanks.

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, brooms and shovels. Spill cleanup materials are located in the maintenance building.

Appendix 4: Fuel Transfer Procedure

Fuel Transfer Procedures

There are not any fuel tanks at the Goodman Facility. When filling equipment please follow the appropriate guidelines.

Fuel Transfer Procedures:

General Safety Requirements

- A. No Smoking is permitted, Nor use of any Flame or Spark producing devices (i.e. Lighters, Cell Phones, . . .) at or near the Fueling Station at any time.
- B. Extreme caution must be taken during fuel transfer operations for any potential ignition source.
- C. Vehicle engines must shut off during fuel transfers.
- D. The fuel delivery hose must be attended to throughout the fueling process. Automatic trip-shutoff devices are not to be relied upon to prevent overfilling of vehicle or portable tanks.
- E. Portable tanks are to be placed on the pavement inside the containment structure while being filled. Do not fill portable tanks that are in, on, or around a vehicle or boat.
- F. Report any Spills or Leaks to the Fleet Services representatives immediately.

Fueling Operations:

- A. At the Fuel Pump, select the proper fuel (#1 Unleaded, #2 Diesel).
- B. Remove nozzle from dispenser and place in tank to be fueled.
- C. Do Not Over Fill Vehicle or Portable Tank.
- D. When fueling is complete, drain nozzle into tank and replace back in the dispenser.

Emergency Contacts

Fleet Services (608) 246-4546

National Response Center (800) 424-8802

Local Police, Fire, and EMS 9-1-1

Appendix 5: Site Inspection Form

BI ANNUAL INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION: <ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i>	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.	
Vehicle/Equipment Areas: Equipment cleaning: <i>Check NA if not performed on-site. Skip section.</i> Is equipment washed and/or cleaned only in designated areas? <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? Equipment fueling: <i>Check NA if not performed on-site. Skip section.</i> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	Findings and Remedial Action Documentation:

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

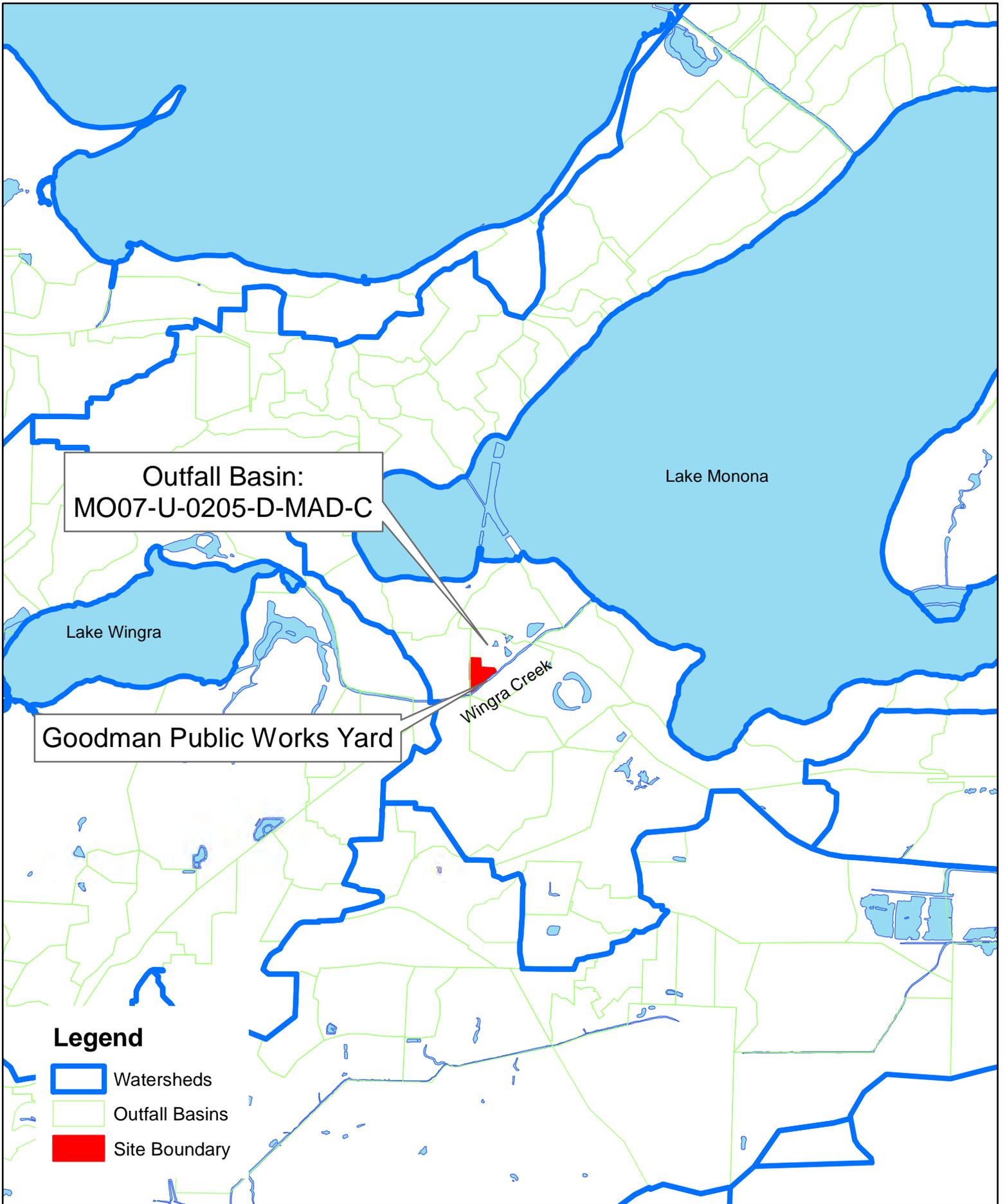
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

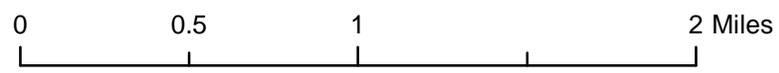
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

Appendix 6 - Drainage Maps



Appendix 6: Site Map
Goodman Public Yard
Drainage Map





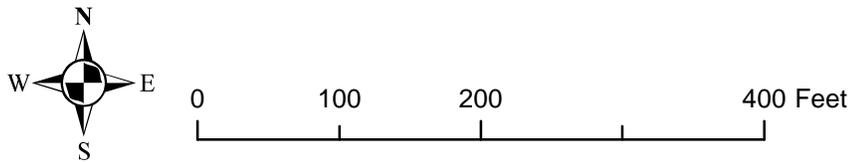
Legend

- Site Boundary
- ▶ Storm Sewer

Drainage Area

- East Pipe
- RainGarden
- South Pipe
- West Swale
- PondFeatures

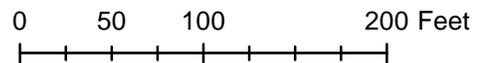
Goodman Public Yard
Drainage Map



Appendix 7 - Potential Pollutants



Goodman Public Works
Madison, WI



ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
	<i>Indoors</i>	<i>Outdoors</i>	<i>Sediment</i>	<i>Nutrients</i>	<i>Metals</i>	<i>Hydrocarbons</i>	<i>Toxins</i>	<i>other</i>	<i>Likelihood of Contact</i>	<i>Risk of release</i>	
Rubber Mulch		M-1	○	-	-	○	-		●	○	● Stored in plastic totes outside uncovered
Vehicle storage and parking	B1-1 B1-2	M-2 M-3 M-4 M-17	●	-	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	● Outside vehicle storage drains to stormsewer and overland flow to drainage way (M-8) ● Indoor trench drains connected to sanitary sewer.
Fence Post Storage		M-5	-	-	●	-	-		●	◐	● Material stored in uncovered outside
Oil Dispensing Station	B1-3 B3-1		-	-	-	●	●	household cleaners	○	◐	● Stored inside on concrete floor without containment ● Spill Kit present ● Building (B1) has floor drain connected to sanitary sewer (B3) does not.
Vehicle repair and maintenance	B2-1		○	-	●	●	●	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	○	○	● Vehicles repaired and maintained indoors ● Floor drains in these facilities are connected to the sanitary sewer system
Used batteries	B2-2		-	-	●		●	Lead, acid	○	○	● Stored inside in a container, leaks would be collected in floor drains and sent to sanitary sewer
Waste oil		M-15	-	-	-	●	●	ethylene glycol	○	◐	● outside storage tank without containment. May be double walled.
Machine Shop	B2-3		◐	-	●	●	●	Solvents, Spray Paint	○	○	● All activities done indoors and building has floor drains connected to sanitary sewer
Fuel Storage Enclosure		M-16	-	-	-	●	●		○	○	● Stored outdoors
Garbage Cans		M-7	-	-		-	-		◐	○	● Used 55 gallon drums are painted and stored outside until needed in City Parks

ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
	<i>Indoors</i>	<i>Outdoors</i>	<i>Sediment</i>	<i>Nutrients</i>	<i>Metals</i>	<i>Hydrocarbons</i>	<i>Toxins</i>	<i>other</i>	<i>Likelihood of Contact</i>	<i>Risk of release</i>	
Soil Pile		M-11	●	●	-	-	-		◐	◐	● Extra Soil is stored in a bunker outside and covered with a tarp until it is used or hauled away
Temporary Brush Pile		M-12	●	●	-	-	-		●	◐	● Brush is stockpiled outside and then hauled off site to be shredded and used as mulch
Cold Storage Building	B4-1 B4-2		◐	◐	◐	-	-		○	○	● Building does not have a floor drain
Rain Garden		M-13	-	-	-	-	-				● Collects roof runoff. Garden appears to be working well.
Interceptor Stormwater Treatmetn		M-18	-	-	-	-	-				● Treats southeast corner of yard for TSS

KEY

- High
- ◐ Medium
- Low
- Not Applicable



Parks Goodman Yard
M-1 : Rubber Mulch Storage



Parks Goodman Yard
M-2: Trailer Storage



Parks Goodman Yard
M-3 : Storage



Parks Goodman Yard
M-4 : Vehicle and Rubber Mulch Storage



Parks Goodman Yard
M-5 : Fence Post Storage



Parks Goodman Yard
B1-1 : Vehicle Storage



Parks Goodman Yard
B1-2 : Vehicle Storage



Parks Goodman Yard
B1-3 : Oil Storage and Spill kit



Parks Goodman Yard
B1-4: Floor Drain



Parks Goodman Yard
B2-1: Vehicle Maintenance



Parks Goodman Yard
B2-2 : Battery Charging and Storage



Parks Goodman Yard
M-15 : Outdoor Waste Oil Storage



Parks Goodman Yard
B2-3: Metalworking Shop



Parks Goodman Yard
B2-43: Vehicle Maintenance, Metalworking Shop Trench Drain



Parks Goodman Yard
M-6: Parking Lot Drainage to Swale



Parks Goodman Yard
M-16: Outdoor Fuel Storage



Parks Goodman Yard
B3-1: Indoor Waste Oil Storage



Parks Goodman Yard
B3-2: Indoor Storage



Parks Goodman Yard
M-7: Garbage Can Storage



Parks Goodman Yard
M-8: Drainage Ditch



Parks Goodman Yard
M-9: Water Tank Storage



Parks Goodman Yard
B4-1 : Cold Storage



Parks Goodman Yard
B4-2 : Cold Storage



Parks Goodman Yard
M-10: View from Outfall



Parks Goodman Yard
M-11 and M-12: Temporary Soil and Brush Storage



Parks Goodman Yard
M-13: Rain Garden



Parks Goodman Yard
M-14: Outfall to Creek



Parks Goodman Yard
B5-1: Woodshop



Parks Goodman Yard
M-17: Parking



12/29/2016



Municipal Storm Water Pollution Prevention Plan

South Point Road Public Works Site



Municipal Storm Water Pollution Prevention Plan

South Point Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-3. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Streets Division at the South Point Public Works Site.

A copy of this SWPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Streets Department create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the South Point Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

Streets shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from various areas of the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Inspection and reporting of the facility

The P2 team member rosters are provided in Appendix 2.

3. Site Assessment

3.0 Site Description

The Badger Emil Public Works site is located on Madison's southwest side at 402 South Point Road in Madison, Wisconsin. The 30-acre parcel has frontage on South Point Road and the facility is located within a 3.6-acre fence in the southwest corner of the parcel.

The South Point Road parcel is zone LI (Industrial).

This site is operated by the Streets divisions.

Streets facilities on this site include 2 buildings providing Office space, vehicle and equipment storage, maintenance and salt storage. Employee parking lot is located adjacent to the buildings. Streets also uses the public works yard as a citizen drop off site for yard waste and brush.



Figure 1

3.6 acre South Point Road Facility

3.1 Site Drainage

3.1.1 Outfalls

The South Point Road Public Works (SPRPW) site is located in Outfall Basin BM05-J-0041-N-MID-T in the Badger Mill Creek (BM05) watershed. The SPRPW site makes up 1.5% of the basin's 226.4 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

Storm water runoff from the SPRPW site sheet flows off the site in all directions. The storm water is collected in grass swales and discharged to the detention basin located the west of the facility. The detention basin outfall discharges water to an green way located in the adjacent southern property.

After entering the greenway, runoff flows through a series of connecting green ways , grass waterways and ditches before discharging into Lower Badger Mill Creek. The maps provided in Appendix 6 show ou tfall locations and drainage from the site to Lower Badger Mill Creek.

3.1.2 Site Drainage

The Badger/Emil Public Works yard storm water conveyance system consists of 4 drainage basins (A, B , C and D).

Basin A drains untreated to the swale on the south edge of the parcel and is then routed to the detention basins located to the west. Basin A represents 23% of the total site drainage area 23% . The area identified as A contains the drainage area for ½ the salt storage building and the entire yard waste transfer area.

Basin B drains untreated to the north and is then routed to the detention basins to the west. Basin B represents 28% of the total site drainage area. It contains ½ of the salt storage building and the drive way with access to the salt within the building.

Basin C drains to the treatment swale located to the east and is then routed north around the public yard and into the detention basins to the west. Basin C represents 21% of the total site drainage area. It contains a small portion of the vehicle storage build roof and the driveway serving the vehicle storage building.

Basin D drains to a rain garden and then discharges to the swale along the south edge of the parcel and into the detention basins to the west. I contains 28 % of the total site drainage and consists primarily of the vehicle maintenance roof.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;
- secondary or other containment structures;

3.2 SITE ACTIVITIES

The primary responsibilities of the Streets Division at the South Point Road Public Works facility is yard waste collection, Salt Storage , and vehicle storage. Streets operates citizen drop off sites for brush, yard waste and leaves. This operation consists of a garbage truck where citizens can dispose of yard waste. When the garbage truck is filled, material is delivered the transfer station and either sent to the compost facility or converted to woodchips.

The Salt storage is completely covered and the loading and unloading of trucks occurs within the building. The vehicle storage building is located on the eastern half of the yard and is used to house streets vehicles ranging from snow plows and dump trucks to smaller utility vehicles.

3.3 Potential Pollutants

A site activity and materials inventory that have the potential to contaminate storm water and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans included in this document in Appendix 3.

4. Best Management Practices

There are currently 2 structural controls to treat stormwater at the Badger Emil site.

These included a rain garden and a treatment swale. The location of these devices are shown in Appendix 6. All devices are inspected and maintained twice a year.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate stormwater outfalls for the presence of non-storm water discharges , and
- b) Evaluate the effectiveness of the companies pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of storm pipes discharging into the swale along the southern edge of the parcel and the pipe discharging into the swale along the eastern edge of the parcel on an annual basis. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **01/01/2017**.

7.0 Record Keeping and Reporting

The twice annual inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.

Greg Fries, P.E. Principal Engineer

Date

Appendix 1- MS4 Permit

WPDES Permit No. \VI-S058416-3
Page 1 of 29



PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM WPDES PERMIT NO. WI-S058416-3

In compliance with the provisions of ch. 283, Wisconsin Statutes, and chs. NR 151 and 216, Wisconsin Administrative Code,

THE CITIES OF FITCHBURG, MADISON, MIDDLETON, MONONA, SUN PRAIRIE, AND VERONA; THE VILLAGES OF DEFOREST, MAPLE BLUFF, MCFARLAND, SHOREWOOD HILLS, AND WAUNAKEE; THE TOWNS OF BLOOMING GROVE, BURKE, MADISON, MIDDLETON, WESTPORT, AND WINDSOR; DANE COUNTY; AND THE UNIVERSITY OF WISCONSIN- MADISON

are permitted to discharge storm water from

ALL PORTIONS OF THE CO-PERMITTEES' MUNICIPAL SEPARATE STORM SEWER SYSTEMS

owned or operated by the co-permittees listed above to the following waters of the state and associated tributaries:

BADFISH CREEK
BLACK EARTH CREEK
MAUNESHA RIVER
MIDDLE SUGAR RIVER
SIX MILE, PHEASANT BRANCH AND DORN CREEKS
UPPER KOSHKONONG CREEK
UPPER SUGAR RIVER
YAHARA RIVER AND LAKE KEGONSA
YAHARA RIVER AND LAKE MENDOTA
YAHARA RIVER AND LAKE MONONA
YAHARA RIVER AND LAKE WAUBESA

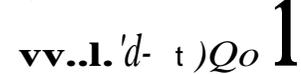
in accordance with the conditions set forth in this permit.

This permit to discharge shall expire at midnight, June 30, 2014.

To retain authorization to discharge after this expiration date an application shall be filed by the co-permittees for reissuance of this permit in accordance with the requirements of s. NR 216.09, Wis. Adm. Code, at least 180 days prior to this permit's expiration date.

State of Wisconsin Department of Natural Resources
For the Secretary

By: 
Lloyd E. ... al Region Director

Dated: 

EFFECTIVE DATE: July 1, 2009

EXPIRATION DATE: June 30, 2014

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Description and Purpose of this WPDES Municipal Storm Water Discharge Permit

Each municipality listed as a co-permittee under this permit submitted a reissuance application letter to the Department pursuant to s. NR 216.09, Wis. Adm. Code, to be covered under a group WPDES Municipal Storm **Water Discharge Permit for storm water discharges from the group's municipal separate storm sewer systems (MS4s)** to waters of the state. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. **Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.**

This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A municipality that is a co-permittee under this permit is only responsible for permit conditions relating to discharges from the MS4 under its jurisdiction for which it is the owner or operator.

The co-permittees under this permit are continuing to work together under an intermunicipal agreement to refine and implement an extensive joint information and education plan and have agreed to cooperate as appropriate on permit requirements. This permit authorizes and regulates the discharge of storm water from the co-permittees' MS4s, in accordance with subch. I of ch. NR 216, Wis. Adm. Code. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Many of the permit requirements are focused **on pollution prevention efforts. Major components of the permit include storm water management programs to address public information and education, public involvement and participation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial reporting. However, the implementation of the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, are expected to require a combination of treatment practices to be implemented to meet the total suspended solids (TSS) performance standards.**

Note: Wisconsin Administrative Codes referenced in this permit are available online at:
<http://www.legis.state.wi.us/rsb/>

A. APPLICABILITY

- (1) **WATERS OF THE STATE:** This permit regulates the discharge of storm water to waters of the state from the MS4s of the co-permittees under this permit. For the purposes of this permit, "waters of the state" means all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface water or groundwater, natural or artificial, public or private within the state or under its jurisdiction, except those waters that are entirely confined and retained completely upon the property of a person.
- (2) **PREVIOUS GROUP PERMIT:** This permit replaces WPDES Permit No. WI-S058416-2 issued on April 28, 2004.
- (3) **PERMITTED AREA:** This permit covers all areas under the ownership, control or jurisdiction of the co-permittees that contribute to discharges from a "municipal separate storm sewer system" or "MS4." "Municipal separate storm sewer system" or "MS4, means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water.
- (4) **CO-PERMITTEES:** The co-permittees under this permit consist of the following municipalities: The Cities of Fitchburg, Madison, Middleton, Monona, Sun Prairie, and Verona; the Villages of DeForest, Maple Bluff, McFarland, Shorewood Hills, and Waunakee; the Towns of Blooming Grove, Burke, Madison, Middleton, Westport, and Windsor; Dane County; and the University of Wisconsin-Madison.
- (5) **DANE COUNTY:** Specifically for Dane County as a co-permittee, this permit only authorizes discharges of storm water from the MS4 owned or operated by Dane County that occur within the geographical boundaries of the other co-permittees.
- (6) **COMPLIANCE DATES:** Unless specified otherwise in Section G., all co-permittees under this permit shall comply with the provisions and requirements of this permit as of its effective date and thereafter.
- (7) **AUTHORIZED DISCHARGES:** This permit only authorizes storm water discharges to waters of the state from the co-permittees' MS4s as provided under subch. I of ch. NR 216, Wis. Adm. Code. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process **wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges that are not considered illicit discharges.**
- (8) **WATER QUALITY STANDARDS:** This permit specifies the conditions under which storm water may be discharged to waters of the state for the purpose of achieving water quality standards contained in chs. NR 102 to 105 and NR 140, Wis. Adm. Code. Compliance with water quality standards will be addressed by adherence to the provisions and storm water management program requirements of this permit. If the Department of Natural Resources determines that the discharge of storm water from a co-permittee's MS4 contributes to an exceedance of any applicable water quality standard, the Department of Natural Resources may require the co-permittee to develop an action plan to adequately address the identified water quality concern, or submit valid and verifiable data and information that are representative of ambient conditions to indicate that the receiving water is attaining the water quality standard.
- (9) **GENERAL STORM WATER DISCHARGE LIMITATIONS:** Each co-permittee shall take all reasonable and necessary actions to prevent discharges from its MS4 that may adversely affect receiving water quality or aquatic life including:
 - (a) Solids that may settle to form putrescent or otherwise objectionable sludge deposits.
 - (b) Oil, grease, and other floating material that form noticeable accumulations of debris, scum, foam, **or sheen.**

- (c) Color or odor that is unnatural and to such a degree as to create a nuisance.
 - (d) Toxic substances in amounts toxic to aquatic life, wildlife, or humans.
 - (e) Nutrients conducive to the excessive growth of aquatic plants and algae to the extent that such growth is detrimental to desirable forms of aquatic life, creates conditions that are unsightly, or are **a nuisance**.
 - (f) Any other substances that may impair, or threaten to impair, beneficial uses of the receiving water.
- (10) OTHER REGULATORY PROGRAMS: Nothing in this permit shall exempt a co-permittee from the responsibility to comply with other federal, state or local laws.
- (II) CO-PERMITTEE COOPERATION: To the maximum extent practicable, co-permittees are encouraged to cooperate with other co-permittees to jointly meet the requirements of this permit. Co-permittees **may, by written agreement, implement conditions of this permit with another co-permittee or contract** with another entity to perform one or more of the conditions of this permit. However, each co-permittee is ultimately responsible for compliance with the conditions of this permit.
- (12) OUTSTANDING AND EXCEPTIONAL RESOURCE WATERS
- (a) The co-permittee shall determine whether any part of its MS4 discharges to an outstanding resource water (ORW) or exceptional resource water (ERW). ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code. An unofficial list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/>. Black Earth Creek is an ORW and Sixmile Creek and the Sugar River are ERWs.
 - (b) The co-permittee may not establish a new MS4 discharge of pollutants to an outstanding resource water (ORW) or an exceptional resource water (ERW) unless the storm water management programs required under this permit are designed to ensure that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background levels within the ORW or ERW.
 - I. "New MS4 discharge of pollutants" means an MS4 discharge that would first occur after the co-permittee's effective date of coverage under this permit to a surface water to which the MS4 did not previously discharge storm water, and does not include an increase in an MS4's discharge, whether at an existing discharge point or at a new location to a surface water to which the MS4 discharged on or before coverage under this permit.
 - (c) If the co-permittee has an existing MS4 discharge to an ERW, it may increase the discharge of pollutants if the increased discharge would not result in a violation of water quality standards.
 - (d) If the co-permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants, either at the existing point of discharge or a new location, provided all of the following **are met**:
 - 1. The pollutant concentration within the receiving water and under the influence of the existing discharge would not increase as compared to the level that existed prior to coverage under this **permit**.
 - 2. The increased discharge would not result in a violation of water quality standards.

(13) IMPAIRED WATER BODIES AND TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

- (a) Each co-permittee shall determine whether any part of its MS4 discharges to an impaired water body listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(1). Impaired waters are those that are not meeting applicable water quality standards. A list of Wisconsin impaired water bodies may be found on the Department's Internet site at: <http://dnr.wi.gov/org/water/wm/wgs/303d/2008/2008Updates.htm>.

Note: At the time of permit issuance, the following waters were listed as impaired: Pheasant Branch Creek, Darn Creek, Tolken Creek, Maunsha River, Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River and Rock River. Darn Creek has also been labeled as Spring (Darn) Creek in some publications. The Department has proposed that the following beaches be listed as impaired due to E. coli: Spring Harbor, James Madison and Marshall Park beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra. The Department's proposed listing does not classify the beaches as impaired until such time that USEPA approves of the listing.

- (b) If the co-permittee's MS4 discharges to an impaired water body, the co-permittee shall include a **written section in its biennial report that discusses the management practices and control measures** it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. This section of the co-permittee's biennial report shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4's discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these control measures and practices were chosen as opposed to other alternatives. Pollutant(s) of concern means a pollutant that is causing impairment of a water body.
- (c) After the co-permittee's effective date of coverage under this permit, the co-permittee may not establish a new MS4 discharge of a pollutant of concern to an impaired water body or increase the discharge of a pollutant of concern to an impaired water body unless the new or increased discharge does not contribute to the receiving water's impairment, or the US Environmental Agency and the Department have approved a total maximum daily load (TMDL) for the impaired water body.
- (d) Co-permittees whose MS4 discharges to an impaired water body for which US Environmental Protection Agency and the Department have approved a TMDL shall assess whether the TMDL wasteload allocation for the MS4 is being met through the existing storm water management **controls or whether additional control measures are necessary. The co-permittee's assessment of** whether the TMDL wasteload allocation is being met shall focus on the adequacy of the co-permittee's implementation and maintenance of the storm water controls. Approved TMDLs are listed on the Department Internet site at:
http://dnr.wi.gov/org/water/wm/wgs/303d/Approved_TMDLs.html
- (e) If the co-permittee's existing storm water management controls are adequate to meet a wasteload allocation, then the co-permittee shall submit documentation to that effect with the biennial report. **If the co-permittee's existing storm water management controls are not adequate to meet a** wasteload allocation for its MS4, then the co-permittee shall develop a proposed storm water management plan to comply with the wasteload allocation. The co-permittee shall submit the proposed storm water management plan to the Department within 3 years of the TMDL being approved by both the Department and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:

- I. Baseline conditions showing the wasteload allocation area boundary, drainage basins and land **uses.**

2. Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department to quantify loadings.
 3. **Identification of storm water management practices or control measures necessary to achieve the wasteload allocation, including locations and estimated costs of implementing the practices or control measures.**
 4. Proposed schedule for implementing the storm water management practices or control measures necessary to achieve the wasteload allocation.
- (f) A co-permittee shall implement storm water management practices necessary to achieve compliance with the wasteload allocation as soon as practicable after the Department has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Department under section (13)(e).
- (14) **WETLANDS:** The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.
 - (15) **ENDANGERED AND THREATENED RESOURCES:** The co-permittee's MS4 discharge shall comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.
 - (16) **HISTORIC PROPERTY:** The co-permittee's MS4 discharge may not affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., unless the Department determines that the MS4 discharge will not have an adverse effect on any historic property pursuant to s. 44.40 (3), Wis. Stats.
 - (17) **EXCLUSIONS:** The following are excluded from coverage (i.e. are not authorized) under this permit:
 - (a) **Combined Sewer and Sanitary Sewer Systems:** Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Stats.
 - (b) **Agricultural Facilities and Practices:** Discharges from "agricultural facilities" and "agricultural practices." **"Agricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable growing.**
 - (c) **Other Excluded Discharges:** Storm water discharges from industrial operations or land disturbing construction activities that require separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge from an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the co-permittee's responsibility to regulate construction sites within its jurisdiction in accordance with sections C.(4) and C.(5) of this permit.
 - (d) **Non-MS4 Discharge:** Storm water discharges that do not enter an MS4.

B. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

In addition to the requirements specified in Sections A. and C. through I., each co-permittee shall:

- (1) Minimize the discharge of pollutants from its MS4.
- (2) Implement the stormwater management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of annexation by the co-permittee.
- (3) Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of installation or taking jurisdiction of a new or existing MS4.
- (4) Individually or as agreed upon by the co-permittees, provide adequate financing, staff, equipment, and support capabilities to implement the requirements of this permit.
- (5) Comply with the conditions of this permit relating to discharges from the MS4 where it is the owner or operator.
- (6) Implement a storm water management program, as required by this permit, in portions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and from those portions of the MS4 that **it owns or operates. This legal authority may be a statute, ordinance, permit, order or intermunicipal agreement, a series of contracts, or administrative rule in order to:**
 - (a) Control the contribution of pollutants to and the discharge of pollutants from the MS4.
 - (b) Prohibit illicit discharges to the MS4.
 - (c) Control the discharge of spills, dumping and disposal of materials other than storm water into the MS4.
 - (d) Require compliance with conditions in ordinances, permits, contracts, orders or administrative rules.**
 - (e) Require compliance with the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (f) Require compliance with the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (g) Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition of illicit discharges to the MS4.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section B. (7).

- (8) Attend and participate in quarterly meetings of the co-permittees. Unless an alternative quarterly date or dates are agreed upon by the co-permittees, the quarterly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a quarterly meeting may be cancelled due to a lack of meeting agenda items. These meetings are to be used for review and approval **schedules, receive work progress reports, and discuss issues pertaining to this permit or other relevant** storm water management issues. Each co-permittee shall designate a representative to attend these meetings. The representative of the City of Madison shall facilitate the conduct of the meetings and provide a record of the proceedings in the form of minutes. The meetings shall be held at times and places determined by the co-permittees. Adequate notices of and agendas for the meetings shall be

provided by the facilitator to the designated representatives for each co-permittee.

- (9) Cooperate with other co-permittees on sharing information and resources to facilitate storm water management activities on a regional or watershed basis and to avoid duplicative efforts.
- (10) Fulfill the commitments of an intermunicipal agreement to cooperate on storm water information and education.
- (11) Notify the affected co-permittee in the case of discovering a potential illicit discharge originating from its jurisdiction and discharging to the MS4 of the affected co-permittee.
- (12) Work cooperatively with other affected co-permittees in the case of discovering a potential illicit discharge of unknown source to determine the best actions to resolve the illicit discharge.
- (13) Submit information requested by the Department of Natural Resources pertinent to the MS4, discharges from the system, activities related to implementation of the requirements of this permit, or other relevant **information**.
- (14) Meet with the Department of Natural Resources on an as needed basis to discuss implementation of this **permit or other relevant issues**.
- (15) Keep contact information up-to-date and notify the Department of Natural Resources in a timely manner when personnel changes occur for the appropriate contact person(s) knowledgeable about this permit and its implementation.
- (16) Respond to and resolve in a timely manner complaints received from citizens and concerns raised by the Department of Natural Resources relating to pollution and storm water issues within the co-permittee's jurisdiction.
- (17) Coordinate the requirements of this permit internally between the co-permittee's agencies, departments, and programs, and ensure that elected and municipal officials and appropriate staff are advised of the permit.
- (18) Implement the requirements of this permit in a manner that is consistent with the recommendations contained in priority watershed plans, the Dane County Water Quality Plan, and other storm water management plans funded by the Department of Natural Resources and applicable to the co-permittee.
- (19) Incorporate the requirements of this permit in the development of master plans, neighborhood plans, development plans, and any other comprehensive planning activity to address water quality impacts from storm water discharges associated with implementation of these plans.
- (20) Undertake actions required by this permit in a manner that is consistent and in conformance with other applicable regulatory programs.

Note: Examples of other regulatory programs that may be applicable are the U.S. Army Corps of Engineers 404 permit program and permits required under ch. 30, Wis. Stats.

C. STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

(I) PUBLIC EDUCATION AND OUTREACH: Each co-permittee shall:

- (a) Continue to be a member of the Madison Area Municipal Storm Water Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program then they must develop and implement a work plan on their own that otherwise meets the requirements of section C.(I) of this permit.
- (b) Participate in the implementation of the *Madison Area Municipal Storm Water Partnership (MAMSWaP) Information and Education Plan 2009-2013 (January 2009)* prepared on behalf of the co-permittees (herein known as the information and education plan). By December 1 of each year, the co-permittees shall collectively develop a work plan to guide implementation of the information and education plan for the following calendar year. The information and education plan shall establish measurable goals and, at a minimum, include the following elements:
 1. Promote detection and elimination of illicit discharges and water quality impacts associated with **such discharges from municipal separate storm sewer systems.**
 2. Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
 3. Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
 4. Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
 5. Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
 6. 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.**
 7. Educate private businesses on methods of storm water pollution prevention.
 8. Promote environmentally sensitive land development designs by developers and designers.

Note: Copies of the information and education plan are available online at <http://www.danewaters.com/management/mamswap.aspx>.

- (c) Cooperate with and assist the person functioning in the Storm Water Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.
- (d) Within its jurisdiction, distribute and make available to the public the information and education materials created pursuant to the information and education plan and take actions identified in the plan for which it is responsible.
- (e) Provide and maintain a link to storm water information if a municipal website has been developed and activated by the co-permittee.

Note: The types of information to link on a website include municipal ordinances, local regulatory programs, **contact information, storm water informational and educational materials, waste oil and household hazardous waste collection sites, public participation opportunities, biennial reports, and other storm water** related websites. The Department of Natural Resources will work with the co-permittees on what information is appropriate for posting on the website.

- (2) **PUBLIC INVOLVEMENT AND PARTICIPATION:** Each co-permittee shall notify the public in its respective jurisdiction of activities required by this permit and shall encourage involvement and participation by the public regarding these activities. Information in the biennial report required under Section F. of this permit shall be an agenda item for discussion before the appropriate governing board or council of each co-permittee contemporaneous with the submittal of the biennial report to the Department of Natural Resources.
- (3) **ILLICIT DISCHARGE DETECTION AND ELIMINATION:** In consultation with the Department of Natural Resources, each co-permittee shall continue to implement a program to detect and remove illicit discharges and improper disposal of wastes into its respective MS4, or require the discharger to obtain a separate WPDES permit. For the purposes of this section, the following non-storm water discharges or flows are not considered illicit discharges unless identified by either a co-permittee or the Department of Natural Resources as a significant source of pollutants to waters of the State: **Landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn and garden watering, individual residential car washing, non-commercial charity car washing, flows from riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit** issued by the Department of Natural Resources and in compliance with that permit. Other occasional or incidental non-storm water discharges may be considered not illicit discharges on a case-by-case basis and with the concurrence of the Department of Natural Resources. Each co-permittee shall:
 - (a) Exercise the adequate legal authority to prevent, detect, and eliminate illicit connections and illicit discharges to its MS4.
 - (b) Continue to implement a strategy to prevent, detect, and eliminate all types of illicit connections and illicit discharges to its MS4 in accordance with this section.
 - (c) Document activities undertaken to meet the requirements of this section, including **methodologies used; date, time, and place of activities; personnel involved; observations; corrective actions; and any enforcement actions.**
 - (d) Conduct on-going field screening activities in areas or locations of the MS4 identified as having the highest potential for being sources of illicit discharges.
 - (e) Investigate portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water. Procedures may include sampling for the field screening parameters (pH, total chlorine, total copper, total phenol and detergents, unless the co-permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters), testing with fluorometric dyes or conducting inspections of the MS4 where safety and other considerations allow. The Department of Natural Resources shall be given advance notice of the time and location of dye testing within an MS4.
 - (f) Prevent, contain and respond to reports of spills that may discharge into the MS4.
 - (g) Immediately notify the Department of Natural Resources in accordance with ch. NR 706, Wis. Adm. Code, in the event that the co-permittee identifies a spill or release of a hazardous substance that results in the discharge of pollutants into waters of the state. The Department of Natural Resources shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
 - (h) Eliminate any detected leakage from sanitary conveyance systems to the MS4.

- (i) Eliminate illicit connections or discharges to the MS4 following detection. The elimination of an illicit connection or discharge shall be done as soon as possible upon identification of the responsible party. Prior to elimination of an illicit connection or discharge, the co-permittee shall require the party responsible for the illicit connection or discharge to take all reasonable measures to minimize the discharge of pollutants to the MS4 and waters of the state. If it will take more than 30 days to remove an illicit connection, the Department shall be contacted to discuss an appropriate action **and/or timeframe for removal.**
- (j) Promote reporting by the public of the presence of illicit discharges or water quality impacts associated with illicit discharges from the MS4. This may include storm water inlet stenciling, neighborhood watches, and/or a local hotline to report illegal dumping or discharges.
- (k) Consult with the Department of Natural Resources as necessary to resolve instances of a potential illicit discharge.
- (l) In the case of an illicit discharge that originates from the co-permittee's permitted area and that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality, the co-permittee shall notify the affected municipality within one working day.

Note: Chapter NR 815, Wis. Adm. Code, regulates injection wells including storm water injection wells. Construction or use of a well to dispose of storm water directly into groundwater is prohibited under s. NR 815.11(5), Wis. Adm. Code.

- (4) CONSTRUCTION SITE POLLUTION CONTROL: Except as specified for the University of Wisconsin-Madison under Section H. (19), each co-permittee shall enforce a program to require the **implementation and maintenance of erosion and sediment control storm water management practices** to reduce pollutants in storm water runoff from construction sites. The program shall apply to construction site activities undertaken by the co-permittee and those of other landowners. Each co-permittee shall:
 - (a) Exercise legal authority to enforce the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, ***Construction Site Storm Water Discharge Permits, to the landowner's construction projects.***
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from construction sites and that ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for erosion and sediment control practices that meet or exceed the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, and the requirements of subch. III of NR 216, Wis. **Adm. Code, *Construction Site Storm Water Discharge Permits, where applicable.***

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section H. (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (4).

- (5) **POST-CONSTRUCTION SITE STORM WATER MANAGEMENT:** Except as specified for the University of Wisconsin -Madison under Section H. (19), each co-permittee shall enforce a program to address controls on storm water discharges from areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undertaken by the co-permittee and those of other landowners. The co-permittee shall:
- (a) Exercise legal authority to enforce the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (b) Notify landowners who apply for local construction or land disturbance permits of the possible applicability of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, **to the landowner's construction projects.**
 - (c) Implement procedures for site planning that incorporate timely consideration of potential water quality impacts from storm water runoff from new development and redevelopment, and that ensure the implementation of the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (d) Implement requirements for source area controls and on-site storm water management practices that meet or exceed the standards of ss. NR 151.12 and 151.24, Wis. Adm. Code, or equivalent local standards.
 - (e) Implement policies and take appropriate enforcement action to ensure long-term maintenance of **storm water management facilities.**
 - (f) Document enforcement actions.
 - (g) Designate a qualified professional with responsibility to ensure implementation of the standards on ss. NR 151.12 and 151.24, Wis. Adm. Code, and the requirements of subch. III of ch. NR 216, Wis. Adm. Code, *Construction Site Storm Water Discharge Permits*, where applicable.

Note: As a state entity, the University of Wisconsin-Madison has different statutory authority than that of other municipal co-permittees regulated under this permit. See Section **H.** (19) for the University of Wisconsin-Madison's individual responsibility to meet the requirements of Section C. (5).

- (6) **MUNICIPAL POLLUTION PREVENTION:** Each co-permittee shall implement their municipal operation and maintenance program to prevent or minimize pollutants entering the MS4 and waters of the **state. At a minimum, the co-permittee shall:**
- (a) Annually update their inventory of long-term storm water management practices owned, operated, **managed, or maintained by the co-permittee.**
 - (b) Implement maintenance procedures and schedules for practices identified under Section C. (6) (a), other source area controls, catch basin cleaning, and the physical condition of elements of the MS4 that may adversely affect water quality.
 - (c) Implement roadway maintenance procedures that include de-icing management with consideration of effects on water quality.
 - (d) Enforce collection procedures and/or instruction to citizens for on-site management of leaves, yard waste, and grass clippings.
 - (e) Carry out pollution prevention procedures at municipal garages, public works facilities, and storage **areas.**
 - (f) Conduct proper management of the storage of salt for roadway de-icing in accordance with ch. TRANS 277, Wis. Adm. Code.

- (g) Continue to implement pollution prevention procedures for the use and application of lawn and garden fertilizers on co-permittee-controlled properties. The application of lawn and garden feiilizers on municipally controlled properties, with pervious surface over 5 acres each, shall be done in accordance with s. NR 151.13(1)(b)3., Wis. Adm. Code.
- (h) Document the estimated amount of leaves collected, solids captured from street sweeping, solids removed fi-mn catch basins, and solids removed fi-om structural controls.
- (i) Continue development and implementation of policies and procedures to meet the developed urban area performance standard of s. NR 151.13(2)(b)2., Wis. Adm. Code. This section requires co-permittees to achieve, to the maximum extent practicable, a 40% reduction in total suspended solids discharged fi-om its MS4 to surface waters of the state as compared to no controls, by March 10, 2013.

Note: MS4 modeling guidance documents are available on the DNR web page at:
<http://www.dnr.state.wi.us/mnoff/stormwater/muni,htm>

D. STORM SEWER SYSTEM MAP REQUIREMENTS

- (1) Each co-permittee shall annually update and maintain a sufficiently sized and detailed map with a scale suitable for the level of detail to identify the information below. This map does not need to be submitted to the Department with the biennial report but shall be kept on file by the co-permittee and provided to the Department at no charge upon request. The map shall identify the following:
- (a) The name/label and outline of the storm water drainage basins, the watersheds and municipal separate **storm sewer systems**.
 - (b) Other major municipal, government or privately owned storm water conveyance systems lying within, but not owned or operated by the co-permittee shall be identified.
 - (c) A boundary defining the final urban storm water planning area and all municipal borders in the area.
 - (d) All known MS4 outfalls discharging to waters of the state. Indicate the pipe size and identify those outfalls that are considered major outfalls. A major outfall includes any of the following:
 - 1. A single pipe with an inside diameter \leq 36 inches and associated with a drainage area \geq 50 acres; a **similar conveyance (box culvert, ditch, etc., other than a round pipe) with a cross sectional area \geq 1018 sq. inches and associated with a drainage area $>$ 50 acres.**
 - 2. A single pipe serving land zoned for industrial activity with an inside diameter of \leq 12 inches and **associated with a drainage area $>$ 2 acres; or a similar conveyance, serving land zoned for industrial activity, with a cross sectional area \leq 113 sq. inches and associated with a drainage area **2 acres.****
 - (e) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (f) All municipally owned or operated structural storm water management facilities including detention basins, infiltration basins, and manufactured treatment devices. If the co-permittee will be taking credit for pollutant removal from a privately-owned facility to meet the developed urban area performance standards of s. NR 151.13, Wis. Adm. Code, it must be identified.
 - (g) The location of publicly owned parks, recreational areas and other open lands.
 - (h) The location of municipal garages, storage areas and other public works facilities.
 - (i) Geographic features including streets, highways, railroads, airports, and water features.
- (2) The City of Madison shall maintain the common storm sewer system map for the entire group permit area. Each co-permittee is responsible for providing biennial updates to the City of Madison for updating the **common storm sewer system map for inclusion in the biennial report as outlined in Section F. The common storm sewer system map shall contain the following components:**
- (a) Delineation and identification of storm water drainage basins including watersheds, sub-watersheds, and sewersheds using the naming conventions developed by the City of Madison.
 - (b) Locations of major structural controls including retention, detention, and infiltration facilities.
 - (c) Locations of publicly owned parks, recreational areas, and other open lands such as environmental **corridors and conservancies.**
 - (d) Municipal boundaries for all co-permittees.

- (e) Central Urban Service Area boundaries.
 - (f) Geographic features including streets, highways, railroads, airports, and water features.
 - (g) Township and Range System.
 - (h) Ten foot contours intervals.
- (3) Each co-permittee shall ensure that the information provided on the common storm sewer system map for the co-permittee's areas of jurisdiction is updated biennially to reflect improvements to the MS4 by December 31, 2010 and every other December 31" thereafter. Each co-permittee shall be responsible for delivering hard copy changes for the storm sewer system map to the City of Madison by January 31, 2011 and every other January 31" thereafter.
- (4) The City of Madison shall submit the biennially updated common storm sewer system map to the Department of Natural Resources with the biennial report as outlined in Section F.

E. ASSESSMENT OF CONTROLS

(!) **BIENNIAL REVIEW:** Each co-permittee shall conduct a biennial review and assessment of its respective storm water management program in conjunction with preparation of the biennial report required in Section F. The assessment of the effectiveness of the storm water management program required in Section C. shall report on the prior 2 calendar years for the following:

(a) A description of the public information and education efforts as required under Section C.(!) and the status of implementation of the information and education plan, including an assessment of the effectiveness of reaching targeted audiences and delivery of intended messages.

Note: Dane County will provide the information for the assessment and biennial review of the information and education plan since it has taken the lead in the implementation of the plan. However, individual co-permittees will be expected to report on their respective public information and education efforts.

(b) A description of public involvement and participation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of efforts to involve the public and the level of participation.

(c) A description of illicit discharge detection and elimination program implementation under Section C. (3) with an assessment of the effectiveness of detection and elimination of illicit discharges, prevention of the improper disposal of waste and dumping, and the handling of spills.

(d) A description of construction site pollution control program implementation under Section C. (4) **with an assessment of program effectiveness in meeting the construction site performance standards** of ss. NR 151.11 and 151.23, Wis. Adm. Code.

(e) A description of post-construction site storm water management program implementation under Section C. (5) with an assessment of program effectiveness in meeting the post-construction standards of ss. NR 151.12 and 151.24, Wis. Adm. Code.

(f) A description of enforcement actions taken pursuant to the programs implemented under (c), (d), and (e) above and an assessment of the effectiveness of enforcement efforts.

(g) A description of pollution prevention efforts through the implementation of the municipal operation and maintenance program under Section C. (6) with an assessment of program effectiveness.

(h) An updated determination of whether the MS4 discharges to any impaired water, in accordance with section A.(13)(a) of this permit.

(2) **DEVELOPED URBAN AREA PERFORMANCE STANDARD:** To the maximum extent practicable, **implement storm water management practices necessary to achieve a 40% reduction in the annual** average mass of total suspended solids discharging from the co-permittee's MS4 to surface waters of the state as compared to implementing no storm water management controls, by March 10, 2013. Each co-permittee shall conduct an assessment of compliance with the 40% total suspended solids reduction requirement. The assessment shall be submitted to the Department by March 31, 2011 and shall include the following:

(a) Use of WinSLAMM version 9.2 or subsequent version of WinSLAMM, P8 version 3.4 or a subsequent version of P8, or an equivalent methodology that is approved by the Department of Natural Resources.

(b) Identification of storm water management practices necessary to achieve the 40% total suspended solids reduction requirement, including locations and estimated costs of implementing the practices.

(c) Identification of storm water management practices that are or will be implemented to control the discharge of pollutants of concern to impaired water bodies as identified in Section A.(13).

- (d) Proposed schedule for implementing the storm water management practices necessary to achieve the 40% total suspended solids reduction requirement.

Note: Department guidance for modeling MS4 urban areas and treatment systems is available on the Department's municipal storm water web page at: <http://www.dnr.state.wi.us/runoff/stormwater/muni.htm>

- (3) REPORTING ON ASSESSMENT: The information in the biennial assessment of controls under Section E. (I) shall be included in the biennial report required under Section F. The biennial report that is due on March 31, 2011, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (1) **REPORT DUE DATE:** Each co-permittee shall submit its own biennial report to the Department by March 31, 2011 and by March 31" of every other year that follows (odd calendar years). The Department will provide co-permittees with an electronic biennial report form. Each co-permittee shall invite the municipal governing body, interest groups and the general public to review and comment on the biennial report.
- (2) **CERTIFICATION:** A duly authorized representative of the co-permittee shall sign and certify the biennial report and include a statement or resolution that the co-permittee's governing body or delegated representatives have reviewed or been apprised of the content of the biennial report.
- (3) **CONTENTS:** The biennial report shall cover the prior 2 calendar years and include the following:
 - (a) **Proposed revisions to the storm water management program and a summary of any revisions made to the storm water management program.**
 - (b) The information in the biennial assessment of controls under Section E.
 - (c) A summary describing the number and nature of enforcement actions taken pursuant to the programs implemented under Section C. (3), (4), and (5).
 - (d) A summary of development and/or implementation of any municipal-wide storm water management plans prepared by the co-permittee, and a summary of implementation of any other plans guiding the co-permittee, such as the Lake Mendota Priority Watershed Plan, the Dane County Land and Water Resource Management Plan, and the Dane County Water Quality Plan.
 - (e) An updated listing and contact information for any new industrial facilities that may be regulated under subch. II of ch. NR 216, Wis. Adm. Code, and that have commenced operation in the prior 2 calendar years.
 - (f) A summary of any other activities undertaken to comply with the conditions of this permit.
 - (g) A fiscal analysis that includes the annual expenditures and budget for the prior two calendar years, and the budget for the next year.
- (4) **SUBMITTAL OF REPORT:** A signed copy of the biennial report shall be submitted to the Department of Natural Resources office listed below:

Storm Water Program
WDNR South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

G. SCHEDULE OF COMPLIANCE

Each co-permittee shall comply with the provisions and requirements of this permit as of the effective date of this permit, except compliance shall be achieved with the following conditions of this permit in accordance with the schedule indicated:

<u>Action to be taken</u>	Reference	<u>Due date</u>
<u>All Co-Permittees:</u>		
Annual I&E Work Plan	Section C. (1)(b)	December 1, annually
Biennial Report	Section F	March 31" of every odd calendar year (2011, 2013, etc.)
Developed Urban Area Assessment	Section E. (2)	March 31,2011
Compliance with Developed Area Performance Standard of s. NR 151.13(2)(b)2.	Section C.(6)(i)	March 10,2013
<u>City of Madison:</u>		
Common Storm Sewer Map	Section D. (4)	March 31" of every odd calendar year (2011, 2013, etc.)

H. SPECIAL RESPONSIBILITIES FOR CERTAIN CO-PERMITTEES

In addition to the requirements specified in Section A. through G. of this permit, co-permittees have additional or special requirements that apply to them as follows:

- (1) CITY OF FITCHBURG: Portions of the City of Fitchburg MS4 discharge into or upstream of impaired waters including Nine Springs Creek, Yahara River, and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (2) CITY OF MADISON: The City of Madison shall meet the following requirements:
 - (a) Facilitate and prepare and provide the agenda and minutes for the quarterly meetings required under Section B. (8).
 - (b) Manage and biennially update the common storm sewer system map required under Section D.(2) of this permit. Any apportioning of the funds needed to manage and update the storm sewer system map may be negotiated between the City of Madison and the co-permittees.
 - (c) Within the jurisdiction of the City of Madison, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek watershed. The City of Madison shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Badger Mill Creek watershed to the maximum extent practicable. The City of Madison shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Madison and to promote infiltration. The City of Madison shall notify the Department of Natural Resources of new development in the Badger Mill Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek watershed.
 - (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Madison MS4 discharges into or upstream of impaired waters including Starkweather Creek, Murphy (Wingra) Creek, Nine Springs Creek, Yahara River, and Rock River. The following beaches in the City of Madison are proposed to be listed as impaired due to E. coli: Spring Harbor, and James Madison beaches on Lake Mendota; Bernies, Brittingham, Esther Park, Olbrich and Olin Park beaches on Lake Monona; and Vilas Park Beach on Lake Wingra.
- (3) CITY OF MIDDLETON: The City of Middleton shall meet the following requirements:
 - (a) Within the jurisdiction of the City of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The City of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The City of Middleton shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Middleton and to promote infiltration. The City of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Black Earth Creek watershed.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The City of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Middleton MS4 discharges directly into or upstream of impaired waters including Pheasant Branch Creek, Yahara River, Rock River and potentially in the future, Dorn Creek. Marshall Park beach on Lake Mendota is also proposed by the Department to be listed as impaired due to E. coli. MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (4) CITY OF MONONA: The City of Monona MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (5) CITY OF SUN PRAIRIE: The City of Sun Prairie shall meet the following requirements:
- (a) Within the jurisdiction of the City of Sun Prairie, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The City of Sun Prairie shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Token Creek watershed to the maximum extent practicable. The City of Sun Prairie shall work with developers, consultants, contractors, and others representing the development **community to prevent and reduce negative water quality impacts from storm water discharges within** the City of Sun Prairie and to promote infiltration. The City of Sun Prairie shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Token Creek watershed.
- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The City of Sun Prairie MS4 discharges into or upstream of impaired waters including Token Creek, Maunsha River, Yahara River and Rock River, which are impaired waters. Note that a TMDL has been approved for Token Creek.
- (6) CITY OF VERONA: The City of Verona shall meet the following requirements:
- (a) Within the jurisdiction of the City of Verona, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek and Sugar River watersheds. The City of **Verona shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Badger Mill Creek and Sugar River watersheds to the maximum extent practicable. The City of Verona shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the City of Verona and to promote infiltration. The City of Verona shall notify the Department of Natural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department of Natural Resources' input. The Department of Natural Resources may make similar requests beyond the Badger Mill Creek and Sugar River watersheds.
- (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Waters (ORWs and ERWs). The City of Verona MS4 discharges into the Sugar River, which is an ERW. MS4 discharge to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (7) VILLAGE OF DEFOREST: The Village of DeForest shall meet the following requirements:
- (a) Within the jurisdiction of the Village of DeForest, give special attention to activities affecting the quality of storm water discharges to the Yahara River and Token Creek watersheds. The Village of DeForest shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Village of DeForest shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of DeForest and to promote infiltration. The Village of DeForest shall notify the Department of Natural Resources of new development in to the

Yahara River and Token Creek watersheds early in the Village's review process to accommodate the Department of Natural Resources' input.

- (b) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of DeForest MS4 discharges into or upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.
- (8) VILLAGE OF MAPLE BLUFF: The Village of Maple Bluff MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (9) VILLAGE OF McFARLAND: The Village of McFarland MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (10) VILLAGE OF SHOREWOOD HILLS: The Village of Shorewood Hills MS4 discharges upstream of impaired waters including the Yahara River and Rock River. The MS4 discharge to impaired waters shall comply with the requirements of Section A.(13) of this permit.
- (II) VILLAGE OF WAUNAKEE: The Village of Waunakee shall meet the following requirements:
 - (a) Within the jurisdiction of the Village of Waunakee, give special attention to activities affecting the quality of storm water discharges in the Six Mile Creek watershed. The Village of Waunakee shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Six Mile Creek watershed to the maximum extent practicable. The Village of Waunakee shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Village of Waunakee and to promote infiltration. The Village of Waunakee shall notify the Department of Natural Resources of new development in the Six Mile Creek watershed early in the Village's review process to accommodate the Department of Natural Resources' input.
 - (b) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Village of Waunakee MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Village of Waunakee MS4 discharges upstream of impaired waters including Darn Creek, Yahara River and Rock River.
- (12) TOWN OF BLOOMING GROVE: The Town of Blooming Grove shall meet the following **requirements**:
 - (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
 - (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
 - (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Blooming Grove MS4 discharges upstream of impaired waters including Nine Springs Creek, Yahara River and Rock River.
- (13) TOWN OF BURKE: The Town of Burke shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Burke, give special attention to activities affecting the quality of storm water discharges in the Token Creek watershed. The Town of Burke shall ensure that **post-construction site storm water management at new development facilitates infiltration within the** Token Creek watershed to the maximum extent practicable. The Town of Burke shall work with **developers, consultants, contractors, and others representing the development community to prevent** and reduce negative water quality impacts from storm water discharges within the Town of Burke and to promote infiltration. The Town of Burke shall notify the Department of Natural Resources of new development in the Token Creek watershed early in the Town's review process to accommodate the Department Natural Resources' input.
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Burke MS4 discharges into or upstream of impaired waters including the Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

{14) TOWN OF MADISON: The Town of Madison shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Madison MS4 discharges into or upstream of impaired waters including the Nine Springs Creek, Yahara River and Rock River.

{15) TOWN OF MIDDLETON: The Town of Middleton shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Middleton, give special attention to activities affecting the quality of storm water discharges in the Black Earth Creek watershed. The Town of Middleton shall **ensure that post-construction site storm water management at new development facilitates** infiltration within the Black Earth Creek watershed to the maximum extent practicable. The Town of Middleton shall work with developers, consultants, contractors, and others representing the **development community to prevent and reduce negative water quality impacts from storm water** discharges within the Town of Middleton and to promote infiltration. The Town of Middleton shall notify the Department of Natural Resources of new development in the Black Earth Creek watershed **early in the Town's review process to accommodate the Department of Natural Resources' input.**
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Middleton MS4 discharges into Black Earth Creek, which is an ORW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.

- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Middleton MS4 discharges into or upstream of impaired waters including Pheasant Branch Creek, Yahara River and Rock River.

(16) TOWN OF WESTPORT: The Town of Westport shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Westport, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westport shall ensure that post-construction site storm water management at new development facilitates infiltration within the Yahara River and Six Mile Creek watersheds to the maximum extent practicable. The Town of Westport shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Westport and to promote infiltration. The Town of Westport shall notify the Department of Natural Resources of new development in the Yahara River and Six Mile Creek watersheds early in the Town's review process to accommodate the Department of Natural Resources' input.
- (d) Comply with the requirements of Section A.(12) of this permit with respect to discharges to Outstanding and Exceptional Resource Waters (ORWs and ERWs). The Town of Westport MS4 discharges into Six Mile Creek, which is an ERW. MS4 discharges to ORWs and ERWs shall comply with the requirements of Section A.(12) of this permit.
- (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Westport MS4 discharges into or upstream of impaired waters including Darn Creek, Yahara River and Rock River.

(17) TOWN OF WINDSOR: The Town of Windsor shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by participating in public information and education efforts.
- (b) Assist Dane County in implementation of the County's post-construction storm water management program within the Town by participating in public information and education efforts.
- (c) Within the jurisdiction of the Town of Windsor, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Token Creek watersheds. The Town of **Windsor shall ensure that post-construction site storm water management at new development** facilitates infiltration within the Yahara River and Token Creek watersheds to the maximum extent practicable. The Town of Windsor shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges within the Town of Windsor and to promote infiltration. The Town of Windsor shall notify the Department of Natural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Department of **Natural Resources' input.**
- (d) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Town of Windsor MS4 discharges upstream of impaired waters including Token Creek, Yahara River and Rock River. Note that a TMDL has been approved for Token Creek.

(18) DANE COUNTY: Dane County shall meet the following requirements:

- (a) As specified in the information and education agreement, maintain a half-time position to provide public information and education services under this permit on behalf of the co-permittees.
 - (b) In consultation with the Department of Natural Resources and other co-permittees, function as the lead agency in implementation of the information and education plan prepared on behalf of the co-permittees.
 - (c) Provide updates on the status and implementation of the information and education plan at the quarterly meetings, and provide information on plan implementation for the biennial report required under Section F.
 - (d) For activities under the jurisdiction of Dane County and within the area covered by this permit, give special attention to activities affecting the quality of storm water discharges in the Badger Mill Creek, Black Earth Creek, Six Mile Creek, Token Creek, and Upper Yahara River watersheds. **Dane County shall ensure that post-construction site storm water management at new development facilitates infiltration within the watersheds of these waterways to the maximum extent practicable. Dane County shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts from storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Department of Natural Resources of new development in these watersheds early in the County's review process to accommodate the Department of Natural Resources' input.**
 - (e) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The Dane County MS4 discharges upstream of impaired waters including the Yahara River and Rock River.
- (19) UNIVERSITY OF WISCONSIN-MADISON: In addition to the requirements specified in Sections A. through G. of this permit, the University of Wisconsin-Madison shall meet the following requirements:
- (a) Continue to implement the storm water management policies and procedures of the University of Wisconsin-Madison's storm water management program created pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of **Wisconsin- Madison, including revisions made to the program consistent with the requirements of this permit.**

Note: This requirement does not include the continuation of the monitoring program undertaken by the University of Wisconsin- Madison under joint WPDES Permit No. WI-S058416-1.

- (b) Continue to implement the illicit discharge detection and elimination program described in Pm18b. of the permit application submitted to the Department of Natural Resources on January 6, 2003, and as may be amended by October 1, 2004, to comply with the requirements of Section C. (3) of this permit. The University of Wisconsin-Madison shall not be required to perform the initial screening activity undertaken pursuant to the joint WPDES Permit No. WI-S058416-1 issued on October 16, 1995, to the City of Madison and the University of Wisconsin-Madison. However, screening shall be required when unidentified flows are detected.
- (c) Continue to implement policies and procedures to the extent of its legal authority to control illicit discharges to and from those portions of the MS4 that it owns or operates consistent with the requirements of Section C.(3) of this permit.
- (d) Continue the implementation and administration of the municipal pollution prevention program described in Pm18e. of the permit application submitted to the Department of Natural Resources on January 6, 2003. The University of Wisconsin-Madison shall ensure that the program is consistent with the requirements of Section C. (6) of this permit to meet the performance standard specified in Section C. (6) U).

- (e) To the maximum extent practicable, the University of Wisconsin- Madison is encouraged to utilize the resources available through its academic and research programs to facilitate compliance with the requirements of this permit.

- (f) Comply with the requirements of Section A.(13) of this permit with respect to discharges to impaired waters. The UW-Madison MS4 discharges upstream of impaired waters including the Yahara River and Rock River.

I. STANDARD CONDITIONS

The conditions ins. NR 205.07(1) and (3), Wis. Adm. Code, are hereby incorporated by reference in this permit. Each co-permittee shall be responsible for meeting these requirements within its jurisdiction where it owns or operates the MS4. Some of these requirements are outlined below in Section I.(1) through (17). Requirements not specifically outlined below can be found ins. NR 205.07(1) and (3), Wis. Adm. Code.

- (1) **DUTY TO COMPLY:** Each co-permittee shall comply with all conditions of this permit. Any permit **noncompliance is a violation of the permit and is grounds for enforcement action, permit revocation or modification, or denial of permit coverage at reissuance.**
- (2) **NONCOMPLIANCE NOTIFICATION:**
 - (a) In addition to immediately reporting hazardous substance spills to the Department of Natural Resources under Section I.(4), upon becoming aware of any permit noncompliance that may endanger public health or the environment, a co-permittee shall report this information by a telephone call to the Department regional storm water specialist within 24 hours. A written report describing the noncompliance shall be submitted to the Department regional storm water specialist within 5 days after the co-permittee becomes aware of the noncompliance. The Department of Natural Resources may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned **to reduce, eliminate, and prevent recurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.**
 - (b) Reports of any other noncompliance not covered under Section I. (2) (a) shall be submitted with the biennial report required in Section F. The reports shall contain all the information listed in Section I. (2) (a).
- (3) **DUTY TO MITIGATE:** Each co-permittee shall take all reasonable steps to minimize or prevent any adverse effect on the waters of the state resulting from noncompliance with this permit.
- (4) **SPILL REPORTING:** The co-permittee shall immediately notify the Department, in accordance with ch. NR 706, Wis. Adm. Code, in the event of a spill or accidental release of hazardous substances that has resulted or may result in a discharge of pollutants into waters of the state. The Department shall be notified via the 24-Hour Spill Emergency Hotline (1-800-943-0003).
- (5) **PROPER OPERATION AND MAINTENANCE:** Each co-permittee shall at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used by the co-permittee to achieve compliance with the conditions of this permit and the storm water management program. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with conditions of this permit.
- (6) **BYPASS:** A co-permittee may temporarily bypass a storm water treatment facility if necessary for maintenance, or due to runoff from a storm event that exceeds the design capacity of the treatment facility, or during an emergency.
- (7) **DUTY TO HALT OR REDUCE ACTIVITY:** Upon failure or impairment of a storm water **management practice identified in the storm water management program, a co-permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail use of the storm water management practice** until it can be restored or an alternative method of storm water pollution control is provided.
- (8) **REMOVED SUBSTANCES:** Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be handled and disposed of in a manner to

prevent any pollutant from the materials from entering the waters of the state, and in compliance with all applicable federal, state, and local regulations.

NOTE: Storage and/or treatment of material collected under Section I. (8) may be subject to solid waste rules found under the NR 500 series of the Wisconsin Administrative Code or the hazardous waste rules found under the NR 600 series of the Wisconsin Administrative Code.

- (9) **ADDITIONAL MONITORING:** If a co-permittee monitors any pollutant more frequently than required by this permit, the results of that monitoring shall be reported to the Department in the biennial report **required under section F.**
- (10) **INSPECTION AND ENTRY:** Each co-permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:
 - (a) Enter upon the co-permittee's premises where a regulated facility or activity is located or conducted, or where records are kept as required under the conditions of this permit.
 - (b) Have access to and copy, at reasonable times, any records that are required under the conditions of the permit.
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit.
 - (d) Sample or monitor at reasonable times and for the purposes of assuring permit compliance any substances or parameters at any location.
- (11) **DUTY TO PROVIDE INFORMATION:** Each co-permittee shall furnish the Department, within a **reasonable time, any information that the Department may request to determine whether cause exists for** modifying, revoking or reissuing this permit or to determine compliance with this permit. Each co-permittee shall also furnish the Department, upon request, copies of records required to be kept by the **co-permittee.**
- (12) **PROPERTY RIGHTS:** This permit does not convey any property rights of any sort, or any exclusive privilege. This permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.
- (13) **DUTY TO REAPPLY:** If a co-permittee wishes to retain authorization to discharge after the expiration date of this permit, the co-permittee shall reapply to the Department at least 180 days prior to expiration date of this permit for continued coverage under a reissued permit.
- (14) **OTHER INFORMATION:** When a co-permittee becomes aware that it has failed to submit any **relevant facts in a permit application or submitted incorrect information in a permit application or in any** report to the Department of Natural Resources, the co-permittee shall promptly submit such facts or correct information to the Department of Natural Resources.
- (15) **RECORD RETENTION:** Each co-permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 5 years from the date of the sample, measurement, report or application.
- (16) **PERMIT ACTIONS:** As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in part, for cause. If a co- **permittee files a request for a permit modification, revocation or reissuance, or a notification of planned** change or anticipated noncompliance, this action by itself does not relieve the co-permittee of any **permit condition.**
- (17) **SIGNATORY REQUIREMENT:** All applications, reports or information submitted to the Department of Natural Resources shall be signed for by a ranking elected official, or other person authorized by the co-permittee who has responsibility for the overall operation of the municipal separate

storm sewer systems and storm water management program activities regulated by this permit. The authorized representative shall certify that the information was gathered and prepared under his or her supervision and, based on inquiry of the people directly under their supervision that, to the best **of his or her knowledge, the information is true, accurate, and complete.**

- (18) ATTAINMENT OF WATER QUALITY STANDARDS AFTER PERMIT ISSUANCE: At any time after the effective date of this permit, the Department may determine that the discharge of storm water **from a co-permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an** exceedance of any applicable water quality standard. If such a determination is made, the Department may require the co-permittee to do either of the following:
- (a) Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.
 - (b) Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

Appendix 3: Spill Prevention, Control and Counter Measures Plan

Compliance Inspection

Review Page

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility's potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

1. July 1, 2023

2. July 1, 2026

3. July 1, 2029

4. July 1, 2032

5. July 1, 2034

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the SPRPW site sheet flows off the site in all directions. The storm water is collected in grass swales and discharged to the detention basin located the west of the facility. The detention basin outfall discharges water to an green way located in the adjacent southern property. After entering the greenway, runoff flows through a series of connecting green ways , grass waterways and ditches before discharging into Lower Badger Mill Creek. The maps provided in Appendix 6 show outfall locations and drainage from the site to Lower Badger Mill Creek

Facility Storage

No Storage Facilities on site

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)

Spill Prevention Measures

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, empty drums, brooms and shovels. Spill cleanup materials are located in the Salt Storage Building.

Appendix 5: Site Inspection Form

STREETS STORMWATER BI-ANNUAL INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION:				
<ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.</p> <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? <p>Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i></p>	Yes	No	<p>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.</p>	
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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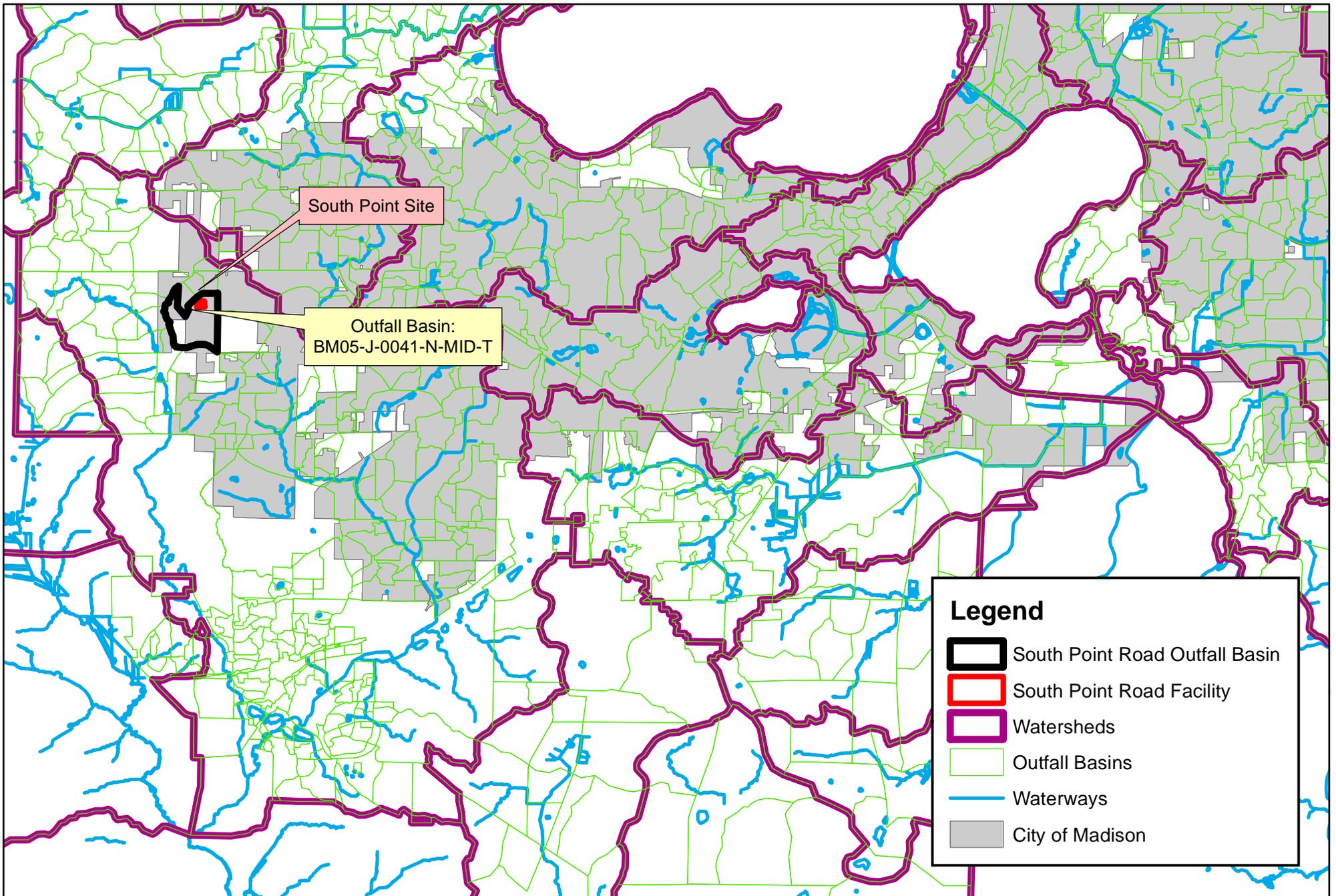
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

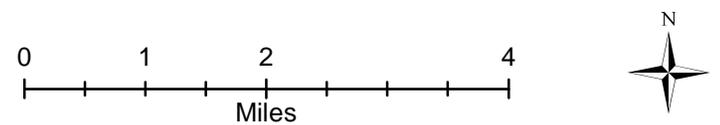
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

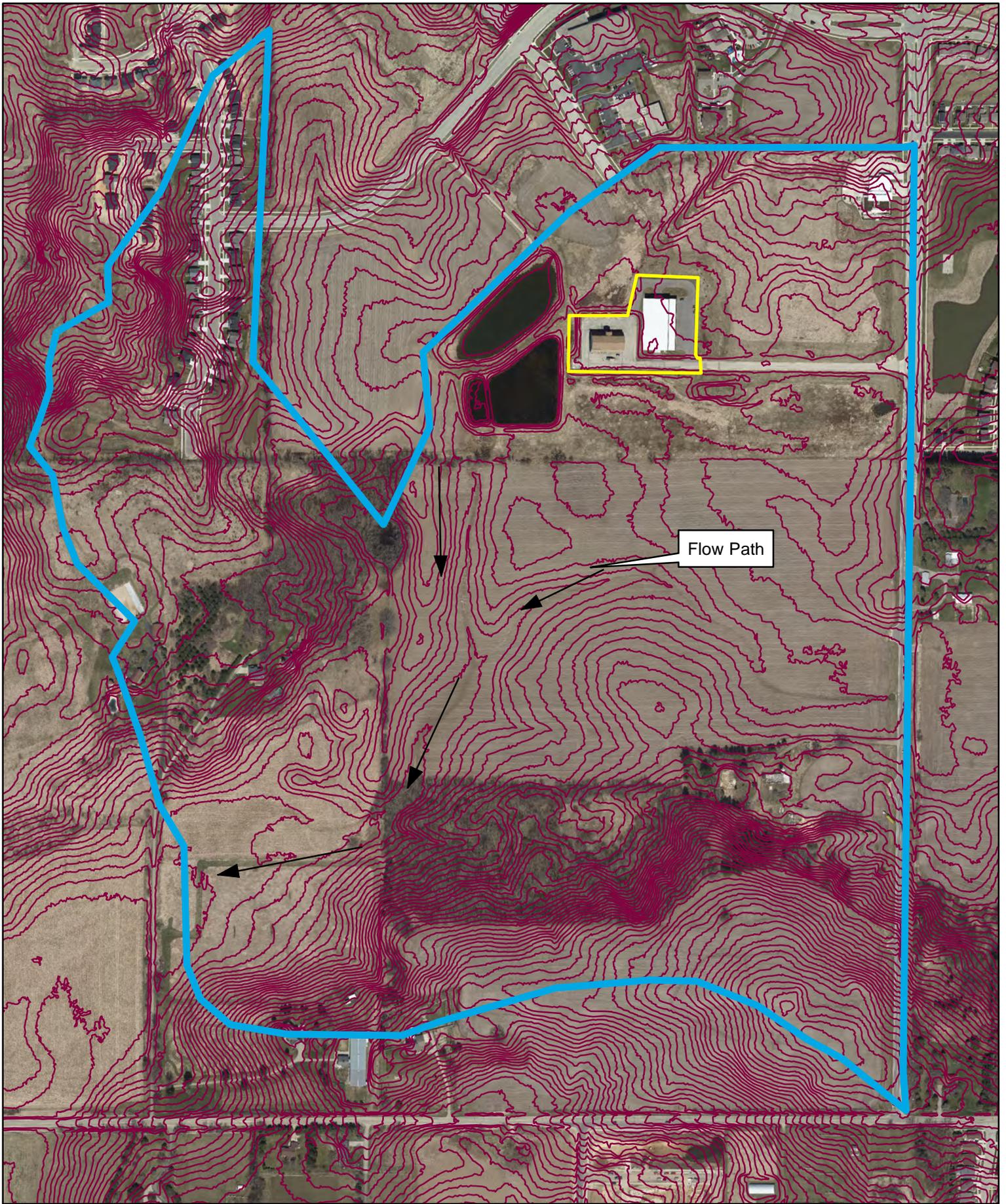
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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Appendix 6: Site Maps



Appendix 6: Site Map
 South Point Road Public Yard
 Madison, WI



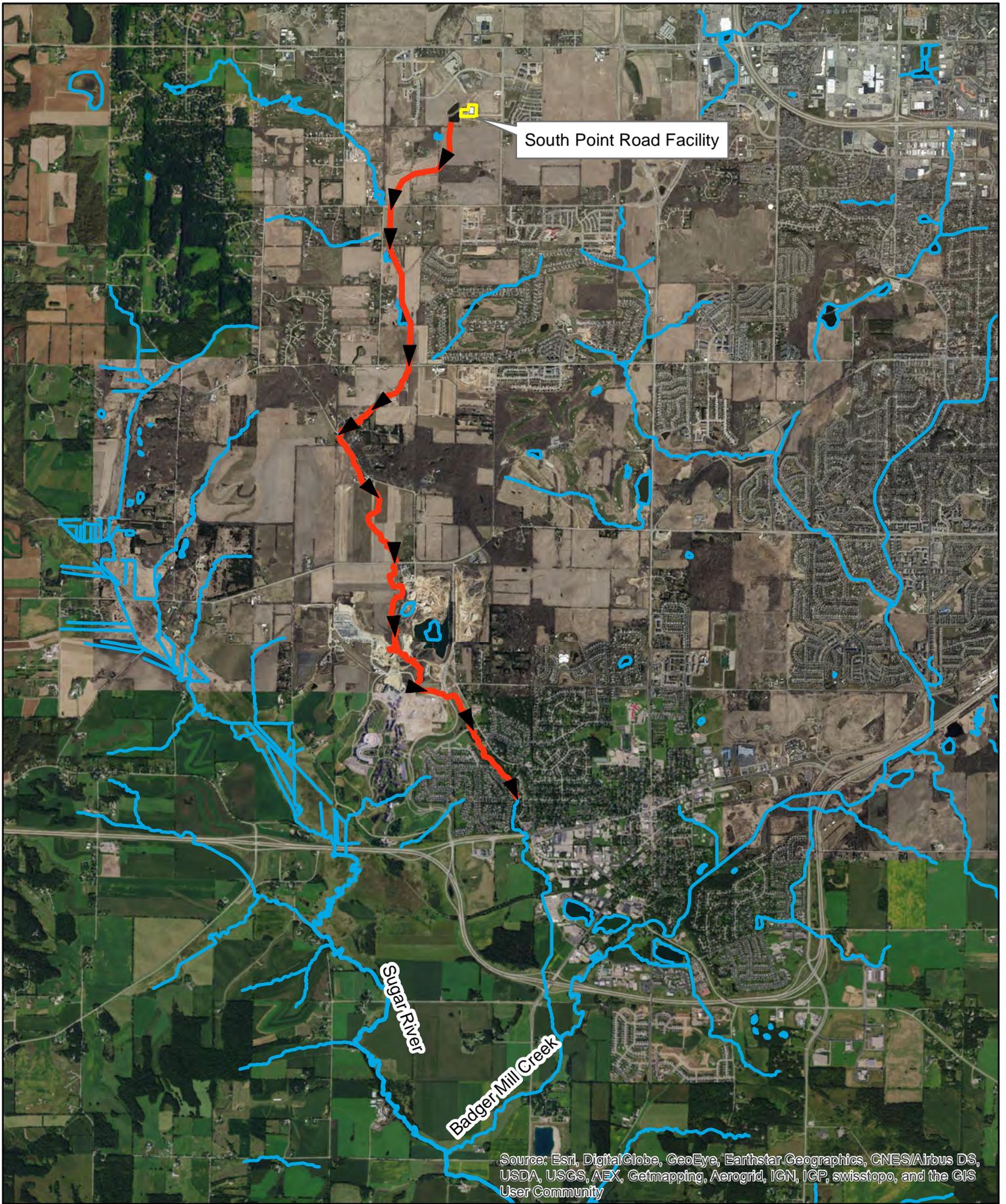


South Point Road Public Yard
Drainage Direction
Madison, WI

-  South Point Road Outfall Basin
-  South Point Facility
-  2ft Contours

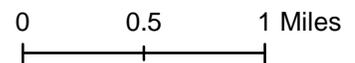
0 250 500 Feet

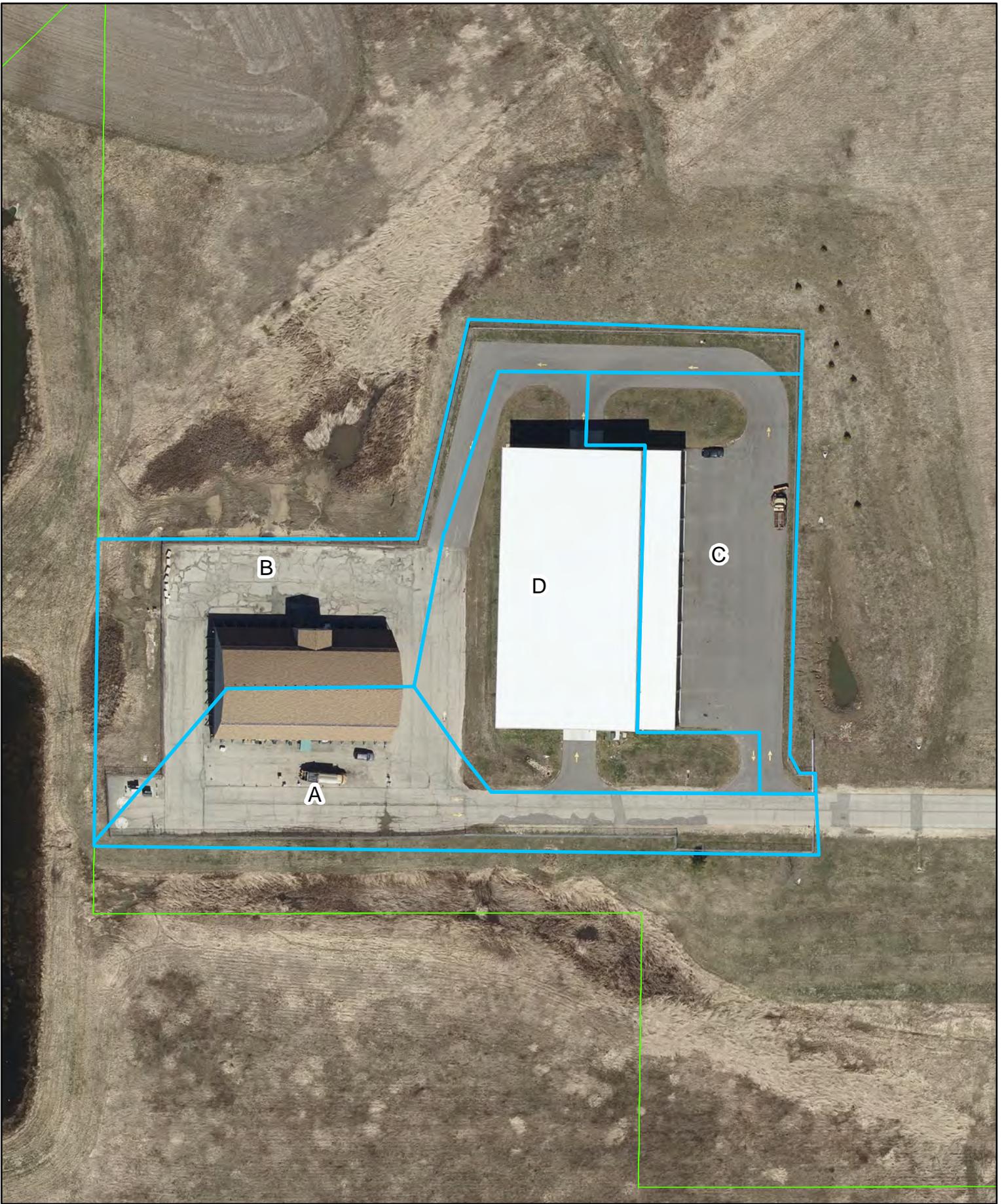




**South Point Road Public Yard
Receiving Water
Madison, WI**

-  South Point Flow Path
-  Waterways
-  South Point Facility

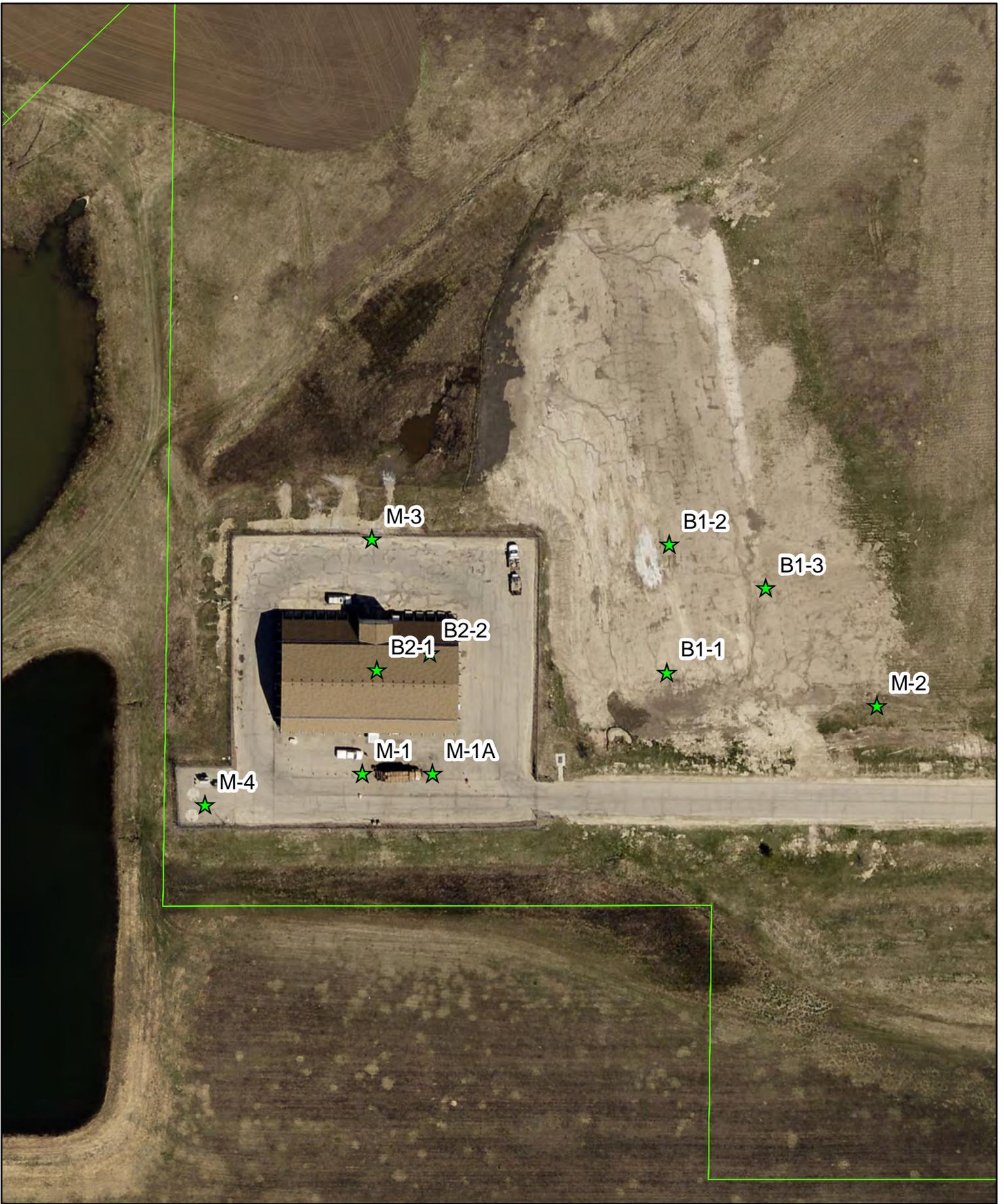




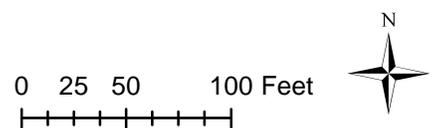
South Point Road Public Yard
Sub-Basins
Madison, WI



Appendix 7: Site Assessment



South Point Road Public Yard
Madison, WI



ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
	<i>Indoors</i>	<i>Outdoors</i>	<i>Sediment</i>	<i>Nutrients</i>	<i>Metals</i>	<i>Hydrocarbons</i>	<i>Toxins</i>	<i>other</i>	<i>Likelihood of Contact</i>	<i>Risk of release</i>	
Vehicle storage and parking	B1-1, B1-2	M-1	●	-	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	● Outside vehicle storage drains to and overland flow to grass swale and then a detention basin
Covered Storage	B1-3		-	-	○	-	○	Empty brine tank	○	○	● Covered Storage for large items
Public brush drop off		M1-A	●	●	-	-	-		○	○	● Brush is loaded directly into a garbage truck by citizens and City staff
Salt and Sand storage	B2-1, B2-2		●	-	-	-	○	Sodium Chloride, Ferrocyanide	○	○	● Stored in building

KEY

- High
- ◐ Medium
- Low
- Not Applicable



South Point Yard
M-1 : Vehicle Storage Building



South Point Yard
M-1A : Vehicle Storage Building



South Point Yard
B1-1 : Vehicle Storage Building



South Point Yard
B1-2 : Indoor Vehicle Storage



South Point Yard
B1-3: Covered Outdoor Storage



South Point Yard
M-2 : East Stormwater Treatment



South Point Yard
M-3 : Area North of Salt Storage Building



South Point Yard
B2-1 : Salt Storage



South Point Yard
B2-2 : Sand with Salt Storage



South Point Yard

M-5: Madison Metropolitan Sewerage District Pump Station



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
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Felicia Chase
Water Enforcement & Compliance Assurance
Branch
Water Division, Mail Code: WC-15J
U.S. EPA, Region 5
77 West Jackson Blvd.

Deputy City Engineer
Gregory T. Fries, P.E.
Deputy Division Manager
Kathleen M. Cryan
Principal Engineer 2
Christopher J. Petykowski, P.E.
John S. Fahrney, P.E.
Principal Engineer 1
Christina M. Bachmann, P.E.
Mark D. Moder, P.E.
Janet Schmidt, P.E.
James M. Wolfe, P.E.
Facilities & Sustainability
Bryan Cooper, Principal Architect
Mapping Section Manager
Eric T. Pederson, P.S.
Financial Manager
Steven B. Danner-Rivers

December 20, 2019

RE: Traffic Engineering Public Yard SWPPP- 1120 Sayle Street, Madison, WI

Dear Ms. Chase:

The City of Madison has developed a SWPPP for the Traffic Engineering Public Works Site. Please review the following documents, and provide comment if our proposed actions are satisfactory to the EPA.

Sincerely,

Robert F. Phillips, P.E.
City Engineer

12/21/2019



Municipal Storm Water Pollution Prevention Plan

Traffic Engineering Sayle St Public Works Site



Municipal Storm Water Pollution Prevention Plan

Traffic Engineering Sayle St. Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-3. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “*a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water*”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Traffic Engineering Facility at the Sayle Street Site.

A copy of this SWPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Parks Department will create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Goodman Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

Parks shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from various areas of the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Develop inspection protocols for the facility

The P2 team member rosters are provided in Appendix 2.

3.0 Site Description

The Goodman Public Works site is located on Madison's neasouth side at 1120 Sayle Street, Wisconsin. The 5.6 acre Site has frontage on Sayle Street , is bisected by Van Deusen Street and has a storage facility adjacent to Wingra Creek.

The Goodman parcel is zoned PR (Parks and Recreation).

This site is operated by the Parks division.

Parks facilities on this site includes 5 buildings providing, vehicle and equipment storage, office space and a workshop. Parks uses the yard to store trailers, landscape materials and for parking.

Figure 1 shows the 5.6-acre site boundary.



Figure 1

5.6-acre Traffic Engineering Public Works Facility

3.1 Site Drainage

3.1.1 Outfalls

The Traffic Engineering Public Works (TEPW) site is located in Outfall Basin MO07-C-0203-D-MAD-C in the Lake Monona (MO07) watershed. The TEPW site makes up 8.5% of the basin's 66.2 acres. Appendix 5 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

The majority of the stormwater run off is collected in storm sewers and discharged to Wingra Creek. A small portion of the site drains directly to Wingra Creek.

3.1.2 Site Drainage

There is a single storm sewer outfall on wingra creek that nearly the entire site flows through. There is a not any treatment of the runoff from the site.

Appendix 5 shows the following site specific features:

- storm drainage collection and disposal system;

3.2 SITE ACTIVITIES

The Goodman Public Works facility is a multipurpose location. Activities include maintenance vehicles and equipment used to maintain park facilities. Storage of lawn mower and bobcat attachments, rubber mulch, and small amounts of brush. Workshops for maintaining parks infrastructure and office space and parking for field operation staff.

3.3 Potential Pollutants

A site activity and materials inventory that have the potential to contaminate storm water and an accompanying map is provided in Appendix 6.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility (to be included in this document in Appendices 8-10).

4. Best Management Practices

There are not any structural control at this facility.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate storm water outfalls for the presence of non-storm water discharges, and
- b) Evaluate the effectiveness of the company's pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of stone weeper and the apron of the storm pipe in the drainage channel. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **01/01/2020**.

7.0 Record Keeping and Reporting

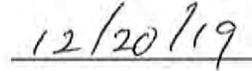
The quarterly inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.



Robert F. Phillips, P.E.
City Engineer



Date

Appendix 1 - WPDES Permit

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, WI 53711-5397

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



July 1, 2019

Robert Phillips, City Engineer
City of Madison
210 MLK Jr BLVD, Room 115
Madison, WI 53703

Subject: Authorization under Wisconsin Pollutant Discharge Elimination System (WPDES) Municipal Separate Storm Sewer System (MS4) Madison Area Permit No. WI-S058416-4

Dear Mr. Phillips:

The Department of Natural Resources (Department) has reissued WPDES Municipal Separate Storm Sewer System (MS4) Madison Area Permit No. WI-S058416-4, which replaces previous coverage under the expired WPDES MS4 Permit No. WI-S058416-3. Discharges from your MS4 will continue to be authorized and regulated in accordance with the reissued permit, ch. 283, Wis. Stats., and subch. I of ch. NR 216, Wis. Adm. Code. The City of Madison must comply with the terms and conditions of the permit to lawfully discharge storm water from the MS4 to waters of the state.

The City of Madison's **Start Date** of coverage under the general permit is the date of this letter authorizing coverage, **July 1, 2019**. The schedule for meeting many of the requirements under the general permit is based on this start date. A compliance schedule is given in section 5 beginning on page 30 of the permit. It is important that the City of Madison understand the terms and conditions of the permit because it is enforceable under both state and federal law.

In accordance with s. 283.33(9), Wis. Stats. and s. NR 216.08, Wis. Adm. Code, the same annual fee will continue required for coverage under the permit. In late May or early June of each year, the City of Madison will receive an invoice from the Department.

If you have any questions about the permit, please feel free to contact me at 608-273-5612.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric S. Rortvedt'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Eric S. Rortvedt
Storm Water Engineer

Enclosure: WPDES Permit No. WI-S058416-4

cc: DNR Electronic Permit File
Eric Rortvedt – SCR

Notice of Appeal Rights

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30 day period for filing a petition for judicial review.



**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**INDIVIDUAL PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM
WPDES PERMIT NO. WI-S058416-4**

In compliance with the provisions of ch. 283.33, Wis. Stats., and chs. NR 151 and 216, Wis. Adm. Code,

THE CITIES OF FITCHBURG, MADISON, MIDDLETON, MONONA, STOUGHTON, SUN PRAIRIE, AND VERONA; THE VILLAGES OF COTTAGE GROVE, DEFOREST, MAPLE BLUFF, MCFARLAND, SHOREWOOD HILLS, WAUNAKEE AND WINDSOR; THE TOWNS OF BLOOMING GROVE, BURKE, MADISON, MIDDLETON AND WESTPORT; DANE COUNTY; AND THE UNIVERSITY OF WISCONSIN – MADISON

are permitted to discharge storm water from all portions of the

MUNICIPAL SEPARATE STORM SEWER SYSTEMS

owned or operated by the co-permittees listed above to waters of the state in accordance with the conditions set forth in this permit.

With written authorization by the Department, this permit will be used to cover a municipal separate storm sewer system initially covered under a previous version of a municipal separate storm sewer system permit. The **Start Date** of coverage under this permit is the date of the Department letter sent to the municipality authorizing coverage under this permit. The Department is required to charge an annual permit fee to owners and operators authorized to discharge under this permit in accordance with s. 283.33(9), Wis. Stats., and s. NR 216.08, Wis. Adm. Code.

State of Wisconsin Department of Natural Resources
For the Secretary

By: 
Eric S. Rortvedt
Storm Water Engineer & Permit Drafter

7/01/19
Date Permit Signed/Issued

PERMIT EFFECTIVE DATE: July 1, 2019

EXPIRATION DATE: June 30, 2024

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1. APPLICABILITY CRITERIA

1.1 Permit Description and Purpose

Each municipality listed as a co-permittee under this permit submitted a reissuance application letter to the Department of Natural Resources (hereinafter referred to as “Department”) pursuant to s. NR 216.09, Wis. Adm. Code, to be covered under a group WPDES municipal storm water discharge permit for storm water discharges from the group’s municipal separate storm sewer systems (MS4s) to waters of the state. The co-permittees under this permit are continuing to work together, potentially along with other MS4 general permittees, under an intermunicipal agreement (Madison Municipal Storm Water Partnership) to refine and implement an extensive joint information and education plan and have agreed to cooperate as appropriate on permit requirements.

This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A municipality that is a co-permittee under this permit is only responsible for permit conditions relating to discharges from the MS4 under its jurisdiction for which it is the owner or operator.

1.2 Permitted Area

This permit covers all areas under the ownership, control or jurisdiction of the co-permittees that contribute to discharges from a municipal separate storm sewer system (MS4) that receives runoff from an urbanized area, adjacent developing areas and areas whose runoff is connected or will connect to a municipal separate storm sewer regulated under subch. I of ch. NR 216, Wis. Adm. Code.

1.3 Co-Permittees

There are 21 municipalities (or co-permittees) covered under this permit including: The Cities of Fitchburg, Madison, Middleton, Monona, Stoughton, Sun Prairie, and Verona; the Villages of Cottage Grove, DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee and Windsor; the Towns of Blooming Grove, Burke, Madison, Middleton and Westport; Dane County; and the University of Wisconsin – Madison.

As a state entity, the University Wisconsin - Madison owns, controls and/or has jurisdiction in lands outside of their responsible MS4 permit compliance area. The lands outside of their permit compliance area shall be accounted under this WPDES permit as in the jurisdiction of the applicable co-permittee where they reside.

1.4 Dane County

Specifically, for Dane County as a co-permittee, this permit only authorizes discharges of storm water from the MS4 owned or operated by Dane County that occur within the geographical boundaries of the other co-permittees.

1.5 Authorized Discharges

1.5.1 This permit authorizes storm water point source discharges from the co-permittee’s MS4 to waters of the state in the permitted area. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges which are not considered illicit discharges pursuant to section 3.3 of this permit.

1.5.2 A permanent pumped storm water discharge from an otherwise internally drained area may be authorized under this permit, provided all of the following:

- a. Written confirmation must be received from the Department's storm water program that the discharge is authorized under this permit. The co-permittee shall provide the Department with a pumping management plan and other information it deems relevant to determine if the discharge should be authorized under this permit.
- b. The pumped discharge shall be operated in a manner to prevent accumulated sediment from entering the pumped water intake.
- c. The discharge shall be operated in a manner to prevent downgradient erosion.

1.5.3 The City of Middleton is authorized to discharge pumped water from Tiedeman Pond, which will flow over a mile before entering Lake Mendota, with additional requirements in section 4.2.

Note: The pumped discharge from Tiedeman Pond was previously authorized under WPDES permit no. WI-0049956-1. Once this permit is reissued, the Department will send a letter to the City of Middleton terminating its coverage under WPDES permit no. WI-0049956-1.

1.5.4 The City of Stoughton is authorized to discharge pumped water from Paradise Pond, which will flow over a mile before entering the Yahara River, with additional requirements in section 4.4.

Note: Authorization under this WPDES permit does not exempt the discharge from compliance with all other applicable local, state and federal regulations.

1.6 Water Quality Standards

1.6.1 This permit specifies the conditions under which storm water may be discharged to waters of the state for the purpose of achieving water quality standards contained in chs. NR 102 through 105, 140 and 207, Wis. Adm. Code. For the term of this permit, compliance with water quality standards will be addressed by adherence to the requirements in this permit.

1.6.2 This permit does not authorize discharges that the Department determines will cause or have reasonable potential to cause or contribute to an exceedance above any applicable water quality standards.

1.7 Outstanding and Exceptional Resource Waters

1.7.1 The co-permittee shall determine whether any part of its MS4 discharges to an outstanding resource water (ORW) or exceptional resource water (ERW). ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code. As of the issuance date of this permit, Black Earth Creek is an ORW and Sixmile Creek and the Sugar River are ERWs.

Note: An unofficial list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/SurfaceWater/orwerw.html>

1.7.2 The co-permittee may not establish a new MS4 discharge of pollutants to an ORW or an ERW unless the storm water management programs required under this permit are designed to ensure that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background concentration levels within the ORW or ERW.

Note: 'New MS4 discharge of pollutants' is defined under section 7.16.

1.7.3 If the co-permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants, either at the existing point of discharge or a new location, provided all the following are met:

- a. The pollutant concentration within the receiving water and under the influence of the existing discharge would not increase as compared to the level that existed prior to the co-permittee's effective date of coverage under WPDES permit nos. WI-S050075-1 or WI-S058416-3. The City of Stoughton and Village of Cottage Grove had an effective date of coverage of November 13, 2006 under WPDES permit no. WI-S050075-1 and the other 19 co-permittees had an effective date of coverage of July 1, 2009 under WPDES permit no. WI-S058416-3.
- b. The increased discharge would not result in a violation of water quality standards.

1.7.4 If the co-permittee has an existing MS4 discharge to an ERW, it may increase the discharge of pollutants if the increased discharge would not result in a violation of water quality standards.

1.8 Impaired Water Bodies and Total Maximum Daily Load Requirements

1.8.1 A TMDL was approved for the Rock River Basin by the Department and USEPA, which established sediment and total phosphorus Wasteload Allocations (WLAs) for permitted MS4s. Co-permittees shall comply with the TMDL provisions in Appendix A for discharge into the Rock River Basin.

Note: The reports for Department and USEPA approved TMDLs are available from the Department's Internet site at: <https://dnr.wi.gov/topic/TMDLs/tmdlreports.html>

1.8.2 By March 31 of each odd-numbered year, the co-permittee shall determine whether any part of its MS4 discharges to an impaired water listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(1). For a co-permittee that determines that any part of its MS4 does discharge to a listed impaired water but for which there is no Department and USEPA approved Total Maximum Daily Load (TMDL) for the pollutant of concern, the co-permittee shall include a written section in its storm water management program that discusses the management practices and control measures it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. This section of the co-permittee's program shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4's discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these control measures and practices were chosen as opposed to other alternatives.

Note: Every two years, the Department updates and publishes a list of water bodies considered impaired under the Clean Water Act. The list is updated in even-numbered years. A list of Wisconsin impaired water bodies may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/impairedwaters/>

1.8.3 The co-permittee may not establish a new MS4 discharge of pollutants of concern to an impaired water or increase the discharge of a pollutant of concern to an impaired water unless the new or increased discharge does not contribute to the receiving water's impairment, or the US Environmental Protection Agency and the Department have approved a Total Maximum Daily Load (TMDL) for the impaired water.

Note: 'New MS4 discharge of pollutants' and 'pollutant of concern' are defined under sections 7.16 and 7.20.

1.9 Wetlands

The co-permittee's MS4 discharge shall comply with the applicable wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.

1.10 Endangered and Threatened Resources

The co-permittee's MS4 discharge shall comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.

1.11 Historic Property

The co-permittee's MS4 discharge may not affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., unless the Department determines that the MS4 discharge will not have an adverse effect on historic property pursuant to s. 44.40 (3), Wis. Stats.

1.12 General Storm Water Discharge Limitations

In accordance with s. NR 102.04, Wis. Adm. Code, co-permittee shall take all reasonable actions to prevent discharges from its MS4 that have an unreasonable effect on receiving water quality, human health, or aquatic life:

1.12.1 Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.2 Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.3 Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.

1.12.4 Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

1.13 Transfers

Coverage under this permit is not transferable to another municipality without the express written approval of the Department. If the co-permittee's MS4 is annexed into another municipality, the co-permittee shall immediately notify the Department by letter of the change. If the co-permittee ceases to own or operate any MS4 regulated under this permit, the Department may terminate its coverage under this permit.

1.14 Exclusions

The following are excluded from coverage and are not authorized under this permit:

1.14.1 Combined Sewer and Sanitary Sewer Systems

Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Stats.

1.14.2 Agricultural Facilities and Practices

Discharges from agricultural facilities and agricultural practices. "Agricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping;

commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable raising.

1.14.3 Other Excluded Discharges

Storm water discharges from industrial operations or land disturbing construction activity requires separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge from an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the co-permittee's responsibility to regulate construction sites within its jurisdiction in accordance with sections 3.4 and 3.5 of this permit.

1.14.4 Non-MS4 Discharge

Storm water discharges that do not enter an MS4.

1.15 Compliance with Permit Requirements

Compliance with the requirements contained in this permit including the applicable appendices shall not be contingent upon receiving financial assistance from the Department or any other public or private grant or loan program.

2. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

In addition to the requirements specified in sections 1 and 3 through 7, each co-permittee shall:

2.1 Minimize the discharge of pollutants from its MS4.

2.2 Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of annexation by the co-permittee.

2.3 Implement the storm water management program and other pertinent requirements of this permit in all new areas added to the co-permittee's MS4 as the result of installation or taking jurisdiction of a new or existing MS4.

2.4 Individually or as agreed upon by the co-permittees, provide adequate financing, staff, equipment, and support capabilities to implement the requirements of this permit.

2.5 Comply with the conditions of this permit relating to discharges from the MS4 where it is the owner or operator.

2.6 Implement a storm water management program, as required by this permit, in portions of the municipality that discharge to an MS4.

2.7 Exercise and enforce its legal authority, as applicable, to control discharges to and from those portions of the MS4 that it owns or operates under its permitted area. This legal authority may be a statute, ordinance, permit, order or intermunicipal agreement, a series of contracts, or administrative rule in order to:

2.7.1 Control the contribution of pollutants to and the discharge of pollutants from the MS4.

- 2.7.2** Prohibit illicit discharges to the MS4.
- 2.7.3** Control the discharge of spills, dumping and disposal of materials other than storm water into the MS4.
- 2.7.4** Require compliance with conditions in ordinances, permits, contracts, orders or administrative rules.
- 2.7.5** Require compliance with the standards of ss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
- 2.7.6** Require compliance with the standards of ss. NR 151.121 to 151.128 and 151.241 to 151.249, Wis. Adm. Code, or equivalent local standards.
- 2.7.7** Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition of illicit discharges to the MS4.

Note: As a state entity, the University of Wisconsin – Madison has limited statutory authority than that of other municipal co-permittees regulated under this permit. See section 4.6 for the University of Wisconsin – Madison’s individual responsibility to meet the requirements of section 2.7.

- 2.8** Attend and participate in quarterly meetings of the co-permittees. Unless an alternative quarterly date or dates are agreed upon by the co-permittees, the quarterly meetings shall take place the first Tuesday of February, May, August, and November of each year. These meetings are to be used for review and approval schedules, receive work progress reports, and discuss issues pertaining to this permit or other relevant storm water management issues. Each co-permittee shall designate a representative to attend these meetings. The representative of the City of Madison shall provide the agenda, facilitate the conduct of the meetings, and provide a record of the proceedings in the form of minutes. The meetings shall be held at times and places determined by the co-permittees. Adequate notices of and agendas for the meetings shall be provided by the facilitator to the designated representatives for each co-permittee.
- 2.9** Cooperate with other co-permittees on sharing information and resources to facilitate storm water management activities on a regional or watershed basis and to avoid duplicative efforts.
- 2.10** Fulfill the commitments of an intermunicipal agreement to cooperate on storm water information and education.
- 2.11** Notify the affected co-permittee in the case of discovering a potential illicit discharge originating from its jurisdiction and discharging to the MS4 of the affected co-permittee.
- 2.12** Work cooperatively with other affected co-permittees in the case of discovering a potential illicit discharge of unknown source to determine the best actions to resolve the illicit discharge.
- 2.13** Submit information requested by the Department pertinent to the MS4, discharges from the system, activities related to implementation of the requirements of this permit, or other relevant information.
- 2.14** Meet with the Department on an as needed basis to discuss implementation of this permit or other relevant issues.
- 2.15** Keep contact information up-to-date and notify the Department in a timely manner when personnel changes occur for the appropriate contact person(s) knowledgeable about this permit and its implementation.

2.16 Respond to and resolve in timely manner complaints received from citizens and concerns raised by the Department relating to pollution and storm water issues within the co-permittee's jurisdiction.

2.17 Coordinate the requirements of this permit internally between the co-permittee's agencies, departments, and programs, and ensure that elected and municipal officials and appropriate staff are advised of this permit.

2.18 Implement the requirements of this permit in a manner that is consistent with the recommendations contained in priority watershed plans, the Dane County Water Quality Plan, and other storm water management plans funded by the Department and applicable to the co-permittee.

2.19 Incorporate the requirements of this permit in the development of master plans, neighborhood plans, development plans, and any other comprehensive planning activity to address water quality impacts from storm water discharges associated with implementation of these plans.

2.20 Undertake actions required by this permit in manner that is consistent and in conformance with other applicable regulatory programs.

Note: Examples of other regulatory programs that may be applicable are the U.S. Army Corps of Engineers 404 permit program and permits required under ch. 30, Wis. Stats.

3. PERMIT CONDITIONS

This permit establishes the following measurable goals, with a compliance schedule in section 5, for the co-permittee to maintain compliance with the minimum control measures for their storm water management program described under sections 3.1 through 3.6. The following permit conditions apply to the co-permittee, unless the Department issues a written determination that a condition is not appropriate under the circumstances. The co-permittee shall have a written storm water management program that describes in detail how the co-permittee intends to comply with the permit's requirements for each minimum control measure. The permit shall begin implementing any updates to its storm water management programs no later than March 31, 2021.

3.1 Public Education and Outreach

Each co-permittee shall maintain its public education and outreach program to increase the awareness of storm water pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts. The co-permittee shall implement the following measurable goals:

3.1.1 MAMSWAP Membership. Continue to be a member of the Madison Area Municipal Storm Water Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program then they must develop and implement a work plan on their own that otherwise meets the requirements of section 3.1 of this permit.

3.1.2 MAMSWaP Education Plan. Participate in the implementation of the most recent *Madison Area Municipal Storm Water Partnership (MAMSWaP) 5-Year Information and Education Plan*, which are prepared on behalf of the co-permittees. By December 1 of each year, the co-permittees shall collectively develop an annual work plan to guide implementation of the MAMSWaP information and education plan for the following calendar year. The information and education plan shall establish measurable goals for the topic areas listed in Table 1 below.

Note: MAMSWaP information and education plan documents are available online at: <http://www.ripple-effects.com/mamswap>

3.1.3 Educator Coordinator Cooperation. Cooperate with and assist the person functioning in the Storm Water Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.

3.1.4 Topics. Each co-permittee is individually responsible to have its own public education and outreach plan, which should follow the MAMSWaP information and educational plan and be adapted to its own municipality. Each co-permittee shall address all eight topics in Table 1 at least once during the permit term with a minimum of six topics being addressed each year, except, co-permittees that are a City, Village, or Town with a population less than 5,000 based on the latest U.S. Census, shall address a minimum of four topics each year. Topics may be repeated as necessary. Co-permittees shall select from the topic areas in Table 1.

Note: Universities should average its enrolled student population plus employee population over a recent ten-year period to determine which requirement it should follow for permit compliance. Universities are also expected to undertake public education efforts that reach the entire student body and staff.

Table 1: Public Education and Outreach Topic Areas and Descriptions

#	Topic Area	Description
1	Illicit Discharge Detection and Elimination	Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.
2	Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
3	Yard Waste Management/Pesticide and Fertilizer Application	Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
4	Stream and Shoreline Management	Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
5	Residential Infiltration	Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
6	Construction Sites and Post-Construction Storm Water Management	Inform and 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.
7	Pollution Prevention	Identify businesses and activities that may pose a storm water contamination concern and educate those specific audiences on methods of storm water pollution prevention.
8	Green Infrastructure/Low Impact Development	Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development.

Note: Additional information on green infrastructure and low impact development may be found on the USEPA's Internet site at: <https://www.epa.gov/green-infrastructure>

3.1.5 Delivery mechanism. The co-permittee shall use at least four public education delivery mechanisms each year. co-permittees that are a City, Village, Town, or University with a population of 5,000 or more based on the latest U.S. census shall use at least two from the Active/Interactive Mechanisms column in Table 2 each year. Co-permittees that are a City, Village, Town or University with a population less than 5,000 based on the latest U.S. census shall use at least one from the Active/Interactive Mechanisms column in Table 2 each year. Co-permittees that are a County shall use at least one from the Active/Interactive Mechanisms column in Table 2 each year.”

Note: A University should average its enrolled student population plus employee population over a recent ten-year period to determine which requirement it should follow for permit compliance. Universities are also expected to undertake public education efforts that reach the entire student body and staff.

Table 2: Public Education and Outreach Delivery Mechanisms (Active and Passive)

Active/Interactive Mechanisms	Passive Mechanisms
<ul style="list-style-type: none"> • Educational activities (school presentations, summer camps) • Informational booth at event • Targeted group training (contractors, consultants, etc.) • Government event (public hearing, council meeting) • Workshops • Tours • Others 	<ul style="list-style-type: none"> • Passive print media (brochures at front desk, posters, etc.) • Distribution of print media (mailings, newsletters, etc.) via mail or email • Media offerings (radio and TV ads, press release, etc.) • Social media posts • Signage • Website • Other

3.1.6 Target audience. The co-permittee shall identify the target audience for each public education and outreach topic. Target audiences may include general public, public employees, residents, businesses, restaurants, contractors, developers, industries, and/or other appropriate audience.

3.2 Public Involvement and Participation

Each co-permittee shall maintain its public involvement and participation program, which complies with applicable state and local public notice requirements, to notify the public of activities required by this permit and to encourage input and participation from the public regarding these activities. The co-permittee shall implement the following measurable goals:

3.2.1 Permit activities. The co-permittee shall provide a minimum of one opportunity annually for the public to provide input on each of the following permit activities: annual report, storm water management program, and if applicable, adoption or amendment of storm water related ordinances.

3.2.2 Delivery mechanism. The co-permittee shall identify the public involvement and participation delivery mechanism for each permit activity mentioned in section 3.2.1. Delivery mechanisms may include, but not be limited to, public workshop, presentation of storm water information, government event (public hearing, council meeting, etc.), citizen committee meeting, or website.

3.2.3 Volunteer activity. The co-permittee must implement at a minimum one of the following volunteer public involvement and participation programs per year: group best management

practice (BMP) installation/maintenance, storm drain stenciling, planting community rain garden, clean up events, stream monitoring, citizen committee meetings, public workshop, presentation of storm water information, or other hands-on events.

3.2.4 Target participants. The co-permittee shall identify the targeted participants for each permit activity and volunteer program. Participants may include general public, public employees, residents, businesses, contractors, developers, industries, and/or other appropriate audience.

3.3 Illicit Discharge Detection and Elimination

The co-permittee shall continue to implement and enforce its program to detect and remove illicit connections and discharges to the MS4. The co-permittee shall implement the following measurable goals:

3.3.1 IDDE ordinance. An ordinance or other regulatory mechanism to prevent and eliminate illicit discharges and connections to the MS4. At a minimum, the ordinance or other regulatory mechanism shall:

- a. Prohibit illicit discharges and the discharge, spilling or dumping of non-storm water substances or materials into waters of the state or the MS4.
- b. Identify non-storm water discharges or flows that are not considered illicit discharges. Categories of non-storm water discharges that are not considered illicit discharges include water line flushing, landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, fire-fighting and discharges authorized under a WPDES permit. However, the occurrence of a discharge listed above may be considered an illicit discharge on a case-by-case basis if the co-permittee or the Department identifies it as a significant source of a pollutant to waters of the state.
- c. Establish inspection and enforcement authority.

Note: Chapter NR 815, Wis. Adm. Code, regulates injection wells including storm water injection wells. Construction or use of a well to dispose of storm water directly into groundwater is prohibited under s. NR 815.11(5), Wis. Adm. Code.

3.3.2 IDDE field screening. On-going dry weather field screening shall be conducted at 100% of the total major outfalls at least once during the term of the permit. Additionally, the co-permittee shall select minor outfalls for annual on-going dry weather field screening during the term of the permit. The co-permittee shall develop a prioritization procedure to assist with selecting minor outfalls and consideration shall be given to hydrological conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, history of the area and land use types when selecting outfalls for annual field screening. At a minimum, field screening shall be documented and include:

- a. Visual Observation - A narrative description of visual observations including color, odor, turbidity, oil sheen or surface scum, flow rate and any other relevant observations regarding the potential presence of non-storm water discharges or illicit dumping.
- b. Field Analysis - If flow is observed, a field analysis shall be conducted to determine the presence of illicit non-storm water discharges or illicit dumping. The field analysis

shall include sampling for pH, total chlorine, total copper, total phenol and detergents, unless the co-permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters. Other alternative indicator parameters may be authorized by the Department in writing.

- (1) Field screening points shall, where possible, be located downstream of any source of suspected illicit activity.
- (2) Field screening points shall be located where practicable at the farthest manhole or other accessible location downstream in the system. Safety of personnel and accessibility of the location shall be considered in making this determination.

Note: The Department's MS4 Illicit Discharge Detection and Elimination guidance document includes several recommendations and criteria regarding selection of outfalls for field screening, screening frequency, indicator parameter selection, indicator parameter action levels and documentation. The Illicit Discharge Detection and Elimination guidance is available on the Department's Internet site at: <https://dnr.wi.gov/topic/stormwater/municipal/overview.html>

3.3.3 IDDE source investigation and elimination. Written procedures for responding to known or suspected illicit discharges. At a minimum, procedures shall be established for:

- a. As soon as possible, investigating portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water discharges.
- b. Responding to spills that discharge into and/or from the MS4 including tracking and locating the source of the spill if unknown.
- c. Preventing and containing spills that may discharge into or are already within the MS4.
- d. Promoting, publicizing, and facilitating public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including a form, website, email address and/or telephone number for complaints and spill reporting, and publicize to both internal co-permittee staff and the public.
- e. Notifying the Department immediately in accordance with ch. NR 706, Wis. Adm. Code, if the co-permittee identifies a spill or release of a hazardous substance, which has resulted or may result in the discharge of pollutants into waters of the state. The Department shall be notified via the 24-hour toll free spill hotline at 1-800-943-0003. The co-permittee shall cooperate with the Department in efforts to investigate and prevent such discharges from polluting waters of the state.
- f. Detecting and eliminating cross-connections and leakage from sanitary conveyance systems into the MS4.
- g. Providing the Department storm water program with advanced notice of the time and location of dye testing within an MS4. Department notification prior to dye testing is required due to the likelihood that dye observed in waterways will be reported to the Department as an illicit discharge or spill.

Note: The current storm water program contact is Eric Rortvedt and he may be notified via email at: Eric.Rortvedt@wisconsin.gov

h. Documentation of the following information:

- (1)** Dates and locations of IDDE screenings conducted in accordance with section 3.3.2.
- (2)** Reports of alleged illicit discharges received, including dates of the reports, and any follow-up actions taken by the co-permittee.
- (3)** Dates of discovery of all illicit discharges.
- (4)** Identification of outfalls, or other areas, where illicit discharge have been discovered.
- (5)** Sources (including a description and the responsible party) of illicit discharges (if known).
- (6)** Actions taken by the co-permittee, including dates, to address discovered illicit discharges.

3.3.4 The co-permittee shall take appropriate action to remove known illicit discharges from its MS4 system discovered under section 3.3 as soon as possible. If it will take more than 30 days to remove an illicit connection or if the potential illicit discharge is from a facility with WPDES permit coverage, the Department shall be contacted to discuss an appropriate action and/or timeframe for removal. Notwithstanding this 30-day timeframe and notification of the Department, the permittee shall be responsible for any known illicit connections to its MS4 system that are a significant risk to human health and the environment.

3.3.5 In the case of interconnected MS4s, the co-permittee shall notify the appropriate municipality within one working day of either of the following:

- a.** An illicit discharge that originates from the co-permittee's permitted area that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality.
- b.** An illicit discharge that has been tracked upstream to the interconnection point with or outfall from another municipality.

3.3.6 The name, title and phone number of the individual(s) responsible for responding to reports of illicit discharges and spills shall be included in the illicit discharge response procedure.

3.4 Construction Site Pollutant Control

Except for the University of Wisconsin-Madison as identified under section 4.6 of this permit, the co-permittee shall implement and enforce its program to reduce the discharge of sediment and construction materials from construction sites. The co-permittee shall implement the following measurable goals:

3.4.1 Construction site ordinance. An ordinance or other regulatory mechanism to require erosion and sediment control at construction sites and establish sanctions to ensure compliance. At a minimum, the ordinance or other regulatory mechanism shall establish or include:

a. Applicability and Jurisdiction, pursuant to the authority provided to the co-permittee under Wisconsin statutes, the ordinance shall apply to all construction sites with one acre or more of land disturbance, and to sites of less than one acre if they are part of a larger common plan of development or sale.

Note: The Department has guidance, dated February 2015, defining common plan of development at:
<https://dnr.wi.gov/topic/stormwater/documents/GuidanceCommonPlan.pdf>

b. Requirements for design and implementation of erosion and sediment control practices consistent with the criteria of those approved by the Department.

Note: Department approved erosion and sediment control practices may be found on the Department's Internet site at:
https://dnr.wi.gov/topic/stormwater/standards/const_standards.html

c. Construction site performance standards equivalent to those in ss. NR 151.11(6m), (7), and (8), and 151.23(4m), (5), and (6), Wis. Adm. Code, to achieve the following measurable goals:

(1) BMPs for construction sites that, by design, discharge no more than 5 tons per acre per year, or to the Maximum Extent Practicable (MEP), of the sediment load carried in runoff from initial grading to final stabilization.

(2) BMPs for transportation facilities that, by design, discharge no more than 5 tons per acre per year, or to the MEP, of the sediment load carried in runoff from initial grading to final stabilization.

Note: The requirements for erosion and sediment control practices, sediment performance standards, and preventive measures for non-transportation facilities can be found in s. NR 151.11(6m), Wis. Adm. Code, and for transportation facilities can be found in NR. 151.23(4m), Wis. Adm. Code.

d. Erosion and sediment control plan requirements for landowners of construction sites equivalent to those contained in s. NR 216.46, Wis. Adm. Code.

e. Inspection and enforcement authority.

f. Requirements for construction site operators to manage waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site to reduce adverse impacts to waters of the state.

Note: In accordance with section 3.10, when a town demonstrates to the Department that an adequate county ordinance that meets the requirements of this permit is administered and

enforced within its town, then the town may be excused from having to adopt its own ordinance. Model ordinances for construction site erosion and sediment control can be found in ch. NR 152, Wis. Adm. Code: https://docs.legis.wisconsin.gov/code/admin_code/nr/100/152

3.4.2 Erosion and sediment plan review. Written procedures for construction site plan review which incorporate consideration of potential water quality impacts. Preconstruction erosion control plan reviews shall be conducted for all construction sites with greater than one acre of land disturbance.

3.4.3 Administrative procedures. Written procedures for the administration of the construction site pollutant control program including the process for obtaining local approval, managing and responding to complaints, tracking regulated construction sites, and construction site plan receipt and consideration of information submitted by the public.

3.4.4 Construction site inspections and enforcement. Written procedures for construction site inspection and enforcement of erosion and sediment control measures. By April 1, 2020, at a minimum, the procedures shall establish:

- a. Municipal departments or staff responsible for construction site inspections and enforcement.

Note: Municipal construction site inspectors should obtain certification as a Soil Erosion Inspector pursuant to s. SPS 305.63, Wis. Adm. Code, for more information: <https://dsps.wi.gov/Pages/Professions/SoilErosionInspector/Default.aspx>

- b. Construction site inspection frequency. The co-permittee shall inspect all construction sites, at a minimum, in accordance with the frequency specified in **Error! Reference source not found.** below.

Table 3: Construction Site Inspection Frequency

Site	Inspection Frequency
(1) All sites one acre or more in size	<ul style="list-style-type: none"> • New projects shall be inspected within the first two weeks of commencement of land disturbing construction activity • All active sites shall be inspected at least once every 45 days • All inactive sites shall be inspected at least once every 60 days
(2) Follow up inspection	<ul style="list-style-type: none"> • Follow up inspections are required within 7 days of any sediment discharge or inadequate control measure, unless corrections were made and observed by the inspector during initial inspection or corrections were verified via photographs submitted to the inspector
(3) Final inspection	<ul style="list-style-type: none"> • Confirm that all graded areas have reached final stabilization and that all temporary control measures are removed, and permanent storm water management BMPs are installed as designed

- c. Construction site inspection documentation. Compliance with the inspection requirements in 3.4.4.a. and b. above, shall be determined by proper documentation and maintenance of records of an established inspection program designed to inspect all sites.

Note: The Department's Construction Site Inspection Report (Form 3400-187) may be used to document inspections. The form can be found on the Department's Internet site at: <https://dnr.wi.gov/topic/Stormwater/construction/forms.html>

d. Enforcement mechanisms that will be used to obtain compliance.

3.5 Post-Construction Storm Water Management

Except for the University of Wisconsin – Madison as identified under section 4.6, the co-permittee shall implement and enforce its program to require control of discharges from areas of new development, infill, and redevelopment, after construction is completed. The co-permittee shall implement the following measurable goals:

3.5.1 Post-construction storm water ordinance. An ordinance or other regulatory mechanism to regulate post-construction storm water discharges from new development and redevelopment. At a minimum, the ordinance or other regulatory mechanism shall establish or include:

a. Applicability and jurisdiction, pursuant to the authority provided to the co-permittee under Wisconsin statutes, the ordinance shall apply to construction sites with one acre or more of land disturbance, and sites of less than one acre if they are part of a larger common plan of development or sale.

b. Requirements for design and implementation of post-construction storm water management control practices consistent with the criteria of those approved by the Department.

Note: Department approved post-construction storm water management control practices may be found on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/standards/postconst_standards.html

c. For new development and infill, post-construction performance standards equivalent to those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, that meet the measurable goals for pollutant removal and post-construction storm water treatment. Post-construction performance standards for new development and infill may be more restrictive than those required in this section 3.5.1.c. if necessary to comply with federally approved TMDL requirements.

d. For redevelopment, post-construction performance standards equivalent to or more restrictive than those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, that meet the measurable goals for pollutant removal and post-construction storm water treatment.

e. Storm water plan requirements for landowners of construction sites equivalent to those contained in s. NR 216.47, Wis. Adm. Code.

f. Long-term maintenance requirements for landowners and other persons responsible for long-term maintenance of post-construction storm water control measures, including requirements for routine inspection and maintenance of privately-owned post-construction storm water control measures that discharge to the MS4 to maintain their pollutant removal operating efficiency.

g. Inspection and enforcement authority.

Note: In accordance with section 3.10, when a town demonstrates to the Department that an adequate county ordinance that meets the requirements of this permit is administered and enforced within its town, then the town may be excused from having to adopt its own ordinance. Model ordinances for post-construction storm water management can be found in ch. NR 152, Wis. Adm. Code: https://docs.legis.wisconsin.gov/code/admin_code/nr/100/152

3.5.2 Administrative procedures. Written procedures for the administration of the post-construction storm water management program including the process for obtaining local approval and responding to complaints.

3.5.3 Storm water management plan review. Written procedures for post-construction site plan review which incorporate consideration of potential water quality impacts. Post-construction site plan reviews should be conducted for all construction sites (both publicly or privately sponsored) with greater than one acre of land disturbance.

Note: The Department recommends that municipal staff reviewing plans obtain training on post-construction plan review.

3.5.4 Long-term maintenance, inspections and enforcement. Written procedures that will be used by the co-permittee through its ordinance jurisdiction, approval process, and authority to, at a minimum, track and enforce the long-term maintenance of storm water management facilities implemented to meet the applicable post-construction performance standards in section 3.5.1.c and d of this permit. The procedures shall include:

- a. A mechanism for tracking regulated sites.
- b. A set inspection frequency of no less than once per permit term.
- c. Inspection documentation.
- d. Follow up enforcement with timeframes for corrective maintenance.

3.6 Pollution Prevention

The co-permittee shall continue to implement its pollution prevention program to prevent or reduce pollutant runoff from the MS4 to waters of the state. The co-permittee shall implement the following measurable goals:

3.6.1 Storm water management facilities. Update and maintain an inventory of municipally owned or operated storm water best management BMPs such as wet detention ponds, bioretention devices, infiltration basins and trenches, permeable pavement, proprietary sedimentation devices, vegetated swales, or any similar practices or devices used to meet a water quality requirement under this permit. At a minimum, the inventory shall be maintained in a tabular format and contain the following information for each best management practice:

- a. A key corresponding to the location of the BMP on the storm sewer system map required under section 3.8.
- b. The name and a description of the BMP, including the type and year constructed.
- c. A confirmation of whether each of the following elements exist or are not available:
 - (1) An operation and maintenance plan with inspection procedures and schedule.

(2) A record drawing.

Note: A record drawing is a complete clean set of drawings that accurately reflect how the final practice was built.

(3) If owned by another entity but used by the co-permittee to meet a water quality requirement in this permit, written documentation that the co-permittee has permission from the owner to use the BMP for this purpose.

3.6.2 For each BMP inventoried under section 3.6.1, the co-permittee shall develop and implement a maintenance plan with inspection procedures and schedule to maintain the pollutant removal operating efficiency of the practice in compliance with any water quality requirement under this permit. Documentation of inspections and maintenance activities shall be maintained.

Note: Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*, establishes a process to regulate sediment removal and use to help storm water pond owners manage storm water pond sediment. Information on NR 528 and managing accumulated sediment from storm water ponds is available through the Department's Internet site at: <https://dnr.wi.gov/topic/waste/nr528.html>

3.6.3 Municipally owned facilities. The Storm Water Pollution Prevention Plans (SWPPPs) for municipal garages, municipal storage areas, and other sources of storm water pollution from municipal facilities located within the permitted area shall be maintained and updated annually as needed and shall include the information in sections 3.6.3.a. When a SWPPP is updated, it shall be submitted to the Department with the annual report.

a. SWPPPs shall include the following information:

(1) The physical locations of each facility with a key corresponding to the locations on the storm sewer system map required under section 3.8.

(2) The contact information for the individual(s) with overall responsibility for each facility.

(3) A map of each facility, drawn to scale, and including the following features:

i. The locations and descriptions of major activities and storage areas.

ii. Identification of drainage patterns, potential sources of storm water contamination, and discharge points.

iii. Identification of nearby receiving waters or wetlands.

iv. Identification of connections to the co-permittee's MS4.

(4) A description of procedures, good housekeeping activities, and any BMPs installed to reduce or eliminate storm water contamination.

(5) A maintenance plan with inspection procedures and schedule for each facility to identify deficiencies, necessary improvements and/or repairs, assess effectiveness, and address new or unaddressed potential sources of storm water contamination.

(6) Spills prevention and response standard operating procedures.

b. The co-permittee is not required to comply with section 3.6.3 if the co-permittee certifies that the municipal facility qualifies for no exposure with the Department's concurrence.

(1) No exposure means that the facility shall have all materials and activities protected by a storm-resistant shelter to prevent exposure to storm water. Materials or activities include material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products or waste products. Material handling activities include the storage, loading and unloading, transportation or conveyance of any raw material, intermediate product, final product or waste product.

(2) The co-permittee shall certify for no exposure for each facility at least once each permit term. The co-permittee shall submit a letter requesting no exposure, an inspection report of the site, and photos of all materials or activities at the site. The photo locations shall be labeled on an aerial photo diagram.

3.6.4 Implement measures to reduce municipal sources of storm water contamination within source water protection areas.

Note: Wisconsin's source water assessment program information may be found on the Department's Internet site at: <https://dnr.wi.gov/topic/drinkingwater/sourcewaterprotection.html>

3.6.5 Collection services/Storm sewer system maintenance activities.

a. Street sweeping. If routine street sweeping is utilized to meet a water quality requirement under this permit, the co-permittee shall maintain documentation of the number and type of equipment used, standard operating procedures, an estimate of the number of lane-miles swept annually, and an estimate of the weight in tons of material collected annually.

b. Catch basins. If routine cleaning of catch basins with sumps is utilized to meet a water quality requirement under this permit, the co-permittee shall maintain documentation of the number of catch basins cleaned, standard operating procedures, and an estimate of the weight in tons of material collected annually.

c. Material handling and disposal. Material collected under a. and b. of this section shall be handled and stored in a manner that prevents contamination of storm water runoff and shall be disposed of or beneficially reused in accordance with applicable solid and hazardous waste statutes and administrative codes. Non-storm water discharges to waters of the state associated with dewatering and drying material collected under sections a. and b. of this section are not authorized by this permit.

Note: Information on managing waste and materials is available on the Department's Internet site at: <https://dnr.wi.gov/topic/Waste/>. Information on WPDES permits for non-storm water discharges is available on the Department's Internet site at: <https://dnr.wi.gov/topic/wastewater/>

d. Leaf management. Proper management of leaves and grass clippings from municipally owned properties and private property. The program may include instructions to private property owners for on-site composting, on-site beneficial reuse, or

yard waste drop-off as opposed to a municipal collection program. On-site management and/or drop-off shall be communicated to private property owners in accordance with the public education and outreach program implemented under section 3.1 of this permit. If the co-permittee has a municipal collection program, collected material shall be handled and stored in a manner that prevents contamination of storm water runoff. For a municipal leaf collection program, the co-permittee shall maintain the following documentation:

- (1) A description of the leaf collection program, including the type of pick-up methodology and equipment used, timing of associated street cleaning, standard operating procedures, schedule and frequency, and instructions for private property owners.
- (2) An estimate of the weight in tons of material collected annually.
- (3) Municipally operated leaf disposal locations with a key corresponding to the locations on the storm sewer system map required under section 3.8. If the disposal location is outside of the MS4 boundary, then the co-permittee can provide documentation if the disposal is taken elsewhere.

Note: The Department has developed “Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs” guidance to assist permitted MS4s on creditable phosphorus reduction through leaf collection and management. The guidance document may be found on the Department’s Internet site at: https://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html

3.6.6 Winter Road Management. If road salt or other deicers are applied by the co-permittee or a contractor on behalf of the co-permittee, no more shall be applied than necessary to maintain public safety. Documentation on deicing activities shall be performed by the co-permittee or a contractor on behalf of the co-permittee and include the following:

- a. Contact information for the individual(s) with overall responsibility for winter roadway maintenance.
- b. A description of the types of deicing products used.
- c. The amount of deicing product used per month. Alternatively, this information may be reported on a storm by storm basis, which will be more useful to correlate with air or pavement temperature and snow depth.
- d. A description of the type of equipment used.
- e. An estimate of the number of lane-miles treated with deicing products for the roadways that the co-permittee is responsible for, and an estimate in acres of the total area of municipally-owned parking lots treated with deicing products by the co-permittee or contractor.
- f. If applicable, snow disposal locations with a key corresponding to the locations on the storm sewer system map required under section 3.8.

Note: Snow treatment and disposal guidance for municipalities is available through the Department’s Internet site at: <https://dnr.wi.gov/topic/stormwater/publications.html>

g. A description of anti-icing, pre-wetting and brining, equipment calibration, pavement temperature monitoring, and/or salt reduction strategies implemented or being considered, and/or alternative products.

h. Other measurable data or information that the co-permittee uses to evaluate or modify its deicing activities.

Note: The Wisconsin Department of Transportation (WisDOT) "Highway maintenance manual," Chapter 6, contains guidelines on winter maintenance including application of road salt and other deicers. Chapter 6 is available on the WisDOT's Internet site at:

<https://wisconsindot.gov/Pages/doing-bus/local-gov/hwy-mnt/mntc-manual/chapter06.aspx>. The WisDOT highway salt storage requirements are contained in ch. Trans 277, Wis. Adm. Code.

3.6.7 Nutrient management. Application of turf and garden fertilizers on municipally controlled properties (such as parks, athletic fields, golf courses), with pervious surfaces over 5 acres each, shall be implemented in accordance with a site-specific nutrient application schedule based on appropriate soil tests.

Note: To assist co-permittees with this requirement, the Department has developed a technical standard and fact sheet for turf nutrient management. These documents may be found on the Department's Internet site at: https://dnr.wi.gov/topic/stormwater/standards/turf_nutrient.html

3.6.8 Environmentally sensitive Development. Consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development, shall be designed, installed, and maintained to comply with a water quality requirement under this permit.

Note: Additional information on green infrastructure and low impact development may be found on the following USEPA Internet sites:

<https://www.epa.gov/green-infrastructure>

<https://www.epa.gov/nps/urban-runoff-low-impact-development>

3.6.9 Internal training and education. At a minimum, the co-permittee shall hold one annual training event for appropriate municipal staff and other personnel involved in implementing each of the elements of the pollution prevention program under this section 3.6. Documentation shall be maintained of the date, the number of people attending the training, the names of each person attending and a summary of their responsibilities, and the content of the training. The co-permittee shall inform contractors performing any services to implement section 3.6 of the permit requirements and expectations. The co-permittee shall also inform their elected officials of the permit requirements and expectations.

3.7 Storm Water Quality Management (Developed Urban Area Standard)

Each co-permittee shall continue to implement its municipal storm water quality management program. This program shall maintain compliance with the developed urban area performance standards of s. NR 151.13(2)(b)1., Wis. Adm. Code, for those areas of the municipality that were not subject to the post-construction performance standards of ss. NR 151.12 or 151.24, or ss. NR 151.121 through 151.126 or ss. 151.242 through 151.246, Wis. Adm. Code. The co-permittee shall implement the following measurable goals:

3.7.1 To the maximum extent practicable, the co-permittee shall implement and maintain storm water management practices necessary to meet the more restrictive total suspended solids reduction of the following:

a. As required under s. 281.16(2)(am)3., Wis. Stats., the co-permittee shall maintain source area controls, structural storm water management facilities, and non-structural storm water BMPs that the co-permittee implemented on or before July 1, 2011 to achieve a reduction of 20% or more of total suspended solids carried by storm water runoff from existing development to waters of the state.

b. Maintain a 20% reduction in the annual average mass of total suspended solids discharging from the MS4 to surface waters of the state as compared to implementing no storm water management controls. All source area controls, structural storm water management practices, and non-structural control practices implemented to achieve the 20% reduction in total suspended solids shall be maintained.

Note: The total suspended solids reduction requirement applies to storm water runoff from areas of urban land use and is not applicable to agricultural or rural land uses and associated roads. Additional MS4 modeling guidance for modeling the total suspended solids control is available on the Department's Internet site at:

http://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html. The co-permittee may elect to meet the applicable total suspended solids standard above on a watershed or regional basis by working with other co-permittee(s) to provide regional treatment that collectively meets the standard.

3.8 Storm Sewer System Map

3.8.1 Each co-permittee shall continue to maintain its own MS4 map. The storm sewer system map shall be updated annually as needed for changes occurring in the permitted area boundaries. The municipal storm sewer system map shall include:

a. Identification of waters of the state, name and identification of whether the receiving water is an ORW, ERW or listed as an impaired water under s. 303(d) of the Clean Water Act, storm water drainage basin boundaries for each MS4 outfall and municipal separate storm sewer conveyance systems.

b. Identification of all known MS4 outfalls discharging to waters of the state and other MS4s. Major outfalls shall be uniquely identified.

c. Location of any known discharge to the MS4 that has been issued WPDES permit coverage by the Department. A list of WPDES permit holders in the co-permittee's area may be obtained from the Department.

d. Location of municipally owned or operated structural storm water management facilities including detention basins, infiltration basins, and manufactured treatment devices. If the co-permittee will be taking total suspended solids credit for pollutant removal from privately-owned facilities, they must be identified.

e. Identification of publicly owned parks, recreational areas and other open lands.

f. Location of municipal garages, storage areas and other public works facilities.

g. Identification of streets. Note that other geographic features such as railroads, airports, and water features may be identified.

3.8.2 The City of Madison shall maintain the common storm sewer system map for the entire group permit area. Each co-permittee is responsible for providing annual updates to the City of

Madison for updating the common storm sewer system map for inclusion in the annual report as outlined in section 3.9. The common storm sewer system map shall contain the following components:

- a. Delineation and identification of storm water drainage basins including watersheds, sub-watersheds, and sewersheds using the naming conventions developed by the City of Madison.
- b. Locations of major structural controls including retention, detention, and infiltration facilities.
- c. Locations of publicly owned parks, recreational areas, and other open lands such as environmental corridors and conservancies.
- d. Municipal boundaries for all co-permittees.
- e. Central Urban Service Area boundaries.
- f. Geographic features including streets, highways, railroads, airports, and water features.
- g. Township and Range System.
- h. Contours at a minimum interval of ten feet.

3.8.3 Each co-permittee shall ensure that the information provided on the common storm sewer system map for the co-permittee's areas of jurisdiction is updated annually to reflect improvements to the MS4 through December 31 of each year. Each co-permittee shall be responsible for delivering hard copy changes for the storm sewer system map to the City of Madison by January 31 each year.

3.8.4 The City of Madison shall submit the annually updated common storm sewer system map to the Department with the annual report as outlined in section 3.9.

3.9 Annual Report

Each co-permittee shall submit an annual report to the Department by **March 31 of the following year**. The co-permittee shall invite the municipal governing body, interest groups and the general public to review and comment on the annual report. The annual report shall include:

3.9.1 The status of implementing the permit requirements, status of meeting measurable program goals and compliance with permit schedules.

Note: Dane County will provide the information for the assessment of the information and education plan since it has taken the lead in the implementation of that plan. However, each co-permittee will be expected to report on its respective public information and education efforts.

3.9.2 A fiscal analysis which includes the annual expenditures and budget for the reporting year, and the anticipated budget for the next year.

3.9.3 A summary of the number and nature of inspections and enforcement actions conducted to ensure compliance with the required ordinances.

3.9.4 Identification of any known water quality improvements or degradation in the receiving water to which the co-permittee's MS4 discharges. Where degradation is identified, identify why and what actions are being taken to improve the water quality of the receiving water.

3.9.5 An evaluation of program compliance, the appropriateness of identified BMPs, and progress towards achieving identified measurable goals. Any program changes made as a result of this evaluation shall be identified and described in the annual report. For any identified deficiencies towards achieving the requirements under section 3 of this permit or lack of progress towards meeting a measurable goal, the co-permittee shall initiate program changes to improve their effectiveness.

3.9.6 If applicable, notice that the co-permittee is relying on another municipality or entity to satisfy any of the permit requirements and a description of the arrangement where a permit requirement is being met in this manner.

3.9.7 A duly authorized representative of the co-permittee shall sign and certify the annual report and include a statement or resolution that the co-permittee's governing body or delegated representatives have reviewed or been apprised of the content of the annual report.

3.9.8. The annual report and other required reports, and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Note: The Department's electronic reporting system is Internet-based and available at: <https://dnr.wi.gov/permits/water/>. Municipal storm water permit eReporting information and user support tools can be found at:

<https://dnr.wi.gov/topic/stormwater/municipal/eReporting.html>

3.10 Cooperation

The co-permittee may, by written agreement, implement this permit with another municipality or contract with another entity to perform one or more of the conditions of this permit. The co-permittee is ultimately responsible for compliance with the conditions of this permit. The co-permittee may rely on another municipality or contract with another entity to satisfy a condition of this permit if all the following are met:

3.10.1 The other municipality or entity implements the required control measure or permit requirement.

3.10.2 A particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement.

3.10.3 The other municipality or entity agrees to implement a control measure or permit requirement on the co-permittee's behalf. This shall be shown by formal written agreement, signed by both parties' authorized representatives. The agreement shall be explicit as to which specific permit conditions are being covered by which municipality or other entity. Copies of current agreements shall be submitted with the annual report or to the Department upon request.

Note: If a county is implementing and enforcing an adequate storm water ordinance(s) within a town, the town would then not have to adopt its own ordinance. However, the town, as the co-permittee, is still expected to evaluate how the county is implementing and enforcing the ordinance in the town's permitted Area, to verify the county is meeting the permit condition. Another example, if another entity agrees to implement the permit condition of long-term maintenance inspections, the co-permittee must evaluate that the entity is completing inspections as agree upon. The co-permittee should not assume that another entity

is implementing a permit condition as required because the co-permittee remains responsible for compliance with the conditions of this permit.

3.11 Amendments

The co-permittee shall amend a program required under this permit as soon as practicable if the co-permittee becomes aware that it does not meet a requirement of this permit. The co-permittee shall amend its program if notified by the Department that a program or procedure is insufficient or ineffective in meeting a requirement of this permit. The Department notice to the co-permittee may include a deadline for amending and implementing the amendment.

3.12 Reapplication for Permit Coverage

To retain authorization to discharge after the expiration date of this permit, the co-permittee shall apply for reissuance of this permit in accordance with the requirements of s. NR 216.09, Wis. Adm. Code, at least 180 days prior to this permit's expiration date.

4. SPECIAL RESPONSIBILITIES FOR CERTAIN CO-PERMITTEES

In addition to the requirements specified in sections 1 through 3 of this permit, certain co-permittees have additional or special requirements that apply to them as follows:

4.1 City of Madison

The City of Madison shall meet the following requirements:

4.1.1 Facilitate and prepare and provide the agenda and minutes for the quarterly meetings required under section 2.8.

4.1.2 Manage and annually update the common storm sewer system map required under section 3.8.2 of this permit. Any apportioning of the funds needed to manage and update the storm sewer system map may be negotiated between the City of Madison and the co-permittees.

4.1.3 Establish new or updated intergovernmental agency agreement(s) with the University of Wisconsin to meet the requirements identified within section 4.6.2. The status of all draft intergovernmental agency agreements shall be reported in the annual report by the City of Madison to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

4.2 City of Middleton

The City of Middleton is required to comply with the following:

4.2.1 The pumped discharge from Tiedeman Pond shall be operated in a manner to prevent accumulated sediment from discharging from Tiedeman Pond.

4.2.2 The discharge shall be operated in a manner to prevent downgradient erosion.

4.2.3 For the term of this permit, the City of Middleton's average annual pollutant load reductions applied to the drainage area to Tiedeman Pond have been calculated to be 79.7% for total suspended solids (TSS) and 47.2% for total phosphorus (TP).

Note: The above reductions were calculated using effluent monitoring data from 2006 to 2014 as compared to the WinSLAMM predicted annual average influent load. At next permit reissuance, the future pollutant reduction can be calculated using effluent monitoring data representing annual average conditions as compared to WinSLAMM predicted annual average influent load.

4.2.4 The WLA assigned to the Tiedeman Pond discharge permit no. WI-0049956-1 shall not be included in the percent reduction analysis required under Appendix A, section A.2, A.4 or A.5 of this permit.

4.2.5 Monitor the discharge from Tiedeman Pond at a location representative of the discharge from the pond as identified in Table 4. The sampling of total phosphorus and total suspended solids is only required in calendar years 2022 and 2023. The results shall be reported to the Department as indicated in section 6.22 of this permit.

Table 3: Sampling Point 001 – Tiedeman Pond Discharge

Parameter	Units	Sample Frequency	Sample Type
Flow Rate	MGD	Daily	Calculated
Phosphorus, Total*	mg/L	2/Month	Grab
Suspended Solids, Total*	mg/L	2/Month	Grab

* Sampling for total phosphorus and total suspended solids is only required in calendar years 2022 and 2023.

4.3 Village of Shorewood Hills

Establish new or updated intergovernmental agency agreement(s) with the University of Wisconsin to meet the requirements identified within section 4.6.2. The status of all draft intergovernmental agency agreements shall be reported in the annual report by the Village of Shorewood Hills to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

4.4 City of Stoughton

The City of Stoughton is required to comply with the following:

4.4.1 The pumped discharge from Paradise Pond shall be operated in a manner to prevent accumulated sediment from discharging from Paradise Pond.

4.4.2 The discharge shall be operated in a manner to prevent downgradient erosion.

4.4.3 For the term of this permit, the City of Stoughton’s annual average pollutant load reductions applied to the drainage area to Paradise Pond have been calculated to be 82.1% for TSS and 56.0% for TP.

Note: The above reductions were based on WinSLAMM modeling of annual average conditions with a weir outlet as opposed to pumping. At next permit reissuance (or upon DNR concurrence of the treatment performance documented by analysis of the 2017 to 2021 monitoring data), the future treatment performance can be calculated using effluent monitoring data representing annual average conditions as compared to WinSLAMM predicted annual average influent load.

4.4.4 Monitor the discharge from Paradise Pond at a location representative of the discharge from the pond as identified in Table 5. The sampling of total phosphorus and total suspended solids is required through calendar year 2021. The results shall be reported to the Department as indicated in section 6.22 of this permit.

Table 5: Sampling Point 002 – Paradise Pond Discharge

Parameter	Units	Sample Frequency	Sample Type
Discharge Volume	MG	Daily	Calculated
Phosphorus, Total*	mg/L	2/Pumping Event	Grab
Suspended Solids, Total*	mg/L	2/Pumping Event	Grab

* Sampling for total phosphorus and total suspended solids is only through calendar year 2021.

4.5 Dane County

Dane County shall meet the following requirements:

- 4.5.1** As specified in the information and education agreement, maintain a half-time position to provide public information and education services under this permit on behalf of the co-permittees.
- 4.5.2** In consultation with the Department and other co-permittees, function as the lead agency in implementation of the information and education plan prepared on behalf of the co-permittees.
- 4.5.3** Provide updates on the status and implementation of the information and education plan at the quarterly meetings and provide information on plan implementation for the annual report required under section 3.9.

4.6 University of Wisconsin-Madison

As a state entity, the University of Wisconsin – Madison (University) has limited statutory authority to implement and enforce requirements of sections 3.4 and 3.5 of this permit. Therefore, their written storm water management program shall specify their collaboration with other government or non-government agencies, municipalities, or local or federal partners to establish the intent of sections 3.4 and 3.5.

In addition to the applicable requirements specified in sections 1 through 3 of this permit, the University of Wisconsin – Madison shall meet the following requirements:

- 4.6.1** In their storm water management plan, the University shall address how construction site pollutant control and post-construction storm water management is achieved by construction activity contracted and performed by the University, construction activity contracted by the University of Wisconsin System (UWS), and construction activity contracted by Department of Administration Division (DOA), Division of Facility Development and Management (DFDM), and how each of these construction administration options is consistent with the requirements of section 3.4 and 3.5.
- 4.6.2** Establish new or updated intergovernmental agency agreements with the Village of Shorewood Hills, the City of Madison, the United States, and any other applicable co-permittees. These intergovernmental agreements shall include, at a minimum:
 - a. Defining responsibilities in regard to managing, inspecting, and reporting of all above ground and underground storm water conveyance into, out of, or through the permit area of the University.
 - b. Means and methods of storm water and illicit discharge reporting requirements between the University and other co-permittees.
 - c. The implementation and management of SWPPPs from lands or operations of the University outside of its permit jurisdictional area.

The status of all draft intergovernmental agency agreements shall be reported in the annual report by the University to establish new or updated intergovernmental agency agreements by the expiration of this permit. Once a new or revised intergovernmental agency agreement is made, it shall be submitted with the next annual report.

- 4.6.3** Continue to implement policies and procedures to the extent of its legal authority to control illicit discharges to and from those portions of the MS4 that it owns or operates consistent with

the requirements of section 3.3 of this permit.

4.6.4 To the maximum extent practicable, the University of Wisconsin – Madison is encouraged to utilize the resources available through its academic and research programs to facilitate compliance with the requirements of this permit.

5. COMPLIANCE SCHEDULE

The co-permittee shall comply with the specific permit conditions contained in sections 2 and 3 according to the schedule in this section 5 and Table 6. The co-permittee shall begin implementing any updates to its storm water management programs no later than March 31, 2021. Required reports and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Note: The Department's electronic reporting system is Internet-based and available at: <https://dnr.wi.gov/permits/water/>. Municipal storm water permit eReporting information and user support tools can be found at: <https://dnr.wi.gov/topic/stormwater/municipal/eReporting.html>

5.1 Impaired Waterbodies and Total Maximum Daily Loads

5.1.1 The co-permittee shall determine whether any part of its MS4 discharge to an impaired water body as required under section 1.8.2 of this permit by **March 31 of each odd-numbered year**.

5.1.2 If the co-permittee is subject to TMDL requirements under section 1.8, the co-permittee shall submit to the Department materials in accordance with the schedule as required in Appendix A of this permit.

5.2 Public Outreach and Education

The co-permittee shall submit to the Department the public education and outreach program developed for the term of this permit as required under section 3.1 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.3 Public Involvement and Participation

The co-permittee shall submit to the Department the public involvement and participation program developed for the term of this permit as required under section 3.2 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.4 Illicit Discharge Detection and Elimination

The co-permittee shall submit to the Department the illicit discharge detection and elimination program developed for the term of this permit as required under section 3.3.2 to 3.3.6 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.5 Construction Site Pollutant Control

The co-permittee shall submit to the Department the construction site pollutant control program developed for the term of this permit as required under sections 3.4.2 to 3.4.4 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system.

5.6 Post-Construction Storm Water Management

The co-permittee shall submit to the Department the post-construction storm water management program developed for the term of this permit as required under sections 3.5.2 to 3.5.4 of this permit by **March 31, 2021**.

5.7 Pollution Prevention

5.7.1 The co-permittee shall submit to the Department the municipal storm water management facility inventory as required under section 3.6.1 of this permit by **March 31, 2021**. Include with the annual report submittal via the Department's electronic reporting system. When the inventory is updated, it shall be submitted by **March 31 of each year** to the Department.

5.7.2 The co-permittee shall submit to the Department the maintenance plan for municipal storm water management facilities as required under section 3.6.2 of this permit by **March 31, 2021**.

5.7.3 The co-permittee shall update SWPPPs for municipally owned properties as needed as required under section 3.6.3 of this permit. When a SWPPP is updated, it shall be submitted by **March 31 of each year** to the Department.

5.8 Storm Water Quality Management

The co-permittee shall report compliance with the developed urban area performance standards as required under section 3.7 of this permit by **March 31 of each year**.

5.9 Storm Sewer System Map

The co-permittee shall update the storm sewer system map as required under section 3.8 of this permit. When the MS4 map is updated, it shall be submitted by **March 31 of each year** to the Department.

5.10 Annual Report

The co-permittee shall submit to the Department an annual report as required under section 3.9 of this permit for each calendar year by **March 31 of the following year**. The annual report and other required reports, and permit compliance documents shall be submitted electronically through the Department's electronic reporting system.

Table 6: Compliance Schedule for Permit Requirements

PERMIT SECTION	ACTIVITY	COMPLIANCE DATE	COMMENTS
Section 1.8.1	Total Maximum Daily Load implementation	See Appendix A.	Applies to a co-permittee that discharges to the Rock River TMDL.
Section 1.8.2	Discharges to an impaired water body	By March 31 of each odd-numbered year thereafter	All co-permittees.
Section 3.1	Public Education and Outreach – Submit public education and outreach program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.2	Public Involvement and Participation – Submit public involvement and participation program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.3.2 to 3.3.6	Illicit Discharge Detection and Elimination – Submit illicit discharge detection and elimination program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.4.2 to 3.4.4	Construction Site Pollutant Control – Submit construction site pollutant control program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.5.2 to 3.5.4	Post-Construction Storm Water Management – Submit post-construction storm water management program for the permit term with annual report	March 31, 2021	All co-permittees
Section 3.6	Pollution Prevention – Section 3.6.1, submit the municipal storm water management facility inventory with annual report	March 31, 2021, and annually thereafter (if updates)	All co-permittees
	Pollution Prevention – Section 3.6.2, submit the maintenance plan for municipal storm water management facilities with annual report	March 31, 2021	All co-permittees
	Pollution Prevention – Section 3.6.3, submit SWPPPs for municipally owned properties with annual report	March 31 of each year reporting on previous calendar year (if updates)	All co-permittees
Section 3.7	Storm Water Quality Management – Report TSS percent reduction	March 31 of each year reporting on previous calendar year (if updates)	All co-permittees
Section 3.8.2	Common Storm Sewer Map	March 31, and annually thereafter (if updates)	City of Madison
Section 3.9	Submit Annual Report	March 31 of each year reporting on previous calendar year	All co-permittees

6. GENERAL CONDITIONS

The conditions in s. NR 205.07(1) and (3), Wis. Adm. Code, are incorporated by reference in this permit. The co-permittee shall be responsible for meeting these requirements, except for s. NR 205.07(1)(n), Wis. Adm. Code, which does not apply to facilities covered under general permits. Some of these requirements are outlined below. Requirements not specifically outlined below can be found in s. NR 205.07(1) and (3), Wis. Adm. Code.

6.1 Duty to Comply: The co-permittee shall comply with all conditions of the permit. Any act of noncompliance with this permit is a violation of this permit and is grounds for enforcement action.

6.2 Enforcement Action: The Department is authorized under s. 283.89 and 283.91, Wis. Stats., to utilize citations or referrals to the Wisconsin Department of Justice to enforce the conditions of this permit. Violation of a condition of this permit is subject to a fine of up to \$10,000 per day of the violation.

6.3 Compliance Schedules: Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of the permit shall be submitted in writing within 14 days after the scheduled due date, except that progress reports shall be submitted in writing on or before each schedule date for each report. Any report of noncompliance shall include the cause of noncompliance, a description of remedial actions taken, and an estimate of the effect of the noncompliance on the co-permittee's ability to meet the remaining scheduled due dates.

6.4 Noncompliance

6.4.1 Upon becoming aware of any co-permit noncompliance that may endanger public health or the environment, the co-permittee shall report this information by a telephone call to the Department regional storm water specialist within 24 hours. A written report describing the noncompliance shall be submitted to the Department regional storm water specialist within 5 days after the co-permittee became aware of the noncompliance. The Department may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

6.4.2 Reports of any other noncompliance not covered under General Conditions sections 6.3, 6.4.1, or 6.6. shall be submitted with the annual report. The reports shall contain all the information listed in General Conditions section 6.4.1.

6.5 Duty to Mitigate: The co-permittee shall take all reasonable steps to minimize or prevent any adverse impact on the waters of the state resulting from noncompliance with the permit.

6.6 Spill Reporting: The co-permittee shall immediately notify the Department, in accordance with s. 292.11(2)(a), Wis. Stats., which requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the DNR immediately of any discharge not authorized by the permit. The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call the DNR's 24-hour HOTLINE at 1-800-943-0003.

Note: For details on state and federal reportable quantities, visit:

<https://dnr.wi.gov/topic/Spills/define.html>

6.7 Proper Operation and Maintenance: The co-permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the municipality to achieve compliance with the conditions of the permit and the storm water management plan. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with conditions of this permit.

6.8 Bypass: The co-permittee may temporarily bypass a storm water treatment facility if necessary for human safety or maintenance to assure efficient operation. A bypass shall comply with the general storm water discharge limitations in Section 1.12 of this permit. Notification of the Department is not required for these types of bypasses. Any other bypass is prohibited.

Note: A discharge from a storm water treatment facility that exceeds the operational design capacity of the facility is not considered a bypass.

6.9 Duty to Halt or Reduce Activity: Upon failure or impairment of storm water management practices identified in the storm water management program, the co-permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail operations until the storm water management practices are restored, or an alternative method of storm water pollution control is provided.

6.10 Removed Substances: Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be stored and disposed of in a manner to prevent any pollutant from the materials from entering the waters of the state, and to comply with all applicable federal, state, and local regulations.

6.11 Additional Monitoring: If a co-permittee monitors any pollutant more frequently than required by the permit, the results of that monitoring shall be reported to the Department in the annual report.

6.12 Inspection and Entry: The co-permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:

6.12.1 Enter upon the municipal premises where a regulated facility or activity is located or conducted, or where records are required to be maintained under the conditions of the permit;

6.12.2 Have access to and copy, at reasonable times, any records that are required under the conditions of the permit;

6.12.3 Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and

6.12.4 Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

6.13 Duty to Provide Information: The co-permittee shall furnish the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, terminating, suspending revoking or reissuing the permit or to determine compliance with the permit. The co-permittee shall give advance notice to the Department of any planned changes to the storm water management program which may result in noncompliance with permit requirements. The co-permittee shall also furnish the Department, upon request, copies of records required to be kept by the co-permittee.

6.14 Property Rights: The permit does not convey any property rights of any sort, or any exclusive privilege. The permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.

6.15 Other Information: Where the co-permittee becomes aware that it failed to submit any relevant facts in applying for permit coverage or submitted incorrect information in any plan or report sent to the Department, it shall promptly submit such facts or correct information to the Department.

6.16 Records Retention: The co-permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the notice of intent for a period of at least 5 years from the date of the sample, measurement, report or application. The co-permittee shall retain records documenting implementation of the minimum control measures in sections 3.1 through 3.6 of this permit for a period of at least 5 years from the date the record was generated.

6.17 Permit Actions: As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in part, for cause. If a co-permittee files a request for a permit modification, revocation or reissuance, or a notification of planned change or anticipated noncompliance, this action by itself does not relieve the co-permittee of any permit condition.

6.18 Signatory Requirements: All applications, reports or information submitted to the Department shall be signed by a ranking elected official, or other person authorized by those responsible for the overall operation of the MS4 and storm water management program activities regulated by the permit. The representative shall certify that the information was gathered and prepared under his or her supervision and, based on report from the people directly under supervision that, to the best of his or her knowledge, the information is true, accurate, and complete.

6.19 Attainment of Water Quality Standards after Authorization: At any time after authorization, the Department may determine that the discharge of storm water from a co-permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an excursion of any applicable water quality standard. If such determination is made, the Department may require the co-permittee to do one of the following:

6.19.1 Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.

6.19.2 Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

6.20 Continuation of the Expired General Permit: The Department's goal is to reissue this general permit prior to its expiration date. However, in accordance with s. NR 216.09, Wis. Adm. Code, a co-permittee shall reapply to the Department at least 180 days prior to the expiration date for continued coverage under this permit after its expiration. If the permit is not reissued by the time the existing permit expires, the existing permit remains in effect. To reapply for permit coverage, a co-permittee shall send a letter to the Department that includes proposed changes to the storm sewer system map, storm water management program and any other relevant change.

6.21 Need to Halt or Reduce Activity not a Defense: It is not a defense for a co-permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

Sections 6.22 through 6.25 apply to effluent sampling and monitoring result associated with the pumped discharges from Tiedeman Pond by the City of Middleton and Paradise Pond by the City of Stoughton.

6.22 Monitoring Results: Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

6.23 Sampling and Testing Procedures: Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

6.24 Recording of Results: The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

6.25 Reporting of Monitoring Results: The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.

- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.

7. DEFINITIONS USED IN THIS PERMIT

Definitions for some of the terms found in this permit are as follows:

7.1 Co-Permittee means a person who has applied for and received WPDES permit coverage for storm water discharge. For the purposes of this permit, co-permittee is the owner or operator of a municipal separate storm sewer system authorized to discharge storm water into waters of the state.

7.2 Department means the Wisconsin Department of Natural Resources.

7.3 Development means residential, commercial, industrial and institutional land uses and associated roads.

7.4 Erosion means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.

7.5 Hazardous Substance means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the Department.

7.6 Illicit Connection means any man-made conveyance connecting an illicit discharge to a municipal separate storm sewer system.

7.7 Illicit Discharge means any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges authorized by a WPDES permit or other discharge not requiring a WPDES permit such as landscape irrigation, individual residential car washing, fire fighting, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, flows from riparian habitats and wetlands, and similar discharges. However, the occurrence of a discharge listed above may be considered an illicit discharge on a case-by-case basis if the co-permittee or the Department identifies it as a significant source of a pollutant to waters of the state.

7.8 Impaired Water means a water body impaired in whole or in part and listed by the Department pursuant to 33 USC § 1313(d)(1)(A) and 40 CFR 130.7, for not meeting a water quality standard, including a water quality standard for a specific substance or the water body's designated use.

7.9 Infiltration means the entry and movement of precipitation or runoff into or through soil.

7.10 Jurisdiction means the area where the co-permittee has authority to enforce its ordinance(s) or otherwise has authority to exercise control over a particular activity of concern.

7.11 Land Disturbing Construction Activity means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover that may result

in storm water runoff and lead to increased soil erosion and movement of sediment into waters of the state. land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

7.12 Maximum Extent Practicable or MEP has the meaning given it in s. NR 151.002(25), Wis. Adm. Code.

7.13 Major Outfall means a municipal separate storm sewer outfall that meets one of the following criteria:

7.13.1 A single pipe with an inside diameter of 36 inches or more, or from an equivalent conveyance (cross sectional area of 1,018 square inches) which is associated with a drainage area of more than 50 acres.

7.13.2 A municipal separate storm sewer system that receives storm water runoff from lands zoned for industrial activity that is associated with a drainage area of more than 2 acres or from other lands with 2 or more acres of industrial activity, but not land zoned for industrial activity that does not have any industrial activity present.

7.14 Municipality means any city, town, village, county, county utility district, town sanitary district, town utility district, school district or metropolitan sewage district or any other public entity created pursuant to law and having authority to collect, treat or dispose of sewage, industrial wastes, storm water or other wastes.

7.15 Municipal Separate Storm Sewer System or MS4 means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all the following criteria:

7.15.1 Owned or operated by a municipality.

7.15.2 Designed or used for collecting or conveying storm water.

7.15.3 Which is not a combined sewer conveying both sanitary and storm water.

7.15.4 Which is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.

7.16 New MS4 Discharge of Pollutants means an MS4 discharge that would first occur after the co-permittee's effective date of coverage under WPDES permit nos. WI-S050075-1 or WI-S058416-3 to a surface water to which the MS4 did not previously discharge storm water, and does not include an increase in an MS4's discharge to a surface water to which the MS4 discharged on or before coverage under such permit. The City of Stoughton and Village of Cottage Grove had an effective date of coverage of November 13, 2006 under WPDES permit no. WI-S050075-1 and the other 19 co-permittees had an effective date of coverage of July 1, 2009 under WPDES permit no. WI-S058416-3.

7.17 Outfall means the point at which storm water is discharged to waters of the state or to a storm sewer of another MS4.

7.18 Permitted Area means the areas of land under the jurisdiction of the co-permittee that drains into a municipal separate storm sewer system, which is regulated under a permit issued pursuant to subch. I of NR 216, Wis. Adm. Code.

7.19 Pollutant of Concern means a pollutant that is causing impairment of a water body.

7.20 Reach means a specific stream segment, lake or reservoir as identified in a TMDL.

7.21 Reachshed means the drainage area contributing runoff to a given reach.

7.22 Redevelopment means areas where development is replacing older development.

7.23 Riparian Landowners are the owners of lands bordering lakes and rivers.

7.24 Sediment means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.

7.25 Start Date is the initial date of permit coverage, which is specified in the Department letter authorizing coverage under this permit.

7.26 Storm Water Management Practice means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

7.27 Storm Water Pollution Prevention Plan or SWPPP refers to the development of a site-specific plan that describes the measures and controls that will be used to prevent and/or minimize pollution of storm water.

7.28 Structural Storm Water Management Facilities are engineered and constructed systems that are designed to provide storm water quality control such as wet detention ponds, constructed wetlands, infiltration basins and grassed swales.

7.29 Total Maximum Daily Load or TMDL means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into a water quality limited segment and still ensure attainment of the applicable water quality standard.

7.30 Urbanized Area means a place and the adjacent densely settled surrounding territory that together have a minimum population of 50,000 people, as determined by the U.S. bureau of the census based on the latest decennial federal census.

7.31 Wasteload Allocation or WLA means the allocation resulting from the process of distributing or apportioning the total maximum load to each individual point source discharge.

7.32 Waters of the State has the meaning given it in s. 283.01(20), Wis. Stats.

7.33 WPDES Permit means a Wisconsin Pollutant Discharge Elimination System permit issued pursuant to ch. 283, Wis. Stats.

Appendix A: MS4 Co-Permittees Subject to the Rock River TMDL

A.1 Applicability and Structure of Appendix.

A.1.1 Applicability. In accordance with section 1.8.1, this Appendix A applies to co-permittees subject to “Total Maximum Daily Loads for Total Phosphorus and Total Suspended Solids in the Rock River Basin,” approved by USEPA September 2011.

A.1.2 Structure of Appendix. This appendix is structured to provide co-permittees with several compliance options. Section A.2 defines full TMDL compliance while sections A.3, A.4, and A.5 provide different compliance options. Section A.3 applies to co-permittees that are participating in an approved adaptive management plan. Section A.4 details requirements for co-permittees that can comply with the TMDL during this permit term. Section A.5 applies to co-permittees who have not been able to utilize sections A.3 or A.4. Section A.5 contains two compliance tracks; co-permittees may choose between the requirements stipulated under Section A.5.2 or meet the requirements under section A.5.3. Section A.6 outlines reporting requirements.

A.2 Full TMDL Compliance.

A.2.1 USEPA is allowing the Department to evaluate MS4 compliance with TMDL Wasteload Allocations (WLAs) using a percent reduction framework consistent with Wisconsin’s storm water program. For consistency with existing storm water program requirements, demonstration of TMDL compliance will use the percent reduction measured from the no runoff management controls (no-controls) condition. The percent reduction from no-controls, for each pollutant of concern and reachshed, necessary to meet the TMDL WLAs for the USEPA approved TMDLs are listed in Table A. The no-controls modeling condition means taking no (zero) credit for existing storm water control measures that reduce the discharge of pollutants. Existing practices can then be applied and counted toward meeting the TMDL reductions.

A.2.2 TMDLs may assign a target percent reduction for one or more reachsheds for each pollutant of concern (i.e., total suspended solids (TSS) and total phosphorus (TP)). Full TMDL compliance is achieved by the co-permittee provided all of the following conditions are met:

- a. By October 31, 2023, the co-permittee submits the necessary data and documentation to the Department that demonstrates that the co-permittee meets the percent reductions stipulated in Table A for each reachshed that the MS4 discharges to and for each pollutant of concern.
- b. The documentation submitted by the co-permittee includes the policies, procedures, and regulatory mechanisms that the co-permittee will employ to ensure that storm water controls and management measures will continue to be operated and maintained so that their pollutant removal efficiency continues to be met.
- c. Based upon the data and documentation and any necessary subsequent information requested by the Department, the co-permittee receives written concurrence from the Department by April 30, 2024, that the co-permittee has achieved full TMDL compliance.

A.3 Participation in an Approved Adaptive Management Plan. In accordance with s. 283.13(7), Wis. Stats., and s. NR 217.18, Wis. Adm. Code, if by the effective date of this permit the co-permittee has chosen to participate in an adaptive management project that has been approved by the Department the co-permittee shall continue to participate in the implementation of the adaptive management project.

A.4 Compliance During the Term of This Permit. If the co-permittee determines that it can meet the requirements stipulated in section A.2.2 by October 31, 2023, the co-permittee shall meet all the following:

A.4.1 By March 31, 2020, the co-permittee shall notify the Department if compliance will be achieved by October 31, 2023.

A.4.2 Consistent with the reporting requirements contained in section A.6, the co-permittee shall submit written verification that it has met the applicable requirements contained in section A.2.2.

A.5 Compliance Over Multiple Permit Terms. If the co-permittee cannot meet the requirements stipulated under sections A.3 or A.4, the co-permittee shall demonstrate continued progress towards compliance with the requirements contained in section A.2.2. During the term of this permit, the following are required:

A.5.1 By March 31, 2020, if the co-permittee determines that the applicable requirements contained in section A.2.2 will not be achieved by October 31, 2023, then the co-permittee shall notify the Department in writing which reachsheds and pollutants of concern are not in compliance with the requirements contained in section A.2.2.

A.5.2 By October 31, 2021, the co-permittee shall submit a written TMDL implementation plan to the Department identifying and describing the actions that the co-permittee shall undertake, including a proposed schedule and milestones, to achieve the following by the end of the term of this permit:

a. A level of reduction that achieves at least 20% of the remaining reduction needed beyond the current 20% TSS reduction required under s. NR 151.13 (2)(b)1.b., Wis. Adm. Code, to achieve full compliance in sediment or TSS.

b. A level of reduction that achieves at least 10% of the remaining reduction needed beyond 15% TP reduction to achieve full compliance in TP.

Note: The reductions stipulated under section A.5.2 are interim compliance targets set for this permit term. Future permit reduction targets may taper off or vary between municipalities based on individual plans as it is expected that municipalities will rely more on reductions obtained through Redevelopment.

The percent reductions under sections A.5.2.a and A.5.2.b are measured from the baseline assumptions for the Rock River TMDLs, which represent compliance with s. NR 151.13, Wis. Adm. Code, to the total reductions listed in Table A (see example calculation below). The baseline assumption for the Rock River TMDL is a 40% reduction from no-controls for TSS and a 27% reduction from no-controls for TP.

Note: Refer to the applicable TMDL reports for additional discussions on baseline.

Unlike full compliance as outlined in section A.2.2, compliance with the reductions stipulated under sections A.5.2.a and A.5.2.b can be achieved utilizing an averaged reduction calculated from individual reductions achieved in one or multiple reachsheds and spanning the entire MS4 area that is impacted by the TMDL.

Note: Example calculation to meet section A.5.2.a for total suspended solids (TSS)

“Municipality A” has modeled a no-controls TSS load of 50 tons/year for reachshed 2 and 100 tons/year for Reachshed 3.

Determine Calculated Wasteload Allocation

“Municipality A” has area in Rock River TMDL reachsheds 2 and 3. From Table A.1, the TMDL requires the following reductions from no controls which under section A.2 must ultimately achieve a mass reduction as follows:

TMDL Reachshed	Modeled TSS from No-Controls (tons/yr)	TMDL TSS Reduction from No-Controls	Ultimate Mass Reduction Required for Full TMDL Compliance (tons/yr)	Calculated Wasteload Allocation (tons/yr)
2	50	40.6%	$50 * 0.406 = 20.3$	$50 - 20.3 = 29.7$
3	100	55.6%	$100 * 0.556 = 55.6$	$100 - 55.6 = 44.4$

Determine Minimum Control Required under Section NR 151.13(2)(b)1.b., Wis. Adm. Code

TMDL Reachshed	No Controls TSS (tons/yr)	NR 151 Required Reduction (tons/yr)	NR 151 Allowable Load (tons/yr)
2	50	$50 * 0.20 = 10$	$50 - 10 = 40$
3	100	$100 * 0.20 = 20$	$100 - 20 = 80$
Total		30.0	

Calculate 20% Additional Reduction from Section NR 151.13(2)(b)1.b., Wis. Adm. Code

Under section A.5.2.a, “Municipality A” must achieve an additional 20% reduction from the current 20% TSS reduction required under s. NR 151.13 (2)(b)1.b., Wis. Adm. Code. As shown below, “Municipality A” needs to achieve a 20% reduction of the remaining 45.9 tons results in “Municipality A” needing to achieve an additional 9.18 tons/year in reduction.

Reachshed	NR 151 Allowable Load (tons/yr)	Calculated Wasteload Allocation (tons/yr)	Additional Reduction from NR 151 (tons/yr)	20% Additional Reduction from NR 151 (tons/yr)
2	40	29.7	$40 - 29.7 = 10.3$	$10.3 * 0.2 = 2.06$
3	80	44.4	$80 - 44.4 = 35.6$	$35.6 * 0.2 = 7.12$
Total			45.9	9.18

Load reduction at the end of permit term

At the end of the permit term, “Municipality A” should demonstrate a minimum reduction from no controls of 39.18 (30 tons plus 9.18 tons). “Municipality A” has the flexibility to decide how much of that reduction is provided in TMDL Reachshed 2 and/or 3 over the next permit term. “Municipality A” will still require additional reductions in each reachshed over subsequent permit terms to reach the calculated wasteload allocation of 29.7 tons in TMDL Reachshed 2 and 44.4 tons in TMDL Reachshed 3.

The calculation process is similar for total phosphorus (TP).

A.5.3 If the co-permittee determines by March 31, 2021, that it is unable to achieve the reductions stipulated under sections A.5.2.a and A.5.2.b, the co-permittee shall meet the following requirements by October 31, 2023:

Note: The co-permittee may optimize deployment of resources between the requirements listed below to maximize reductions for the least cost. In some cases, co-permittees may already be meeting these requirements.

a. Pursuant to the co-permittee's authority under s. 281.33(6)(a)2., Wis. Stats., the co-permittee shall create or revise and promulgate a municipal storm water management ordinance applicable to Redevelopment that requires compliance with post-construction storm water management performance standards that are stricter than the uniform statewide standards established by the Department. When reporting to the Department under section A.6.3, the co-permittee shall include a justification for the level of pollutant reduction in the ordinance with an assessment of the progress it achieves towards full compliance with the TMDL. The redevelopment reductions may be adjusted to account for other storm water controls measures that may exist. The co-permittee may also establish TP reduction levels for redevelopment projects.

Note: The co-permittee may enact an ordinance that is municipal wide, targets individual TMDL reachsheds, or designated areas within the permitted MS4 balancing required TMDL reductions, parcel size, and the impact of other treatment options. Increasing redevelopment reductions is one tool in moving toward TMDL compliance.

b. The co-permittee shall create or revise a municipal ordinance that requires the development and implementation of a maintenance plan for all privately-owned storm water treatment facilities for which the co-permittee takes a TSS and/or TP reduction credit. The co-permittee shall develop and implement procedures and measures to verify and track that the storm water treatment facilities are inspected on a regular schedule and maintained in the intended working condition in accordance with the plans. The co-permittee shall require that maintenance agreements be recorded with the appropriate property records that obligates the current and future owners to implement the maintenance plans.

c. The co-permittee shall revise or promulgate a municipal ordinance that requires the submittal of record drawings for storm water management facility that the co-permittee takes a TSS and/or TP credit. The co-permittee shall require submittal of the record drawings prior to close-out of the local permit or upon final approval and shall maintain appropriate records and tracking of the plans.

d. If the pollutant of concern is TP, the co-permittee shall implement, expand, or optimize a municipal leaf collection program coupled with street cleaning to serve areas where municipal leaf collection is not currently provided within the MS4 but for which a phosphorus reduction has been assigned and additional reductions could be achieved.

Note: The Department's "Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs" guidance document includes recommendations on how the co-permittee's municipal leaf collection program should be designed and implemented.

The guidance is available from the Department's Internet site at:
https://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html

- e. Within the MS4 permitted area, the co-permittee shall inventory the condition of the conveyance systems and outfalls. Where erosion or scour is occurring, the co-permittee shall develop a schedule to stabilize the identified areas over a 5-year period.
- f. The co-permittee shall install at least one new structural BMP or enhance one or more existing structural BMPs to reduce a pollutant of concern discharged via storm water runoff to an impaired water body for which a WLA has been assigned to the co-permittee. The co-permittee shall develop and implement a maintenance plan for each new structural BMP.
- g. The co-permittee shall conduct an analysis of the current municipal street cleaning program, to determine if additional pollutant loading reductions can be achieved. The co-permittee shall evaluate optimizing sweeping frequency, targeting of critical areas and time periods, and instituting parking restrictions. If a pollutant reduction can be achieved through optimizing the existing street cleaning program, the co-permittee shall adopt the optimized program the next calendar year or provide a written explanation to the Department explaining why the optimize street cleaning program is not feasible and provide alternative options to achieve similar pollutant reductions.

A.6 Reporting Requirements. For the term of this permit, the co-permittee shall meet the following reporting requirements:

A.6.1 Compliance Determination Reporting. The co-permittee shall submit the information requested in this appendix in accordance with the following schedule:

- a. By March 31, 2020, for sections A.4.1 and A.5.1.
- b. By October 31, 2021, for section A.5.2.
- c. By October 31, 2023, for sections A.2.2.a and A.5.3.

A.6.2 Annual Reporting. For compliance options outlined under sections A.3, A.4, and A.5, the co-permittee shall include a description and the status of progress toward implementing the identified actions and activities in their MS4 annual reports due by March 31 of each year.

A.6.3 Final Documentation. Except for co-permittees complying with a Department approved adaptive management plan under section A.3.2, by October 31, 2023, the co-permittee shall submit documentation to the Department to verify that the co-permittee has completed all actions required under this appendix including the following:

- a. An updated storm sewer system map that identifies:
 - (1) The current municipal boundary. For a co-permittee that is not a city or village, identify the permitted area.

Note: The permitted area for towns, counties and non-traditional MS4s pertains to the area within an urbanized area or the area served by its storm sewer system, such as a university campus.

(2) The TMDL reachshed boundaries within the municipal boundary, and the area of each TMDL reachshed in acres within the municipal boundary.

(3) The MS4 drainage boundary associated with each TMDL reachshed, and the area in acres of the MS4 drainage boundary associated with each TMDL reachshed.

b. The co-permittee shall submit an updated tabular summary that includes the following for each MS4 drainage boundary associated with each TMDL reachshed as identified under section A.6.3.a and for each pollutant of concern:

(1) The co-permittee's percent reduction needed to comply with its TMDL WLA from the no-controls modeling condition.

(2) The modeled MS4 annual average pollutant load without any storm water control measures.

(3) The modeled MS4 annual average pollutant load with existing storm water control measures.

(4) The percent reduction in pollutant load achieved calculated from the no-controls condition determined under section A.6.3.a(2) and the existing controls condition determined under section A.6.3.a(3).

(5) The existing storm water control measures, including the type of measure, area treated in acres, the pollutant load reduction efficiency, and confirmation of the co-permittee's authority for long-term maintenance of each practice.

c. If the updated tabular summary required under section A.6.3.b shows that the co-permittee is not achieving the requirements stipulated in section A.2, the co-permittee shall submit an updated written TMDL implementation plan to the Department that describes how the co-permittee will make progress toward achieving compliance. The TMDL implementation plan shall include the following information:

(1) A list of management options and an implementation schedule that over the next permit term achieves, to the maximum extent practicable, an additional 20% reduction in sediment or TSS and an additional 10% reduction in TP. The percent reductions shall be applied to the difference measured from loading conditions at the end of this permit to the total reductions listed in Table A. The reductions can be achieved utilizing an averaged reduction calculated from individual reductions achieved in one or multiple reachsheds and spanning the entire MS4 area impacted by a TMDL.

Note: Reductions that occur through stricter redevelopment standards or through water quality trading can be counted toward meeting the reduction requirements under this section.

Note: Unlike full compliance as outlined in section A.2.2, interim compliance under this section can be based on an average reduction measured across the MS4 area impacted by a TMDL.

(2) Recommendations and options with supporting analysis for storm water control measures that will be installed or implemented in future permit terms to achieve the requirements, to the maximum extent practicable, stipulated in section A.2.

(3) A proposed schedule for implementation of the recommendations and options identified under section A.6.3.c(1). The proposed schedule may extend into future permit terms.

(4) A cost effectiveness analysis for implementation of the recommendations and options identified under section A.6.3.c(1).

Table A: Rock River Basin TMDL Load Reductions Necessary to Meet TMDL Wasteload Allocations by TMDL Reachshed

Reachshed Number (TMDL Subbasin)	Water Body Name	TSS % Reduction from No-controls	TP % Reduction from No-controls
45	Maunsha River	44.8	36.5
62	Pheasant Branch Creek	82.0	78.1
63	Spring (Dorn) Creek	46.6	37.2
64	Yahara River, Lake Mendota, Lake Monona	73.0	61.3
65	Nine Springs Creek	67.6	62.8
66	Yahara River, Lake Waubesa, Lake Kegonsa	62.2	54.0
67	Yahara River	40.0	27.0
68	Yahara River	50.8	65.0
69	Yahara River	52.6	79.6
83	Lake Koshkonong	55.0	54.0

Appendix 2 - SWPPP (P2) Team Roster

Streets Division

SWPPP Coordinator

Phil Nehmer

Contact Info: 608-266-4769 (O)
 608-445-1515 (C)
 _____ (H)

Team Members

1. Chad Veinot	Office – 267-1960	Cell 714-745-4064
2. Phil Gaebler	Office - 266-4059	Cell 608-332-2032
3. Phil Nehmer	Office - 266-4769	Cell 608-445-1515

Appendix 3: Spill Prevention, Control and Counter Measures Plan

Compliance Inspection

Review Page

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility's potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

1. July 1, 2023

2. July 1, 2026

3. July 1, 2029

4. July 1, 2032

5. July 1, 2035

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

The site flows through one concrete pipe discharging directly to Wingra Creek. The maps provided in Appendix 5 show outfall locations and drainage from the site to Wingra Creek and Lake Monona.

Facility Storage

There are no above ground storage tanks at the TEPW site.

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
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Spill Prevention Measures

Buildings have floor drains connected to the sanitary sewer system.

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, brooms and shovels. Spill cleanup materials are located in the maintenance building.

Appendix 4: Site Inspection Form

TRAFFIC ENGINEERING STORMWATER QUARTERLY INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:			
WEATHER INFORMATION: <ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 					
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION					
<p>SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.</p> <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? <p>Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Yes</td> <td style="width: 50%;">No</td> </tr> </table>	Yes	No	<p>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.</p>	
Yes	No				
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Yes</td> <td style="width: 33%;">No</td> <td style="width: 33%;">NA</td> </tr> </table>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
Yes	No	NA			

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

II. CORRECTIVE ACTION AND SWPPP MODIFICATIONS

DESCRIPTIONS: Additional space to describe inspection findings and corrective actions if needed. Provide brief explanation of the general location and the rationale for the additional or different BMPs.

III. CERTIFICATION STATEMENTS AND SIGNATURES:

Inspector - Certification: This section must be completed by the person who conducted the site inspection prior to submitting this form to the person with signature authority or a duly authorized representative of that person.

- The facility is in compliance with the terms and conditions of the SWPPP and the Stormwater General Permit.
- The facility is out of compliance with the terms and conditions of the SWPPP and the Industrial Stormwater General Permit. This report includes the remedial actions that must be taken to meet the requirements of the SWPPP and permit, including a schedule of implementation of the remedial actions.

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."

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Inspector's Name – Printed **Inspector's Signature** **Inspector's Title** **Date**

Permittee – Certification:

- The facility is in compliance with the terms and conditions of the SWPPP and the Industrial Stormwater General Permit.
- The facility is out of compliance with the terms and conditions of the SWPPP and the Industrial Stormwater General Permit. This report includes the remedial actions that must be taken to meet the requirements of the SWPPP and permit, including a schedule of implementation of the remedial actions.

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

--	--	--

PRINTED NAME of person with **Signature Authority** or a **Duly Authorized Representative**¹ **SIGNATURE** of person with **Signature Authority** or a **Duly Authorized Representative**¹ **DATE**

¹A person is duly authorized representative only if 1) the authorization is made in writing by a person described in APPENDIX 2 and submitted to Engineering, and 2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

Appendix 5: Drainage Maps

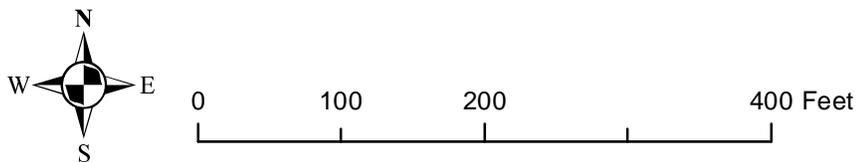


Legend

- ▶ Pipes
- Storm Structures
- Site Boundary

Outfall Location

Traffic Engineering Public Yard
Drainage Map

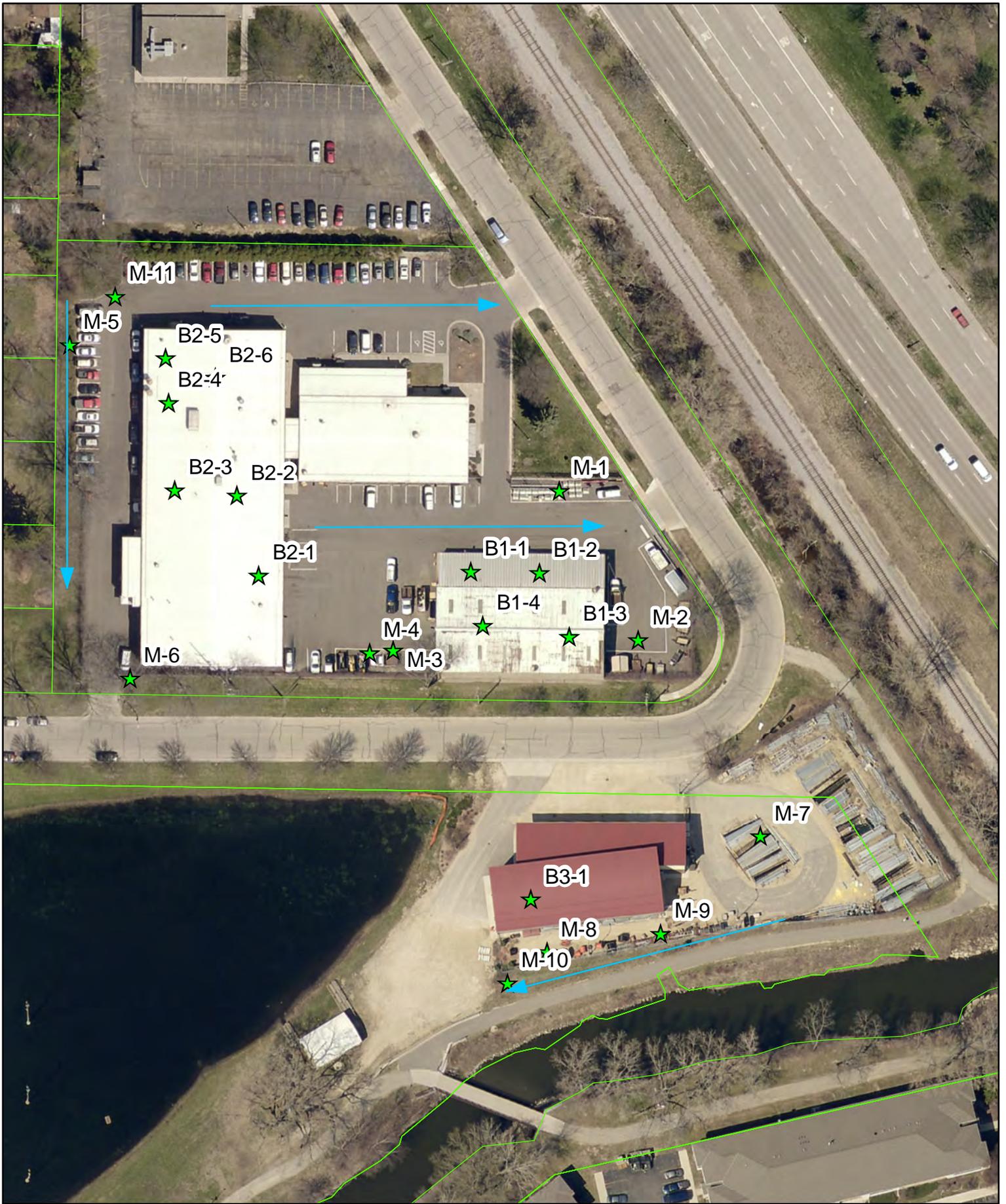




Appendix 5: Site Map
 Traffic Engineering Public Yard
 Drainage Map

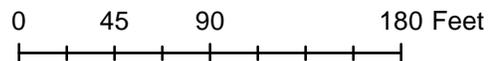


Appendix 6: Site Assessment



Traffic Engineering
Madison, WI

- ★ Areas Of Interest
- Flow Path



ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
	Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact	Risk of release	
Sign Anchor Storage		M-1	○	-	-	-	-		●	○	● Material stored uncovered outside
Paint Storage	B1-1		-	-	●	●	○	Street marking paint	○	○	● Paint stored in building without trench drain.
Parking Meter Supplies	B1-2		-	-	○	-	○		○	○	
LP Gas Storage		M-2	-	-		●	-		○	○	● Stored covered in separate shed
Vehicle storage and parking	B1-3	M-11	●	-	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	●	● Outside vehicle storage drains to stormsewer and overland flow to drainage way
Street Marking Trailers		M-3	●	-	●	●	-		●	●	● Outside storage drains to stormsewer
Metals recycling		M-4		-	●	●	-		●	●	● Material stored in uncovered dumpsters outside
Vehicle washing	B2-3		●	-	-	-	-		○	○	● Vehicle washing is performed indoors washbays are connected to the sanitary sewer system
Water Wall Paint Booth	B2-4		-		●	●	●		○	●	● Water used in the process is treated and recycled. When drained water goes to the sanitary system
Paint and Solvent Storage	B2-6		-	-	-	●	●	household cleaners	○	●	● Stored inside a locked closet
Paint Chip Collection Pit			-	-	-	●	●		○	○	● Pretreatment before sanitary sewer
Drainage way		M-5	●	-	-	-	-		●	●	● Parking lot runoff routed to storm sewer
lightpole storage		M-7	-	-	○	-	-		●	○	● Stockpiled uncovered outside
Sign Post Storage		M-8	-	-	○	-	-		●	○	● Stockpiled uncovered outside
Manhole Rim and Cover Storage		M-9	-	-	●	-	-		●	○	● Stockpiled uncovered outside

KEY

- High
- Medium
- Low
- Not Applicable



Traffic Engineering Yard
M-1: Sign Anchors



Traffic Engineering Yard
B1-1 : Street Paint Storage



Traffic Engineering Yard
B1-2 : Parking Meter Supplies



Traffic Engineering Yard
M-2 : LP Storage



Traffic Engineering Yard
B1-3 : Vehicle and Equipment Storage



Traffic Engineering Yard
B1-4: Glass bead Storage



Traffic Engineering Yard
M-3 : Street Painting Trailers



Traffic Engineering Yard
M-4: Metals Recycling



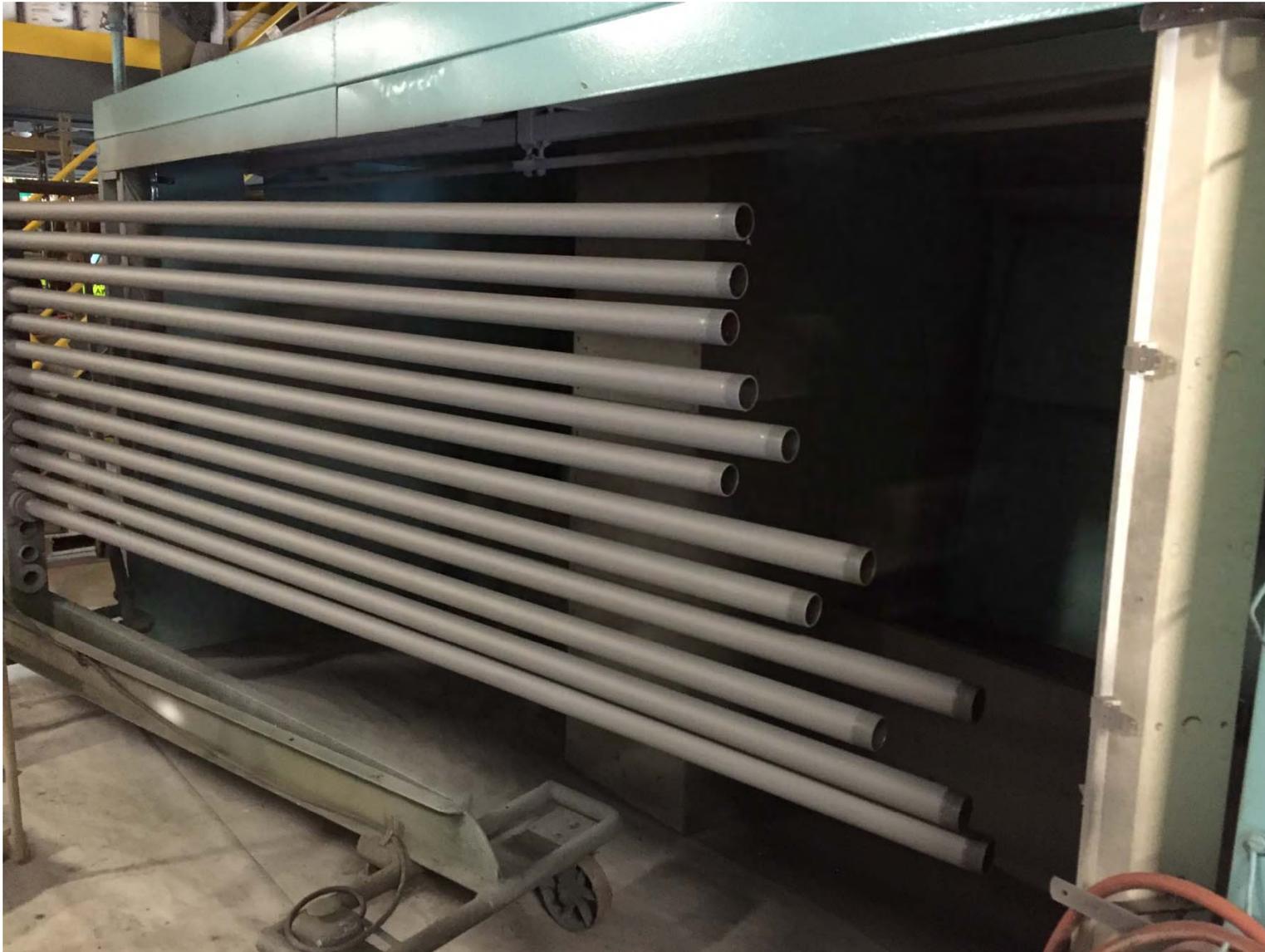
Traffic Engineering Yard
B2-1 : Electrical Supply Storage



Traffic Engineering Yard
B2-2: Silk Screen and Welding



Traffic Engineering Yard
B2-3: Vehicle Washing



Traffic Engineering Yard
B2-4: Water Wall Painting Booth



Traffic Engineering Yard
B2-5 : Paint and Paint Thinner Room



Traffic Engineering Yard

B2-6 : Sign Preparation Area and Cleaning – Floor Drain to Sanitary Sewer



Traffic Engineering Yard
M-11 : Employee Parking



Traffic Engineering Yard
M-5 : Drainage Way



Traffic Engineering Yard
M-6 : Sign Storage



Traffic Engineering Yard
B3-1 : Street Light Storage



Traffic Engineering Yard
M-7 : Light Pole Storage



Traffic Engineering Yard
M-8 : Sign Post and Electrical Storage



Traffic Engineering Yard
M-9 : Manhole Lids and Rims



Traffic Engineering Yard
M-10: Drainage Way



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
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Felicia Chase
Water Enforcement & Compliance Assurance Branch
Water Division, Mail Code: WC-15J
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

Deputy City Engineer
Gregory T. Fries, P.E.

Deputy Division Manager
Kathleen M. Cryan

Principal Engineer 2
John S. Fahrney, P.E.
Christopher J. Petykowski, P.E.
Janet Schmidt, P.E.

Principal Engineer 1
Christina M. Bachmann, P.E.
Mark D. Moder, P.E.
James M. Wolfe, P.E.

Facilities & Sustainability
Bryan Cooper, Principal Architect

Mapping Section Manager
Eric T. Pederson, P.S.

Financial Manager
Steven B. Danner-Rivers

December 21, 2020

RE: Summit Maintenance Facility Public Works Site – 1902 Freeport Road , Madison Wi, 53711

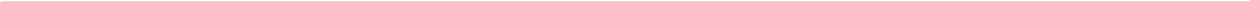
Dear Ms. Chase:

The City of Madison has developed a SWPPP for the Summit Maintenance Facility Public Works Site. Please review the following documents, and provide comment if our proposed actions are satisfactory to the EPA.

Sincerely,

RFP:pdg

Robert F. Phillips, P.E.,
City Engineer



12/21/2020



Municipal Storm Water Pollution Prevention Plan

Summit Maintenance Facility Public Works Site



Municipal Storm Water Pollution Prevention Plan

Summit Maintenance Facility Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-4. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Parks Division at the Summit Maintenance Facility Public Works Site.

A copy of this SWPPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Parks Department shall create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Summit Maintenance Facility Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

The Parks Department shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from the Parks Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Inspection and reporting of the facility

The P2 team member rosters are provided in Appendix 2.

3. Site Assessment

3.0 Site Description

The Summit Maintenance Facility Public Works site is located on Madison's southwest side at 1902 Freeport Road in Madison, Wisconsin. The 1.36 acre parcel has frontage on Freeport Road.

The Summit Maintenance Facility parcel is zoned LI (Industrial).

This site is operated by the Parks divisions.

Parks facilities on this site include 3 buildings providing Office space, vehicle and equipment storage, and vehicle maintenance. The employee parking lot is located North of the buildings.



Figure 1

1.36 acre Summit Maintenance Facility

3.1 Site Drainage

3.1.1 Outfalls

The Summit Maintenance Facility Public Works (SMFPW) site is located in Outfall Basin NS01-B-0248-H-MAD-C in the Nine Springs Creek (NS01) watershed. The SMFPW site makes up 0.75% of the basin's 181.6 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

Storm water runoff from the SMFPW site sheet flows off the site to the east and is routed to the east. The storm water is collected in stormsewer on Freeport road and conveyed to the east and then south to Dunn's Marsh and eventually in to Nine Springs Creek.

3.1.2 Site Drainage

The Summit Maintenance Facility Public Works yard storm water conveyance system consists of 2 drainage basins (A and B).

Basin A drains untreated to the east edge of the parcel and then enters the municipal stormsewer system via street inlets. Basin A represents 79% of the total site drainage. The area identified as A contains the drainage area for 3 of the maintenance buildings and the employee parking.

Basin B drains untreated to the East and then enters the municipal stormsewer system via street inlets. Basin B represents 21% of the total site drainage area. It contain the southern maintenance building and the above ground fuel tanks.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;
- secondary or other containment structures;

3.2 SITE ACTIVITIES

The primary responsibilities of the staff at the Summit Maintenance Facility Public Works facility is the servicing of mowers and power machinery used to maintain park land. There are two fuel tanks , one diesel and one Gasoline , onsite for filling mowers and other maintenance vehicles and equipment.

3.3 Potential Pollutants

A site activity and materials inventory of potential to storm water contaminates and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility included in this document in Appendices 3 and 4.

4. Best Management Practices

There are currently no structural controls to treat stormwater at the Summit Maintenance Facility Public Works site. Sweeping of the site is the only water quality practice currently conducted.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate stormwater outfalls for the presence of non-storm water discharges , and
- b) Evaluate the effectiveness of the companies pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of storm pipes in the street along the eastern edge of the parcel on an annual basis. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **01/01/2021**.

7.0 Record Keeping and Reporting

The quarterly inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.

Robert Phillips, P.E. City Engineer

Date

Appendix 1 - WPDES Permit

Appendix 2 - SWPPP (P2) Team Roster

SWPPP Coordinator

Chad Hughes

Contact Info: 608-266-4826 (O)
608-575-4508 (C)
_____ (H)

Team Members

1. Chad Hughes Cell - 608-575-4508
2. Chuck Speth Office - 608-266-4826
3. Dennis Heidenreich Office - 608-266-4826

Appendix 3: Spill Prevention, Control and Counter Measures Plan

The Summit Maintenance Facility currently has two above ground 1000 gallon tanks that are inspected and maintained by Fleet services. The inspection and maintenance record is maintained by fleet services.

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility's potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

1. August 1, 2024

2. August 1, 2027

3. August 1, 2030

4. August 1, 2033

5. August 1, 2036

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the SMFPW site sheet flows off to the east. The maps provided in Appendix 6 show outfall locations and drainage from the site to Nine Sprigs Creek. There is 3546 feet of storm sewer between the facility and Dunn’s Marsh. Additionally, there is a large screen structure located just upstream of the marsh. If a large spill were to occur, the outlet pipe of the screen structure could be plugged and this could be a viable pumping location.

Facility Storage

1000 gallon tank diesel Fuel

1000 gallon tank gasoline

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
Above Ground Tank	Tank Rupture	1000	1000	East	Zero
Above Ground Tank	Tank Rupture	1000	1000	East	Zero

Spill Prevention Measures

Bollards around above ground tanks

Double walled tank.

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, empty drums, brooms and shovels. Spill cleanup materials are located in the Southern Storage Building.

APPENDIX 4: Fuel Transfer Procedures

General Safety Requirements

- A. No Smoking is permitted, Nor use of any Flame or Spark producing devices (i.e. Lighters, Cell Phones, . . .) at or near the Fueling Station at any time.
- B. Extreme caution must be taken during fuel transfer operations for any potential ignition source.
- C. Vehicle engines must shut off during fuel transfers.
- D. The fuel delivery hose must be attended to throughout the fueling process. Automatic trip-shutoff devices are not to be relied upon to prevent overfilling of vehicle or portable tanks.
- E. Portable tanks are to be placed on the pavement inside the containment structure while being filled. Do not fill portable tanks that are in, on, or around a vehicle or boat.
- F. Report any Spills or Leaks to the Fleet Services representatives immediately.

Fueling Operations:

- A. At the Fuel Pump, select the proper fuel (#1 Unleaded, #2 Diesel).
- B. Remove nozzle from dispenser and place in tank to be fueled.
- C. Do Not Over Fill Vehicle or Portable Tank.
- D. When fueling is complete, drain nozzle into tank and replace back in the dispenser.

Emergency Contacts

Fleet Services (608) 246-4546

National Response Center (800) 424-8802

Local Police, Fire, and EMS 9-1-1

Appendix 5: Site Inspection Form

SUMMIT MAINTENANCE FACILITY STORMWATER QUARTERLY INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:			
WEATHER INFORMATION:					
<ul style="list-style-type: none"> Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ 					
<ul style="list-style-type: none"> Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 					
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION					
<p>SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.</p> <ul style="list-style-type: none"> Is the Site Map current and accurate? Is the SWPPP inventory of activities, materials and products current? <p>Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables (Appendix 7)</i>.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 100px;">Yes</td> <td style="width: 50%; height: 100px;">No</td> </tr> </table>	Yes	No	<p>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.</p>	
Yes	No				
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> If not, is there any water or other fluids accumulated within the containment area? Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; height: 100px;">Yes</td> <td style="width: 33%; height: 100px;">No</td> <td style="width: 33%; height: 100px;">NA</td> </tr> </table>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
Yes	No	NA			

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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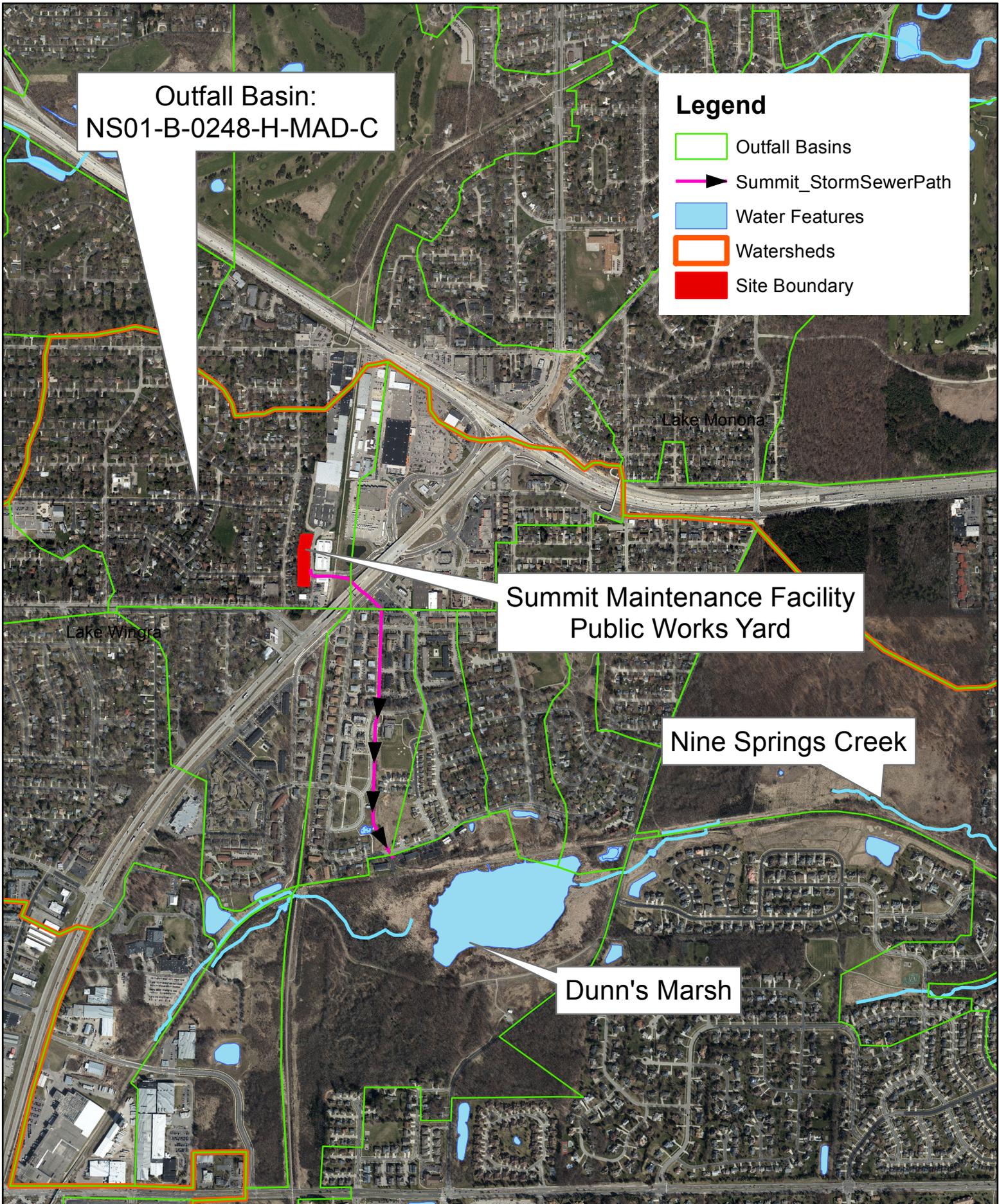
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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Appendix 6: Drainage Maps



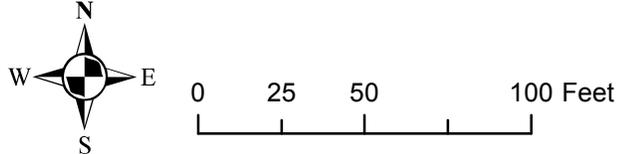
Appendix 6: Site Map
Summit Public Yard
Drainage Map



Appendix 7: Site Assessment



Summit Maintenance Facility Public Yard Risk Assessment Map



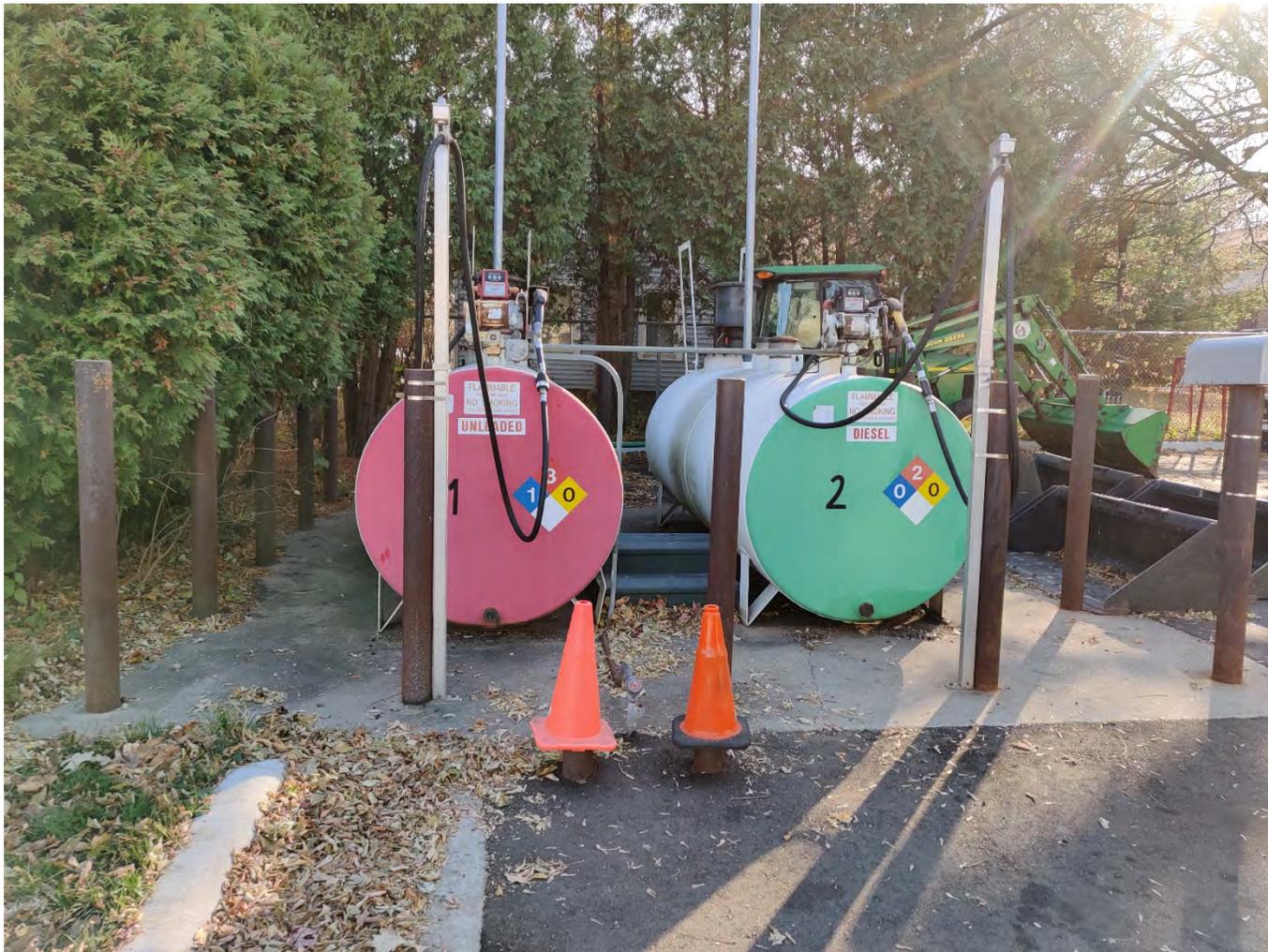
ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS					STORM WATER RISK		CURRENT PRACTICE	
	Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact		Risk of release
Gasoline and diesel fuel dispensing		M-1			●	●	●		●	○	● Vehicles fueled outside
Vehicle repair and maintenance	B-1 B-2		○	-	●	●	●	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	○	○	● Vehicles repaired and maintained indoors Floor drains in these facilities are connected to the sanitary sewer system and pretreated with and oil separator (M-8)
Vehicle storage and parking	B-3	M-2 M-3	●		●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	● Outside vehicle storage drains to stormsewer
Broom Storage		M-6	◐		○	○			●	○	Outside storage of broom attachments
Vehicle washing		M-5	●	●		●		Grass, Dirst , Oil, Soap	●	◐	● Vehicle washing occasionally performed Outdoors. Runoff drains to the storm system
Refuse		M-4	●	●					○	○	● Garbage collected in standard covered municipal garbage can
Metal Drum Storage		M-7			◐				●	○	● Stored outside before being repainted
Office Space	B-5										
Paint Preparation and Use	B-4				●		●	Paint, Metals	○	○	● Stored inside in a container, Sand blaster in blast cabinet leaks would be collected in floor drains and sent to sanitary sewer

KEY

- High
- ◐ Medium
- Low
- Not Applicable

Summit Maintenance Yard

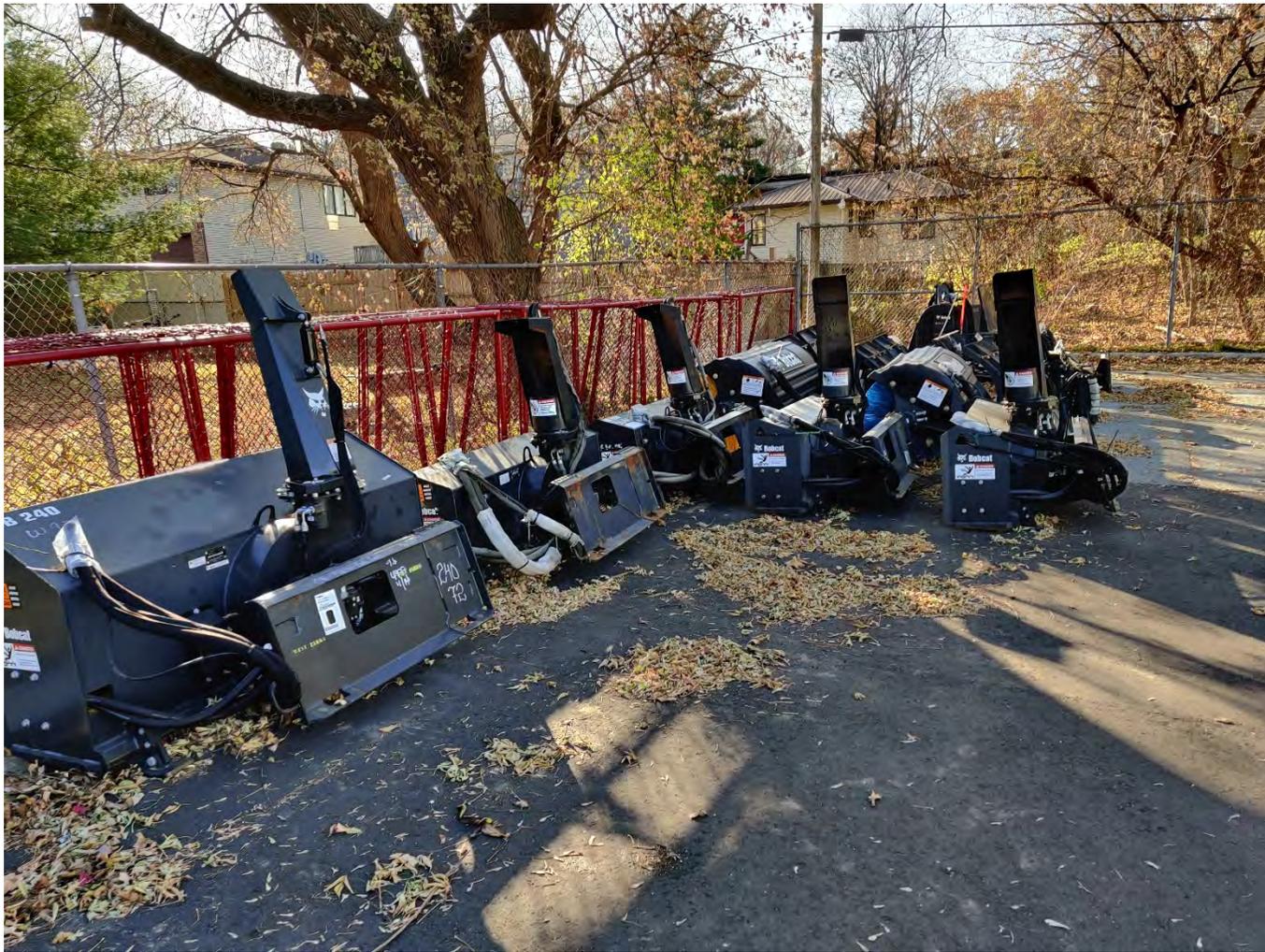
2020 Site Assessment



M-1 Fuel Tanks



M-2 Vehicle Storage



M-6 Broom Storage



M-7 Metal Drum Storage



B-3 Mower and Bobcat Storage



M-7 Metal Drum Storage



M-5 Outside Vehicle Wash Area



M-4 Outside Refuse



B-1 Indoor Vehicle Maintenance



M-7 Metal Drum Storage



M-4 Outside Refuse

02/19/2021



Municipal Storm Water Pollution Prevention Plan

Olin Transfer Station Public Works Site



Municipal Storm Water Pollution Prevention Plan

Olin Transfer Station Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-4. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Streets Division at the Olin Transfer Station Public Works Site.

A copy of this SWPPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Streets Department shall create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Summit Maintenance Facility Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

The Streets Department shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Inspection and reporting of the facility

The P2 team member rosters are provided in Appendix 2.

3. Site Assessment

3.0 Site Description

The Olin Transfer Station Public Works site is located on Madison's south side at 121 E Olin Avenue in Madison, Wisconsin. The 6.96 acre parcel has access on Olin Avenue.

The Olin Transfer Station parcel is zoned LI (Industrial).

This site is operated by the Streets divisions.

Streets facilities on this site include 2 buildings. 1 providing office space, a workshop and equipment storage, a tipping floor and trash compactor, and a loading dock. The employee parking lot is located Northeast of the buildings. The second building is a new building that provides storage for surplus garbage cans and miscellaneous items.



Figure 1

6.96 acre Olin Transfer Station

3.1 Site Drainage

3.1.1 Outfalls

The Olin Transfer Station Public Works (OTSPW) site is located in Outfall Basin MO07-U-0205-D-MAD-C in the lake Monona (MO07) watershed. The OTSPW site makes up 12% of the basin's 57.8 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

Storm water runoff from the OTSPW is collected in the private storm system and is discharged to Wingra Creek at one of two out fall. The western outfall only receives water from OTSPW while the Eastern outfall has water from both OTSPW and the adjacent water utility property.

3.1.2 Site Drainage

The Olin Transfer Station Public Works yard storm water conveyance system consists of 3 drainage basins (A B and C).

Basin A (3.14 ac) drains through a Coanda screen structure and then via storm sewer to Wingra Creek. Basin A represents 45% of the total site drainage. The area identified as A contains the drainage area for the majority of the land fill cap area, the manufactured wood storage and the majority of the wood shredding operation.

Basin B (0.94 ac) drains to the northeast, flows through a Coanda screen and connects to the municipal stormsewer system on the Water Utility property to the east. Basin B represents 13.51% of the total site drainage area. It contains the wood chip pile and a portion of above ground fuel tanks.

Basin C (2.88 ac) drains to the northeast untreated until it enters the storm pipe near Olin Avenue. From here is is routed to the outfall at Wingra Creek. This area is 41% of the site contains the majority of the transfer station roof, the emulsion tank, a portion of the above ground fuel tanks and the brush pile.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;
- secondary or other containment structures;

3.2 SITE ACTIVITIES

The primary responsibilities of the staff at the Olin Transfer Station Public Works facility is garbage transfer station brush drop off and wood chipping operations.

3.3 Potential Pollutants

A site activity and materials inventory of potential to storm water contaminates and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility included in this document in Appendices 3 and 4.

4. Best Management Practices

There is currently a coanda screen structure that treats the majority of drainage basin A and B. Sweeping of the site is the only other water quality practice currently conducted.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate stormwater outfalls for the presence of non-storm water discharges , and
- b) Evaluate the effectiveness of the company's pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of storm pipes in the street along the eastern edge of the parcel on an annual basis. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **03/01/2021**.

7.0 Record Keeping and Reporting

The bi-annual inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.

Robert Phillips, P.E. City Engineer

Date

Appendix 1 - WPDES Permit

Appendix 2 - SWPPP (P2) Team Roster

SWPPP Coordinator

Troy Clifcorn

Contact Info: 608-266-4911 (O)
608-267-1967 (C)
_____ (H)

Team Members

- | | |
|------------------|-----------------------|
| 1. Troy Clifcorn | Office - 608-266-4911 |
| 2. Phil Gaebler | Cell - 608-316-0175 |
| 3. TBD | Office - ###-###-#### |

Appendix 3: Spill Prevention, Control and Counter Measures Plan

The Olin Transfer Station currently has two above ground 5000 gallon tanks that are inspected and maintained by Fleet services. The inspection and maintenance record is maintained by fleet services.

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility’s potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

- 1. August 1, 2024
- 2. August 1, 2027
- 3. August 1, 2030
- 4. August 1, 2033
- 5. August 1, 2036

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the OTSPW site sheet flows via Pipe to the northwest into Wingra Creek. The maps provided in Appendix 6 show outfall locations and drainage from the site to Wingra Creek. There is 90 feet of storm sewer between the facility and Wingra Creek. If a large spill were to occur, the outlet pipes could be plugged at the creek.

Facility Storage

5000 gallon tank diesel Fuel

5000 gallon tank gasoline

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
Above Ground Tank	Tank Rupture	5000	5000	Northeast	Zero
Above Ground Tank	Tank Rupture	5000	5000	Northeast	Zero

Spill Prevention Measures

Double walled tank.

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, empty drums, brooms and shovels. Spill cleanup materials are located in the guard house near the brush pile.

Appendix 5: Site Inspection Form

STREETS STORMWATER BI-ANNUAL INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION:				
<ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.</p> <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? <p>Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i></p>	Yes	No	<p>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.</p>	
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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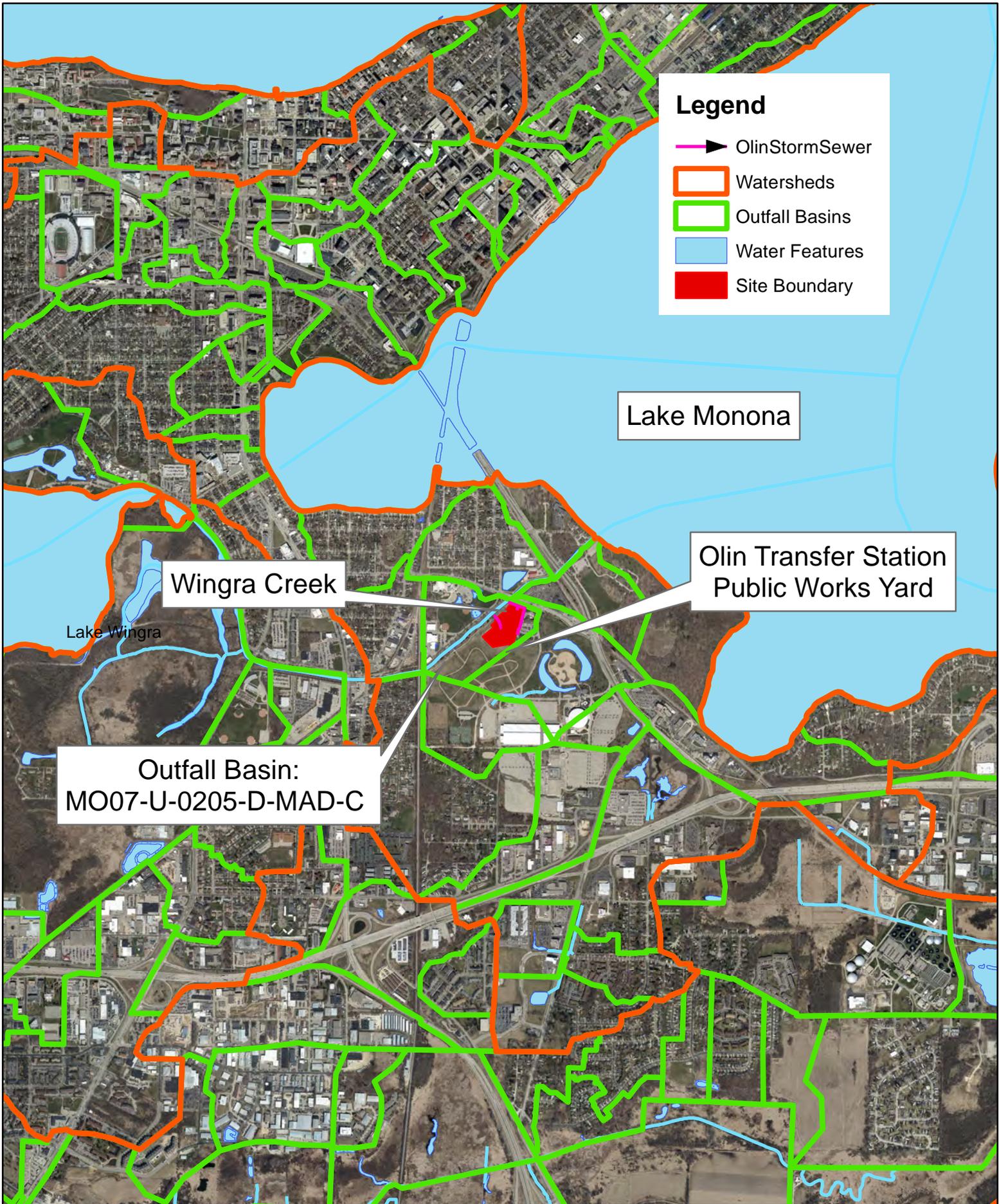
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<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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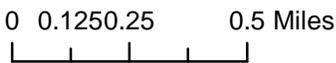
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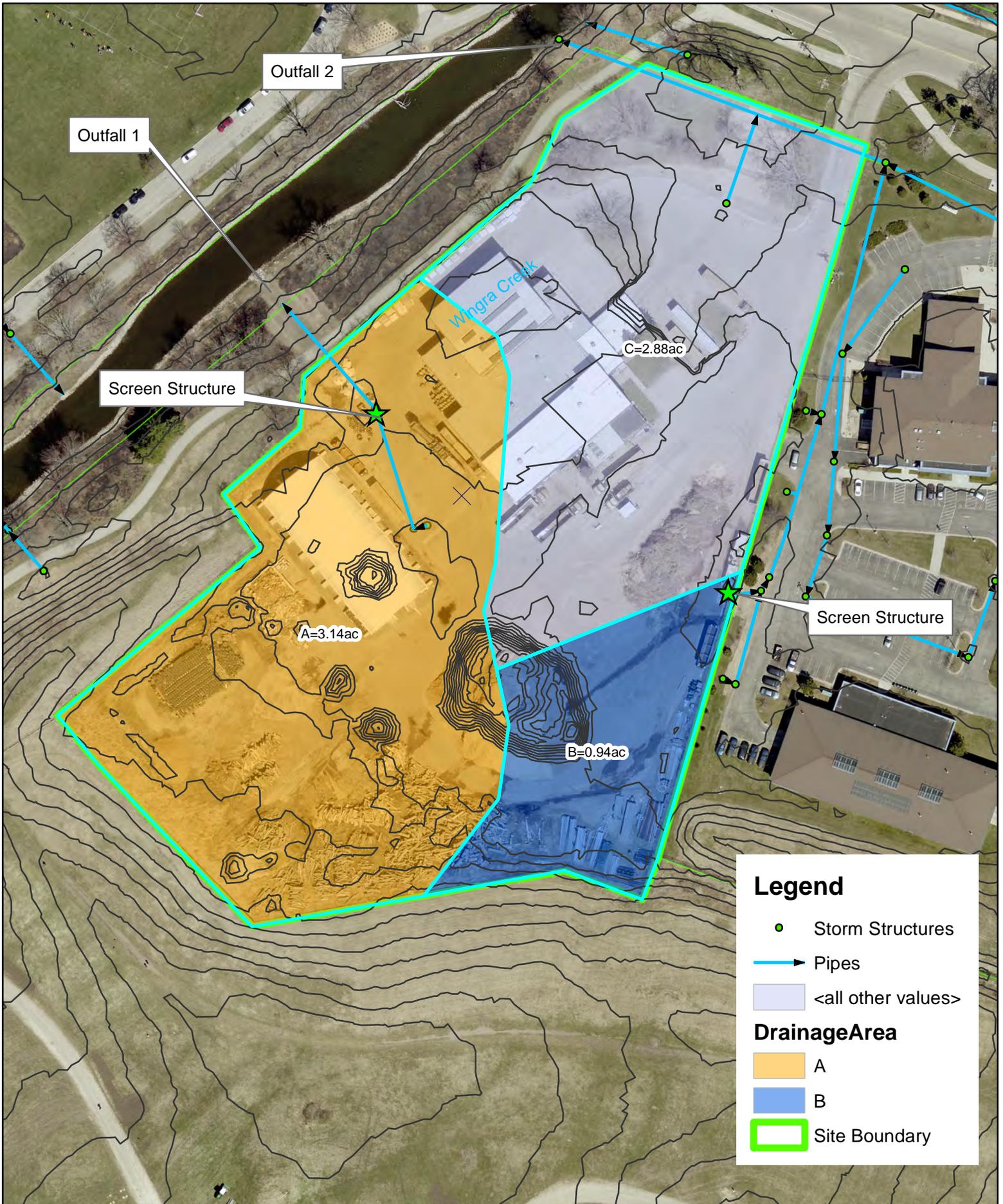
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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Appendix 6: Drainage Map

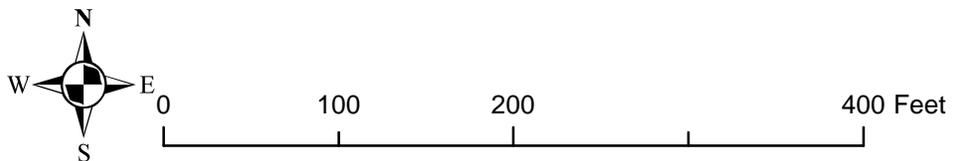


Appendix 6: Site Map
Olin Transfer Station Public Yard
Drainage Map

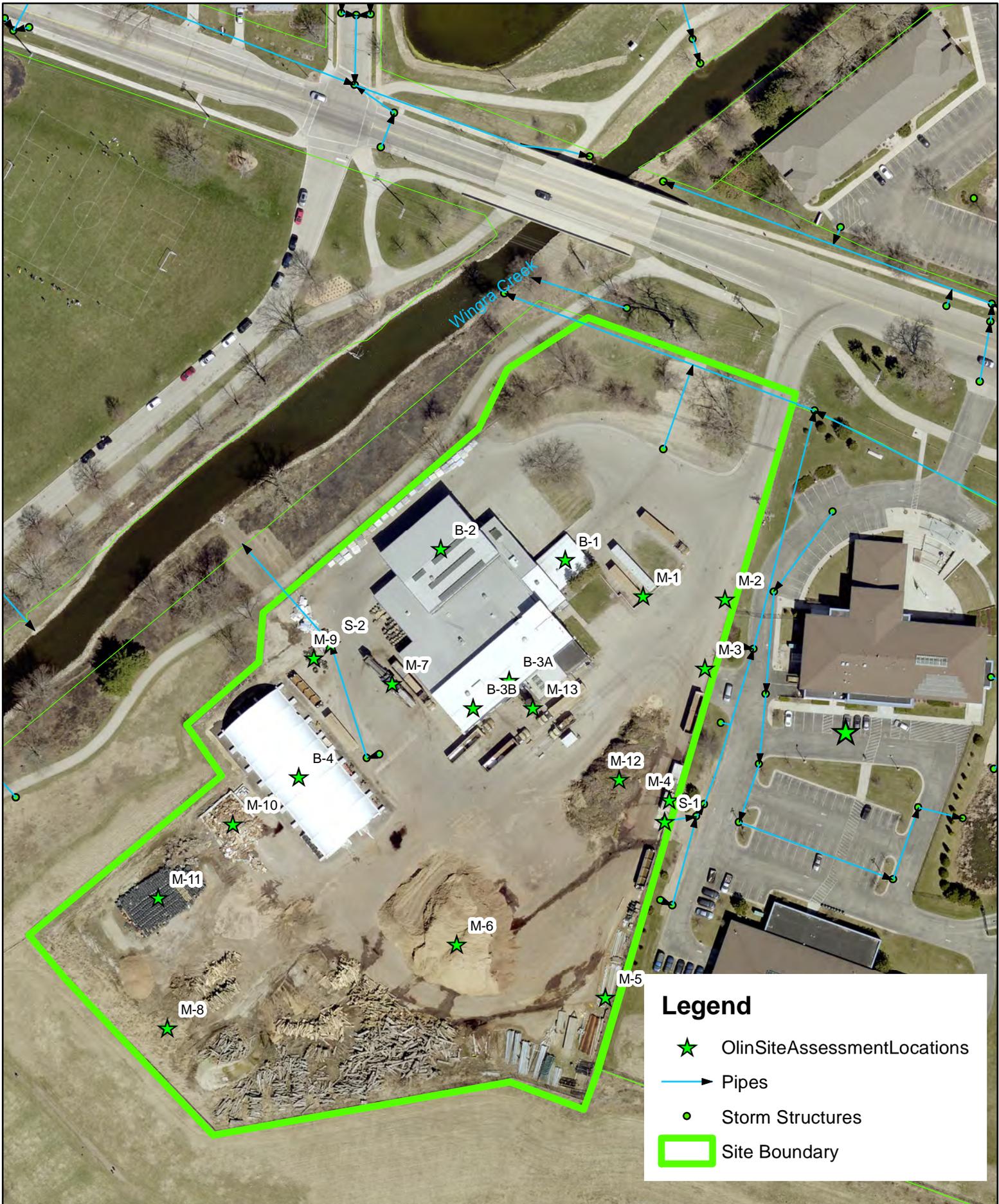




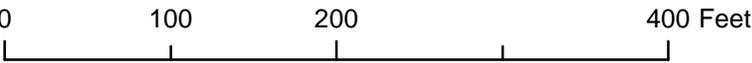
Olin Transfer Station
Drainage Map



Appendix 7: Site Assessment



Olin Transfer Station
SiteAssessment



	A	B	C	D	E	F	G	H	I	J	K	L
1	ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS					STORM WATER RISK		CURRENT PRACTICE	
2		Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact		Risk of release
3												
4												
5												
6	Styrofoam and mattress recycling		M-1								-	
7	Vehicle storage and parking		M-2	●	-	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	● Outside vehicle storage drains to stormsewer
8	Overland flow outlet		M-3	●	◐	-	-	-	wood chips	●	◐	● Haybale diversion and screen
9	Gasoline and diesel fuel dispensing		M-4	-	-	●	●	●		●	○	● Vehicles fueled outside
10	East Inlet		S-1	●	◐	-	-	-		●	●	Inlet with heavy organics load
11	Brick and lightpole storage		M-5	-		○	-	-		○	○	● Stockpiled uncovered outside
12	Mulch		M-6	◐	◐	-	-	-		●	○	● Stockpiled uncovered outside
13	Chipper machine		M-7	◐	◐	-	-	-		●	○	● Chipper is used and stored outside
14	Capped landfill with Tree Trunk Storage		M-8	●	-	-	-	-		●	●	● Landfill cap has been graded to promote drainage
15	Tires recycling		M-9	-	-	●	●	-		●	◐	● Material stored in uncovered bunker outside ● Tires are trucked to Milwaukee for recycling
16	Painted Wood for shredding		M-10	●	◐	-	-	◐	particle board , paint chips	●	●	● Pile of wood and shredded wood stored outside uncovered
17	Empty garbage cans		M-11	-	-	-	-	-		○	○	● Garbage cans stored outside
18	Public brush drop off		M-12	●	●	-	-	-		●	●	● Brush is stockpiled outside, shredded and used as mulch
19	Emulsion		M-13	-	-	-	◐	-		●	○	● Large outdoors tank with hose
20	Storage Building	B-4		○	-	-	-	-		○	○	Garbage can and sand bag storage
21	Acetalyene tank storage	B-3A		-	-	○	●	-		○	○	● Cylinders stored outside uncovered in cement barrier

	A	B	C	D	E	F	G	H	I	J	K	L
1	ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
2		<i>Indoors</i>	<i>Outdoors</i>	<i>Sediment</i>	<i>Nutrients</i>	<i>Metals</i>	<i>Hydrocarbons</i>	<i>Toxins</i>	<i>other</i>	<i>Likelihood of Contact</i>	<i>Risk of release</i>	
3												
4												
5												
22	Tool shop	B-3B		●	-	●	●	●	Lawn maintenance equipment	○	○	● Indoor tool shop
23	Tipping floor	B-1		●	●	●	●	●		○	○	● Municipal waste transferred floor in building
24	Trash compactor and waste hauling dock	B-2		●	●	●	●	●		○	●	● Compacted waste is transferred to haul trucks ● Floor drains collect liquid and route to sanitary sewer
25	<p>KEY</p> <hr/> <p>● High</p> <p>● Medium</p> <p>○ Low</p> <p>- Not Applicable</p>											
26												
27												
28												
29												
30												



I-1 Overland Flow



M-1 Styrofoam and Mattress Recycling



M-2 Vehicle Storage and Parking
M-3 Overland flow route with Hay Bales



M-4 Fuel Storage and Fuel Pump



S-1 Inlet with Basket



M-5 Light Pole Storage



M-6 Mulch Pile



M-9 Chipper



M-8 Log Storage for use in Chipper



M-9 Tire Recycling



M-10 Panted Board Pile



B-4 New Storage Building



S-2 Storm Inlet



M-12 Public Brush Drop Off



M-13 Emulsion Tank



B-3A Tool Shop



B-3B Tool Shop



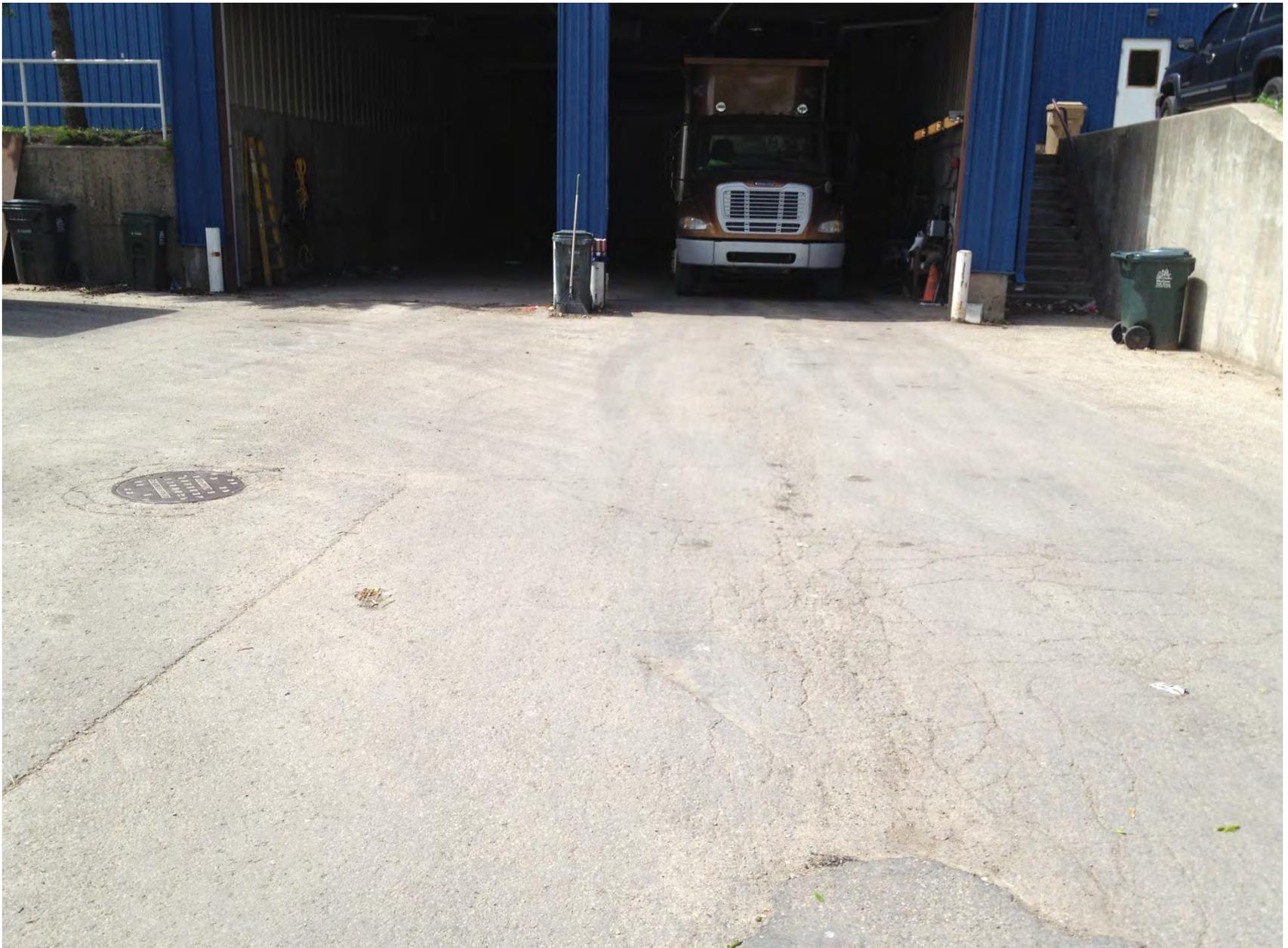
B-3B Acetylene Tanks



B-1 Tipping Floor Building



B-2 Compactor Floor and Loading Dock



B-2 Compactor Floor Loading Dock

02/19/2021



Municipal Storm Water Pollution Prevention Plan

Sycamore Avenue Public Works Site



Municipal Storm Water Pollution Prevention Plan

Sycamore Avenue Public Works Site

1. Introduction

1.0 SWPPP Overview

This storm water pollution prevention plan (SWPPP) has been developed as required under Section C.(6) of Wisconsin Pollutant Discharge Elimination System (WPDES) No. WI-S0584163 for storm water discharges and in accordance with good engineering practices. This SWPPP describes each facility and its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

This Storm Water Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- identifies potential storm water contaminants;
- describes storm water management controls and various Best Management Practices (BMPs) needed to reduce pollutants in storm water discharges;
- describes the facility's monitoring plan; and
- describes the implementation schedule and provisions for amendment of the plan.

1.1 Background

The City of Madison is a Phase 1 NR216 community permitted through the Wisconsin Department of Natural Resources (WDNR). The NR216 legislation ultimately came from the Clean Water Act which is administered by the Environmental Protection Agency (EPA) and the WDNR.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP) a group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison. Members of MAMSWaP are co-permittees under WI DNR WPDES Permit No. WI-S058416-4. This permit regulates storm water discharges in accordance with ch. 283, Wis. Stats. and subch. I of ch. NR 216, Wis. Adm. Code, and implements the non-agricultural and transportation facility performance standards of ch. NR 151, Wis. Adm. Code. A copy of this permit is provided in Appendix 1.

This permit covers all areas under the ownership, control or jurisdiction of the City of Madison that contribute to discharges from a Municipal Separate Storm Sewer System (MS4). An MS4 is defined as “a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), that are owned or operated by a co-permittee and designed or used for collecting or conveying storm water”. Permit requirements are intended to reduce the amount of pollutants entering storm water runoff or otherwise entering MS4s. Discharges from these MS4s consist of runoff from rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fertilizer, and traces of toxic materials.

A major component of this permit includes pollution prevention at municipal garages, public works facilities, and storage areas. Section C.6. (e) requires each co-permittee to carry out pollution prevention procedures at municipal garages, public works facilities, and storage areas. A Storm Water Pollution Prevention Plan is required to be developed and implemented for each of these facilities operated by the City of Madison.

1.2 Goals & Objectives

The City of Madison has made it a priority to reduce nonpoint source pollution to surface water and groundwater from urban storm water sources. This SWPPP is a component of the City’s comprehensive city-wide storm water management efforts to identify nonpoint source pollution loadings and investigate mitigating measures.

This SWPPP is intended to satisfy the following goals:

- Implement and maintain Best Management Practices (BMPs) that identify, reduce, eliminate, and/or prevent the discharge of storm water pollutants;
- Prevent violations of surface water quality, ground water quality, or sediment management standards; and
- Eliminate the discharges of unpermitted process wastewater, domestic wastewater, non-contact cooling water, and other illicit discharges to storm water drainage systems.

Given these goals, the specific objectives of this SWPPP are to:

- Identify potential sources of storm water and non-storm water contamination to the storm water drainage system;
- Identify and prescribe appropriate “source area control” type best management practices designed to prevent storm water contamination from occurring;
- Identify and prescribe “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge;
- Prescribe actions needed either to bring non-storm water discharges into compliance with WPDES permit or to remove these discharges from the storm drainage system;
- Prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in this SWPPP are carried out and evaluated on a regular basis; and
- Identify operations, maintenance, inspections and record keeping needed for these BMPs.

1.3 Coverage & Availability

This SWPPP covers the operations of the City of Madison Streets Division at the Sycamore Avenue Public Works Site.

A copy of this SWPPP will be maintained on-site.

2. Pollution Prevention (P2) Team

The Streets Department shall create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP at the Summit Maintenance Facility Public Works site.

The P2 Team is s responsible for:

- Coordination and oversight of plan development, implementation and update; and
- Implementation of preventive maintenance program;
- Oversight of good housekeeping activities inside and out in the public works yard;
- Spill response coordination;
- Oversight of employee training programs;
- Performance of quarterly inspections;
- Maintenance of all records and ensuring documentation submitted to City.

The Streets Department shall designate a SWPPP Coordinator to lead its P2 team. The Coordinator should have the authority to make decisions regarding site activity and have a working knowledge of the outdoor activities. Other members of the team should consist of representatives from the Streets Department.

The City Engineering shall assign a Professional Engineer to assist the P2 Team. The Engineer's responsibilities shall include:

- Providing technical assistance to identify potential pollutants;
- Develop and implement BMPs;
- Inspection and reporting of the facility

The P2 team member rosters are provided in Appendix 2.

3. Site Assessment

3.0 Site Description

The Sycamore Avenue Public Works site is located on Madison's East side at 4602 Sycamore Avenue in Madison, Wisconsin. The 13.54 acre parcel has access on Olin Avenue.

The Sycamore Avenue parcel is zoned LI (Industrial).

This site is operated jointly by the Streets and Parks divisions.

This site includes 3 buildings. The largest building provides office space, vehicle Storage, maintenance workshops, landscape equipment storage, vehicles washing facilities. The employee parking lot is located offsite south of the site. The second building in the NE corner of the site is a salt storage building. The small building to the west a tool shop for parks.



Figure 1

13.54 acre Sycamore Avenue Public Works Site

3.1 Site Drainage

3.1.1 Outfalls

The Sycamore Avenue Public Works (SAPW) site is located in Outfall Basin ST10-U-0143-D-MAD-C in the Starkweather Creek (ST10) watershed. The SAPW site makes up 14.5% of the basin's 92.85 acres. Appendix 6 presents a general location map of the facility and shows the following features:

- the facility location;
- the drainage area boundary for the storm water outfalls serving the facility;
- the name and location of receiving waters.

Storm water runoff from the SAPW is collected in the storm system and is discharged to a swale in the park to the south. From here water flows back into the public storm sewer and discharges near the Sycamore Avenue bridge over Starkweather Creek.

3.1.2 Site Drainage

The Sycamore Avenue Public Works yard storm water conveyance system consists of 2 drainage basins (A and B).

Basin A (4.83 ac) drains to the southwest via the storm sewer system and eventually discharges Starkweather Creek untreated. Basin A represents 35% of the total site drainage. The area identified as A contains the drainage area for the majority of the entrance to the large building and the roof of that building.

Basin B (8.71 ac) drains to the southwest, flows through a Coanda screen and connects to the municipal stormsewer system on the Water Utility property to the east. Basin B represents 64.33% of the total site drainage area. It contains the salt barn, recycling stations, brine tanks and fueling operations.

Appendix 6 shows the following site specific features:

- storm drainage collection and disposal system;
- structural storm water controls;
- secondary or other containment structures;

3.2 SITE ACTIVITIES

The Sycamore Avenue Public Works facility is the main hub of activity for the public works department on the east side of Madison. This site has a public drop off location for brush, large trash, electronics disposal and recycling. Additionally winter maintenance vehicles and salt storage and brine storage are on the site. There are vehicle washing bays and vehicle maintenance bays. The landscaping equipment for the east side parks department is stored and maintained at this facility as well.

3.3 Potential Pollutants

A site activity and materials inventory of potential to storm water contaminants and an accompanying map is provided in Appendix 7.

3.4 Illicit Discharges and Spills

There has been no history of illicit discharges or spills at this facility.

Future spills will be addressed under the Spill Prevention and Clean Up Plans to be prepared for each facility included in this document in Appendices 3 and 4.

4. Best Management Practices

There is currently a coanda screen structure that treats the majority of drainage basin B. Sweeping of the site is the only other water quality practice currently conducted.

5. Monitoring Plan

The City is developing and implementing a storm water monitoring plan in accordance with its WPDES permit. City Engineering is the lead agency for implementation of the monitoring plan.

The following sections describe monitoring and reporting requirements for this SWPPP.

The purpose of monitoring is to:

- a) Evaluate stormwater outfalls for the presence of non-storm water discharges , and
- b) Evaluate the effectiveness of the company's pollution prevention activities in controlling contamination of storm water discharges.

Monitoring components are described in the following sections.

5.0 Illicit Discharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of storm pipes in the street along the eastern edge of the parcel on an annual basis. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be documented and immediately reported to City Engineering and Madison/Dane County Public Health. Engineering and Public Health will work together to identify the sources of the illicit discharge and eliminate it.

5.1 Site Compliance Inspections

The City Engineer shall assign a Professional Engineer to perform an annual inspection to evaluate the effectiveness of the SWPPP. The inspection shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP.

6.0 Implementation Schedule

This SWPPP becomes effective as of **03/01/2021**.

7.0 Record Keeping and Reporting

The bi-annual inspections, and maintenance activities will be record on the forms in Appendix 5 and kept onsite with the SWPPP.

8.0 Certification of the SWPPP

I certify that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. Based upon inquiry of persons directly under my supervision, and to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with.

Robert Phillips, P.E. City Engineer

Date

Appendix 1 - WPDES Permit

Appendix 3: Spill Prevention, Control and Counter Measures Plan

The Sycamore Avenue Site currently has two above ground 5,000 gallon brine tanks. Additionally, there 500 gallon waste oil collection tank and two underground fuel tanks. The fuel tanks are inspected by fleet services.

In accordance with 40 CFR 112.5 (b), a review and evaluation of this Spill Prevention,

Control and Countermeasures Plan (SPCC) will be conducted every three years. A registered Professional Engineer shall certify any change or amendment to the SPCC plan. This certification must be completed within six months after a change in facility design, construction, operation or maintenance occurs which affects the facility’s potential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates

Signature

- 1. August 1, 2024
- 2. August 1, 2027
- 3. August 1, 2030
- 4. August 1, 2033
- 5. August 1, 2036

* SPCC plan amended and certified by a Registered Professional Engineer per 40 CFR 112.3 (d)

Management Approval

The City of Madison is committed to the prevention of discharges of any nature into navigable waters or the surrounding habitat. Therefore, a regular review and update of spill prevention, control and countermeasures procedures will be held to the highest standards.

Authorized Facility Representative

Signature

Title

Date

Facility Distance to Navigable Waters and Adjoining Shorelines

Storm water runoff from the SAPW site sheet flows via Pipe to the South and then eventually into Starkweather Creek. The maps provided in Appendix 6 show outfall locations and drainage from the site to Starkweather creek. There is 3,238 feet of storm sewer between the facility and Starkweather Creek. If a large spill were to occur, the outlet pipes could be plugged at the creek or in the swale on the west side of sycamore park.

Facility Storage

Two 5000 gallon Brine tanks

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume (gal)	Rate of Flow (Gal./Hr.)	Direction of Flow	Containment (Gal.)
Above Ground Brine Tank	Tank Rupture	5000	5000	Southwest	Zero
Above Ground Brine Tank	Tank Rupture	5000	5000	Southwest	Zero

Spill Prevention Measures

None

Spill Control Equipment and Cleanup:

- a. Spill control equipment on site includes absorbent pads and sorbent socks, granular sorbent, empty drums, brooms and shovels. Spill cleanup materials are located in the guard house near the brush pile. This would only be effective for small spills under 5 gallons associated with fueling operations.

Appendix 5: Site Inspection Form

SYCAMORE MAINTENANCE FACILITY STORMWATER BI-ANNUAL INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION: <ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables (Appendix 7)</i> .	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.	
Vehicle/Equipment Areas: Equipment cleaning: <i>Check NA if not performed on-site. Skip section.</i> Is equipment washed and/or cleaned only in designated areas? <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? Equipment fueling: <i>Check NA if not performed on-site. Skip section.</i> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	Findings and Remedial Action Documentation:

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
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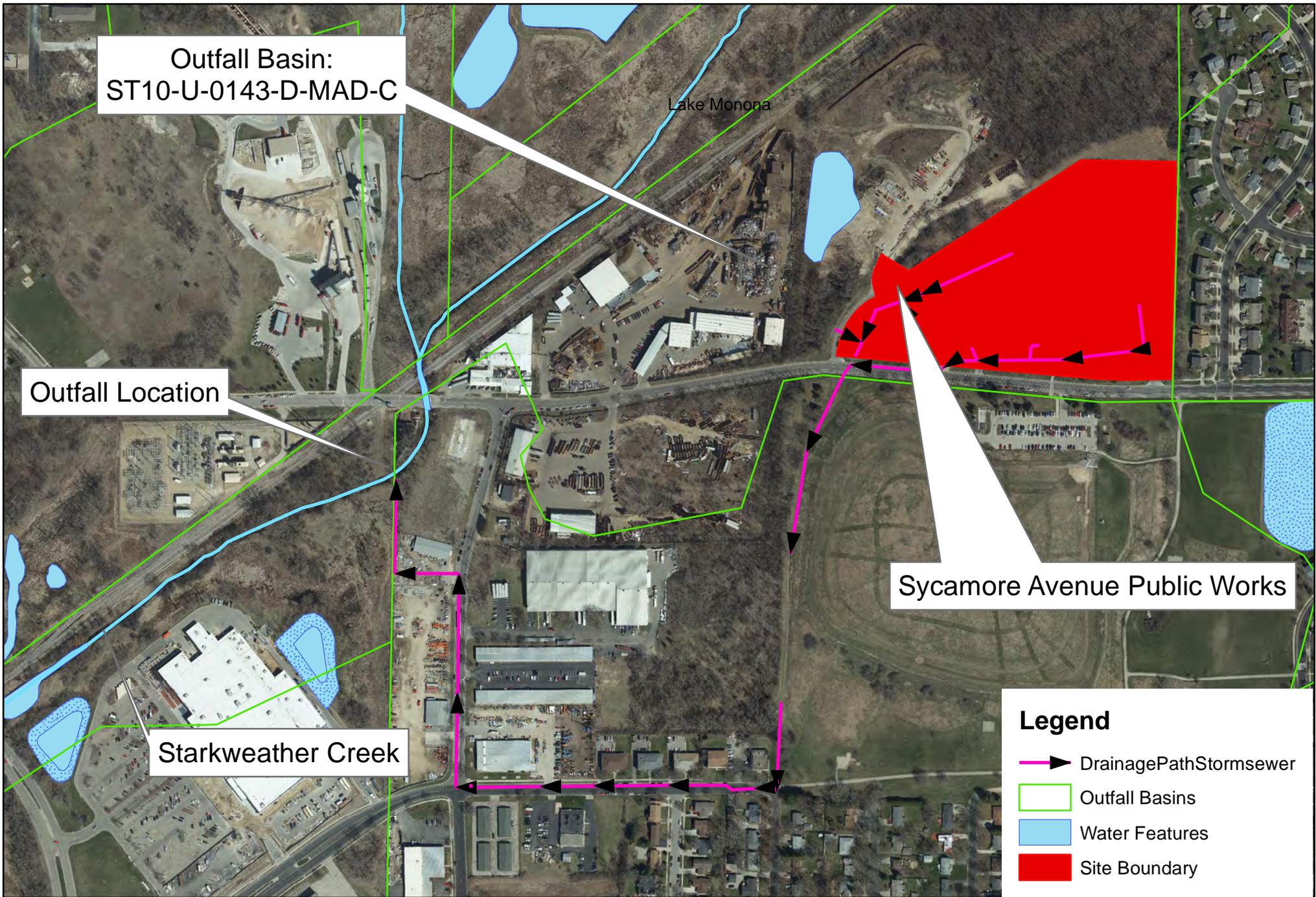
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION

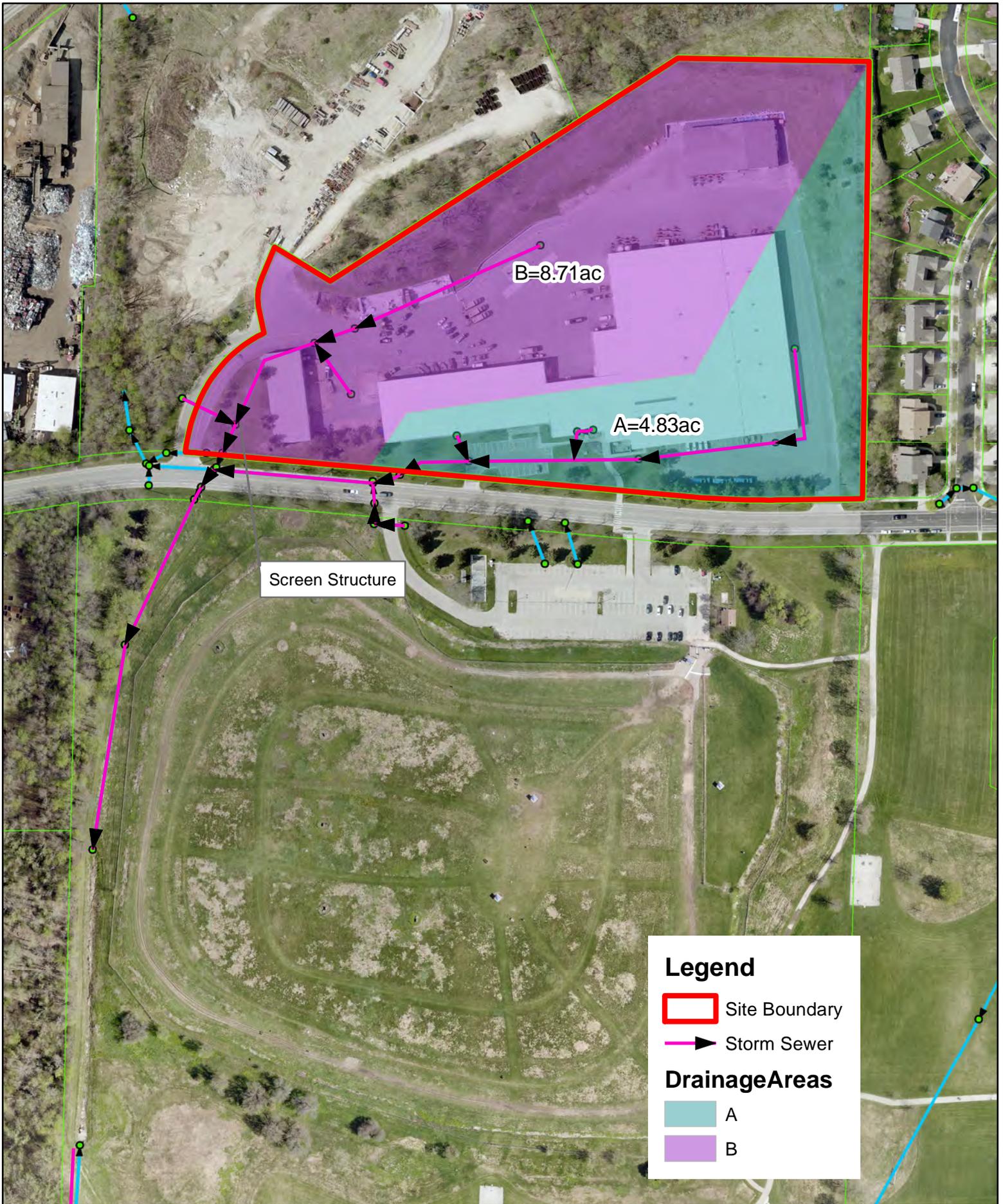
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

Appendix 6: Drainage Map

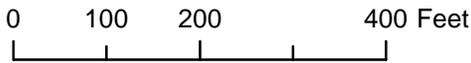


Appendix 6:
Sycamore Avenue
Drainage Map





Sycamore Avenue Public Works Site
Drainage Map



Appendix 7: Site Assessment



Sycamore Street Facility
Madison, WI



	A	B	C	D	E	F	G	H	I	J	K	L
1	ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS					STORM WATER RISK		CURRENT PRACTICE	
2		Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact		Risk of release
3												
4												
5												
6	Vehicle repair and maintenance	B-2		○	-	●	●	●	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	○	○	<ul style="list-style-type: none"> ● Vehicles repaired and maintained indoors ● Floor drains in these facilities are connected to the sanitary sewer system
7	Vehicle storage and parking	B-1C B-4C	M-1	●	-	●	●	○	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	●	○	<ul style="list-style-type: none"> ● Outside vehicle storage drains to stormsewer
8	Vehicle washing	B-1D		●	●	◐	◐	●		○	○	<ul style="list-style-type: none"> ● Vehicle washing is performed indoors ● Washbays are connected to the sanitary sewer system
9	Metals recycling		M-11	-	-	●	●	-		●	◐	<ul style="list-style-type: none"> ● Material stored in uncovered dumpsters outside
10	Refuse		M-13	●	●	-	-	-		○	○	<ul style="list-style-type: none"> ● Garbage collected in standard covered municipal garbage can
11	Waste oil and used anitfreeze		M-13 M-12	-	-	-	●	●	ethylene glycol	◐	◐	<ul style="list-style-type: none"> ● Single walled outside storage tank without secondary containment
12	Gasoline and diesel fuel dispensing		M-15 M-14	-	-	●	●	●		●	○	<ul style="list-style-type: none"> ● Vehicles fueled outside
13	Cold Patch	B-1B		-	-	-	○	-		○	○	<ul style="list-style-type: none"> ● Stored indoors in bunker
14	Tack for Asphalt	B-1A		-	-	-	◐	-		○	○	<ul style="list-style-type: none"> ● Stored indoors in bunker
15	Pea gravel	B-1A		◐	-	-	-	-		○	○	<ul style="list-style-type: none"> ● Stored indoors in bunker
16	Spray patch equipment	B-1A		-	-		◐	-		○	○	<ul style="list-style-type: none"> ● Stored indoors in 55 gallon drums
17	Snow plow storage		M-7 M-4	-	-	○	●	-		●	○	<ul style="list-style-type: none"> ● Stored outdoors uncovered
18	Sweeper dumps/transfer location		M-5	●	●	●	-	●		●	●	<ul style="list-style-type: none"> ● Conducted on concrete slab outdoors
19	Salt / Sand storage 90% and 10% Salt	B-3		●	-	-	-	○	Sodium Chloride, Ferrocyanide	○	○	<ul style="list-style-type: none"> ● Stored in building
20	Brine Solution tanks		M-10	-	-	-	-	-	Sodium Chloride	○	◐	<ul style="list-style-type: none"> ● Stored in tanks outside

	A	B	C	D	E	F	G	H	I	J	K	L
1	ACTIVITY/MATERIAL	LOCATION MAP ID		POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE
2		Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact	Risk of release	
3												
4												
5												
21	Public recycling drop off		M-16									-
22	Public brush drop off		M-20	●	●	-	-	-		●	●	● Brush is stockpiled outside, shredded and used as mulch
23	Used batteries		M-16	-	-	●	-	●	Lead, acid	○	○	● Stored in a coverd container
24	Fertilzers	B-4		-	●	-	-	-	22-0-3 fertilizer	○	○	● Stored inside cage, inside building with floordrains connected to sanitary sewer
25	Mulch		M-19	◐		-	-	-		●	○	● Stockpiled uncovered outside
26	Mower blowoff material		M-21	◐	●	-	-	-		●	○	● Material removed from mowers with air hose
27	Paint	B-4		-	-	-	-	●		○	○	● Paint stored in locked cage
28	LP storage		M-8	-	-	○	●	-		○	○	● Cylinders stored outside uncovered in cement barrier
29	Tool Shop	B-5		◐	-	●	●	●	Sovlents, Spray Paint	○	○	
30	Mowing equipment storage	B-4C		◐	-	-	◐	-		○	○	● Stored in building
31	Picnic table storage		M-17	-	-	○	-	-		●	○	● Stockpiled outside
32	Playing field paint	B-3		-	-	-	-	-		○	○	● Stored indoors in five gallon buckets
33	Pressure washer	B-4D		●	●	◐	◐	●		○	○	● Washing is performed indoors ● Area connected to the sanitary sewer system
34	<p>KEY</p> <p>● High</p> <p>◐ Medium</p> <p>○ Low</p> <p>- Not Applicable</p>											
35												
36												
37												
38												
39												



B-1A Cold Patch Storage



B-1B Pea Gravel Storage



B-1A Road Tack Storage



B-1A Indoor vehicle storage – trench drain connected to sanitary sewer



B-1C Indoor Vehicle Storage



B-1A Waste oil from mowing equipment



M-1 Outside Vehicle Storage



B-3 Sand and Salt Storage



M-2 Barricade Storage



M-5 Street Sweeper Transfer Location



M-6 Asphalt Hauler Storage



M-7 Snow Plow Storage



M-8 Liquid Propane Storage



M-10 Brine Tanks



B-1D Vehicle Washing



B-1E Vehicle Maintenance



M-11 Scrap Metal Recycling



M-11 Metal Recycling



M-12 Used Anti-Freeze



M-13 Waste Oil Storage



M-14 Fuel Station



M-14 Anti-Freeze and Oil Stored in Fuel Station



M-15 Fuel Station



M-16 Metals and Large Appliance Recycling



M-16 Large electronics recycling



M-16 Used Batteries Recycling



M-17 Picnic Table Storage



M-18 Bur lapped Tree Storage



M-19 Mulch Stock Pile



M-20 Public Brush Drop Off



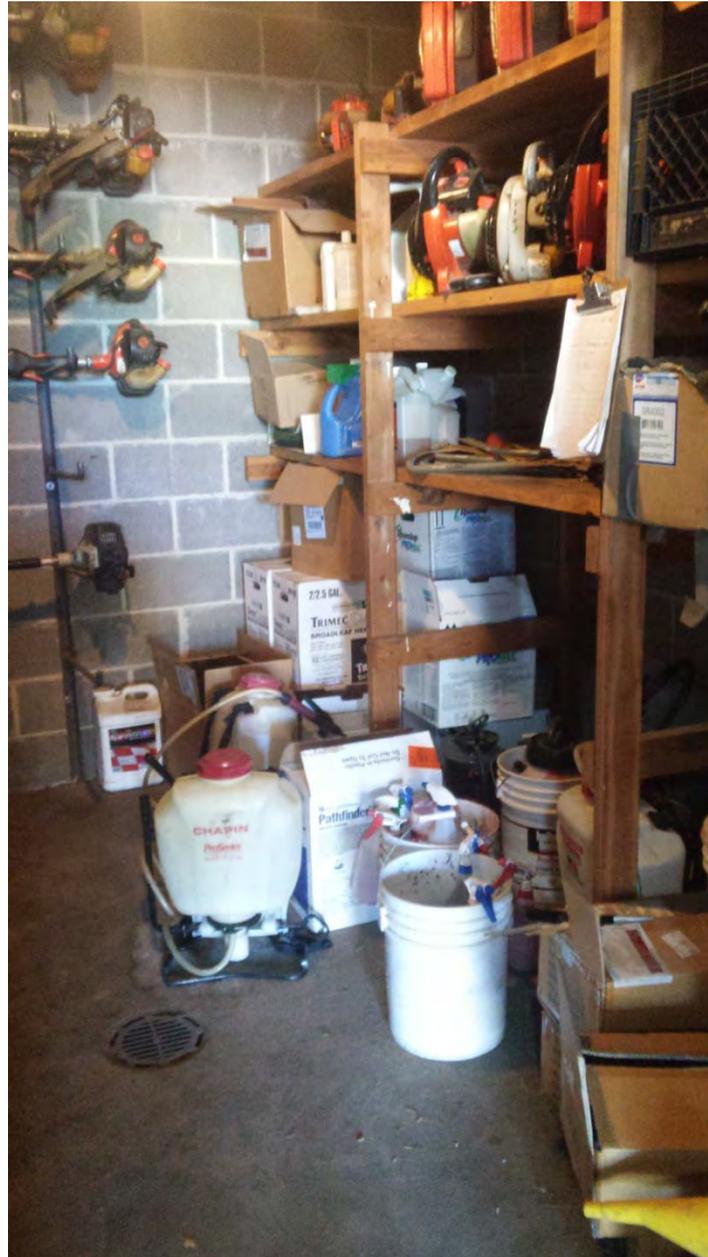
B-4 Fertilizer Storage



B-4C Forestry Vehicle Storage



B-4B Forestry Waste Oil Storage



B-4A Chemical Storage



M-21 Mower Blow-off Area



B-3 Tool Shop

Yahara WINS
2021 Annual
Report



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Cover photo: Cover crop planted in early fall after corn silage crop harvest.

ABOUT YAHARA WINS

The Yahara Watershed Improvement Network, known as Yahara WINS, is a long-term initiative to achieve clean water goals for the Yahara watershed. In this effort, community partners, led by Madison Metropolitan Sewerage District, are collaborating on a strategy called watershed adaptive management in which all sources of phosphorus in the watershed work together to reduce nutrient runoff over 20 years. The work began in 2012 and following a four-year pilot effort, it has transitioned to the full-scale implementation throughout the whole watershed. 2022 marks the sixth full year of the initiative.

Intergovernmental Agreement (IGA) Signatories

Towns

- Blooming Grove
- Burke
- Cottage Grove
- Dunn
- Middleton
- Westport

Villages

- Cottage Grove
- DeForest
- Maple Bluff
- McFarland
- Shorewood Hills
- Waunakee
- Windsor

Cities

- Fitchburg
- Madison
- Middleton
- Monona
- Stoughton
- Sun Prairie

Others

- Madison Metropolitan Sewerage District
- Village of Oregon Wastewater Treatment Plant
- Stoughton Utilities
- UW-Madison
- Wisconsin Department of Natural Resources

Interested Parties

- Clean Lakes Alliance
- Yahara Pride Farms**
- River Alliance of Wisconsin
- U.S. Geological Survey**
- U.S. EPA
- Madison Gas & Electric**
- Yahara Lakes Association
- Dane County**
- Friends of Pheasant Branch
- Wisconsin Department of Agriculture, Trade and Consumer Protection
- Friends of Badfish Creek
- Rock County**
- Columbia County**
- Rock River Coalition**

Bold = Partner that has a funding agreement with Yahara WINS.

IGA Executive Committee Members

Voting Members

- President: Martin Griffin, Madison Metropolitan Sewerage District
- Vice President: Tom Wilson, Town of Westport
- Secretary: Greg Fries, City of Madison
- Treasurer: Jeff Rau, Village of Oregon
- At-large member: Judd Blau, Village of DeForest

Non-voting Advisory Members

- Laura Hicklin, Dane County
- Bob Uphoff, Yahara Pride Farms
- James Tye, Clean Lakes Alliance

President's Message

MAKING ROOM FOR ADAPTATION



Martye Griffin, Yahara WINS president

Adaptability requires a willingness to step away from the familiar and try new things. This can be an uncomfortable step, but it is made more comfortable when there's a support network to make that step less risky.

Yahara WINS provides the structure and support for people to take new steps to reduce phosphorus. More and more farmers across the watershed

have adopted conservation practices to reduce phosphorus as they've seen other farmers successfully implement these practices on their farms.

Chris Murphy, conservation specialist for Rock County, explained how Yahara WINS is encouraging adaptation and new practices. He showed staff from Madison Metropolitan Sewerage District conservation practices in place in Rock County this May. During the tour, he explained how farmers' practices have changed under Yahara WINS.

"The key is [the farmers] get to make the decision," he said. Unlike traditional agricultural conservation programs, Yahara WINS does not have the same level of paperwork and requirements for farmers implementing runoff control practices, which lowers the barrier to

entry for farmers to try these practices for the first time. With that flexibility, farmers and technical assistance providers can design creative approaches to conservation.

"I tell people this program is about taking things up to the next level to improve water quality," said Murphy. This attitude encapsulates the spirit of adaptive management: this project is about changing norms. Despite this being a finite 20-year project, the changes enacted under Yahara WINS will need to become the norm for water quality protection to persist into the future.

After the project, we can't return to the same practices that led to excessive nutrients in the lakes before the project. We'll need to make permanent changes to our practices, adapting our actions and attitudes to sustain clean water against the shifting backdrops of land development and climate change. Changing norms takes time, but we're planting seeds for long-term change with the strong partnerships behind Yahara WINS.

2021 PHOSPHORUS REDUCTIONS

2021 REDUCTION GOAL:

38,290 POUNDS

REPORTED 2021 REDUCTION:

88,854 POUNDS

Photo: Phosphorus monitoring station on Swan Creek



SUMMARY OF REDUCTIONS

Together, partners continued the streak of achieving higher-than-projected phosphorus retentions on the land. Despite barriers such as staffing shortages and the ongoing challenge of the pandemic, Yahara WINS partners reported 88,854 pounds of phosphorus kept on the land by practices implemented in 2021. Meanwhile, lower-than-average precipitation resulted in less runoff, corresponding to less phosphorus delivered to lakes and streams.

This reduction in 2021 was substantially higher than the goal for the year and was close to the ultimate yearly phosphorus reduction goal for the project. The high reduction reflects an encouraging level of participation in conservation practices but doesn't mean that the project is close to "over." A significant proportion of the reported reductions were from annual practices, meaning that they're not guaranteed to be repeated in future years. Sustained change takes time, so it's important for Yahara WINS to continue its support to help continue implementation of these practices in the future.

DIFFERENT CALCULATIONS FOR PHOSPHORUS REDUCTIONS

Partners implementing practices through Yahara WINS use different approved options to calculate phosphorus reductions. For some conservation practices, land managers use a tool called SnapPlus to estimate how much phosphorus loss the practice will prevent. This tool generates this estimate using factors such as cropping, soil test data, and long-term weather information, which all influence the likelihood of phosphorus runoff.

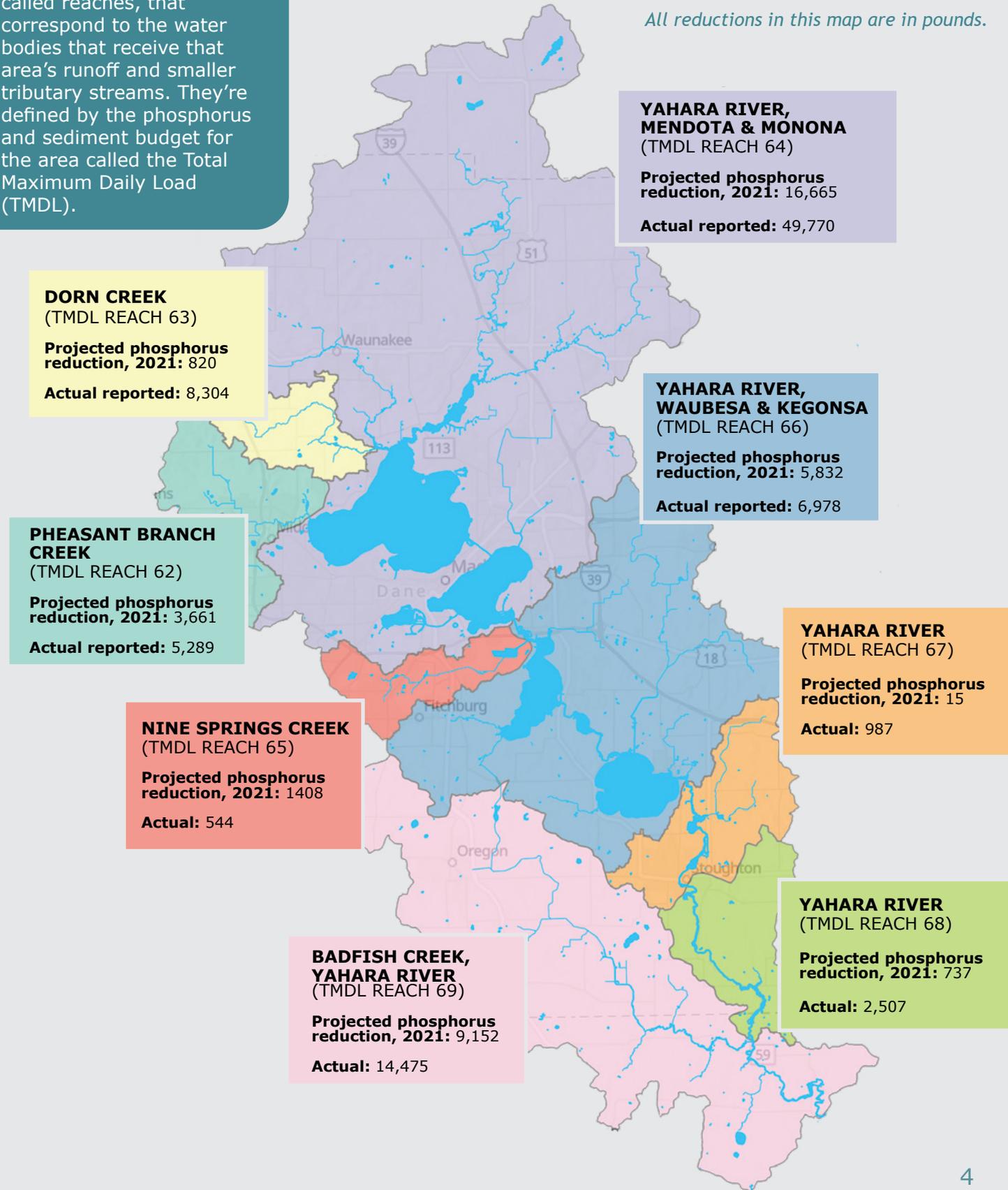
The difference between partners' phosphorus reduction calculations is the number of years that go into the SnapPlus model when estimating phosphorus loss. Dane County Land and Water Resources Department (LWRD) and Rock County Land Conservation Department (LCD) use many years of cropping data in the model. Yahara Pride Farms (YPF), which provides cost-share only for year-to-year practices, uses a one-year average to determine phosphorus reductions.

These methods are both correct, but make it difficult to standardize phosphorus reduction totals. Yahara WINS partners are having conversations about how to create consistency and comparability in phosphorus reduction reporting to best show project progress.

The Yahara Watershed is divided into eight areas, called reaches, that correspond to the water bodies that receive that area's runoff and smaller tributary streams. They're defined by the phosphorus and sediment budget for the area called the Total Maximum Daily Load (TMDL).

REDUCTIONS BY TMDL REACH

All reductions in this map are in pounds.



PARTNER HIGHLIGHTS

The practices that reduce phosphorus throughout the watershed in agricultural settings are made possible by farmers and the Yahara WINS partners who work with them to design, plan, and fund the practices. These partner organizations have deep expertise in agriculture and land conservation practices that they apply to field and barnyards to keep soil and manure on the land, preventing phosphorus from reaching waterways.

Find full partner reports at www.yaharawins.org.

Photo: Vegetative buffer along stream in Rock County



Photo: Cover crop seeding during fall tillage

ROCK COUNTY LCD

The portion of the watershed in Rock County is relatively small, but it's an important area for Yahara WINS. This area includes the Fulton gauge, the monitoring station that measures in-stream phosphorus and determines Yahara WINS's ultimate success. Rock County LCD has focused on shoring up buffers along the Yahara River and its tributaries, keeping phosphorus out of this last stretch of river before emptying into the Rock River. Yahara WINS actions completed in 2021 include:

- Completed seven new conservation practices.
- Implemented 3.7 acres of harvestable buffers, converted 5.68 acres of cropland to perennial grasses and legumes that reduce soil and phosphorus loss, and installed a grassed waterway along the Yahara River.
- Designed and planned for a barnyard runoff reduction system and more cropland near the Yahara River to be planted in perennial vegetation.
- Visited three landowners to educate them about the Yahara WINS program.

FARMER-LED GROUPS

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is prioritizing farmer-led groups as drivers of conservation on the land. Historically, conservation cost-share programs have been led by local, state and federal government. Farmer-led groups, meanwhile, are leading conservation through peer-to-peer education and resource sharing, to change the land management status quo.

In the Yahara watershed, farmer-led group YPF has been supporting practices in the watershed since the beginning of the Yahara WINS project. In 2021, the Yahara WINS executive committee approved a grant to Biological Farming Friends (BFF), a newly-formed farmer-led group in the southern portion of the watershed. The grant provided cost-share for cover crops, which keep soil and nutrients on land over the winter. The cover crops planted by BFF farmers in 2021 were projected to keep 1440 pounds of phosphorus out of waterways. WINS supports these efforts that encourage more farmer participation, and is considering a service agreement to establish BFF as an implementation partner in the program.

DANE COUNTY LWRD

Most of the land in the Yahara Watershed is in Dane County, and the county LWRD supports practices in all TMDL reaches to reduce phosphorus. Yahara WINS funds a portion of the department's work devoted to practices that count toward Yahara WINS phosphorus reductions. In addition to staff time, the county uses Yahara WINS funding to provide cost-share to farmers to help them implement phosphorus reduction practices.

In 2021, Dane County LWRD:

- Completed 113 conservation practices and carried out 241 practice verification checks to ensure that existing practices were being maintained to continue preventing runoff.
- Reached a milestone of over 50,000 acres across the watershed covered by nutrient management plans (NMPs), which outline farming practices for those plots to reduce soil and nutrient loss.
- Covered 3,343 acres in the watershed with various conservation practices, as well as additional practices not tied to acres (such as barnyard runoff control practices).

YAHARA PRIDE FARMS

Since the beginning of Yahara WINS, YPF has recruited and assisted farmers in implementing runoff reduction practices, including farmers who had not been involved in conservation practices before. The farmer leaders in YPF have built a powerful farmer-to-farmer network that facilitates education and sharing ideas and resources. While Yahara WINS funding partially covers the costs of conservation practices, many practices are paid for by farmers themselves. Accomplishments in 2021 include:

- Achieved a 30% increase in pounds of phosphorus reduced compared to the previous year.
- Added nine farms that participate in YPF cost-share programs (for a net increase of five farms compared to 2020). Program participation has grown in recent years from 45 farms in 2019 to 63 farms in 2021.
- Restarted the YPF Watershed Conference. Two speakers from the conference were featured in a new Yahara WINS podcast.
- Recorded conservation practices on 1,312 fields covering 32,775 acres (including fields that have more than one conservation practice).

PRACTICE SPOTLIGHT

A principle of Yahara WINS is considering all sources of phosphorus for potential reductions, rather than focusing on just one sector. Any practice that reduces phosphorus runoff, whether it's an urban stormwater control structure, a change in wastewater treatment byproduct handling, or a runoff control practice on a farm field, can benefit Yahara WINS.

This section highlights some specific recent actions by Yahara WINS partners to illustrate how they contribute to Yahara WINS goals.

IMPROVED BIOSOLIDS APPLICATION

Madison Metropolitan Sewerage District leads the Yahara WINS project as part of its strategy to comply with regulatory limits for phosphorus. Meanwhile, the District is taking steps individually to ensure that its practices align with Yahara WINS goals.

Since 1979, the District has processed the solids removed from wastewater into Metrogro, a naturally nutrient-rich fertilizer, and applied it to local farm fields. The District has taken several steps to help fields get the most out of Metrogro and prevent it from contributing phosphorus to water bodies. Recently, the District has taken more actions to help keep phosphorus from Metrogro on the land:

2017: Began trialing low-disturbance manure injection (LDMI) equipment to incorporate Metrogro with less soil disturbance, which reduces the chance of runoff and is used by some farmers in the watershed to apply manure. Since the District started tests of this practice, the District added three LDMI implements to its Metrogro fleet.

2018: Partnered with Wisconsin Lutheran College to determine the phosphorus availability of Metrogro and other biosolids products, which allowed the District to calculate the potential phosphorus savings by implementing practices like LDMI.

2019-2021: Evaluated alternative biosolids products to determine their potential benefits to District operations, environmental impacts, and customers. Metrogro is a valuable product but has limitations on when and where it can be applied, which can create storage and transport challenges. Composted biosolids or biosolids with a lower liquid content could diversify the District's biosolids program and provide more opportunities to recycle them as fertilizer while keeping phosphorus on land.

Photo: Incorporation of Metrogro into field with LDMI equipment



PRACTICE BREAKDOWN: ROCK COUNTY BUFFERS



Before: Low land that flooded often and was too wet to farm



After: Grassed waterway and buffer protect the land from flooding and control the flow of runoff

The southernmost portion of the Yahara watershed, where the Yahara River flows into the Rock River, falls in Rock County. Chris Murphy, Rock County conservation specialist, gave District staff a tour of land along the Yahara River that the landowner has transformed with the help of Yahara WINS funding and Rock County technical assistance. This visit, plus the aerial photos at left, shed light on how conservation practices in key places help control the movement of water and nutrients.

On the day of the visit, the river was peaceful, slowly meandering under a gray spring sky. But past rainstorms have raised the river over its banks, flooding the low-lying land and making the field unfarmable. The landowner was open to modifications to the land to prevent flooding and minimize runoff into the river. He said he "wanted to see something done with it, but didn't know the answer until [he] talked to Chris [Murphy]."

With the help of Yahara WINS funding, the landowner worked with Rock County LCD to design absorbent vegetation areas to collect and slow water and nutrients, keeping them out of the river. A grassed waterway runs from below a storm drain outlet across the field, acting as a sponge for water and nutrients flowing out of the pipe. This waterway slows the flow of water, reducing soil erosion and preventing water from saturating the adjacent farm field. Additionally, the landowner addressed the flooding issue by building up the riverbank with earth and planting a buffer of grasses chosen for their ability to thrive in different conditions.

The project is win-win: the reshaped landscape helps protect adjacent farmland from floodwaters from the river while also protecting the river from excessive runoff.

WATER QUALITY MONITORING



Photo: Badfish Creek

USGS MONITORING

The U.S. Geological Survey (USGS) takes water samples in streams throughout the watershed that are analyzed for their phosphorus content, providing data about the project's progress over time. The USGS chronologically organizes annual data by Water Year (Oct. 1-Sept. 30; abbreviated as WY) to include the entire previous winter in its determination of yearly precipitation.

In WY 2021 (Oct. 1, 2020-Sept. 30, 2021), our region experienced below-average precipitation and stream flows. Less precipitation means less water and melting snow to carry phosphorus into nearby waterbodies, resulting in lower than average phosphorus loads in 2021. Only 28,000 pounds of phosphorus flowed into Lake Mendota in WY 2021, compared to an average of 65,000 pounds in recent years.

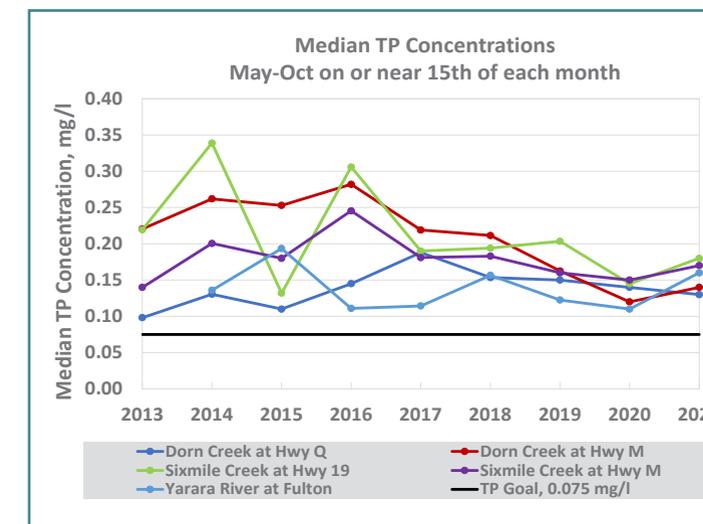
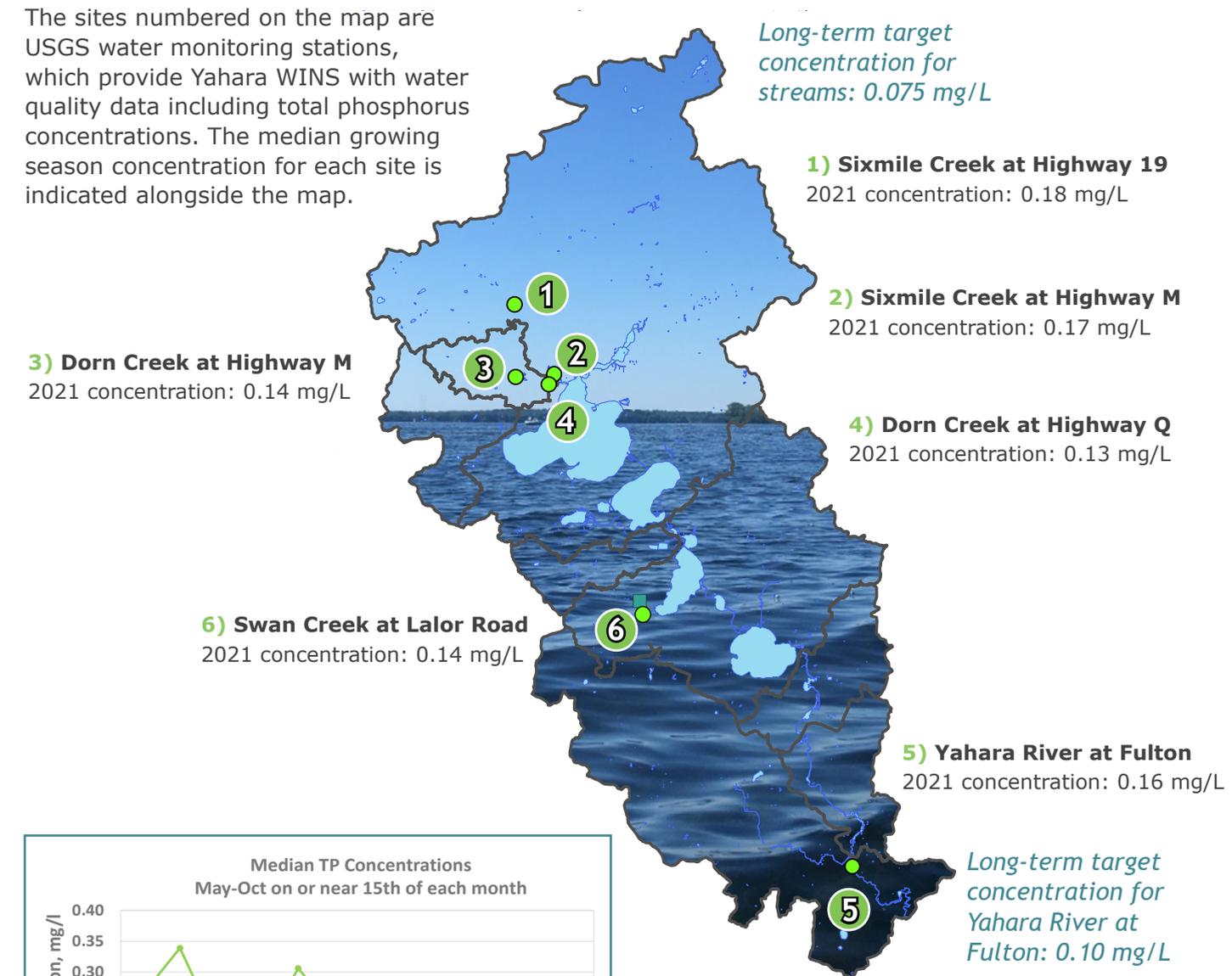
The low phosphorus loads in 2021 illustrate the importance of interpreting results on a long-term scale, rather than comparing yearly results in the short term. Phosphorus loads rise and fall from year to year based on the intensity and timing of rainstorms and snowmelts, so the phosphorus level in a given year cannot be attributed solely to land improvement activities. There's also lag time between changes on the land and water quality effects. The project goal is to see phosphorus levels gradually decrease, with lower peaks in high years and overall lower phosphorus concentrations in waterways in the watershed.

ROCK RIVER COALITION

Local nonprofit Rock River Coalition (RRC) receives Yahara WINS funding to support aspects of its water quality monitoring program to build a water data set across the watershed. RRC has worked in partnership with UW-Extension and the WDNR to coordinate water sampling since 2002, and it provides resources and training to volunteers who measure water quality indicators such as stream flow, temperature, and dissolved oxygen. Some of these volunteers also take nutrient samples, supplementing the USGS samples with additional in-stream phosphorus measurements across the watershed. In 2021, supported by Yahara WINS, WDNR and Water Action Volunteers (WAV), RRC volunteers took nutrient samples at 56 sites across the watershed.

PHOSPHORUS CONCENTRATION DATA

The sites numbered on the map are USGS water monitoring stations, which provide Yahara WINS with water quality data including total phosphorus concentrations. The median growing season concentration for each site is indicated alongside the map.



The graph at left shows in-stream phosphorus concentrations at these sampling sites (except for Swan Creek, which is new) over time. These measurements are taken on or near the 15th of each month in the growing season and typically reflect conditions when it's not storming.

FINANCIALS

2021 FINANCIAL SUMMARY

Yahara WINS receives revenue from partners that are signatories to the project's Intergovernmental Agreement (IGA), which includes the District, other local wastewater treatment utilities, and municipal partners with phosphorus reduction obligations for their stormwater plans. Other sources of income include grants, other memoranda of understanding, funding agreements and interest income. It then uses the collected revenue to fund phosphorus reduction practices through funding to implementing partners to use as cost-share and direct project grants. Yahara WINS funding also covers partner staff time devoted to activities supporting Yahara WINS, such as identifying new nutrient reduction projects and additional funding that can go toward those projects.

(Continued on next page)

2021 ADOPTED BUDGET (rounded to the nearest \$100)

Unencumbered carryover from 2020	\$110,700
REVENUE	
IGA participants	\$1,411,200
Income from grants, other MOUs, etc.	\$0
MGE Foundation	\$5,000
Savings account interest	\$4,000
<i>Total Revenue</i>	<i>\$1,420,200</i>
<i>Total Revenue plus unencumbered carryover</i>	<i>\$1,530,900</i>
EXPENDITURES	
Phosphorus reduction	
Yahara Clean 3.0 - Clean Lakes Alliance compact	\$2,000
Dane County phosphorus reduction services agreement	\$540,000
Columbia County phosphorus reduction services agreement	\$40,000
Rock County phosphorus reduction services agreement	\$150,000
Yahara Pride Farms phosphorus services agreement	\$170,000
General phosphorus reduction practice funding	\$100,000
Phosphorus reduction Innovative Grant Program	\$50,000
Subtotal	\$1,052,000
Water Quality Monitoring or modeling	
Water quality monitoring analytical services (MMSD)	\$55,000
USGS joint funding agreement	\$75,000
Rock River Coalition water quality monitoring	\$30,000
USGS Gauging Station	\$20,000
Subtotal	\$180,000
Supporting Services	
WINS staffing	\$60,000
Financial audit	\$9,000
Communications	\$5,000
Miscellaneous	\$5,000
Legal services agreement	\$4,000
Subtotal	\$83,000
Transfer of funds to designated operating reserve	\$197,000
Total Expenditures	\$1,512,000
Revenue minus expenditures (potential unencumbered carryover)	\$19,000

Funding partners contribute to the project in proportion to the relative amount of phosphorus they need to reduce to comply with their TMDL obligations. For municipalities, that amount is based on stormwater modeling and accounts for stormwater management practices that those municipalities have implemented. If municipal partners install more stormwater management practices on their own or update their modeling, the revenue is subject to change.

The City of Madison increased its contribution to Yahara WINS to cover its entire stormwater phosphorus reduction obligation rather than just a portion. Several municipal partners submitted updated modeling data in 2021 that adjusted their contributions to Yahara WINS. These changes will result in an overall increase in revenue of \$103,210 in 2022 compared to 2021.

2022 ADOPTED BUDGET (rounded to the nearest \$100)

Unencumbered carryover from 2021	\$19,000
REVENUE	
IGA participants	\$1,514,209
Income from grants, other MOUs, etc.	\$0
MGE Foundation	\$5,000
Savings account interest	\$4,000
<i>Total Revenue</i>	<i>\$1,523,209</i>
<i>Total Revenue plus unencumbered carryover</i>	<i>\$1,542,209</i>
EXPENDITURES	
Phosphorus reduction	
Dane County phosphorus reduction services agreement	\$540,000
Columbia County phosphorus reduction services agreement	\$50,000
Rock County phosphorus reduction services agreement	\$150,000
Yahara Pride Farms phosphorus services agreement	\$170,000
General phosphorus reduction practice funding	\$150,000
Phosphorus reduction Innovative Grant Program	\$50,000
Subtotal	\$1,110,000
Water Quality Monitoring or modeling	
Water quality monitoring analytical services (MMSD)	\$55,000
USGS joint funding agreement	\$75,000
Rock River Coalition water quality monitoring	\$36,000
Subtotal	\$166,000
Supporting Services	
MMSD service agreement	\$60,000
Financial audit	\$10,000
Communications	\$5,000
Miscellaneous	\$5,000
Legal services agreement	\$4,000
Subtotal	\$84,000
Transfer of funds to designated operating reserve	\$177,000
Total Expenditures	\$1,537,000
Revenue minus expenditures (potential unencumbered carryover)	\$5,209

LOOKING AHEAD

In 2022, Yahara WINS will continue its core work of providing funding and technical assistance from implementing partners to conservation practices on the land. Meanwhile, Yahara WINS isn't alone in phosphorus reduction work – both project partners and other entities are taking other actions to reduce phosphorus runoff in the watershed.

In the near future, Yahara WINS partners can expect to hear more about the following initiatives related to the project and overall watershed management:

- **Renew the Blue (Yahara CLEAN 3.0):** While not a Yahara WINS initiative, Yahara CLEAN is an ongoing water quality improvement outline that overlaps significantly with Yahara WINS. This compact among many local partners was initially released in 2008 and contained 70 recommendations for improving water quality. The compact has been revised twice to reflect additional data and expertise, with the recent revision emphasizing the importance of controlling late-winter runoff and accounting for more intense precipitation. As another tool in the collective local effort to reduce phosphorus pollution, Yahara WINS supports Yahara CLEAN and has been a partner since the 2.0 update to the compact.
- **Biological Farming Friends (BFF):** Yahara WINS is in communication with farmer-led group BFF about potentially becoming a formal implementing partner on the project.
- **Yahara WINS podcast:** Kim Meyer, the District's Watershed Programs Coordinator, started a podcast in 2021 to connect listeners to stories about farming and conservation. The podcast, called Soil + Water, is available at yaharawins.org/podcast and major podcast hosting platforms.

GLOSSARY

Adaptive management option: A Wisconsin compliance strategy for phosphorus that focuses on meeting in-stream phosphorus concentration targets in water bodies by reducing phosphorus runoff from the surrounding watershed.

Total Maximum Daily Load (TMDL): A "budget" for pollution for a water body or group of water bodies that defines the highest amount of a given pollutant that a water body can receive per day without experiencing adverse impacts. The Yahara watershed is part of the Rock River TMDL, so Yahara WINS is working to meet the phosphorus budget target defined by the TMDL.

Phosphorus: A chemical element found in living and formerly living things. It's essential to animal and plant life, which makes it an effective fertilizer. On land, it provides vital nutrition to plants, but in water bodies, it can lead to overgrowth of undesired plants and bacteria, such as blue-green algae, which can degrade water quality.

Water Year: The 12-month period from October 1 to September 30 of the following year that is used by water scientists to measure total precipitation including a full winter.

Watershed: An area of land where all surface water drains to the same water body. In the Yahara watershed, all runoff and streams lead to the Yahara river.

Photo: Clover cover crop growing after wheat harvest





Photo: Madison skyline seen from Lake Monona at sundown

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KimM@madsewer.org
608-334-6259

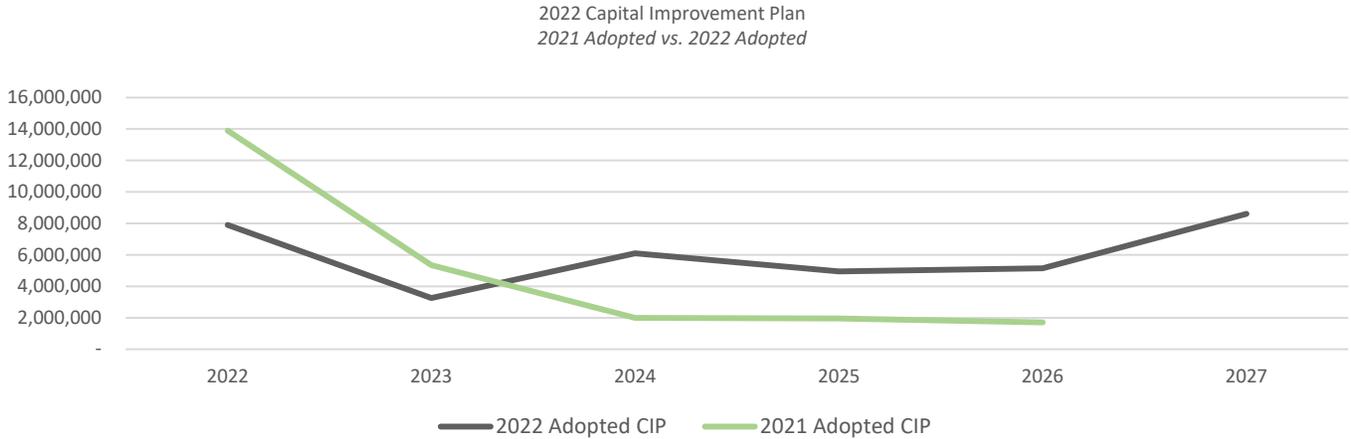
Stormwater Utility

Capital Improvement Plan

Project Summary: Adopted

	2022	2023	2024	2025	2026	2027
Citywide Flood Mitigation	4,090,000	1,760,000	3,310,000	990,000	1,310,000	2,760,000
Storm Sewer System Improvements	232,000	210,000	190,000	195,000	195,000	210,000
Stormwater Quality System Improvements	3,045,000	985,000	2,125,000	3,285,000	3,155,000	5,075,000
Street Cleaning Equipment - Streets	533,000	300,000	470,000	470,000	493,000	563,000
	\$ 7,900,000	\$ 3,255,000	\$ 6,095,000	\$ 4,940,000	\$ 5,153,000	\$ 8,608,000

Changes from 2021 CIP



Major Changes

- **Citywide Flood Mitigation**
 - Program budget decreased \$3.8m from 2022-2026 to reflect moving TIF funding for project to the Engineering - Major Streets Pavement Management Program as well as addition of several new projects
 - Funding source changed to include \$2.0m in state sources in 2022 and 2024
- **Storm Sewer System Improvements**
 - Program budget decreased \$18k from 2022-2026 to reflect updated project estimates
 - Funding source changed to Reserves Applied
- **Stormwater Quality System Improvements**
 - Program budget increased \$6.2m from 2022-2026 to include projects related to Citywide Flood Mitigation, including West Towne Pond and Pheasant Branch/Old Sauk Trails Business Park Pond
 - Funding source changed to include \$7.5m in State Sources
- **Street Cleaning Equipment - Streets**
 - Program budget increased \$68k in 2022 to reflect the cost of purchasing one mechanical sweeper and one vacuum sweeper

Stormwater Utility

Budget Overview

2022 CIP by Expenditure Type

	2022	2023	2024	2025	2026	2027
Machinery and Equipment	533,000	300,000	470,000	470,000	493,000	563,000
Stormwater Network	7,367,000	2,955,000	5,625,000	4,470,000	4,660,000	8,045,000
Total	\$ 7,900,000	\$ 3,255,000	\$ 6,095,000	\$ 4,940,000	\$ 5,153,000	\$ 8,608,000

2022 CIP by Funding Source

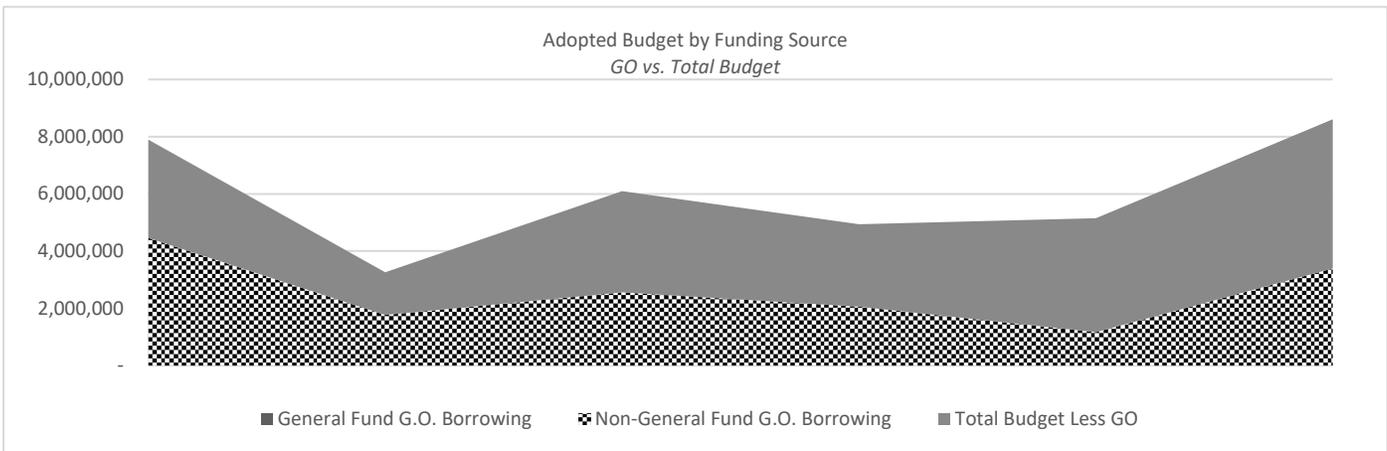
	2022	2023	2024	2025	2026	2027
Non-GF GO Borrowing	4,462,500	1,765,000	2,562,500	2,057,500	1,167,500	3,395,000
Impact Fees	-	330,000	600,000	-	-	-
Reserves Applied	2,437,500	1,160,000	1,932,500	1,382,500	1,485,500	1,713,000
State Sources	1,000,000	-	1,000,000	1,500,000	2,500,000	3,500,000
Total	\$ 7,900,000	\$ 3,255,000	\$ 6,095,000	\$ 4,940,000	\$ 5,153,000	\$ 8,608,000

Borrowing Summary

	2022	2023	2024	2025	2026	2027
Borrowing Schedule						
General Fund G.O. Borrowing	-	-	-	-	-	-
Non-General Fund G.O. Borrowing	4,462,500	1,765,000	2,562,500	2,057,500	1,167,500	3,395,000
Total	\$ 4,462,500	\$ 1,765,000	\$ 2,562,500	\$ 2,057,500	\$ 1,167,500	\$ 3,395,000

Annual Debt Service

General Fund G.O. Borrowing	-	-	-	-	-	-
Non-General Fund G.O. Borrowing	580,125	229,450	333,125	267,475	151,775	441,350



Stormwater Utility

Project Overview

Project	Citywide Flood Mitigation	Project #	11513
Citywide Element	Effective Government	Project Type	Program

Project Description

This program is for stormwater network improvements where flooding occurs during large rain events. The goal of the program is to eliminate flooding and protect property from damage. Projects planned in 2022 include: the Hawks Landing North subdivision construction, Wexford Pond flood mitigation, and Mendota Grassman Greenway construction. This program also supports design of pond improvements and flood mitigation installations that are scheduled with street reconstruction projects.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Non-GF GO Borrowing	2,067,500	990,000	882,500	742,500	982,500	2,070,000
Impact Fees	-	330,000	600,000	-	-	-
Reserves Applied	1,022,500	440,000	827,500	247,500	327,500	690,000
State Sources	1,000,000	-	1,000,000	-	-	-
TOTAL	\$ 4,090,000	\$ 1,760,000	\$ 3,310,000	\$ 990,000	\$ 1,310,000	\$ 2,760,000

Project	Storm Sewer System Improvements	Project #	11664
Citywide Element	Effective Government	Project Type	Program

Project Description

This program is for improvements to the storm sewer network. The goal of this program is to ensure a reliable storm sewer system for City residents. Projects planned in 2022 include cured in place piping (CIPP) and the annual waterway improvement projects, which consist of various low cost improvements to enhance the stormwater network that will be constructed by operations staff.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	232,000	210,000	190,000	195,000	195,000	210,000
TOTAL	\$ 232,000	\$ 210,000	\$ 190,000	\$ 195,000	\$ 195,000	\$ 210,000

Project
Citywide Element

Stormwater Quality System Improvements
Green and Resilient

Project # **11665**
Project Type **Program**

Project Description

This program is for stormwater quality improvement projects associated with the City's Wisconsin Department of Natural Resources (WDNR)/Environmental Protection Agency (EPA) stormwater discharge permit. The goal of this program is to improve the quality of the stormwater and compliance with environmental guidelines and initiatives. Projects within the program are prioritized annually and include: greenway reconstructions, storm water pond improvements, shoreline restoration, and urban water quality projects. Smaller projects include rain gardens with street reconstruction and dredging. Many stormwater quality projects will be coupled with regional flood mitigation projects and grants will be sought to help leverage additional funding mechanisms.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Non-GF GO Borrowing	2,395,000	775,000	1,680,000	1,315,000	185,000	1,325,000
Reserves Applied	650,000	210,000	445,000	470,000	470,000	250,000
State Sources	-	-	-	1,500,000	2,500,000	3,500,000
TOTAL	\$ 3,045,000	\$ 985,000	\$ 2,125,000	\$ 3,285,000	\$ 3,155,000	\$ 5,075,000

Project
Citywide Element

Street Cleaning Equipment - Streets
Green and Resilient

Project # **10554**
Project Type **Program**

Project Description

This program is for replacing existing street sweeping machines operated by the Streets Division. The City's street sweeping equipment life cycle is five years with interim maintenance. The goal of this program is to reduce the discharge of pollutants and solids to the lakes by removing material from the streets surface before it is mixed with storm water runoff. Funding in 2022 will be used to replace two mechanical street cleaning vehicles with one new mechanical sweeper and one new vacuum sweeper.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	533,000	300,000	470,000	470,000	493,000	563,000
TOTAL	\$ 533,000	\$ 300,000	\$ 470,000	\$ 470,000	\$ 493,000	\$ 563,000

Stormwater Utility

2022 Appropriation Schedule

2022 Appropriation

Adopted Budget

	Request	Executive	GO Borrowing	Other	Total
Citywide Flood Mitigation	4,090,000	4,090,000	2,067,500	2,022,500	4,090,000
Storm Sewer System Improvements	232,000	232,000	-	232,000	232,000
Stormwater Quality System Improvements	3,045,000	3,045,000	2,395,000	650,000	3,045,000
Street Cleaning Equipment - Streets	533,000	533,000	-	533,000	533,000
Total 2022 Appropriation	\$ 7,900,000	\$ 7,900,000	\$ 4,462,500	\$ 3,437,500	\$ 7,900,000

Adaptive Management Participation to Achieve TMDL Compliance

This section documents the City’s progress to date towards meeting the water quality goals required by the Rock River TMDL, and the City’s plan to meet those goals through participation in the Yahara WINS Adaptive Management program.

4.1 Goals

The City sees two primary benchmarks that must be achieved to satisfy its water quality requirements under the Rock River TMDL as well as the City’s MS4 permit (Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-S058416-19) via the Yahara WINS Adaptive Management program. These targets, and the City’s proposed methods to achieve them, are summarized below.

4.1.1 Reduction of 40% TSS/27% TP from No Controls

As shown in Tables 3-8 and 3-9, the City has met or exceeded 40% TSS and 27% TP removal relative to the No Controls condition in four of the five reachsheds included within the City of Madison municipal boundary. In the fifth, reachshed 64, the City’s TSS and TP reductions are at only 30.3% and 22.9%. As the City’s area within reachshed 64 is significantly larger than its combined area within 47, 62, 65, and 66, it is not surprising that underachievement in that reachshed negatively weights cumulative City-wide reductions. City-wide, the City of Madison has achieved TSS and TP reductions of 35.9% and 26.4%, or deficits of 4.1% and 0.6% relative to the threshold of 40% TSS and 27% TP removal.

The Yahara WINS Adaptive Management agreement states that MS4s in the Rock River TMDL area may only purchase TP credits to meet their TMDL requirements through participation in the Yahara WINS adaptive management program once the MS4’s baseline reduction of 40% TSS and 27% TP removal relative to a no-controls condition has been met. Per the text of the agreement, participating MS4s have until Jan 1, 2036 (the terminus of the current Adaptive Management agreement) to meet these baseline reductions. This position was reiterated by the WDNR during a City of Madison/WDNR meeting on Dec 19, 2019 (meeting minutes included with this report as part of Appendix E). As the City’s reductions of both TSS and TP in reachshed 64 and City-wide do not meet this baseline criteria, the City expects to increase its in-City reduction quantities to achieve the minimum 40% TSS/27% TP reduction standard. Tables 4-1 and 4-2 below show the TSS and TP reductions required to achieve compliance with this standard.

Reachshed	Annual TSS No Controls Load (lbs)	Percent TSS Reduction (%)	Baseline 40% Reduction Threshold Met?	Percent TSS Reduction Deficit (%)	Annual TSS Removal Required to Meet Baseline Threshold (lbs)
47	50,991	76.6%	Yes	-	-
62	675,103	54.2%	Yes	-	-
64	6,930,111	30.3%	No	9.7%	670,225
65	434,983	50.8%	Yes	-	-
66	1,497,920	47.8%	Yes	-	-
City-wide Total	9,589,108	35.9%	No	4.1%	392,318

Table 4-1. TSS Reductions Required to Achieve 40% TSS Reduction from No Controls by Reachshed.

Reachshed	Annual TP No Controls Load (lbs)	Percent TP Reduction (%)	Baseline 27% Reduction Threshold Met?	Percent TP Reduction Deficit (%)	Annual TP Removal Required to Meet Baseline Threshold (lbs)
47	172	67.8%	Yes	-	-
62	2,247	39.3%	Yes	-	-
64	21,706	22.9%	No	4.1%	895
65	1,268	31.0%	Yes	-	-
66	4,446	33.9%	Yes	-	-
City-wide Total	29,839	26.4%	No	0.6%	190

Table 4-2. TP Reductions Required to Achieve 27% TP Reduction from No Controls by Reachshed.

The City has developed an internal plan to achieve a City-wide 40% TSS/27% TP reduction from no controls by Jan 1, 2036 as required by the Adaptive Management agreement. That plan will guide the City's efforts to remove 392,318 lbs of TSS (4.1% City-wide) and 190 lbs of TP (0.6% TP City-wide) in addition to reductions already achieved by the City's current BMP matrix, and is discussed broadly in Section 4.2 of this report.

4.1.2 Removal of TP in Excess of 27% as Required to Meet TMDL Requirements

The City intends to meet the Rock River TMDL load reductions above the 40% TSS/27% TP reduction from No Controls condition through participation in Yahara WINS adaptive management program, per Appendix A.3 of WPDES Permit No. WI-S058416-4. Table 4-3 below shows the quantity of TP (in lbs) that the City of Madison must purchase annually through Yahara WINS to achieve compliance with the Rock River TMDL in all reachsheds within the City of Madison.

Note that the TP reduction for reachshed 64 has been adjusted from existing conditions to reflect an additional 190 lbs of TP removed annually. This reflects the assumption that the City will achieve 27% TP reduction from No Controls conditions on a cumulative, City-wide basis, outside adaptive management, as described in Section 4.1.1.

Reachshed	City of Madison Annual TP No Controls Load (lbs)	Cumulative City of Madison Annual TP Reduction (lbs)	Target TP Reduction from No Controls (%)	City of Madison TP Reduction from No Controls (%)	City of Madison TP Reduction Deficit to Meet TMDL Standard (%)	City of Madison Annual TP Deficit (lb)
47	172	117	27%	67.8%	-40.8%	0
62	2,247	883	78%	39.3%	38.7%	869
64	21,706	5,155 ¹	61%	23.7%¹	37.3%	8,086
65	1,268	394	63%	31.0%	32.0%	405
66	4,446	1,507	54%	33.9%	20.1%	894
Total TP Annual Purchase Through Yahara WINS						10,254

¹Cumulative and percent reduction includes 190 lbs TP required to achieve 27% City-wide TP reductions, as shown in Table 4-2

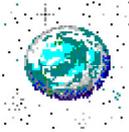
Table 4-3. TP Quantities to be Purchased Through Yahara WINS Adaptive Management Program

4.2 Future Plans

As described in Section 4.1.2 above, the City of Madison intends to comply with the Rock River TMDL load reduction goals above the 40% TSS/27% TP reduction baseline (relative to No Controls) through the purchase of TP through the Yahara WINS adaptive management program. As shown in Table 4-3, the City's annual TP purchase through Yahara WINS shall be 10,254 lbs.

As described in Section 4.1.1, the Yahara WINS Adaptive Management implementation agreement states that municipalities participating in the program must achieve a baseline of 40% TSS/27% TP reduction from a "no controls" condition within their municipal boundary by the end of the Adaptive Management Program (Jan 1, 2036) to be eligible for participation in the program. The City plans to meet this requirement through a combination of structural BMP additions/improvements and stormwater quality programs, included but not limited to the following:

- Post-construction stormwater standards set by municipal ordinance for both TSS reduction and volume control for redevelopment sites that exceed the WDNR-set uniform state standards for redevelopment post-construction stormwater management.
- Implementation of a City-wide Distributed Green Infrastructure Installation program with public works projects.
- Design and construction of joint flood control/water quality improvement capital projects, including wet pond expansions and dry to wet pond conversion projects, in parallel with the City's Watershed Study program.
- Installation of City-developed Coanda screen structures (see Section 3.3.5) with public works projects to increase in-line stormwater treatment.
- Continued improvement of the City's already-robust leaf management program.
- Continued improvement to the City's weekly sweeping program in the Snow Emergency Area (see Section 3.3.1), including a transition to vacuum-assisted sweeping where practicable.



Madison Metro Sewerage Dist.

1610 Moorland Road
Madison, WI 53713-3398

Number: RC000004071
Page: 1
Date: 12/1/2022

Sold CITY OF MADISON
To: GREG FRIES
ROOM 115
210 MARTIN LUTHER KING BLVD
MADISON, WI 53703

Ship GREG FRIES
To: ROOM 115
210 MARTIN LUTHER KING BLVD
MADISON, WI 53703

Reference - P.O. No.	Customer No.	Salesperson	Ship Via	Terms Code
CONTRACT 7731	AMCMADISON			30

Description/Comments	Amount								
Yahara Watershed Adaptive Mgmt	504,394.00								
<table border="1"> <thead> <tr> <th>Due Date</th> <th>Amount Due</th> <th>Disc. Date</th> <th>Disc. Amount</th> </tr> </thead> <tbody> <tr> <td>12/31/2022</td> <td>504,394.00</td> <td></td> <td>0.00</td> </tr> </tbody> </table>	Due Date	Amount Due	Disc. Date	Disc. Amount	12/31/2022	504,394.00		0.00	
Due Date	Amount Due	Disc. Date	Disc. Amount						
12/31/2022	504,394.00		0.00						

Remit To:
Madison Met. Sewerage District
1610 Moorland Road
Madison, WI 53713
USA

Subtotal before taxes	504,394.00
Total taxes	0.00
Total amount	504,394.00
Payment received	0.00
Discount taken	0.00
Amount due	504,394.00

Invoice

2. PUBLIC EDUCATION AND OUTREACH

The City of Madison is required to maintain a public education and outreach program to increase the awareness of storm water pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts.

The City of Madison is a member of the Madison Area Municipal Storm water Partnership (MAMSWaP). The group pools resources in order to work cooperatively on storm water information, education and outreach. The materials and products that result from this joint effort are expressly developed for the Parties to partially fulfill their information and education permit obligations. As discussed in **Section 3.1.2** of the MS4 Permit, the City is required to participate in the implementation of the most recent MAMSWaP 5-Year Information and Education Plan, and assists in the development of an annual work plan for the following calendar year. These plans can be found on the following website: <https://www.ripple-effects.com/mamswap>.

In addition, the City is required to have its own individual annual public education and outreach plan, which is provided as an attachment:

[2022-IE-Work-Plan-Muni-Template-11-10.pdf](#)

The City shall address the eight topics listed below at least once during the permit term, with a minimum of six topics being addressed each year:

1. Illicit Discharge Detection and Elimination
2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing
3. Yard Waste Management/Pesticide and Fertilizer Application
4. Stream and Shoreline Management
5. Residential Infiltration
6. Construction Sites and Post-Construction Storm Water Management
7. Pollution Prevention
8. Green Infrastructure/Low Impact Development

The City should provide at least four public education delivery mechanisms each year, at least two of which would be considered an active/interactive mechanism (see **Section 3.1.5 of the MS4 Permit** for a list of active and inactive delivery mechanisms). The City may take credit for active mechanisms organized by MAMSWaP as long as the City uses its resources to advertise the event.

WPDES Permit (MAMSWaP) – 2022 Annual Work Plan for _____ City of Madison _____

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2022)	Additional Municipal Activities, Goals and Comments
Storm Drain Mural Program	Residential Educational	1. Illicit Discharge Detection and Elimination	<input checked="" type="checkbox"/> Provide location/group to work with and assist group with storm drain mural application. <input checked="" type="checkbox"/> Select and approve storm drain mural design.	
Illicit Discharge Reporting Program	Residential Public Sector Private Sector	1. Illicit Discharge Detection and Elimination 7. Pollution Prevention	<input checked="" type="checkbox"/> Promote and encourage residents and businesses to report illicit discharges using new Dane County Land and Water Resources Dept. illicit discharge reporting web page through newsletters, local newspaper, mailings, web site, meeting, social media, etc. <input type="checkbox"/> Provide Dane County with a list and addresses of local businesses of concern (concrete contractors, restaurants, carpet cleaners, painters, automotive shops, landscapers, other with outdoor waste storage containers) to share illicit discharge ordinance and BMP information with. <input type="checkbox"/> Reach out to local businesses of concern directly and share illicit discharge ordinance and BMP information. <input type="checkbox"/> Send municipal staff to Illicit Discharge Training.	Provided in house in person training and provided video links for those who could not attend
Clean Sweep Local Collection Event	Residential	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal 7. Pollution Prevention	<input type="checkbox"/> Partner with Dane County to hold a Clean Sweep Hazardous Waste Collection Event in local community. ***This is limited to one municipality in western Dane County. Contact the SWEC, if interested.***	
Stormwater Pollution/Prevention Education Tools (Rainfall Simulator, Enviroscope, Stormwater Curriculum, Stormwater Animation, Lawns and Water Quality video, Stormwater Pollution and Solutions	Residential Educational	1. Illicit Discharge Detection and Elimination 2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 3. Yard Waste Management/Pesticide and Fertilizer Application	<input type="checkbox"/> Promote stormwater ed. tools to local partners, groups and educators. <input type="checkbox"/> Post links to virtual resources on municipal web site. <input checked="" type="checkbox"/> Checkout the Enviroscope or Rainfall Simulator to use at local event(s) or presentation(s). <input type="checkbox"/> Engage one or more local groups in Storm Drain Marking efforts.	Use rainfall simulator at the Wingra Gathering water event

*from Table 1 of WPDES WI-S058416-04

WPDES Permit (MAMSWaP) – 2022 Annual Work Plan for _____ City of Madison _____

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2022)	Additional Municipal Activities, Goals and Comments
video and Storm Drain Marking)		4. Stream and Shoreline Management 5. Residential Infiltration	<input type="checkbox"/> Provide SWEC with a local presentation opportunity along with contact information. **Limited to 10 SWEC-led presentations per year for all MAMSWaP partners***	
Leaf-free Streets for Clean Waters	Residential Educational Private Sector	3. Yard Waste Management/Pesticide and Fertilizer Application	<input checked="" type="checkbox"/> Promote Leaf-free Streets program, encourage residents to remove street leaves before the rain and sign up for rain alerts using campaign tools through newsletters, local newspaper, mailings, web site, meetings, social media, etc. <input type="checkbox"/> Engage local groups in heavy street tree areas and reward good practices.	
Plant Dane Native Plant Program and Free Native Plants for School and Community Projects (FNPSCP) Program	Residential Educational Private Sector	4. Stream and Shoreline Management 5. Residential Infiltration 7. Pollution Prevention 8. Green Infrastructure/Low Impact Development	<input checked="" type="checkbox"/> Promote Plant Dane program and encourage residents and groups to plant native plants and build rain gardens using campaign tools through newsletters, local newspaper, mailings, web site, meetings, social media, etc. <input checked="" type="checkbox"/> Promote Rain Garden Workshop and encourage residents to sign up. <input checked="" type="checkbox"/> Promote FNPSCP program to local schools, groups, non-profits, neighborhood associations, etc. and encourage groups to apply.	
Adopt A Storm Drain Program	Residential	1. Illicit Discharge Detection and Elimination 3. Yard Waste Management/Pesticide and Fertilizer Application 7. Pollution Prevention	<input type="checkbox"/> Participate in program and provide storm drain location data. <input type="checkbox"/> Distribute cleaning kits to local volunteers. <input type="checkbox"/> Promote program locally using campaign tools through newsletters, local newspaper, mailings, web site, meetings, social media, etc. ***Contact SWEC, if interested.***	
NASECA Trainings	Construction Professionals Public Sector	6. Construction Sites and Post-Construction Storm Water Management	<input checked="" type="checkbox"/> Promote NASECA Trainings to local construction professionals and municipal staff and encourage attendance through MAMSWaP provided discounts.	

*from Table 1 of WPDES WI-S058416-04

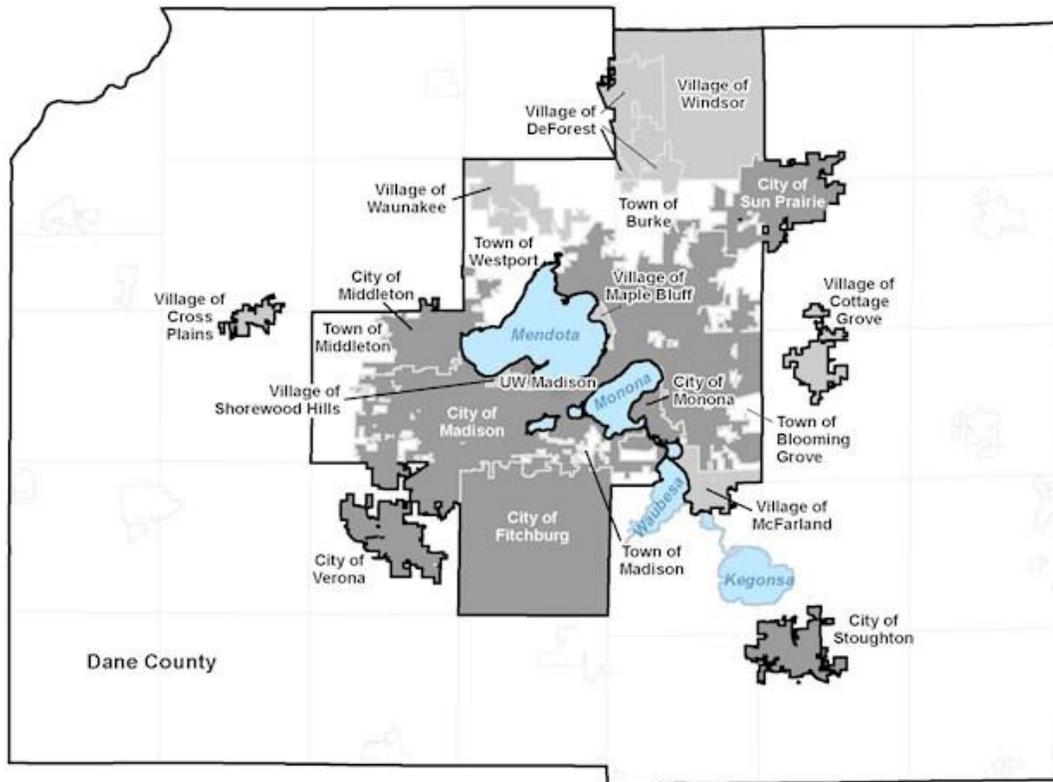
WPDES Permit (MAMSWaP) – 2022 Annual Work Plan for _____ City of Madison _____

Program/Activity	Audience	Public Education and Outreach Topic(s) Addressed*	Municipal I&E Activities (check all activities that will be completed in 2022)	Additional Municipal Activities, Goals and Comments
Stormwater and Erosion Control Plan Review and Inspections	Construction Professionals Residential	6. Construction Sites and Post-Construction Storm Water Management	<input checked="" type="checkbox"/> Review erosion control and stormwater management plans within municipality or contract with Dane County to review plans. <input checked="" type="checkbox"/> Conduct inspections of erosion control and stormwater practices within municipality or contract with Dane County to conduct inspections.	
WI Salt Wise Program and Salt Certification Trainings	Residential Private Sector Public Sector	2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing 7. Pollution Prevention	<input checked="" type="checkbox"/> Promote Salt Wise resources and practices to businesses, residents, schools, organizations, and facility managers using WI Salt Wise campaign tools through newsletters, local newspaper, mailings, web site, meetings, social media, etc. <input checked="" type="checkbox"/> Provide Salt Wise Coordinator with a local presentation opportunity along with contact information (school district, local company, etc). **Limited to 2 WI Salt Wise-led presentations per year for all MAMSWaP partners*** <input checked="" type="checkbox"/> Send municipal staff to Salt Certification Trainings. <input type="checkbox"/> Promote Salt Certification Trainings to local winter maintenance professionals and facilities managers. <input checked="" type="checkbox"/> Partner with Salt Wise to host a Salt Certification Training in your community and actively participate by sharing local efforts with group to reduce salt use. ***Limited to one MAMSWaP partner per year***	Provide in house training for streets department plow operators
Tips for Calculating USLE Webinar	Consultants	7. Construction Sites and Post Construction Storm Water Management	<input type="checkbox"/> Promote webinar to local consultants.	
Rain Barrel Sale	Residential	5. Residential Infiltration	<input type="checkbox"/> Promote use of rain barrels and purchase of discounted rain barrels using MAMSWaP outreach tools through newsletters, local newspaper, mailings, web site, social media, etc.	

*from Table 1 of WPDES WI-S058416-04

*8 Public Education and Outreach Topic Areas - Circle topic areas that will be addressed in 2022 (co-permittees with populations over 5,000 need to address at least <u>six</u> topic areas, whereas co-permittees under 5,000 need to address at least <u>four</u> topic areas):	Active/Interactive Delivery Mechanisms	Passive Delivery Mechanisms
1. Illicit Discharge Detection and Elimination	Educational Activities (school presentation, summer camps, etc.)	Passive print media (brochures at front desk, posters, etc.)
2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	Informational booth at event	Distribution of print media (mailings, newsletters, etc.) via mail or email.
3. Yard Waste Management/Pesticide and Fertilizer Application	Targeted group training (contractors, consultants, etc.)	Media offerings (radio and TV ads, press release, etc.)
4. Stream and Shoreline Management	Gov. event (public hearings, council meeting)	Social media posts
5. Residential Infiltration	Workshops	Signage
6. Construction Sites and Post-Construction Storm Water Management	Tours	Website
7. Pollution Prevention	Other	Other: Podcasts
8. Green Infrastructure/Low Impact Development		

List active delivery mechanisms that will be used in 2022:	
(co-permittees with populations 5,000 need to use at least <u>two</u> active mechanisms, whereas co-permittees under 5,000 need to address at least <u>one</u> active mechanism)	1. Gathering Water event at Vilas Park
	2. Fox Wolf Watershed Presentation
	3. Green infrastructure Tour
	4. Green Tier Erosion Control Tour



Madison Area Municipal Storm Water Partnership Information & Education Plan 2020-2024

Acknowledgements

The Madison Area Municipal Storm Water Partnership's (MAMSWaP) 2020-2024 Information and Education (I&E) Plan was developed by the MAMSWaP I&E Committee. Their expertise, input and municipal cooperation was crucial for plan development and will continue to play an integral role in addressing stormwater runoff in Dane County. Thank you to everyone who helped.

MAMSWaP I&E Municipalities

<u>Cities</u>	<u>Villages</u>	<u>Towns</u>	<u>Other</u>
Fitchburg	Cottage Grove	Blooming Grove	Dane County
Madison	Cross Plains	Burke	UW-Madison
Middleton	Deforest	Madison	
Monona	Maple Bluff	Middleton	
Stoughton	McFarland	Westport	
Sun Prairie	Shorewood Hills		
Verona	Waunakee		
	Windsor		

I&E Committee Members Contributing to the 2020-2024 I&E Plan

Jeremy Balousek- Dane County Land and Water Resources Department
Kelli Bialkowski- Village of Deforest
Christal Campbell- Dane County Land and Water Resources Department
Chris Egger- UW Madison
Rick Eilertson- AECOM
Gail Epping Overholt- UW Arboretum
Phil Gaebler- City of Madison
Claudia Guy- City of Fitchburg
Mindy Habecker- UW Extension
Kathy Lake, Madison Metropolitan Sewerage District
Hannah Mohelnitzky- City of Madison
Rodney Scheel- City of Stoughton
Tom Wilson- Town of Westport

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INTRODUCTION

In order to comply with the stormwater discharge permit regulations contained in NR 216, Wisconsin Administrative Code, 22 municipal entities in central Dane County developed this information and education (I&E) plan as part of their permit applications (see inside front cover for list of municipalities and cover for a map).

The Wisconsin Department of Natural Resources and the United States Environmental Protection Agency (EPA) have identified the importance of informing and educating municipalities, the construction trades, professional service providers and residents about stormwater pollution. Stormwater pollution control is most effectively implemented when people understand the impact of stormwater pollution, its sources and the actions that can be taken to control it.

The goal of the municipal stormwater discharge permit program is to reduce adverse impacts to water quality in our lakes and streams from urban sources of stormwater runoff. The project area addressed in this plan is rich in water resources that have been negatively affected by stormwater runoff. The goals identified in this plan will direct MAMSWaP's I&E activities for the next five years to address stormwater pollution.

Regulatory Requirements for Information and Education

Outreach is an important feature of a comprehensive and effective stormwater management program. For municipalities that require a municipal stormwater discharge permit, an I&E program is not only a good idea, it is required. Wisconsin's stormwater regulations for municipalities under Subchapter I of NR 216, Wis. Adm. Code, require the development and implementation of an I&E program to facilitate the proper management of materials and behaviors that may pollute stormwater. The program must direct the process for the distribution of appropriate information and public outreach to increase awareness of stormwater impacts on waters of the state. Additionally, performance standards for developed urban areas contained in Subchapter III of NR 151, Wis. Adm. Code, require local governments of such areas to develop and implement a public I&E program to assist in reducing polluted runoff.

The types of activities and behaviors the regulatory programs are intended to address include improper disposal of waste and dumping of materials, effective construction-site erosion control and long-term stormwater management, residential infiltration practices, green infrastructure, lawn and garden fertilizer and pesticide application, yard waste management and disposal, pet waste disposal and other business and household practices that may contaminate stormwater runoff. This plan is designed to address all these activities and will meet the regulatory requirements for an effective I&E program.

This plan focuses on urban stormwater from central Dane County municipalities. Agricultural runoff is therefore not addressed in this plan, but is a component of several local, state and federal programs and is included in Subchapter II of NR 151.

Dane County's Erosion Control and Stormwater Management Ordinance sets standards for the quality and the quantity of stormwater runoff from areas where alterations to the landscape and the creation of impervious surfaces result in changes in the amount and quality of water flowing off the site. Where appropriate, this plan integrates NR 216 requirements with those of the Dane County Erosion Control and Stormwater Management Ordinance (Dane County Ordinances Chapter 14 <https://danedocs.countyofdane.com/webdocs/pdf/ordinances/ord014.pdf>). All recent updates in ch 14.

I&E Plan Development and Implementation

The MAMSWaP I&E Committee reviewed the previous five-year I&E plans, plans of other stormwater consortiums statewide and the results of the 2018 Madison Area Storm Water Partnership Survey to develop the 2020-2024 I&E plan.

The long-term oversight and funding strategy for the I&E plan implementation used during the 2003-2008, 2009-2013, and 2014-2018 permits cycle will again be employed during 2020-2024. Each municipality has committed funding for plan implementation, detailed in the Intergovernmental Agreement in the Appendix. The intergovernmental agreement has been updated to reflect programmatic funding changes and to allow for the addition of municipalities that were not previously part of the outreach effort.

Levels of financial contributions from each MAMSWaP municipality are based on population according to 2010 census data. Dane County and UW-Madison contributions were not based on population, as that would double count municipal populations. MAMSWaP approved the financial contribution schedule, which is included in the Intergovernmental Agreement. The sixty percent Stormwater Education Coordinator position, created by the Intergovernmental Agreement and housed at the Dane County Land & Water Resources Water Resource Engineering Division, will continue to staff the I&E Committee, prepare annual work plans and coordinate implementation of this plan with oversight provided by the I&E Committee and provide materials to MAMSWaP municipalities for their use. I&E Plan implementation progress reports will continue to be a regular agenda item for the MAMSWaP quarterly meetings. Specific actions to achieve plan goals will be included in annual work plans instead of the five-year plan, including those that must be completed by the municipalities.

Audiences

Outreach programs are designed to meet the educational needs of specific audiences. These audiences may be determined by where they live, the work they do, their contribution to the problem and their ability to make behavioral changes that can lead to achieving the stormwater program's goals. Outreach programs are tailored to meet each audience's unique needs for specific topics or skills using the delivery method that best meets their learning styles or goals. The list below identifies audiences in the MAMSWaP area.

Construction Professionals: Developers, Consultants, Home Builders, Contractors, Architects, Landscapers, Engineers, Plumbers, Concrete Companies, Snow Removal Contractors, including those that plan and develop land, are involved in new construction and redevelopment, and other relevant contractors or businesses that are involved in the development, redevelopment, construction and maintenance of homes, subdivisions, and commercial/industrial properties

Educational: K-12 Students and Staff, Student/youth groups (4-H, scouts), College Students and Staff, Campus Staff and Groundskeepers, Professors, School Administration

Residential and Private Sector: Homeowners, Neighborhood Associations, Groups/Clubs (watershed associations, friends groups, garden clubs, civic group such as Rotary, etc.), Auto

Owners, Pet Owners, Tenants, Landlords, DIY (Car Washing, Oil Changing, Home Improvement and Maintenance), Property Owners, Managers and Maintenance Staff, Private Commercial and Industrial Properties (restaurants, gas stations, dry cleaners, printers, painters, corporate campuses, retail sites, boat cleaning and storage, mobile cleaning operations, lawn care and snow removal contractors, etc.), Business Owners and Staff, Facility Managers, Golf Courses, and anyone involved with other building management including maintenance of stormwater ponds or other facilities or have runoff from fertilizers, pesticides, heavy metals, petroleum products and other chemicals.

Public Sector: County, City, Village and Town Elected Officials, Municipal Staff, Municipal Administration, Facility Managers (including planning, zoning, building inspection, land conservation, parks, public works, building inspection or other committees and departments with land use or land management responsibilities)

Occasional Users: Tourists, Swimmers, Anglers, Competitive Athletes, Recreational Vehicles (ATVs, Snowmobiles, PWC's, Boats, etc.) and others that occasionally use the local water resources

Geographic Focus of the Plan

The 22 member municipalities (listed on the inside cover of this plan) signed an intergovernmental agreement to implement the I&E plan, developed to meet permit requirements. Dane County is only responsible under the permit for those county-owned properties and facilities within the urban area indicated by the outline on the map on the cover.

Program Effectiveness

Program effectiveness must be evaluated to determine whether it is worth the time, energy and resources invested in the outreach program. Programs that rely solely on enforcement or monetary incentives have not been successful. Research has shown that a strong outreach program must be used to complement other means. This is especially true when enforcement is spotty, penalties light and the audience is vast.⁵

Outreach is just one part of the stormwater permit process. It is critical that all aspects of the program be looked at as a whole. If stormwater goals and implementation are unrealistic, then the success of the education program is unlikely, no matter how well conceived.

Part of the answer to whether an education program will be successful is based on the change in behavior expected. A well-written and well-executed I&E plan identifies behavior changes need to positively impact stormwater quantity and quality. Outreach programs that focus on behaviors likely to be adopted are more successful than those that are difficult or expensive. Information is also a powerful tool that provides audiences with appropriate materials and activities to become more knowledgeable and empowered to take action.

When target audiences are asked to do things that are difficult, different or expensive, they are unlikely to comply without additional incentives. To decide if an expected behavior is likely to be adopted and, thus, if an educational plan is to be successful, the plan should address the following criteria.

- The requested behavior should be clear to the target audience.
- The expected water quality response based on implementation of the requested behaviors should be clear to the target audience.
- The behavior should be made visible to others in an effort to change social norms.

- The barriers to behavior change should be determined and addressed.
- Research based tools such as incentives, prompts and public commitments should be used, if possible.
- The behavior should be low cost in terms of time, money or energy.

⁵ UWEX 1989 Metropolitan Milwaukee study.

PERMIT REQUIREMENTS, GOALS AND PROGRAMS

Permit Requirements

The Madison Area Municipal Stormwater Partnership (MAMSWaP) Information and Education (I&E) Plan reflects the requirements of the NR 216 permit, focusing on reducing urban stormwater runoff, improving urban stormwater quality and eliminating illicit discharges. WPDES Permit Number WI-S058416-4 (effective July 1, 2019 – June 30, 2024) states the following in Section 3, page 10. WPDES Permit Number WI-S050075-03- (Village of Cross Plains) has similar language.

3. STORMWATER MANAGEMENT PROGRAM REQUIREMENTS

3.1 Public Education and Outreach: Each co-permittee shall maintain its public education and outreach program to increase the awareness of stormwater pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts. The co-permittee shall implement the following measurable goals:

3.1.1 MAMSWaP Membership. Continue to be a member of the Madison Area Municipal Stormwater Partnership (MAMSWaP) information and education program. Alternatively, if a co-permittee discontinues to be a member of the MAMSWaP information and education program, then they must develop and implement a work plan on their own that meets the requirements of section 3.1 of this permit.

3.1.2 MAMSWaP Education Plan. Participate in the implementation of the most recent *Madison Area Municipal Storm Water Partnership (MAMSWaP) 5-Year Information and Education Plan 2020-2024*, which are prepared on behalf of the co-permittees. By December 1 of each year, the co-permittees shall collectively develop an annual work plan to guide implementation of the MAMSWaP information and education plan for the following calendar year. The information and education plan shall establish measurable goals for the topic areas listed in Table 1 below.

Note: MAMSWaP information and education plan documents are available online at: <http://www.ripple-effects.com/mamswap>

3.1.3 Educator Coordinator Cooperation. Cooperate with and assist the person functioning in the Stormwater Education Coordinator position created pursuant to the information and education agreement by providing pertinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues participation in the MAMSWaP information and education program.

3.1.4 Topics. Each co-permittee is individually responsible to have its own public education and outreach plan, which should follow the MAMSWaP information and education plan and be adapted to its own municipality. Each co-permittee shall address all eight topics in Table 1

at least once during the permit term with a minimum of six topics being addressed each year, except, co-permittees that are a City, Village, or Town with a population of less than 5,000 based on the latest U.S. Census, shall address a minimum of four topics each year. Topics may be repeated as necessary. Co-permittees shall select from the topic areas in Table 1.

Table 1: Public Education and Outreach Topic Areas and Descriptions

#	Topic Area	Description
1	Illicit Discharge Detection and Elimination	Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.
2	Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.
3	Yard Waste Management/Pesticide and Fertilizer Application	Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
4	Stream and Shoreline Management	Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
5	Residential Infiltration	Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.
6	Construction Sites and Post-Construction Storm Water Management	Inform and 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.
7	Pollution Prevention	Identify businesses and activities that may pose a storm water contamination concern and educate those specific audiences on methods of storm water pollution prevention.
8	Green Infrastructure/Low Impact Development	Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development.

The MAMSWaP I&E Plan seeks to meet or exceed these minimum requirements and elements by developing and implementing a coordinated, regional outreach effort using consistent messages among and between communities to reduce the quantity and improve the quality of urban stormwater runoff and identify and eliminate illicit discharges.

Goals and Desired Outcomes

The long-term goals and desired outcomes detail the knowledge and skills needed in order to meet the required permit elements. The following long-term goals are directly related and grouped under each of the eight elements identified in Section 3.1.4 of the Permit (listed on p.6).

3.1.4.1 Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.

People who live or work in Dane County will:

- understand the difference between sanitary sewers and stormwater drainage systems;
- understand that stormwater runoff that enters storm drains eventually ends up in our lakes, rivers and streams;
- be able to identify illicit discharges (e.g., yard waste, oil, grease, sediment, soap, pet waste or other substance deposited into a storm drain structure or overland drainage);
- understand the environmental consequences and negative impacts of illicit discharges and stormwater on water quality;
- not dump material into inlet structures, streets or any other conveyance; and
- know whom to contact when a potential water quality problem is found.

Municipal staff will understand how to identify illicit discharges and respond appropriately when an illicit discharge or other water quality problem is detected or reported.

3.1.4.2 Inform and educate the public about the proper management of materials that may cause stormwater pollution from sources including automobiles, pet waste, household hazardous waste and household practices.

People who live or work in Dane County will:

- understand the impacts of their actions on water quality;
- understand actions that prevent water pollution;
- pick up after pets, know how to properly dispose of pet waste, and properly dispose of pet waste;
- know where to properly dispose of household hazardous waste and properly dispose of household hazardous waste; and
- understand and implement practices to minimize water pollution from automobiles, pet waste and household hazardous waste.

3.1.4.3 Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.

People who live or work in Dane County will:

- understand how yard waste can contribute to water pollution;
- understand practices that minimize water pollution from yard waste;

- leave grass on lawn after mowing or compost grass clippings onsite;
- mulch leaves into lawn or compost leaves onsite;
- remove leaves and grass clippings from impervious surfaces before the rain;
- know how to determine lawn and garden needs and minimize fertilizer and pesticide use by applying only what is needed at key times during the year.

3.1.4.4 Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.

Riparian landowners in Dane County will:

- understand how proper management of shorelines with native plantings minimizes erosion and water pollution;
- know where to get information on effective planting design and maintenance; and
- implement practices on their property that minimize erosion and water pollution

3.1.4.5 Promote infiltration of residential stormwater runoff from rooftop downspouts, driveways and sidewalks.

People that live or work in Dane County will:

- understand the importance of minimizing stormwater runoff;
- understand how stormwater quantity impacts surface water, habitat and groundwater;
- understand how practices to keep rain where it lands can minimize water pollution;
- know where to get information on practices to increase infiltration of stormwater; and
- understand and implement practices to increase infiltration including: installation of rain gardens, rain barrels, permeable pavement, and redirecting downspouts.

3.1.4.6 Inform and educate those responsible for the design, installation and maintenance of construction site erosion control practices and stormwater management facilities on how to design, install and maintain the practices.

Municipalities (staff, elected officials, their consultants, etc.) will:

- hire engineering firms that understand and use proper stormwater retrofitting;
- encourage “green developments”;
- evaluate and utilize appropriate BMPs;
- communicate standards to landowners, developers, contractors and consultants;
- review plans and enforce standards in plans;
- understand:
 - stormwater rules and regulations,
 - why proper municipal stormwater practices are important, and
 - what is required to achieve behavior change, which includes a combination of education, proper planning and enforcement; and
- provide demonstrations of new and innovative practices that meet or exceed standards.

Construction Professionals (consultants, developers, contractors and builders) will:

- evaluate opportunities to reduce imperviousness and increase infiltration and recharge;
- understand that there are runoff standards, the resources needed to install

and maintain BMPs including cost, time and siting limitations, and see BMPs as necessary, functional, and marketable;

- understand and support local and state stormwater standards and other requirements;
- prepare plat and site designs that minimize erosion and stormwater runoff, and meet or exceed local and state stormwater and design standards;
- provide accurate information to developers and municipalities on practices to meet standards including innovative practices based on emerging science and engineering knowledge.;
- will install and maintain effective erosion control and stormwater management practices;
- follow plans and not interfere with site stormwater and erosion controls and will follow construction sequencing plans to protect stormwater quality and prevent regulatory concerns;
- understand the financial and other benefits of complying with erosion control and stormwater requirements;
- understand elements of and implement low-impact/conservation design developments and other innovative erosion control and stormwater management techniques; and
- market developments based in part on stormwater compliance and benefits of stormwater practices.

3.1.4.7. Identify businesses and activities that may pose a stormwater contamination concern and educate those specific audiences on methods of stormwater pollution prevention.

Private business owners and staff will:

- evaluate opportunities to reduce imperviousness and increase infiltration and recharge;
- understand that there are runoff standards, and support local and state stormwater standards and other requirements to protect surface water quality;
- understand that BMPs are necessary, functional, and marketable, and the financial and environmental benefits of complying with erosion control and stormwater requirements;
- install and maintain effective stormwater management practices; and
- not interfere with site stormwater and erosion to protect stormwater quality and prevent regulatory concerns.

Property owners and managers will:

- understand stormwater rules and regulations, will understand why proper stormwater practices are important, and will utilize appropriate BMPs and
- be aware of and utilize appropriate good housekeeping practices that apply to their property (e.g. garbage collection, de-icing, lawn care/landscaping practices, yard waste disposal, vehicle fluid management, salt pile protection, etc.)

3.1.4.8. Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development.

Municipalities (staff, elected officials, their consultants, etc.) will:

- hire contractor and consultants that have experience in green infrastructure;
- encourage “green developments”; and

- include green infrastructure in project plans.

Construction Professionals will:

- prepare plat and site designs that minimize erosion and stormwater runoff, and meet or exceed local and state stormwater and design standards and
- understand elements of and implement low-impact/conservation design developments and other innovative erosion control and stormwater management techniques.

Property owners will:

- understand the benefits of installing green infrastructure and
- know what green infrastructure options are available and how to incorporate green infrastructure into new construction or site improvement projects.

Programs and Activities

The programs and/or activities listed in Table 2 will be used to achieve the goals and outcomes listed above for each topic area required in the permit. All programs and/or activities may not be implemented every year and additional activities may be added. A complete list of activities that will be implemented each year will be specified in the MAMSWaP Annual Information and Education Work Plan along with available resources to assist municipalities in the development of their individual information and education plans and outreach efforts. The MAMSWaP Annual Information and Education Work Plan will be shared with partners by December 1st each year.

Table 2: MAMSWaP Program and Activities

#	Topic Area	Programs/Activities	Audiences
1	Illicit Discharge Detection and Elimination	Storm Drain Mural Program Adopt A Storm Drain Program Illicit Discharge Reporting	Residential Educational Public Sector Occasional Users
2	Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	Dane County Clean Sweep Spring/Summer Best Management Practices Toolkit Enviroscape Model/Rainfall Simulator	Residential Educational Occasional Users
3	Yard Waste Management/Pesticide and Fertilizer Application	Leaf-free Streets for Clean Waters Adopt A Storm Drain Program Lawn care Calendar Spring/Summer Best Management Practices Toolkit Enviroscape Model/Rainfall Simulator	Residential Educational Private Sector Occasional Users
4	Stream and Shoreline Management	Plant Dane Native Plant Program Free Native Plants for School and Community Projects	Residential
5	Residential Infiltration	Plant Dane Native Plant Program Free Native Plants for School and Community Projects Rain Garden Workshop Rainfall Simulator	Residential Educational Occasional Users
6	Construction Sites and Post-Construction Storm Water Management	NASECA Trainings Erosion Control Inspections	Constructional Prof. Public Sector
7	Pollution Prevention	WI Salt Wise Salt Certification Trainings	Residential Private Sector Public Sector
8	Green Infrastructure/Low Impact Development	Green Infrastructure Workshop Rain Garden Workshop Green Infrastructure Demonstration Projects	Construction Prof. Public Sector Residential

Annual Work Plans

Potential projects will be considered each fall for the coming year’s annual work plan based on several factors, including that year’s project funding, opportunities to leverage MAMSWaP’s outreach with the work of other partners and the relative annual importance of each nonpoint pollution source listed as part of the WPDES permit requirements.

As the Stormwater Education Coordinator’s work plan is developed each year, potential partners will be identified to help with development and implementation of activities. If needed, funding will be sought from sources beyond contributing municipalities, including Urban Nonpoint Source and Stormwater Grants from DNR and Dane County Urban Water Quality Grants.

Annual Tasks

There are some administrative tasks and ongoing programs that must be performed every year that are essential to the program and need to be accounted for in the annual work plan.

Following is a partial list of those tasks.

1. Quarterly reporting to member municipalities
2. Annual reporting to DNR.
3. Billing municipalities and track payments.
4. Developing annual work plans.
5. Updating and maintaining the www.ripple-effects.com website.
6. Continuing to be an active partner of WI Salt Wise
7. Continuing to promote North American Stormwater and Erosion Control Association Wisconsin Chapter events.
8. Developing and distributing outreach tools and articles to municipalities, friends groups, community groups and neighborhood association newsletters.
9. Developing and providing presentations (PowerPoint, demonstrations, etc.) focused on audience interests/concerns.
10. Continuing to maintain and use existing list serves and distribution lists to disseminate info.
11. Continuing to provide organizations and community groups assistance and partnering with projects (presentations, displays etc. for communities).
12. Continuing to promote and support storm drain marking programs with supplies and other materials.
13. Promoting the stormwater curriculum developed for MAMSWaP.
14. Publicizing training for building inspectors, contractors and staff.
15. Publicizing the availability of the Dane County Erosion Control and Stormwater Management Manual.
16. Promoting use of the Enviroscope model and Rainfall Simulator.
17. Continuing to coordinate outreach with partners such as the Rock River Stormwater Group, Madison Metropolitan Sewerage District and others.
18. Continuing to actively participate in the Statewide Stormwater Collaborative group to learn from other stormwater groups across the state and discover possible projects to partner on.

EVALUATION

Evaluation is an important component of the Information and Education (I&E) Plan. It begins when the program is planned, is incorporated into each step of implementation, and is emphasized at critical points. Evaluation will be an ongoing process to measure the effectiveness of both the individual activities and the overall plan in increasing knowledge that could lead to positive behavior changes. Evaluation will also provide a mechanism for obtaining feedback from the target audiences on how to improve subsequent education activities.

MAMSWaP uses various forms of both informal and formal evaluation to help measure the effectiveness of programs including: written workshop evaluations, participation in specific campaigns, feedback from partners and target audiences, behavioral observations, and web site and social media analytics. In addition to the evaluation methods listed above, MAMSWaP partnered with the University of Wisconsin Extension in 2018 to design, distribute and analyze a formal random sample survey of residents in MAMSWaP communities. The results of this survey are summarized in the [*2018 MAMSWaP Survey: Perceptions, Actions and Concerns around Water Quality in Area Lakes, Rivers and Streams Final Report*](#), which can be found on www.ripple-effects.com. Information from all these evaluation methods were used to develop the 2020-2024 five-year outreach plan and will be used to develop future annual work plans.

The [*2018 MAMSWaP Survey: Perceptions, Actions and Concerns around Water Quality in Area Lakes, Rivers and Streams Final Report*](#) reminds us that there are many factors contributing to changes in the public's attitudes and behaviors associated with mitigating the negative effects of stormwater runoff and that findings cannot be linked to the actions of any one person, group or program.

Outreach strategies need to be opportunistic and flexible, providing easily accessed educational materials regarding practices and behaviors, allowing for rapid responses as well as adequate resources to support rapid responses. Annual work plans will take into account not only the results of the 2018 survey, but also experiences from implementation of previous work plans and activities.

The I&E plan is a product of a continuous planning and evaluation process. The primary evaluation vehicle will be a statistically significant survey conducted at the conclusion of the implementation of this five-year plan. The 2018 survey was implemented to determine: the knowledge of urban stormwater pollution issues, actions residents are taking to reduce and improve the quality of stormwater, and willingness, barriers and motivators to implement specific stormwater practices among residents in the project area. Additional follow up surveys will be conducted at the end of the next five-year permit period to evaluate the effectiveness of the I&E plan in increasing knowledge and behavior change. Data gained from the surveys will be used to help redirect educational efforts, as necessary.

The I&E Committee will continue to provide oversight during implementation of the 2020-2024 I&E plan. As activities are planned and materials developed, the I&E Committee will review them and provide feedback as needed, continuing to focus the I&E efforts on those activities required by the permit language. Additional feedback will be obtained from the audiences of some of the individual education activities, providing useful information on how the actions can be improved during the course of the implementing the plan.

APPENDIX

Intergovernmental Agreement to Fund a Position Responsible for Stormwater Information, Education and Outreach Coordination for the Madison Area Municipal Stormwater Partnership (MAMSWaP)

THIS INTERGOVERNMENTAL AGREEMENT, hereinafter referred to as this “Agreement,” made and entered into by, between and among the Cities of Fitchburg, Madison, Middleton, Monona, Stoughton, Sun Prairie and Verona; the Villages of Cottage Grove, Cross Plains, DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee and Windsor; the Towns of Blooming Grove, Burke, Madison, Middleton and Westport; Dane County; and the University of Wisconsin–Madison, hereinafter referred to individually as “Party” and collectively as the “Parties,” which will include other municipalities that may join after this Agreement has been signed by the Parties listed.

WITNESSETH:

WHEREAS, many of the Parties entered into a Cooperative Agreement to jointly apply for a storm water discharge permit, hereinafter referred to as the “Permit”, under Chapter NR 216 of the Wisconsin Administrative Code in April, 2000; and

WHEREAS, this group intends to work cooperatively on storm water information, education and outreach, notwithstanding the fact that there may not be a continuing group Permit; and

WHEREAS, one of the required work elements of each Party’s NR 216 permit is the operation of an information, education and outreach program; and

WHEREAS, many of the Parties previously signed an agreement to jointly develop, coordinate and implement an information, education and outreach program from May 2004 through April 2009 and May 2009 through December 2013 and January 2014 through December 2018 (extended to December 2019); and

WHEREAS, the materials and products that result from this joint effort are expressly developed for the Parties to partially fulfill their information and education permit obligations; and

WHEREAS, the Parties agree, pursuant to sec. 66.0301, and Ch. 36, Wis. Stats. to obtain the services of a sixty percent employee of Dane County to provide information, education and outreach services to partially meet the requirements and components of each Party’s NR 216 Stormwater Discharge Permit as detailed in the Madison Area Municipal Storm Water Partnership 2020-2024 Storm Water Information, Education and Outreach Plan.

NOW, THEREFORE, in consideration of the above premises and the covenants of the Parties hereinafter set forth, the receipt and sufficiency of which is hereby acknowledged by each Party for itself, the Parties agree to the following:

1. Dane County shall maintain a 60% position (1,248 hours annually or as many hours as funding allows), hereinafter referred to as the "Position," in its Land & Water Resources Department's (LWRD) and limited term employees to provide information, education and outreach services in furtherance of the storm water management programs conducted under each Party's permit. If any party fails to make their respective contribution by the due date as required by Exhibit A, the Party may be suspended from receiving services under this agreement and may be subjected to a breach of contract claim by Dane County or any other Party.

The Position shall be funded by the Parties as set forth in Exhibit A. Fees are based on 2010 Census population data. When a municipality wishes to join the information, education and outreach plan effort, it shall pay the amount set forth in Exhibit A based on its population from 2010 Census data. If a municipality joins mid-year, its amount will not be prorated. Additional municipalities' contributions shall not lessen the amount of the Parties' contributions set forth in Exhibit A, but shall be utilized for salary, benefits, and programmatic expenses directly related to the MAMSWaP. The municipality wishing to join the effort shall sign onto this Agreement and be afforded the benefits of the information, education and outreach program that are made available to all Parties.

Dane County shall provide annual documentation of direct and indirect expenses incurred with staffing the I&E position. Costs would include direct salary and benefits of staff and supervisors as well as indirect costs such as work space and support. This report for prior year shall be presented to agreement signatories on or before March 31 annually.

Should the Position become vacant, Dane County shall take all reasonable measures to assure that it is filled or its duties reassigned. During the time the Position is vacant, the LWRD Water Resource Engineering Division Manager shall assign other equivalent staff to complete the duties of the Position and shall notify all Parties in writing.

2. The Parties shall continue to operate and maintain the Information and Education Committee, hereinafter referred to as I&E Committee, previously created under the Madison Area Municipal Storm Water Partnership. The I&E Committee shall provide guidance and oversight to the Position, which is directly supervised by the LWRD Water Resource Engineering Division Manager. The five-year outreach plan developed by the I&E Committee will direct the Position's activities.

The materials and products that result from this joint effort are expressly developed for the Parties to partially fulfill their Information and Education permit obligations.

The I&E Committee shall meet a minimum of four (4) times per year. The I&E Committee shall consist of representatives of the Parties to this Agreement. The Position shall staff the I&E Committee. There is no maximum number of members for the I&E Committee. Any representative of a Party to this Agreement may be a member of the I&E Committee. At a minimum, the I&E Committee shall be comprised of one representative from Dane County, one representative from UW-Madison, one representative from City of Madison, one representative from remaining Party cities, one representative from villages, and one representative from towns (for a total of six (6)). The I&E Committee shall continue to solicit the advice and

consultation of the Wisconsin Department of Natural Resources and the University of Wisconsin Cooperative Extension.

3. The entire agreement of the Parties is contained herein and this Agreement supersedes any and all oral agreements and negotiations between the Parties relating to the subject matter hereof. The Parties expressly agree that this Agreement shall not be amended in any fashion except in writing, executed by all Parties.
4. Upon execution by all Parties, this Agreement shall become effective, superseding the previous agreement that was in place through December 2018, and shall end December 31, 2024 unless the Parties agree to a longer period. This Agreement may be amended and extended at any time upon the mutual agreement of all of the Parties.
5. Dane County shall invoice each of the Parties the amount set forth in Exhibit A commencing January 1, 2020 and every January 1 for years 2021, 2022, 2023 and 2024. Invoices are payable in 30 days.

6. **TERMINATION OF AGREEMENT**

In the event that any Party determines that it is in its best interest to terminate participation in this cooperative agreement with Dane County and all other Parties to this Agreement for storm water information, education and outreach, the Party may do so at any time by taking the following action:

- A) The Party shall send written correspondence to the Dane County LWRD Water Resource Engineering Division Manager and the Wisconsin Department of Natural Resources indicating its desire to terminate participation in this Agreement.

This correspondence shall include an official resolution or documented action indicating that the requested termination has been authorized by a governmental body possessing the legal authority required to terminate this Agreement, and that the signatories to this correspondence are duly authorized to sign a correspondence terminating their participation in this Agreement.

- B) Upon receipt of this correspondence, the Dane County LWRD Water Resource Engineering Division Manager shall deem the requesting party removed from the information and education joint agreement at the end of the year in which the request is made.

7. In the event that a Party withdraws and terminates its participation in this Agreement, the withdrawing Party shall be responsible for its financial contribution with regard to this Agreement until December 31 of the year the Party withdraws. No partial refund based on the date of withdrawal by the Party shall be given.

When a withdrawing Party is no longer financially responsible under this paragraph, the cost shall be re-apportioned among the remaining Parties based upon each Party's respective proportional contribution as set forth in Exhibit A if the termination results in the funding

contribution total to be less than \$25,000 for programmatic expenses plus the amount needed to fund the Position's salary and benefits for the year following the time of termination.

8. **NON DISCRIMINATION**

In performance of services under this Agreement, the parties agree not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, handicap, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, political beliefs, or student status.

9. **PERFORMANCE**

Each Party to this Agreement hereby certifies that it possesses the legal authority required to enter into this Agreement, and that the signatories to this Agreement are duly authorized to sign and that its designated representatives are authorized to act in matters pertaining to this Agreement and to provide required reports and file data as may be required.

10. **THIRD PARTY RIGHTS**

This agreement is intended to be solely between the parties hereto. No part of this Agreement shall be construed to add, supplement, amend, or repeal existing rights, benefits or privileges of any third party or parties. Nothing contained herein is intended as a waiver by any party of the defenses and immunities contained within the Wisconsin Statutes, including Sec. 893.80.

11. **EXECUTION IN COUNTERPART**

Each Party to this Agreement acknowledges that this Agreement may be executed in counterparts by duly authorized signatories and that the final contract and the cumulative counterpart signature pages shall be considered an original document with the full force and effect as if one copy of the contract was circulated to all parties for signature.

IN WITNESS WHEREOF, the Cities of Fitchburg, Madison, Middleton, Monona, Stoughton, Sun Prairie and Verona; the Villages of Cottage Grove, Cross Plains, DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee and Windsor; the Towns of Blooming Grove, Burke, Madison, Middleton, and Westport; Dane County; and the University of Wisconsin–Madison, hereto have caused this Agreement to be executed by their proper officers.

EXHIBIT A

FINANCIAL CONTRIBUTIONS TOWARD POSITIONS RESPONSIBLE FOR STORM WATER INFORMATION, EDUCATION AND OUTREACH

The contributions per Party listed below for 2020 assume a 60% (1,248 hours annually) annual salary and benefits package of approximately \$50,000 based on the 2019 rate of pay for the Position, a 50% LTE (1,040 hours annually) annual salary of approximately \$25,000 and a base annual programmatic budget of \$25,000 for information, education and outreach materials and supplies. Any funds received that are not used for salary and benefits package will be carried forward and available for programmatic expenses in the following year.

The Salary and Benefits paid for the positions in the 2nd and subsequent years shall be based upon a 5% annual increase as shown in the following example (rounded to next highest dollar): year one (1) contribution \$1000, year two (2) \$1000 + \$1000*(0.05) = \$1050.00, year three (3) = \$1050 + \$1050*(0.05) = \$1103.

The programmatic budget for implementing the information and education plan is \$25,000 annually. The programmatic budget shall be increased at 5% per year using the same process described above for the Salary and Benefits portion of this EXHIBIT A.

Billing invoice amounts reflecting salary and benefits and programmatic funds shall be reviewed by the I&E Committee. If the accumulated programmatic balance exceeds \$25,000 in any given year, the I&E Committee has discretion to credit member municipalities with written notice sent to all Parties in the Agreement.

Additional increases to the Position salary (in the case of a reclassification of Position incumbent) or programmatic budgets are allowed provided the budget amendment is approved by the I&E Committee and written notice sent to all Parties in this Agreement.

Any proposed changes shall be sent by July 1 of the year preceding the proposed change so that municipalities have adequate time to budget for the additional costs. Additional costs shall be apportioned among the Parties based upon their respective proportional contribution as set forth herein.

The Position shall pursue grant opportunities wherever possible to supplement the programmatic budget and shall be responsible for submittal of those grant requests on behalf of the Parties to this Agreement.

MUNICIPALITY	2010 Population	January-December 2020 Fee	Category
Dane County*, **	N/A	NA	
UW-Madison*	N/A	\$4,184	5
City of Madison	233,209	\$16,742	1
City of Sun Prairie	29,364	\$9,366	2
City of Fitchburg	25,260	\$9,366	2
City of Middleton	17,442	\$6,278	3
City of Stoughton	12,611	\$5,212	4
Village of Waunakee	12,097	\$5,212	4
City of Verona	10,619	\$5,212	4
Village of DeForest	8,936	\$4,184	5

City of Monona	7,533	\$4,184	5
Village of McFarland	7,808	\$4,184	5
Town of Windsor	6,345	\$4,184	5
Town of Madison	6,279	\$4,184	5
Village of Cottage Grove	6,192	\$4,185	5
Town of Middleton	5,877	\$4,185	5
Village of Westport	3,950	\$2,093	6
Village of Cross Plains	3,538	\$2,093	6
Town of Burke	3,284	\$2,093	6
Town of Blooming Grove	1,815	\$2,093	6
Village of Shorewood Hills	1,565	\$2,093	6
Village of Maple Bluff	1,313	\$2,093	6
TOTAL		\$103,421	

* Contribution not based on population.

** The Parties agree that Dane County does not invoice itself, but rather contributes in-kind with office space; phone, computer, printer and other equipment; internet access; Information Management and other staff support; access to vehicles; supervision; and other overhead.

MUNICIPALITY	2020 Contribution	2021 Contribution	2022 Contribution	2023 Contribution	2024 Contribution	Category	2010 population
Dane County	NA	NA	NA	NA	NA	5	N/A
UW-Madison	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	N/A
City of Madison	\$16,742	\$17,579	\$18,458	\$19,381	\$20,350	1	233,209
City of Sun Prairie	\$9,366	\$9,834	\$10,326	\$10,842	\$11,384	2	29,364
City of Fitchburg	\$9,366	\$9,834	\$10,326	\$10,842	\$11,384	2	25,260
City of Middleton	\$6,278	\$6,592	\$6,921	\$7,268	\$7,631	3	17,442
City of Stoughton	\$5,212	\$5,473	\$5,746	\$6,034	\$6,335	4	12,611
Village of Waunakee	\$5,212	\$5,473	\$5,746	\$6,034	\$6,335	4	12,097
City of Verona	\$5,212	\$5,473	\$5,746	\$6,034	\$6,335	4	10,619
Village of DeForest	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	8,936
City of Monona	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	7,533
Village of McFarland	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	7,808
Town of Windsor	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	6,345
Town of Madison	\$4,184	\$4,393	\$4,613	\$4,844	\$5,086	5	6,279
Village of Cottage Grove	\$4,185	\$4,395	\$4,614	\$4,845	\$5,087	5	6,192
Town of Middleton	\$4,185	\$4,395	\$4,614	\$4,845	\$5,087	5	5,877
Town of Westport	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	3,950
Village of Cross Plains	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	3,538
Town of Burke	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	3,284
Town of Blooming Grove	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	1,815
Village of Shorewood Hills	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	1,565
Village of Maple Bluff	\$2,093	\$2,197	\$2,307	\$2,423	\$2,544	6	1,313
Total:	\$103,421	\$108,592	\$114,021	\$119,723	\$125,709		

Category	2010 Census Population
1	>50,000
2	20,000-49,999
3	15,000-19,999
4	10,000-14,999
5	5,000-9,999
6	<5,000

Municipal Responsibilities

It is not enough for municipalities to merely be an actively paying contributor to the Partnership. There are specific actions each municipality must do. For example, while MAMSWaP has created a useful website, each municipality needs to link to www.ripple-effects.com. Other examples include:

- using provided articles and other information in municipal newsletters or utility bill inserts,
- promoting MAMSWaP campaigns, events and trainings,
- providing information on municipal web sites,
- issuing press releases to local newspapers, and
- implementing storm drain marking programs.

Municipalities must document in their reports to DNR how they have implemented outreach campaigns and used the materials developed by the I&E Committee.

Municipal Contacts

MUNICIPALITY	CONTACT INFO
Fitchburg (city)	Claudia Guy Environmental Engineer, City of Fitchburg, 5520 Lacy Road, Fitchburg, WI 53711-5318; 608-270-4262; claudia.guy@fitchburgwi.gov
Madison (city)	Greg Fries, P.E., Deputy City Engineer, City of Madison Engineering Division, City-County Building, Room 115, 210 Martin Luther King Jr. Blvd., Madison, WI 53703; 608-267-1199; gfries@cityofmadison.com
Middleton (city)	Gary Huth, P.E., Assistant City Engineer, City of Middleton Public Works Dept., 7426 Hubbard Ave., Middleton, WI 53562; 606-827-1070; ghuth@ci.middleton.wi.us
Monona (city)	Daniel Stephany, Director of Public Works & Utilities, City of Monona, 5211 Schluter Road, Monona, WI 53716; 608-222-2525; dstephany@ci.monona.wi.us
Stoughton (city)	Rodney Scheel, Director of Planning & Development, 207 S. Forrest St., Stoughton, WI 53589; 608-873-6619; rjscheel@ci.stoughton.wi.us
Sun Prairie (city)	Tom Veith, Engineering Director, City of Sun Prairie, 300 E. Main St., Sun Prairie, WI 53590; 608-837-3050; tveith@cityofsunprairie.com
Verona (city)	Theran Jacobson, Director of Public Works, City of Verona, 410 Investment Ct., Verona, WI 53593-8749; 608-845-6695; theran.jacobson@ci.verona.wi.us
Cottage Grove (village)	JJ Larson, Director of Public Works, Village of Cottage Grove, 210 Progress Dr, Suite 2, Cottage Grove, WI 53527, 608-839-5813, jl Larson@village.cottage-grove.wi.us
Cross Plains (village)	Jerry Gray, Village of Cross Plains, 2417 Brewery Rd, Cross Plains, WI 53528, 608-235-1054; jerry@cross-plains.wi.us
DeForest (village)	Kelli Bialkowski, Director of Public Services, Village of DeForest, 120 South Stevenson Street, DeForest, WI 53532; 608-846-6751; bialkowskik@vi.deforest.wi.us
Maple Bluff (village)	Tom Schroeder, Pub Works Superintendent, Village of Maple Bluff, 18 Oxford Place, Madison, WI 53704; 608-244-3048;

McFarland (village)	Jim Hessling, Director of Public Works, Village of McFarland, 5915 Milwaukee St., McFarland, WI 53558; 608-838-2383; Jim.Hessling@McFarland.wi.us
Shorewood Hills (village)	Karl Frantz, Village Administrator , Village of Shorewood Hills, 810 Shorewood Blvd., Madison, WI 53705; 608-267-2680; kfrantz@shorewood-hills.org
Waunakee (village)	Bill Frederick, Superintendent of Public Works, Village of Waunakee, 504 Moravian Valley Road, Waunakee, WI 53597; 608-849-5892; bfrederick@waunakee.com
Blooming Grove (town)	Mike Wolf, Town Administrator, Town of Blooming Grove, 1880 S. Stoughton Road, Madison, WI 53716; 608-223-1104; bgadmin@blmgrove.com
Burke (town)	Brenda Ayers, Town Clerk/Treasurer, Town of Burke, 5365 Reiner Rd., Madison, WI 53718; 608-825-8420; townofburke@frontier.com
Madison (town)	Renee Schwass, CPA, Business Manager, Town of Madison, 2120 Fish Hatchery Rd., Madison, WI 53713; 608-210-7260; schwassr@town.madison.wi.us
Middleton (town)	Greg DiMiceli, Town Administrator, 7555 West Old Sauk Road, Verona, WI 53593; 608-833- 5887; GDIMiceli@town.middleton.wi.us
Westport (town)	Tom Wilson, Town Administrator, Town of Westport, 5387 Mary Lake Rd., Waunakee, WI 53597; 608-849-4372; twilson@townofwestport.org
Windsor (village)	Davis Clark, Director of Public Works, Village of Windsor, 4084 Mueller Road, DeForest, WI 53532; 608-888-0066; davis@windsorwi.gov
Dane County	Jeremy Balousek, Water Resource Engineering Division Manager, Dane County LWRD., 5201 Fen Oak Drive, Rm 208, Madison, WI 53718; 608-224-3747; balousek@countyofdane.com
UW- Madison	Chris Egger, Environmental Compliance Specialist, UW-Madison EH&S Department, 30 East Campus Mall., Madison, WI 53715, (608)263-6708; christopher.egger@wisc.edu

3. PUBLIC INVOLVEMENT AND PARTICIPATION

The purpose of the public involvement and participation program is to notify the public of activities required by this permit and to encourage input and participation from the public regarding these activities.

The City is required to provide a minimum of one opportunity annually for the public to provide input on each of the following permit activities: annual report, storm water management program, and if applicable, adoption or amendment of storm water related ordinances. The City provides the annual report to the Common Council and the Board of public works and is accepted via a formal resolution by the Common Council. The public are welcome at both of these meetings and can provide comments to the MS4 annual report and program at that time.

The City meets the requirements of **Section 3.2.3** by providing at least one public involvement and participation program a year, which can include events such as storm drain stenciling, waterway cleanups, and public workshops.

4. ILLICIT DISCHARGE DETECTION AND ELIMINATION

As discussed in **Section 3.3.1**, the City is required to have an illicit discharge ordinance. The City's illicit discharge ordinance can be found in Chapter 37.05 (8) c. The City's Code of Ordinance can be accessed online at the location below:

https://library.municode.com/wi/madison/codes/code_of_ordinances

Section 3.3.2 requires the City to perform illicit discharge detection and elimination (IDDE) field screening, as well as written procedures for responding to a suspected illicit discharge. The City inspects approximately ¼ of its outfalls each year and reports any questions of non compliance to Public Health Madison & Dane County. IDDE protocol is located in the City's Stormwater IDDE SOP.

Residents in the City of Madison can utilize the Report a Problem webpage if they witness illegal dumping of material into the sewer.

<https://www.cityofmadison.com/reportaproblem/dischargedumping.cfm>

If an illicit discharge is detected, Public Health Madison & Dane County is responsible for follow up included enforcement action. All reports and follow up actions are provided to the City of Madison in an annual report.

5. CONSTRUCTION SITE POLLUTANT CONTROL

As discussed in **Section 3.4.1**, the City is required to have a construction site ordinance. The City's construction site ordinance can be found in Chapter 37.06-37.08. Erosion Control requirements are at least as stringent as the requirements listed in **Section 3.4.1** of the permit. The City's Code of Ordinance can be accessed online at the location below:

https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIVCH32--45_CH37THPUSTSYINERCO_37.06LASTACSUERCOSTMA

According to **Section 3.4.1**, the City should have written procedures for construction plan review, including the process for obtaining local approval, management and responsible to complaints, tracking regulated construction sites, and construction site plan receipt and consideration of information submitted by the public. According to **Section 3.4.2**, the City should have written procedures for construction site plan review. This requirement is met in the "City of Madison Erosion Control SOP" document.

[Erosion Control SOP 2020.pdf](#)

Members of the public can submit complaints by calling the City's main number (608-270-4200) or by visiting the City's "Report a Problem" webpage and selecting, "Erosion Control." The City's "Report a Problem – Erosion Control" webpage can be found at the link below:

<https://www.cityofmadison.com/reportaproblem/erosion.cfm>

According to **Section 3.4.3** and **Section 3.4.4**, the City should have written procedures for administration of the construction site pollutant control program, as well as written procedures for construction site inspection and enforcement. The City's procedures meet the inspection frequency requirements listed in **Section 3.4.4.b** of the Permit. The "City of Madison Engineering Erosion Control Permitting process is detailed at the URL below.

<https://www.cityofmadison.com/development-services-center/land-development/private-property/erosion-control>

According to **Section 3.4.4.c**, compliance with the inspection requirements shall be determined by proper documentation and maintenance of records. Records for inspections are entered into an Accela database and can be retrieved for review.

As discussed in the City's EC SOP, citations and stop work orders may be used to obtain erosion control compliance, in accordance with **Section 3.4.4.d** of the MS4 Permit.

CITY OF MADISON - ENGINEERING DIVISION
STANDARD OPERATING PROCEDURE



EROSION CONTROL PERMITTING, INSPECTION, AND ENFORCEMENT

Revision Date: December 16, 2020

A. BACKGROUND

Soil erosion and uncontrolled stormwater runoff from land disturbing activities have significant adverse impacts on region water resources. Madison General Ordinances Chapter 37 defines land disturbing activities and requires adherence to the conditions of an erosion control permit.

The City of Madison Engineering Division administers the erosion control permit program and in doing so regulates erosion and stormwater runoff. All sites subject to the City's erosion control permitting requirements are inspected and enforced for compliance in accordance with this Standard Operating Procedure (SOP).

B. EROSION CONTROL PERMITS

1. Overview

Land disturbing activities that meet the criteria laid out in Madison General Ordinances Chapter 37 are subject to erosion control (EC) requirements and must be permitted with the City Engineering Division. Erosion control permit applications are reviewed to ensure the plans can be implemented in a way that will help to prevent and reduce sediment discharge from the site while land disturbing activities are taking place.

2. Permit Conditions

- i. Erosion and sediment control measures are to be installed prior to any land disturbing activities.
- ii. A Professional Engineering currently licensed in the State of Wisconsin shall certify the initial installation of the erosion control measures/best management practices (BMPs) shown on the approved erosion control plan.
- iii. All BMPs installed for erosion control shall be in accordance with the applicable Wisconsin DNR Conservation Practice Standards.
- iv. Throughout the duration of the construction project/land disturbing activities, inspection and reporting are required, as described below.
- v. Within ten days of completion of the project or site stabilization, the applicant shall submit a Notice of Termination.

3. Inspection and Reporting

- i. Required inspection:
 - a. An inspection shall be conducted a minimum of once per week and also after every 24-hour rain event of 0.5" of precipitation or more.
 - b. Inspect the condition of all erosion control BMPs that have been installed on site and ensure that sediment is not being discharged from the site or that discharge is being mitigated to the greatest degree possible.
 - c. Inspections are performed by an Authorized Inspector that is designated by the Permit Holder and has set up an online reporting account with the City.
- ii. Required reporting:
 - a. The results of each required inspection shall be reported online through the account that the Authorized Inspector set up with the City.
 - b. Weekly reports need to be filed prior to 6 AM on Monday for the preceding week and post-rain reports need to be filed within 24 hours of the rainfall that triggered the inspection.
 - c. The report is filed as "passed" if all BMPs were in proper working condition at the time of inspection.

- d. The report is filed as “maintenance required” if any BMPs were in need of repair or maintenance at the time of inspection.
- e. Photo documentation should be submitted with the report.
- iii. Repairs and maintenance:
 - a. Any BMP on the site that requires attention shall be repaired or maintained within 48 hours of the issue arising.
 - b. BMPs shall be kept in proper working condition throughout the duration of the project.
 - c. Examples of common repair/maintenance activities include, but are not limited to: adding stone to trackout controls, emptying inlet protection, clearing sediment from perimeter controls, or repairing or replacing failed inlet/perimeter protection.
 - d. Maintenance also includes sweeping tracked or accumulated sediment from the street and gutters at a minimum of once daily or more frequently if conditions dictate.

C. PERMIT COMPLIANCE

1. Permit Issuance

- i. Erosion control plans are reviewed for consistency with standards.
- ii. The permit application is processed and entered into Accela Civic Platform, the City’s cloud based permitting platform.
- iii. When the permit is issued to the applicant, they are notified of permit conditions and reporting requirements. They are also provided a copy of the City’s EC Enforcement SOP (see Appendix A).

2. Site Inspections

- i. All sites with an active erosion control permit are inspected by City of Madison staff a minimum of once every three weeks as an audit of the inspection reports filed by the permit holder’s Authorized Inspector.
- ii. Property owner, permit applicant, and Authorized Inspector(s) are notified via email of required maintenance depending on the condition of the site during the visit.
 - a. The notification email provides a deadline by which maintenance needs to be completed, which is generally within 48 hours of the notice. Earlier completion of maintenance can be required if conditions dictate (e.g. sweeping before impending rain).
 - b. The notification requests that pictures are sent to the City inspector after maintenance is completed. If the City doesn’t receive correspondence or the pictures suggest the maintenance is incomplete, a follow up inspection will be conducted.
 - c. A failed follow up inspection results in an additional warning or a citation, depending on previous performance of the site. In either case, additional correspondence is made until the site is brought back into compliance.
- iii. City inspections help ensure the site is regularly being maintained to the expected standards.
- iv. Pictures are taken of each site to document locations requiring maintenance and track the progress and performance of the site over time.
- v. Inspections provide an opportunity to verify that erosion control BMPs were installed as indicated on the erosion control plan, that they are maintained properly throughout the duration of the project, and to determine if additional controls are needed.

3. Enforcement

- i. Reporting violations are instances of missed filings of required inspections, as described above.

- ii. Field violations are instances where a significant sediment control failure has occurred due to lack of maintenance or proper installation of BMPs. This also includes maintenance/repair notifications that have not been addressed in a timely manner.
- iii. Citations can be issued to the property owner/permit holder for repeated reporting or field violations.

4. Permit Closure

- i. When construction is completed and the site is stabilized (e.g. seeded & matted, paved, landscaped) the permit status will be changed to Inactive and regular reporting is no longer required.
- ii. Permit closure can be requested once the site is restored and vegetation has been established to 70% cover or better.
- iii. Submit Notice of Termination (NOT) form and pictures of the site to City Engineering; remove all erosion control BMPs.
- iv. City Engineering will make a follow up visit to ensure that the site is vegetated and BMPs have been removed. Permit will be closed when site satisfies all closure conditions.

5. Records Locations

- i. Permits – Permits are issued and recorded through the City’s cloud based Accela Civic Platform.
- ii. Inspection Checklist – Inspections are logged online through the Accela Civic Platform and failed inspections result in automatic email notifications to the property owner, permit applicant, and Authorized Inspector(s).
- iii. Inspection Photos – site photos taken by City inspectors to document permit violations are saved on the City’s network: F:\Encommon\EROSION & SWM\Erosion Control.
- iv. Correspondence – Notifications are sent to permit holders and the City’s erosion control permits email account (e5@cityofmadison.com).
- v. Citations – Citations are issued and recorded through the City’s cloud based Accela Civic Platform.

6. Key Personnel

Name	Jurisdiction	Title
Daniel Olivares	Reviews permit applications; inspects Central-city EC sites	Engineer
Megan Eberhardt	Reviews permit applications; inspects sites as needed	Engineer
Matt Allie	Inspects East-side EC sites	Engineer
Lucas Wardell	Inspects West-side EC sites	Engineer
Greg Fries	Receives reports of major issues	Deputy City Engineer
Janet Schmidt	Receives reports of major issues	Principal Engineer – Stormwater Utility

D. TRAINING

- 1. The City of Madison and Madison Dane County Public Health staff give annual training on erosion control and illicit discharge standards, implementation, and inspection to Public Works staff.
- 2. Training equips staff from various City agencies and utilities with the knowledge to identify and address erosion control problems and design or install effective erosion control BMPs.

APPENDIX A: CITY ENGINEERING EROSION CONTROL ENFORCEMENT SOP

Recorded Training

<https://media.cityofmadison.com/Mediasite/Play/d0481be54beb4755b960da830b6fe92e1d>

6. POST-CONSTRUCTION STORMWATER MANAGEMENT

According to **Section 3.5.1**, the City is required to have an ordinance or other regulatory mechanism to regulate post-construction stormwater discharges from new and redevelopment. The City's stormwater management ordinance can be found in Chapter 37, The Public Stormwater System Including Erosion Control. Stormwater management requirements are at least as stringent as the requirements listed in **Section 3.5.1**. The City's Code of Ordinance can be accessed online at the location below:

https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIVCH32--45_CH37THPUSTSYINERCO

As discussed in **Section 3.5.1.f**, the City is responsible for implementing long-term maintenance requirements for landowners and other persons responsible for long-term maintenance of post-construction storm water control measures, including requirements for privately-owned post-construction control measures. The City's relevant ordinance can be found in chapter 37.12 (3) g - Administration, which can be accessed at the link below:

https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIVCH32--45_CH37THPUSTSYINERCO_37.12AD

Ongoing stormwater facility maintenance responsibilities are outlined at the URL below, in the section entitled, "Ongoing Stormwater Facility Maintenance." Annual maintenance reports are due to the City by June 1 st each year and should use the "Stormwater Management Annual Maintenance Certification Template," which can also be found at:

<https://www.cityofmadison.com/engineering/documents/StormwaterMgmtAnnualMtcCert.pdf>

According to **Section 3.5.2**, the City is required to have written procedures for the administration of the post-construction stormwater management program, including a process for obtaining local approval and responding to complaints. The City's procedures for the administration of this program is detailed in the ordinance.

According to **Section 3.5.3**, the City is required to have written procedures for post-construction site plan review. At the City, these plans are reviewed as part of the Erosion Control and Stormwater Management permitting process. This is described more fully in Section 5.0 of this plan.

According to Section 3.5.4, the City is required to have written procedures to, at a minimum, track and enforce the long-term maintenance of stormwater management facilities implemented to meet applicable post-construction performance standards. This requirement is met via the City's "Standing Operating Procedures and Common Requirements for Long-term Maintenance of Private Stormwater Facilities" and can be found at:

[City of Madison Long-term SW Maintenance SOP.pdf](#)

**City of Madison Engineering
Standard Operating Procedures & Common Requirements for
Long-term Maintenance of Private Stormwater Facilities**

To better provide uniform oversight and obtain compliance on projects under the City Engineering's jurisdiction for inspection and enforcement.

Applicability

Per ordinance, long-term maintenance of private stormwater facilities and the submission of an annual report is required for any facility that received a stormwater management permit (see City Ordinance Chapter 37.11 (B) 8 b – a portion is excerpted below for reference):

Any property owner required to have a Best Management Practice or a *maintenance* agreement on the property shall submit to the City Engineer an *annual* report reviewing the condition of that practice and the *maintenance* performed during the past calendar year. This report shall be submitted by June 1 and be sealed by a Professional Engineer currently licensed in the State of Wisconsin.

Annual Report Submission Guidelines

1. Annual reports are due by June 1 for the past calendar year.
2. Per City Ordinance chapter 37.11 (B) 8 , annual reports shall consist of the following:
 - (1) Documentation of the completion of the required annual maintenance, including copies of receipts from agents hired to perform the work and date the work was completed;
 - (2) Photos of the treatment device post completion of required maintenance.
3. The Annual Stormwater Maintenance Report template is available at the link below. The report shall be submitted and sealed by a professional engineer or alternate certification approved by the City Engineer:

<https://www.cityofmadison.com/engineering/permits/stormwater-management-permit>

4. Annual reports shall be submitted to the City e-mail to DAOlivares@cityofmadison.com
5. Annual reports are entered in to the erosion control and stormwater database and filed in the plan vault.

Failure to Submit an Annual Stormwater Maintenance Report

1. For facilities that received a stormwater management permit, maintenance of stormwater facilities is required per City ordinance. As stated in the City's template for Stormwater Maintenance Agreements, if the owner fails to maintain the stormwater facilities, then the City (or qualified representative) may, after providing Owner with written notice of the maintenance issue and thirty (30) days to comply with the notice, enter the Property in order to conduct the maintenance specified in the Maintenance Notice. The City will conduct such maintenance work in accordance

City of Madison Engineering
Standard Operating Procedures & Common Requirements for
Long-term Maintenance of Private Stormwater Facilities

with all applicable laws, codes, regulations, and similar requirements and will not unreasonably interfere with Owner's use of property. All costs and expenses incurred by the City in conducting such maintenance may be charged to Owner by placing the amount on the tax roll for the Property as a special assessment in accordance with Section 66.0703, Wis. Stats.

2. For facilities that received a stormwater management permit, violation of the ordinance may result in the issuance of citation(s). Each day that the violation exists shall constitute a separate offense and may result in additional citations.
3. For any facility that has a stormwater utility credit, failure to submit an Annual Stormwater Maintenance Report will result in the loss of the credit. The owner will not be eligible to apply for the credit for one full calendar year. Prior to receiving a credit in the future, the City will require documentation that the facility has been maintained and is functioning as designed.

7. POLLUTION PREVENTION

According to **Section 3.6.1**, the City must update and maintain an inventory of municipally-owned or operated stormwater best management practices, such as wet ponds, bioretention devices, infiltration basins, etc. An inventory of City-owned stormwater facilities can be found on the “Greenways and Ponds Map,” which can be accessed at the link below. The facility type and year constructed are noted, where available. A list of all ponds is also included in the MS4 modeling report as well as maps of each modeling area.

<https://data-cityofmadison.opendata.arcgis.com/datasets/greenways-and-ponds?geometry=-89.505%2C43.037%2C-89.366%2C43.059>

According to **Section 3.6.1.c(1)**, the City should confirm if there is an operation and maintenance plan with inspection procedures and schedule for stormwater facilities. These procedures and schedules can/will be found in the City’s “Stormwater Detention Maintenance Plan”. Vegetation in and around the City’s ponds and greenways is actively managed and tracked in GIS. The mowing cycle is adjusted to address invasive species control and the use of herbicides is documented in the integrated pest management plan. The City of Madison also utilizes prescribed burns when conditions allow.

[Stormwater Detention Inspection and Maintenance Plan.pdf](#)

According to **Section 3.6.1.c(2)**, the City should confirm whether or not record drawings are available for stormwater facilities. If available, record drawings can be found on the City’s network at the locations below:

[M:\PlanVault\Ponds](#)

According to **Section 3.6.1.c(3)**, if a BMP is owned by another entity but used by the City to meet water quality requirements for this permit, there should be written documentation that the City has permission from the owner to use the BMP for this purpose. The City has documented the ownership and use of private facilities in the TMDL Modeling report.

According to **Section 3.6.3**, municipally-owned facilities (such as municipal storage yards) should have a Stormwater Pollution Prevention Plan (SWPPP). A hard copy of the SWPPP for the Public Works Maintenance Yards can be found in the files of the Engineering Department and on each site.

F:\Encommon\STORM\MS4 Permit\EPA_Audit_Compliance\SWPPPS_Completed

Section 3.6.5 of the MS4 Permit contains requirements for collection services and storm sewer maintenance activities. The City currently (2020) uses street sweeping to meet water quality requirements of this permit. According to **Section 3.6.5.a**, it is necessary to maintain documentation of the number and type of equipment used, SOP, an estimate of the number of lane-miles swept annually, and an estimate of the weight in tons of material collected

annually. This information is submitted with the annual report a standard operation procedure is described in the street sweeping SOP and the process described to the public here:

<https://www.cityofmadison.com/streets/maintenance/sweeping.cfm>

According to **Section 3.6.5.b**, if routine cleaning of catch basins with sumps is utilized to meet a water quality requirement, the City shall maintain documentation of the number of catch basins cleaned, SOPs, and an estimate of the weight in tons of material collected annually. Catch basin cleaning along Lacy Road is completed to meet water quality requirements under the MS4 permit. The SOP for this activity is documented in catchbasin maintenance Plan. Documentation of catch basin cleanings as well as an estimate of the tons of material removed is kept in the engineering operations managers files and submitted in each year's annual report and the process is documented in the Catchbasin

Catchbasin Cleaning SOP.pdf

According to **Section 3.6.5.c**, material collected from street sweeping and sump cleaning should be disposed of or beneficially reused in accordance with applicable solid waste and hazardous waste statuses and administrative codes. Non-stormwater discharges associated with dewatering and drying material are not authorized by the permit. The city of Madison's street sweeping material is disposed of the Dane County Landfill.

According to **Section 3.6.5.d(1)**, the City should maintain a description of the leaf collection program, including type of pick-up methodology and equipment used. Brush and yardwaste composting is contracted out in three-year increments. Currently (2021-2024), brush and yardwaste composting is done by purple cow. Residents are required to rake leaves to the terrace or place leaves in paper bag yardwaste and place the bags in the terrace for collection. Brush should meet size requirements and be stacked neatly in the terrace. Brush and yardwaste collection instructions can be found at the website below:

<https://www.cityofmadison.com/streets/yardwaste/leaf/>

The schedule for brush and yardwaste collection can be found in the City's "Brush Collection Schedule."

<https://www.cityofmadison.com/streets/yardWaste/Brush/>

Brush and yardwaste are picked up by City of Madison streets departement and taken to Purple Cow's Meier Road stie, where the brush and yardwaste is processed into compost for local sale. The weight in tons of material collected annually is estimated by truckload, as there is currently (2020) no scale available at the Purple Cow facility.

According to **Section 3.6.5.d(3)**, the City shall maintain documentation of municipally-operated leaf disposal locations. The City of Madison has 3 leaf disposal location located in the City boundaries. Residents are encouraged to drop off leaves and yardwaste at the Sycamore, Badger and South Point public yards. Yardwaste is hauled to purple cow and bush is shredded at the Olin transfer station. Large amounts of brush from contractors is accepted at the oline Transfer station and large quantities of mulch and be purchased by contractors at the Olin trans fer station as well.

According to **Section 3.6.6**, no more salt or deicers may be applied than necessary to maintain public safety. Documentation on deicing activities shall be maintained including the following:

Contact Information for the individual(s) with overall responsibility for winter roadway maintenance.
A description of the types of deicing products used.
Amount of deicing product used per month or per storm event.
A description of type of equipment used.
An estimate of the number of lane-miles treated with deicing products, as well as an estimate of the total area of municipally-owned parking lots treated.
A description of snow disposal locations.
A description of anti-icing, pre-wetting and bringing, equipment calibration, pavement temperature monitoring, and/or salt reduction strategies implemented or being considered.

The City of Madison Snow and Ice Procedures document details the City's current winter maintenance practices. Additionally, the parks department submits an annual report of areas maintained and de-icers used.

<https://www.cityofmadison.com/residents/winter/documents/SnowIceProcedures.pdf>

In **Section 3.6.7**, fertilizer on municipally-controlled properties over 5 acres each may only be implemented in accordance with site-specific nutrient application schedule based on appropriate soil tests. City ordinance bans the use of phosphorus fertilizer on lands with established turf unless soil tests are conducted. Additionally, City develops Integrated Pest Management plans to reduce the use of pesticides.

According to **Section 3.6.8**, consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development, shall be designed, installed, and maintained to comply with a water quality requirement under the MS4 Permit.

According to **Section 3.6.9**, the City hold one annual training event for appropriate municipal staff and other personnel involved in implementing each of the elements of the pollution prevention program under this section (Pollution Prevention). Documentation shall be maintained including the date, number of people attending the training, the names of each person and a summary of their responsibilities, and the content of the training. This documentation will be maintained in the Stormwater Engineer's Files.

As outlined in **Section 3.7** of the MS4 Permit, the City should implement and maintain structural and non-structural BMPs to achieve a reduction of 20% or more of total suspended solids (TSS) carried from existing development to waters of the state. An updated model of TSS removal from urban runoff within the City was completed in 2021 and included with the Annual Report.

According to **Section 3.8**, the City is required to maintain a map of the MS4. This information is included in the 2020 TMDL Water Quality report

As discussed in Section 3.9, the MS4 Annual Report is due to DNR by March 31 of the following year.

CITY OF MADISON - ENGINEERING DIVISION
STANDARD OPERATING PROCEDURE



DETENTION BASIN INSPECTION AND MAINTENANCE PLAN

February 28, 2023

A. BACKGROUND

The City performs detention basin inspection on a regular basis throughout the non-winter season.

The City uses several methods to inspect and assess appropriate maintenance for the detention basins under its jurisdiction.

B. Areas Maintained

Madison has 415 stormwater treatment devices that detain water in some way. These include dry detention basins, wet detention basins, infiltration basins and bioretention. Engineering Operations is responsible for inspection and maintaining the treatment devices.

C. Timing

Infiltration basins, bioretention, and dry ponds are able to be inspected at any time during the growing season. Detention basin with a standing pool of water have a limited window in which effective benthic surveys can be conducted. Early spring before weed growth becomes too dense and late fall after the weeds have died back.

D. Records Locations

1. Inspection records are kept by Engineering Operations in a GIS based software Cityworks.
2. **The results of the benthic survey are stored here:**
 1. **M:\Maps\Storm\DataAndLayers\Bathymetry**
 2. **A process is in place to convert the survey data to polygons describing areas with depth greater than or less than 3 feet.**

1. Key Personnel

Name	Jurisdiction	Title
Zak Arneson	Performs benthic survey with remote control survey boat	surveyor

E. Frequency

Each basin is to be inspected each permit cycle to ensure that the water quality functionality of the pond is adequate. As new ponds are being added to the system Madison is assuming that ponds accepted by the city have an 8 year grace period before they need to be surveyed for the first time. Additionally, some ponds may have depth measured with less precise method as a rapid screening tool. If sediment depth is concerning, the ponds will be assessed with the full benthic survey the following year. Roughly 1/5 of the City's ponds will be inspected each year.

F. Maintenance

Ponds that have sediment depths within 3 feet of the permanent pool will be modified in the City Wide WinSlamm model so the permanent pool depth is reflective of the reduced storage. Additionally, these ponds

will be programmed into the City's budget for maintenance dredging. Once dredging has occurred the ponds will be updated in the WinSlamm Model to reflect updated conditions.

Bank erosion, grate clogging and vegetation maintenance will be addresses as needed through Cityworks work orders.

CITY OF MADISON - STREETS DIVISION
STANDARD OPERATING PROCEDURE



STREET SWEEPING PLAN

February 17, 2021

A. BACKGROUND

The City performs street cleaning on a regular basis throughout the non-winter season. Through most of the City jurisdictional area, the City sweeps all city streets with curb and gutter drainage once per month throughout the non-winter season. In the City's designated Snow Emergency Area, the City performs street cleaning once per week during the non-winter season.

The City uses seven mechanical broom sweepers and one vacuum-assisted sweeper. In the Snow Emergency Area, only a mechanical broom sweeper is used. In all other parts of the City, sweeping equipment is rotated.

Areas Maintained

Madison has nearly 1,800 miles of traffic lanes. The Streets Division is responsible for sweeping every mile of this transportation network using funding provided by Madison's Storm Water Utility.

Outside of the Clean Streets Clean Lake zone, parking densities are light and there are not parking restrictions.

Clean Streets/Clean Lakes (CSCL) refers to a posted parking restriction that prohibits parking once a week during a 4-hour window. The parking restriction provides access to the curb where road debris accumulates. Street sweepers then service these areas during their posted parking restriction to keep pollutants from washing into our storm water system and out to lakes and streams,

Most of the CSCL areas have this parking restriction year-round since this parking restriction can help with other services, like snow plowing. Be sure to check the parking signs to learn when parking is restricted in your neighborhoods.

Timing

Sweeping is performed as soon as weather permit, usually late March with the goal of sweeping each street twice before the spring rains. This can take up to 6 weeks.

When the spring cleanup ends, most street sweepers work on streets throughout Madison. Depending on weather conditions and mechanical breakdowns, the Streets Division aims to sweep each Madison street once a month. This regular program continues until the middle of October.

Disposal of material

Madison has a low hazard exemption for its street sweeping material.

This material is disposed of at the Dane County Landfill. When the majority of the sweeping material is leaves the material is composted.

Records Locations

- i. Maintenance records area keep by Streets and the total tons of removed sweeping material collected is in the annual report.

2. Key Personnel

Name	Jurisdiction	Title
Brian Hutchinson	Coordinates cleaning efforts	Operations Supervisor

CITY OF MADISON - ENGINEERING DIVISION
STANDARD OPERATING PROCEDURE



Catchbasin and Special Structure Maintenance Plan

February 17, 2021

A. BACKGROUND

The City of Madison Engineering Operations Division administers the Catchbasin and Special Structures Maintenance program and in doing so ensures adequate storage is available in the stormwater BMPs for them to be included in the MS4 water quality modeling of the city. The City of Madison Maintains 1550 catchbasins and screen structures that are distributed thorough out the City of Madison’s stormsewer network.

B. Coordination and Schedule

1. Overview

Each spring and fall every catchbasin and screen structure is cleaned. The cleaning process utilizes a 9 vac trucks and a two person crew. The vac truck is able to fully clean a structure in a matter of 20 to 30 minutes and screen structures take apporoximately 45minutes to an hour. The 10 crews are able to clean all 1550 catchbasins within a 2 month window. April - May in the Spring and then October - November in the Fall. The material removed has a low hazard exemption and is disposed of at the Dane County Landfill.

2. Progress tracking

- i. The cleaning process is directed and tracked through Cityworks. Cityworks is a GIS based tool that allows a manager to assign tasks and track progress in an integrated platform.
- ii. Daily progress is tracked in Cityworks
- iii. The material removed it weighed at the landfill when disposed. Material is stored at the MMSD Dry bed for drying time and then weighed at the landfill upon arrival.

3. Inspection and Reporting

- i. Repairs and maintenance:
 - a. Cityworks allows for maintenance notes to be reported to the supervisor.
 - b. Any catchbasin or screen structure that requires attention shall be repaired or maintained as soon as feasible.
 - c. Examples of common repair/maintenance activities include, but are not limited to: Damaged access structure chimneys, damage to the coanda screens in a screen structure, blockage of the outlet pipe.
 - d. Maintenance staff are trained to detect and report any evidence of illicit discharge to the stormsewer system to Dane County Madison Public Health.

4. Records Locations

- i. Maintenance records area keep in Cityworks and the total tons of removed sediment are included in the annual report.

5. Key Personnel

Name	Jurisdiction	Title
Jay Schlimgen	Coordinates cleaning efforts	Operations Supervisor
Jim Streich	Coordinates cleaning efforts	Sewer Maintenance Supervisor

C. TRAINING

- 1. The City of Madison and Madison Dane County Public Health staff give annual training on erosion control and illicit discharge standards, implementation, and inspection to Public Works staff.

Snow and Ice Procedures



Charlie Romines, Streets Superintendent

Department of Public Works
Streets Division

Updated: 2020

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The following is the City of Madison's Streets Division's procedures for scheduling, staffing, and equipment during a snow and/or ice event.

About Madison

The City of Madison has close to 1,800 lane miles that need to be treated during winter storms.

A lane mile is the same thing as a mile of traffic lane. Imagine a two-lane road that is one mile long. This imaginary street has two lane miles.

Madison has enough traffic lanes to stretch from our city all the way to the Mojave Desert in California.

Salt Usage

In an effort to protect Madison's drinking water, groundwater, and lake quality, the City of Madison Streets Division limits the amount of salt applied to the streets.

Here is a list of the types of streets that are salted during a winter event. These make up the salt routes referenced throughout this document:

- Main arterials and thoroughfares
- Main connector streets
- Madison Metro bus routes
- Streets surrounding schools, fire stations, police stations, and hospitals
- Major hills and curves

Combined, these streets make up nearly half of all of the lane miles of Madison.

The maximum amount the Streets Division will spread on the roads is 300 pounds per lane mile. Less can and will be spread based on conditions.

When temperatures dip below 20 degrees, salt becomes far less effective at melting snow. During these cold temperatures, the chemical process that allows salt to melt snow begins to slow down significantly. Rather than just adding more and more salt to the roads, and therefore more and more salt to our waterways, the Streets Division will instead spread sand on these major thoroughfares.

WHY LIMIT SALT USE?

The effects of salt on our environment are very well documented. You can read more about the harm it does to our water systems (including drinking water) and infrastructure on www.wisaltwise.com or elsewhere on the [City of Madison's winter website](#).

Sand Usage

All other streets in Madison will receive a sand treatment that can provide traction on snowy surfaces. The sand does contain a small amount of salt in order to keep the sand from freezing solid where it is stored.

Following smaller snow events that do not trigger citywide plowing, sand is spread on top of the snow to provide traction on hills, curves, and intersections, as well on spots addressing any slippery spots around Madison.

Following citywide plowing, sand is spread to provide traction over the hard pack of snow that's left behind after plowing.

Sand is also made available for residents at numerous sand barrels positioned around the city, mostly at heavily used crosswalks.

Sand is also available at multiple sand sites. Sand from the barrels and sites are free for residents to use.

When temperatures are below 20 degrees, sand is spread on the salt route streets as noted above.

Weather Reports

Streets Division staff monitors the weather daily during the winter, and we watch a variety of sources. We use contracted private meteorological services, plus publically available information from the National Weather Service and local media outlets. From a contractor, the Streets Division receives two operational forecasts a day, plus a 24-hour storm alert warning. Pavement temperature sensors are also used to help determine when and how much salt should be applied in response to a snow event.

Factors to Consider for a Snow Response

Every winter storm presents its own unique set of circumstances that affect how crews will be dispatched to the roads. Here's a partial list of what must be considered:

- When the storm begins
- How long will the storm may last
- Air temperatures before, during, and after the storm
- Road temperatures, before, during, and after the storm
- Wind speed during and after the storm

- Water content of the snow
- Amount of salt on the roads from previous storms
- Type of precipitation (snow, sleet, ice, freezing rain, etc.)
- Intensity of the storm

Pre-Treating the Roads

If roads are dry and temperatures are warm enough, some salt routes are treated with saltwater brine.

The brine is a mixture of salt and water.

When applied before a storm comes, the brine prevents snow from bonding to the pavement.

This means when plows come through later, it can scrape the road cleaner and will result in less overall salt use.

In this application, brine is used at 40 gallons per lane mile.

Treating the Roads during Active Snowfalls

When snow begins to accumulate on the roads, Streets Division crews are deployed. The first crews are dispatched to maintain the salt routes.

The Streets Division will dispatch 32 trucks to spread salt and plow these critical roadways.

Depending on weather conditions, additional “sand first” trucks may also be deployed. Sand first trucks go to the roads that need some material for traction, but do not meet the requirement to be a salt route.

SALT ROUTES

Salt routes are the only streets in Madison that receive a salt treatment.

These roads are salted (as needed) and plowed throughout the entire course of the winter storm.

They are treated multiple times during the course of a storm as the truck loops through their route again and again while the snow is falling. The number of laps through the route a truck is able to complete depends on traffic and weather conditions.

After the snow stops falling, crews will remain on these routes until they are in good winter driving condition.

Salt routes make up roughly half of all the traffic lanes in Madison.

Salt is spread at a maximum of 300 pounds per lane mile. Depending on conditions, less salt may be used. Salt is used only as needed during the events as well.

Before salt is spread from the truck onto the road, it's sprayed lightly with saltwater brine. This step is called "pre-wetting." This step is necessary because wet salt is more apt to stay in place where it is spread. Dry salt bounces on pavement, and it would all end up in the gutter line without helping the traffic lanes. The pre-wetting uses 10 to 12 gallons of brine per ton of salt spread.

Post-Storm Treatment

Following a winter storm, the Streets Division deploys trucks to spread sand on snowy neighborhood streets. This process is called "area sanding."

Typically, this work is performed during normal business hours (7:00am to 3:00pm) but can also be performed at other times in the day (such as during the overnight hours). Actual deployment of the crews depends on the specifics related to the winter storm.

Sand is used at hills, curves, and intersections. Sand is also spread on other slippery spots that may develop on residential streets.

The number of trucks deployed for area sanding will depend on weather and road conditions.

Citywide Plowing

When three or more inches of snow have accumulated on the roads, and the storm is at or near its end, citywide plowing operations will begin.

Salt routes are maintained through the course of the storm, and they will most likely be cleared before residential plowing operations begin.

When the storm is at or near its end is the biggest factor when determining the start time for citywide plowing. Most often, these operations occur during the overnight hours so plowing vehicles do not interfere with traffic.

When citywide plowing commences, it can take 12 to 16 hours to complete the first phase.

More hours after the initial plowing are needed to perform the clean-up work, such as pushing back snow that has been blocked by parked cars or other obstructions.

The highest priority for citywide plowing is to serve each public street.

Carriage lanes, alleyways, and other non-street facilities (like bus stop pads) that are the Streets Division's responsibility to clear are also likely to be serviced during citywide plowing operations, depending on personnel availability.

SNOW EMERGENCY DECLARATION

A Snow Emergency declaration will oftentimes accompany citywide plowing operations. The Streets Division Superintendent is responsible for making the declaration.

A Snow Emergency is a notification to residents that everyone parking on the street must follow overnight alternate side parking rules in order to help make the citywide plowing operations more efficient and complete.

A Snow Emergency declaration can happen any time the accumulated snow on the roads requires citywide plowing.

A Snow Emergency will usually last for two nights to help plow both sides of the street. They can be extended or shortened depending on weather conditions.

More information about winter parking, including the alternate side parking rules, can be found in the [parking sections of the City of Madison Winter website](#).

EQUIPMENT FOR PLOWING

Citywide plowing is an immense operation. The Streets Division is the primary agency for plowing responsibilities with assistance from the Parks Division and Engineering Division.

The Streets Division retains the services of heavy equipment contractors to assist with plowing. The contractors are only part of the citywide plowing operation and do not spread salt or sand onto the road.

Counting contractors and all city vehicles, over 150 pieces of equipment can be deployed to plow each street in Madison.

This equipment includes plow trucks, loaders, graders, tractors, and one-ton trucks. More detail about the specific trucks used for plowing can be found in this document.

PLOWING ASSIGNMENTS

When citywide plowing operations commence, the city is divided into over 60 sub areas.

Each of these sub-areas are assigned equipment from the city fleet or a contractor.

Equipment from the entire snowplowing fleet is divided amongst the sub-areas, and they are all deployed at the same time.

No Madison neighborhood is assigned to be last.

PLOWING CUL-DE-SACS, CIRCLES, DEAD-ENDS, ETC.

This style of residential street is a challenge for snowplowing services. They are time consuming, and they offer very little space to push snow out of the road.

Oftentimes, this style of residential street needs to wait for a loader to plow this area. A loader is articulated in the middle, meaning it can handle the tight turns of these streets better than typical plow trucks.

These streets will be plowed within the same 12 to 16 hour windows as all other Madison residential areas. With hundreds of cul-de-sacs in Madison, and fewer available loaders than plow trucks, sometimes residents on these dead-end areas will see that the through-streets of a neighborhood plowed have been plowed, most likely by a traditional plow truck, and then a gap of time until the loader is available to plow the cul-de-sac.

WAITING UNTIL THE STORM ENDS

Plowing the city too soon will result in multiple hours of additional work to plow streets a second or third time. Plowing too late can cause many issues as well. Streets Division staff strives to find the right balance for each plowable event to maximize operational efficiency and keep the roads safe.

WHAT PLOWED ROADS LOOK LIKE

Following a plowing operation, residential streets will have a layer of tightly compacted snow left on them.

This is normal.

The layer of snow is for a couple reasons. First, plow trucks cannot push down to the road surface very well. They can push snow forward and to the side out of the road.

Also, roads are slightly curved to help with drainage, and there are imperfections and variability in the road surfaces. Plows are flat on the bottom. Placing a flat plow on top of a curved and inconsistent surface will allow for some snow to pass underneath the plow.

SLUSH ON THE ROADS

When temperatures rise close to and above freezing, the hard pack on the road thaws. As traffic drives through this loosening snow, it churns and creates slushy spots. The Streets Division works to push this slush from the roads as appropriate.

Some winters, thawing is followed by freezing temperatures before the slush can be pushed from the roads. In these instances, the Streets Division will put sand down to help with traction and attempt to plow down any icy ruts where possible.

Post-Plowing Evaluation

Upon completion of the citywide plowing, the salt routes are again assessed. If they need additional attention to be safe for commuting, salt trucks will be deployed to plow and spread salt where needed. Very often, they are clear from snow due to the salt application and traffic volume.

Area sanding trucks are deployed to neighborhood streets.

After plowing, roads will have a hard pack layer of snow left on them. This is normal, as explained above.

Since there is the layer of snow on the roads, sand is used where needed, such as intersections, hills, and curves, so drivers can get traction.

Clean Streets Clean Lakes Plowing

Residents within the Snow Emergency Zone also have to abide by a once-weekly four-hour parking restriction.

The date and time vary depending on block, so those parking in these areas must abide by the posted parking signs.

During that four hour window when parking is restricted, plow trucks work to push the snow back to the curb to keep the streets wide and safe.

Failure to observe these parking rules can result in being ticketed and towed.

Snow Removal

During heavy winters, snow accumulation at the curb along with parked vehicles can create dangerously narrow streets. Or certain intersections become blocked with high mounds of snow.

In order to fix this, the Streets Division performs snow removal operations.

The snow is scooped with a loader and the dropped into a truck to be hauled to a designated snow dump site. Loaders can also use a large snow blower attachment to pull snow from the road and discharge it into a haul truck. This is a slow, multi-vehicle operator.

In areas narrowed due to parked cars, an operation called “post and tow” is used. Temporary no parking signs are posted. Per ordinance, the signs must be up 48 hours before they can be enforced.

Once the signs are enforceable, violators of the no parking signs are towed away.

After the cars have been cleared, the snow can be removed by a loader, placed into a haul truck, and taken to a snow dump facility.

Winter Maintenance of Bus Pads, Crosswalks, & City-Maintained Sidewalks

City-maintained sidewalks, crosswalks, crossovers, and bus pads are maintained primarily during normal business hours with the goal of having these areas cleared 24 hours after a snow has stopped. However, the timing of the storm and other related complications may cause delays.

There are a considerable number of these facilities scattered around Madison. Therefore, plowing these other areas is a responsibility shared by Engineering, Parks, and the Streets Division.

Depending on staffing availability during citywide plowing, Streets Division crews may be dispatched to maintain the carriage lanes, sidewalks, bus pads, and other facilities that are their responsibility.

Winter Maintenance of Shared-Use Paths and On-Street Bike Lanes

Shared-use paths, more commonly referred to as bike paths, are maintained primarily by the Engineering and Parks Divisions.

More information about the winter maintenance of the paths and lanes can be found on the [Bike Madison website](#).

The Equipment

Plow trucks: These are the standard vehicles that are most visible during winter events. These are five-ton trucks equipped with plows and spreader units. Plows simply push snow forward and to the curb, and also spread salt and/or sand where necessary.

Spreader unit: These are V-shaped metal containers on the back of plow trucks. They hold salt or sand. When it is time to spread salt, a conveyor carries the salt first to an area where it is sprayed with a saltwater brine as it drops down onto a spinning plate that disperses the salt on the road.

Brine insert tanks: These are large tanks that are inserted into plow trucks instead of a spreader unit. Presently, the city has 6 tanks that can be used this way, each with a 1,000 gallon capacity.

Radius dump system (RDS) trucks: These are special plow trucks where the entire truck bed acts like a spreader unit. The conveyor is actually built into the truck bed. The RDS units Madison uses are custom-built to hold many more gallons of brine than a typical plow truck. This additional brine capacity will help in pre-treatment procedures.

Loaders: These are special trucks used mostly to load other vehicles (hence the name). They are also effective snow plowing machines because they are articulated in the middle, and can handle the tight turns of cul-de-sacs better than plow trucks. Loaders can be equipped with plow blades to better push snow. They can be equipped with industrial snow blowers to help move heavy snow build-ups along the road during snow removal operations. And its bucket attachment is useful for loading other vehicles with salt and sand, or used to scoop or push snow.

Grader: These are very large pieces of equipment that most people would think is a tractor-style vehicle. It has a plow blade attached to middle of the vehicle instead of on the front like all other winter equipment. Graders are useful because they are the only vehicle than can provide the down pressure needed to peel up the hard pack of snow on roads—but they are very big and not appropriate for every Madison street.

Tractor: These are small vehicles that are used as leaf-pushers in the spring & fall and mowers in the summer. These vehicles plow the bus pads, shared-use paths, and city-maintained sidewalks around the city.

One-ton Trucks: These are big pick-up truck style vehicles. They are used on carriage lanes and alleys, and can be used on other paths. They also have spreader units to spread sand where necessary.

InspectionId		Inspection Type	Date Inspected	Inspected By	Status	Submit To	Finish Date
1	275939	Eng Dry Weather Inspection	07/20/2022 01:35	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/20/2022 01:11
2	275940	Eng Dry Weather Inspection	07/20/2022 01:54	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/20/2022 01:55
3	275941	Eng Dry Weather Inspection	07/26/2022 02:10	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/26/2022 01:41
4	275942	Eng Dry Weather Inspection	07/26/2022 01:35	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/26/2022 01:35
5	275943	Eng Dry Weather Inspection	07/20/2022 10:05	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/20/2022 10:06
6	275944	Eng Dry Weather Inspection	07/20/2022 10:28	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/20/2022 10:30
7	275945	Eng Dry Weather Inspection	05/16/2022 09:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/16/2022 11:11
8	275946	Eng Dry Weather Inspection	05/16/2022 09:10	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/16/2022 11:24
9	275947	Eng Dry Weather Inspection	05/16/2022 09:41	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/16/2022 11:47
10	275948	Eng Dry Weather Inspection	07/14/2022 10:39	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/14/2022 10:41
11	275949	Eng Dry Weather Inspection	07/14/2022 10:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/14/2022 10:31
12	275950	Eng Dry Weather Inspection	06/1/2022 10:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/1/2022 10:42
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14	275952	Eng Dry Weather Inspection	05/16/2022 10:05	Arneson, Zachary C	COMPLETE	Arneson, Zachary C	
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17	275955	Eng Dry Weather Inspection	05/17/2022 11:25	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/17/2022 12:53
18	275956	Eng Dry Weather Inspection	05/17/2022 11:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/17/2022 12:50
19	275957	Eng Dry Weather Inspection		Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/17/2022 12:54
20	275958	Eng Dry Weather Inspection	06/22/2022 10:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/22/2022 10:31
21	275959	Eng Dry Weather Inspection	06/22/2022 09:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/22/2022 10:07
22	275960	Eng Dry Weather Inspection	06/1/2022 10:57	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/1/2022 10:58
23	275961	Eng Dry Weather Inspection	06/1/2022 11:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/1/2022 11:05
24	275962	Eng Dry Weather Inspection	08/19/2022 10:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C	08/19/2022 07:32
25	275963	Eng Dry Weather Inspection	06/22/2022 10:55	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/22/2022 10:56
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28	275967	Eng Dry Weather Inspection	05/16/2022 09:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C	05/16/2022 11:27
29	275968	Eng Dry Weather Inspection	06/1/2022 10:52	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/1/2022 10:53
30	275969	Eng Dry Weather Inspection	07/26/2022 01:29	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/26/2022 01:30
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33	275972	Eng Dry Weather Inspection	06/22/2022 09:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/22/2022 10:08
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40	275979	Eng Dry Weather Inspection	07/12/2022 11:19	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/12/2022 11:51
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45	275984	Eng Dry Weather Inspection	07/12/2022 01:45	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/12/2022 12:06
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47	275986	Eng Dry Weather Inspection	06/29/2022 12:45	Arneson, Zachary C	CLOSED	Arneson, Zachary C	06/29/2022 11:14
48	275987	Eng Dry Weather Inspection	07/14/2022 12:11	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/14/2022 12:12

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51	275990	Eng Dry Weather Inspection	06/29/2022 02:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 12:21
52	275991	Eng Dry Weather Inspection	06/29/2022 10:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 10:02
53	275992	Eng Dry Weather Inspection	07/18/2022 10:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/18/2022 11:54
54	275993	Eng Dry Weather Inspection	07/26/2022 11:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/26/2022 11:41
55	275994	Eng Dry Weather Inspection	08/19/2022 02:10	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:30
56	275995	Eng Dry Weather Inspection	07/14/2022 10:05	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 10:11
57	275996	Eng Dry Weather Inspection	08/19/2022 08:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:14
58	275997	Eng Dry Weather Inspection	06/29/2022 11:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 11:02
59	275998	Eng Dry Weather Inspection	06/29/2022 11:36	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 11:05
60	275999	Eng Dry Weather Inspection	07/14/2022 12:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 12:31
61	276000	Eng Dry Weather Inspection	07/14/2022 01:03	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 01:03
62	276001	Eng Dry Weather Inspection	07/20/2022 01:13	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/20/2022 12:59
63	276002	Eng Dry Weather Inspection	06/29/2022 12:35	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 11:13
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66	276005	Eng Dry Weather Inspection	07/12/2022 01:33	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 12:02
67	276006	Eng Dry Weather Inspection	07/14/2022 11:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 11:41
68	276007	Eng Dry Weather Inspection	07/26/2022 11:26	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/26/2022 11:27
69	276008	Eng Dry Weather Inspection	06/29/2022 01:35	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 11:19
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71	276010	Eng Dry Weather Inspection	07/14/2022 12:01	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 12:02
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74	276013	Eng Dry Weather Inspection	08/18/2022 01:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:17
75	276014	Eng Dry Weather Inspection	08/19/2022 08:05	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:13
76	276015	Eng Dry Weather Inspection	07/14/2022 11:20	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 11:13
77	276016	Eng Dry Weather Inspection	07/14/2022 11:08	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 11:09
78	276017	Eng Dry Weather Inspection	07/14/2022 11:09	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 11:11
79	276018	Eng Dry Weather Inspection	08/19/2022 01:50	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:28
80	276019	Eng Dry Weather Inspection	07/12/2022 11:48	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 11:49
81	276020	Eng Dry Weather Inspection	07/14/2022 12:23	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 12:24
82	276021	Eng Dry Weather Inspection	07/12/2022 11:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 11:54
83	276022	Eng Dry Weather Inspection	06/29/2022 10:52	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 10:54
84	276023	Eng Dry Weather Inspection	08/19/2022 01:25	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:27
85	276024	Eng Dry Weather Inspection	07/14/2022 09:46	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 10:15
86	276025	Eng Dry Weather Inspection	07/14/2022 09:53	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/14/2022 10:13
87	276026	Eng Dry Weather Inspection	07/18/2022 12:52	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/18/2022 12:54
88	276027	Eng Dry Weather Inspection	06/29/2022 01:09	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/29/2022 11:18
89	276028	Eng Dry Weather Inspection	07/12/2022 01:05	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 12:00
90	276029	Eng Dry Weather Inspection	06/1/2022 12:44	Arneson, Zachary C	CLOSED	Arneson, Zachary C 06/1/2022 11:50
91	276030	Eng Dry Weather Inspection	07/12/2022 11:15	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 11:50
92	276031	Eng Dry Weather Inspection	07/12/2022 11:28	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 11:52
93	276032	Eng Dry Weather Inspection	07/20/2022 12:04	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/20/2022 12:05
94	276033	Eng Dry Weather Inspection	07/20/2022 12:24	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/20/2022 12:27
95	276034	Eng Dry Weather Inspection	07/12/2022 01:53	Arneson, Zachary C	CLOSED	Arneson, Zachary C 07/12/2022 12:04
96	276035	Eng Dry Weather Inspection	08/18/2022 11:02	Arneson, Zachary C	CLOSED	Arneson, Zachary C 08/19/2022 07:18

InspectionId	Inspection Type	Date Inspected	Inspected By	Status	Submit To	Finish Date	
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99	276038	Eng Dry Weather Inspection	08/11/2022 01:00	Arneson, Zachary C	CLOSED	Arneson, Zachary C	08/11/2022 01:20
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101	276040	Eng Dry Weather Inspection	07/12/2022 12:10	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/12/2022 11:58
102	276041	Eng Dry Weather Inspection	07/12/2022 01:25	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/12/2022 12:01
103	276042	Eng Dry Weather Inspection	08/18/2022 11:40	Arneson, Zachary C	CLOSED	Arneson, Zachary C	08/19/2022 07:22
104	276043	Eng Dry Weather Inspection	08/18/2022 11:10	Arneson, Zachary C	CLOSED	Arneson, Zachary C	08/19/2022 07:19
105	276044	Eng Dry Weather Inspection	07/12/2022 12:03	Arneson, Zachary C	CLOSED	Arneson, Zachary C	07/12/2022 11:56
106	276045	Eng Dry Weather Inspection	08/18/2022 11:30	Arneson, Zachary C	CLOSED	Arneson, Zachary C	08/19/2022 07:21

WATERWAYS

City of Madison Engineering Division Annual Stormwater and Sewer Utilities Newsletter

cityofmadison.com/engineering/stormwater

FALL, 2022

New Ways to Save on Your Utility Bill

Did you know that none of the work done by the Stormwater Utility is funded by the property tax? Instead, all City of Madison properties are charged a stormwater fee through the monthly Municipal Services Utility Bill. This fee is charged based on the size and amount of hard surface (impervious) surface on the property. The more hard surface, the more water runs off the surface and has to be managed. The fee is the only funding that is used to allow the City to build and maintain stormwater infrastructure, including storm sewers, greenways and stormwater basins. This monthly fee varies depending on residents' yard size, but the average homeowner pays \$11.31 per month.

City Engineering's updated Stormwater Utility Credit Policy aims to fairly distribute the Stormwater Management Program's costs to residents by rewarding environmentally-friendly actions. Adjustments to monthly stormwater fees are granted for the situations described below:

- » Reductions to the flow and pollutant load to stormwater systems. The most common way residents can obtain a flow and pollutant load credit is through installing rain gardens.
- » Properties that drain directly to waters of the state, including Lake Wingra, Lake Monona, Lake Mendota, the Yahara River and Starkweather Creek. Residents are eligible for a reduction when their runoff does not enter the City's stormwater system but goes directly into a major body of water.
- » Properties that have wetlands within their boundaries.
- » Agricultural properties that are being actively farmed and are larger than five acres.
- » Properties over half an acre in size where active conservation or native vegetation restoration practices are in place.
- » Properties with street terrace rain gardens located between the curb and the sidewalk.
- » Rural properties that do not drain to waters managed by the City of Madison.

The process for obtaining a Stormwater Utility adjustment is simple. Residents who qualify for an adjustment should email engineer@cityofmadison.com explaining their type of property and the requested adjustment.



A Message from your new City Engineer, Jim Wolfe

Greetings, City of Madison!

As your new City Engineer, I'm proud to share that our commitment to stormwater resiliency continues to grow. That comes with an impressive amount of effort from our staff and consultants toward completing the next round of Watershed Studies, which will be vital to helping to plan and prioritize our future stormwater infrastructure investments (page 2). These studies involve a lot of data collection and analysis, but also include a growing community engagement program, with a bigger digital footprint. We will need input from our community, especially from those that have been impacted by past flood events, to help complete these studies, but to also help implement those solutions in the future.

Beyond the Watershed Studies, we're also getting involved with our community through stormwater education (page 3) and providing tips for ways you can help improve water quality in our lakes (page 2 and 3). Having lived in and worked for the City for over 15 years, it has been a pleasure not only to see how dedicated our staff is to the work that we do and our commitment towards making water quality improvements, but I've seen that same commitment from our residents, and we sincerely appreciate all of the help you provide!

Through the City's budgeting process, we've also worked to help our residents save money on their utility bills (page 1). Some of these opportunities will also help support water quality improvements and resiliency of our system, so we want to make sure that residents are aware of their options and are encouraged to participate. It's a new time to reflect on what we all can do to help our stormwater system, whether that be researching more about ways to integrate green infrastructure into our designs, installing your own rain garden (even in the fall! Check out page 3) or finding ways to cut back on salt use during the winter. We're doing our part, and we encourage you to continue your support as we work together to create a more resilient stormwater system.

I look forward to serving you in our community, it truly is an honor,

Jim Wolfe

Top 5 Ways You can Help Water Quality in Our Lakes

The path toward clean lakes is a shared journey where we all have a role to play. If everyone takes small actions at home, we can create a big impact for our lakes, and countless other environmental causes. Here are five great ways to help the lakes:

1. **Plant Native & Diverse Vegetation:** Deep-rooted native plants and trees help absorb water and hold topsoil in place during rain events.
2. **Create a rain garden:** Not only will rain gardens capture stormwater runoff and beautify your property, they also provide biodiversity that helps butterflies and bees survive.
3. **Redirect downspouts:** This simple action allows you to redirect rainwater to your lawn or garden, while also reducing the amount of stormwater that goes to streets and directly into the lakes via storm sewers.
4. **Install a rain barrel:** By capturing rainwater from your roof, rain barrels reduce the amount of stormwater runoff that reaches the lakes.
5. **Rake for leaf-free streets:** Raking leaves from the street edge (three feet from the curb) and onto lawns will help fertilize the grass and reduce cyanobacteria (blue-green algae) blooms in our lakes.



Next Watershed Studies: Near West, Wingra Proper, Door Creek

City Engineering is now working on its next watershed studies on the Near West, Wingra Proper and Door Creek watersheds. The Near West watershed study is a collaborative partnership between the City and the University of Wisconsin-Madison. The City of Madison Engineering Division launched the Watershed Study Program in January 2019 following the historic floods of 2018.

The City's watershed studies evaluate the existing stormwater system by determining the causes of flooding.

"Is it because the lake is too high and water can't get out? Is it because the pipes are too small and water can't get in? Is it because this area just happens to be low and it is hard for water to get out? That is what the computer models will tell us," Stormwater Engineer Caroline Burger said.



First, consultants use computer models to create maps that display flood risks. The maps will then be available to the public before two public information meetings. The first public information meeting will explain how the City plans to address the flood risks. The second meeting will show residents the results of the mapping.

The results of the studies are used to develop projects that reduce the risk of flooding. Potential projects include installing bigger pipes, pumps and constructing ponds.

"We put together the reports, we work with all of our internal agencies like Parks, Planning and Traffic Engineering to make sure that whatever solutions we develop, they are OK with and will work with their infrastructure programs," Burger said.

Watershed studies generally take 18 to 24 months to complete. The reports are expected to be finalized in late 2023. Check the City's Flooding website, which has project pages for each study. On each project page, there are updates, maps, links to final reports and opportunities for public comment. cityofmadison.com/WatershedStudies

'Set it and Forget it,' Plant Your Rain Garden this Fall

Rain gardens, gardens of native plants built in shallow depressions, are great at combating stormwater runoff by capturing and absorbing water into the ground. Although rain gardens can be planted all year round, planting them in the fall and winter has several benefits.

Planting a rain garden in September and early October requires less work. The sun and heat is not as intense, so plants do not need to be watered as often.

"If you want to set it and forget it, fall is a good time to get plants in the ground," Greenway Vegetation Coordinator Maddie Dumas said.

Although you can't put plants in the ground during the winter, this time of year is perfect for scattering native seed. Winter months help stimulate growth through the freeze thaw cycle.

"Seeds are getting moisture from snow and rain. The rain is pushing the seeds into the soil gently. All those things stimulate the plant so that when sunny conditions come back in the spring, the plant is ready to grow," Dumas said.

Check out City Engineering's rain garden website for native plant suggestions and stay tuned for an upcoming rain garden workshop in the spring for discounts and information on native plants.

Stay connected on cityofmadison.com/RBRainGardenProgram



Avoid Mulching Black Tar Leaves this Fall

Before you mulch and mow, double check your leaves for black tar spots this fall. The black tar spots are a fungus that can live through the winter if you mulch them into your grass. These leaves should be brought to a composting facility to avoid spreading fungus and spores in the spring.

Properly disposing of leaves has a significant impact on phosphorus contamination in our local waterways.

Studies by the City show that 50 percent of phosphorus runoff in stormwater comes from leaves. In fact, leaves do not have to directly enter our waterways to contribute to contamination. The combination of rain and the improper disposal of leaves near the road causes phosphorus to leak from leaves into stormwater, creating "leaf tea." This increase in phosphorus runoff contributes to toxic algae blooms.

One way to reduce phosphorus runoff from leaves is to turn your leaves into mulch! Mowing leaves where they are has benefits for your soil and is typically easier than raking them. City crews collect 16,000 tons of leaves annually. Mulching reduces gas from City trucks and crews' workloads.



Applications Open in December: Paint, Learn, Join the Storm Drain Mural Program

December 2023 is the next chance local organizations and schools can apply to join the City of Madison in Dane County's Storm Drain Mural Program.

Dane County and the Madison Area Municipal Stormwater Partnership leads the Storm Drain Mural Program to educate residents on stormwater runoff while adding art to the community. Madison is one of 15 municipalities that take part in the program.

The City of Madison manages over 500 miles of pipes and open channel systems that collect stormwater runoff. Despite this advanced network, pollutants that enter storm sewers still end up in local waterways.

"This is just a fun way to draw attention to a storm drain that reminds people that we only want water going down the storm drain, not anything else," City of Madison Engineering Division Stormwater Engineer Phil Gaebler said.

Since 2018, local artists have worked with schools to paint 43 storm murals across Dane County. These artists use either pre-selected or students' designs as inspiration for the local storm murals.

Three new murals have been painted in Madison this year. Randall Elementary students designed a mural with a fish and a swan. At Jefferson Middle School, students designed a mural with salamanders. Tenney-Lapham residents inspired artists to paint a raindrop with fish swimming inside it.

Storm drain murals are strategically designed to prevent drivers from being distracted by the artwork. The murals are not typically painted on busy streets.

"We put these on low volume streets and then try to find places with a lot of foot traffic so that people will have the opportunity to walk past these and the time to stop to look at them," Gaebler said.

Residents can use an interactive map to take a virtual tour of the storm drain murals or to plan visits to them.

The application opens in December 2023 on www.ripple-effects.com.

Listen and more on the City of Madison Engineering Division's Podcast: **Everyday Engineering**.



Test Your Salt Wise IQ

City Engineering is moving forward Wisconsin Salt Wise practices help protect our lakes, streams, and drinking water. Smart salting also means less damage to our homes, streets, and bridges. How Salt Wise are you?

Question 1: Are there any environmentally friendly deicers?

Answer 1: There are no truth-in-labeling laws for deicers. The only 100% environmentally friendly deicer is the one you don't apply.

Question 2: Does winter salt make our lakes green in the summer?

Answer 2: Elevated salt (chloride) concentrations reduce the populations of the zooplankton that eat algae. High salt use contributes to greener, murkier lakes.

Question 3: How does the application of brine before the storm help reduce total salt use?

Answer 3: Brine pre-treatments work like oil on your skillet, preventing the formation of a bond between the snow and pavement. Brining before the storm can cut back on the amount of salt up to 50 percent, in comparison to not brining at all pre-storm.

Question 4: When is the best time to shovel to reduce salt use?

Answer 4: Shovel early and often to prevent the formation of ice.

Question 5: How much salt actually pollutes water?

Answer 5: It only takes one teaspoon of salt to pollute 5 gallons of water.

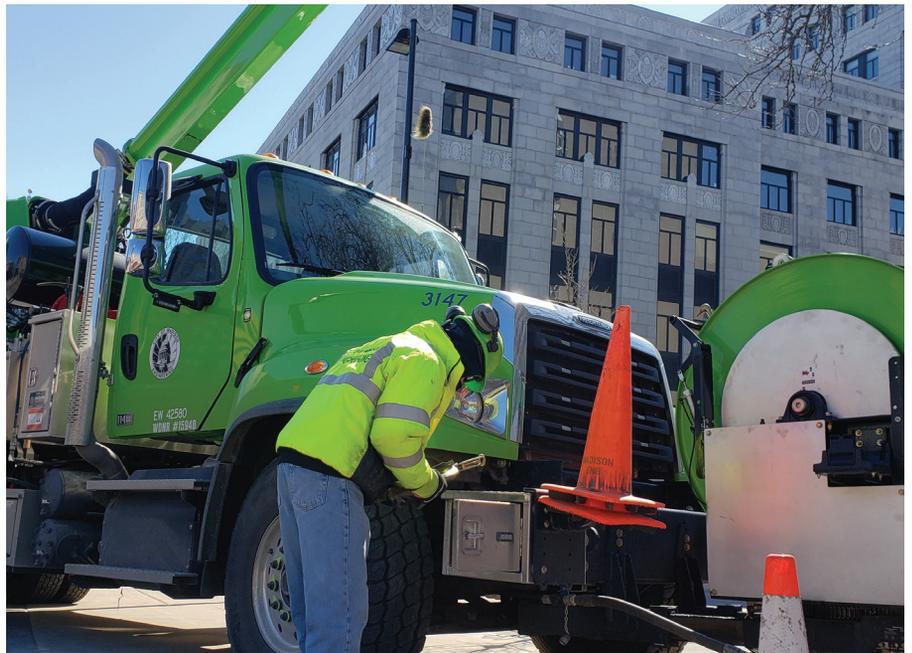
Learn more about the work of Salt Wise Champions in Madison and across the state at www.wisaltwise.com.



Hey, “Big Green Vector!”

Did you know? The City of Madison has one of the best preventative maintenance programs in the region with a dedication to maintaining and cleaning the City’s sanitary and storm sewer. The aggressive approach with the big green vectors helps the City of Madison decrease the number of sewer backups to single digits each year. Sewer backups are very expensive and a health hazard for the community. In addition to low backup numbers, another advantage to using the vectors is they do not use chemicals to clean, instead, they use high-pressure water pushed through a 1-inch flex hose with a specially-designed nozzle to propel through the underground sewer main during cleaning. After the nozzle makes its way through the sewer, it begins rolling back toward the vector while scouring the pipe and pulling any debris in the main back to the sewer hole the truck is working out of.

Learn more about the “Big Green Vector” program at www.cityofmadison.com/engineering/BigGreenVector



CITY OF MADISON ENGINEERING DIVISION
210 MARTIN LUTHER KING JR BLVD RM 115
MADISON WI 53703



CITY ENGINEERING CONTACTS

Main Office:
(608) 266-4751

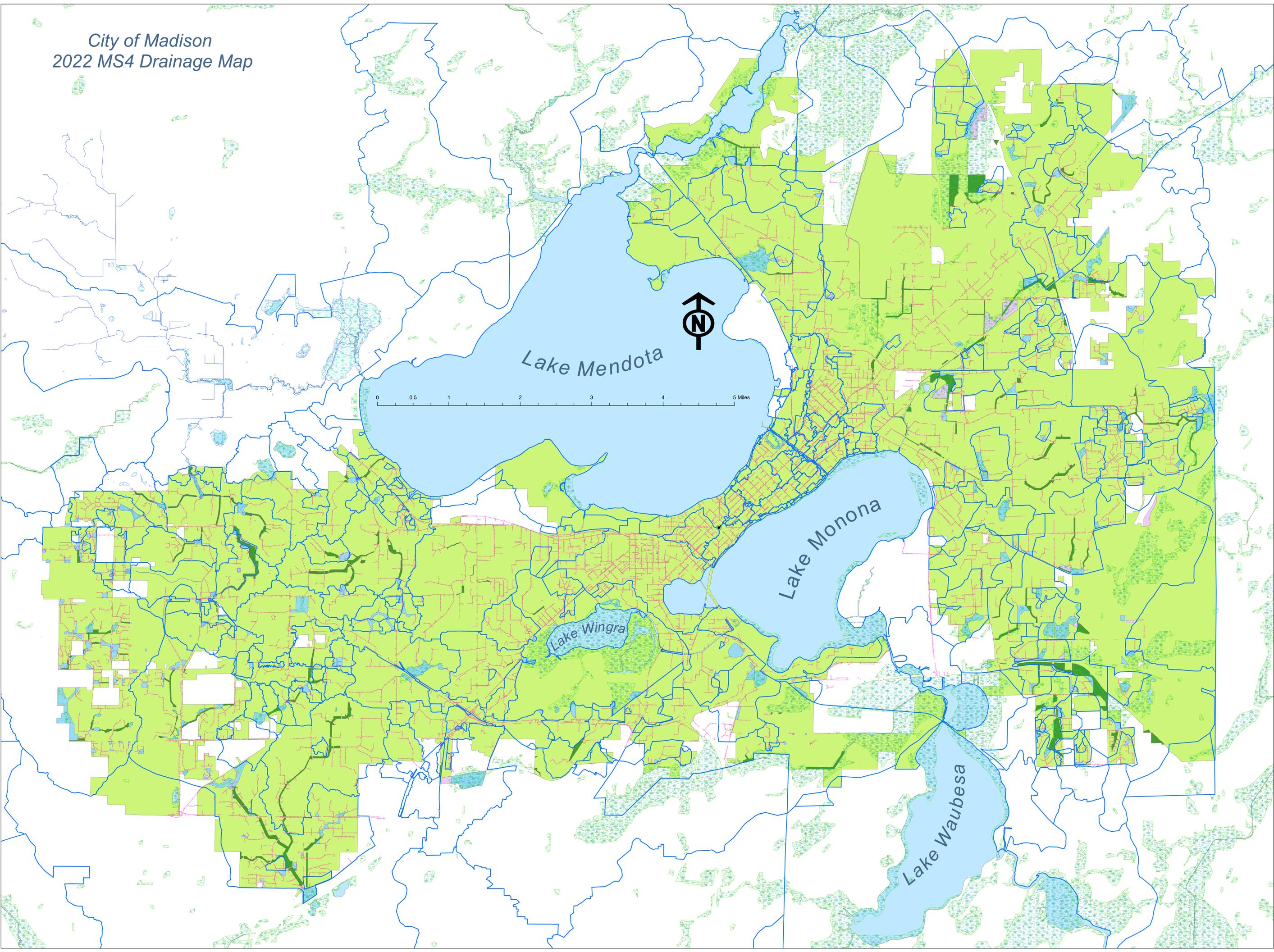
Erosion Control:
(608) 266-4751

Stormwater
Utility Billing:
(608) 266-4751

Sidewalk Concerns:
(608) 266-4537

Sewer Maintenance:
(608) 266-4430

City of Madison
2022 MS4 Drainage Map



Lake Mendota

Lake Monona

Lake Wingra

Lake Waubesa

0 0.5 1 2 3 4 5 Miles



Date	location	activity	staff	number of people reached
3/8/2022	Madison	Native Landscaping:a beautiful solution to pollution webinar	Emily Jorgenson	49
5/6/2022	Appleton	APWA- Pilot Study Presentation	Phil Gaebler	30
5/21/2022	Vilas park	Wingra watershed Gathering- Native plants and Adopt a median	Emily Jorgenson	70
5/21/2022	Vilas park	Wingra watershed Gathering- infiltration Demo and Rain Gardens	Phil Gaebler	70
6/9/2022	Green Bay	Fox Wolf Conference	Phil Gaebler	100
6/25/2022	Wingra School Madison	Watershed Walk	Phil Gaebler	12
7/24/2022	Madison	Beth El Temple - Rain fall runoff simulator	Phil Gaebler	20
9/15/2022	Madison	EC illicit Discharge	Phil Gaebler, Rick Wenta	20
9/21/2022	Sequoia Library	City Jeopardy- leaf management	Phil Gaebler , Bryan Johnson	6
10/7/2022	Appleton	ASCE - Dry Pond SOC Update	Phil Gaebler	25
10/7/2022	Appleton	ASCE - Native Vegetation Management	Maddie Dumas, Sarah Lerner	25

OBJECTID	BATHY_SURVEY_YEAR	POND_ASSET_ID	POND_NAME	Top_of_Water	Design_TopofWater	AREA_GREATER_3_5FT	Percentage of Storage	Depth_at least_3 ft
1	2022	PD 1558-011	SILICON PRAIRIE POND INFILTRATION	1060.6		17.46	2.42%	Yes
2	2022	PD 1558-012	SILICON PRAIRIE POND WET POND	1061.2		52282.86	9178.05%	Yes
3	2022	PD 1563-010	HAWKS WOODS POND	1042.55	1046.1	179.95	516.93%	Yes
4	2022	PD 2146-005	PLEASANT VIEW RETENTION POND	1092.03	1094	3918.58	2914.24%	Yes
5	2022	PD 2151-030	ATTIC ANGEL RETENTION WEST POND	1018.14	1015.01	3998.52	6297.77%	Yes
6	2022	PD 2151-031	ATTIC ANGEL RETENTION EAST POND	1018.14	1015.01	15049.98	9237.94%	Yes
7	2022	PD 2156-048	JUNCTION LOOP POND	1049.91		10506.00	6522.90%	Yes
8	2022	PD 2973-025	DORCHESTER EAST POND	996.15		15173.36	7020.36%	Yes
9	2022	PD 2973-024	DORCHESTER WEST POND	996.15		0.00	0.00%	No
10	2022	PD 2974-040	FIELDSTONE UPPER POND	992.06	992.1	6547.35	6789.27%	Yes
11	2022	PD 3046-006	GRASSMAN POND	883.17		3381.74	3313.72%	Yes
12	2022	PD 3046-028	OLD MIDDLETON NORTH POND	880.57		0.00	0.00%	No
13	2022	PD 3046-029	OLD MIDDLETON SOUTH POND	880.05		0.00	0.00%	No
14	2022	PD 3147-002	DAHLEN & DALE KETTLE PARK POND	904.94		0.00	0.00%	No
15	2022	PD 3354-027	GARNER RETENTION POND	971.57		2889.03	1196.87%	Yes
16	2022	PD 3462-001	NORTH ODANA HILLS PONDS	975.38		190029.60	3367.63%	Yes
19	2022	PD 3564-028	BELTLINE AT SW BIKE PATH POND	990.13		6623.35	7850.36%	Yes
20	2022	PD 4624-011	MEADOW RIDGE POND	857.97	862.1	4520.22	8094.68%	Yes
21	2022	PD 5219-011	WHEELER RD AT DELAWARE RETENTION POND	850.9	850	42270.42	8098.33%	Yes
22	2022	PD 5119-009	WHEELER RD AT ILENE LN RETENTION POND	851.51	851.5	11891.86	1747.82%	Yes
23	2022	PD 4769-015	POST-WATFORD RETENTION POND	854.11		3251.38	2234.43%	Yes
24	2022	PD 2170-040	UBMC-FLAGSTONE RETENTION POND	1011.64	1011.1	25004.31	7536.86%	Yes

STORMWATER ANNUAL REPORT INFORMATION

	2015	2016	2017	2018	2019	2020	2021	2022
Sweeping Debris (C.Y.)	40,610	24,725	26,645	37,390	46,772	47,619	45,334	54,861
Street Swept (Miles)	40,215	39,544	41,023	39,477	54,000	61,795	58,684	49,879
Sweeping Debris (Tons)	7,256	4,351	4,551	4,802	7,837	5,950	6,473	7,340
Street Sweeping Cost	\$2,010,051	\$2,058,087	\$1,996,559	\$1,985,724	\$2,238,301	2,380,901	2,342,803	2,453,912
Leaves (Tons)	15,581	15,774	16,361	15,966	17,524	14,186	15,943	23,825
Leaf Collection Cost	\$2,139,050	\$1,966,863	\$2,105,306	\$2,256,818	\$2,274,087	2,223,078	2,361,462	2,359,174
Yard Waste (Tons)	3,557	3,037	2,487	2,506	2,748	1,328	1,760	1,734
Yard Waste Cost	\$716,854	\$672,253	\$800,151	\$848,340	\$828,646	679,228	819,158	928,170
Salt Used: January	2,552	1,632	2,069	2,012	1,806	2,977	3,095	1,491
Salt Used: February	1,571	2,357	442	1,610	5,316	1,244	1,165	2,093
Salt Used: March	756	103	2,391	416	690	35	286	534
Salt Used: April	0	0	711	1,546	0	0	0	20
Salt Used: November	656	0	0	514	1,417	123	0	282
Salt Used: December	902	3,496	1,025	995	813	1,423	1,254	2,000
Total Salt Used (Tons)	6,437	7,586	6,638	7,093	10,042	5,802	5,800	6,418
Sand Used: January	4,193	3,090	1,431	1,992	3,105	3,276	2,782	3,784
Sand Used: February	2,326	1,946	2,126	2,974	4,611	2,120	3,430	1,884
Sand Used: March	379	0	1,480	407	791	0	0	88
Sand Used: November	365	0	39	284	1,228	0	30	128
Sand Used: December	560	2,055	1,912	995	739	1,965	1,031	2,853
Sand Used (Tons)	7,823	7,092	6,988	6,652	10,475	7,361	7,273	8,737
Brine Used: January							55,620	7,073
Brine Used: February							10,005	23,730
Brine Used: March							650	2,267
Brine Used: November							0	765
Brine Used: December							10,138	9,755
Brine Used (Gallons)	-	-	-	-	-	-	76,413	43,590
Snow Removal Cost	5,305,037	5,644,562	5,067,250	5,529,683	6,571,787	6,450,948	6,230,640	6,727,494
Waste Oil (Gallons)	18,970	20,660	22,860	23,117	19,220	25,151	20,985	21,480
Oil Filters (Tons)	8.35	3.22	4.69	3.44	1.75	1.44	2.94	2.88