



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
Fax: (608) 264-9275
engineering@cityofmadison.com

www.cityofmadison.com/engineering

Assistant City Engineer Michael R. Dailey, P.E.

Principal Engineer 2

Gregory T. Fries, P.E. Christopher J. Petykowski, P.E.

Principal Engineer 1
Christina M. Bachmann, P.E.

ristina M. Bachmann, P.E. Eric L. Dundee, P.E. John S. Fahrney, P.E.

Facilities & Sustainability Jeanne E. Hoffman, Manager

> Operations Manager Kathleen M. Cryan

Mapping Section Manager Eric T. Pederson, P.S.

> Financial Manager Steven B. Danner-Rivers

December 29, 2015

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: Badger-Emil Public Works Site

Dear Ms. Chase:

The City of Madison has developed a SWPPP for the Badger-Emil Public Works Site. Please review the following documents and advise us if there are additional items that we need to add to our corrective action list, and provide comment if our proposed actions are satisfactory to the EPA.

Sincerely,

Robert F. Phillips, P.E.

City Engineer

RFP:pdg

cc:

12/29/2015

Municipal Storm Water Pollution Prevention Plan

Badger-Emil Public Works Site

Municipal Storm Water Pollution Prevention Plan

Badger-Emil 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-permitees 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 Engineering, Fleet and Streets Divisions at the Badger-Emil Public Works Site.

Each agency shall maintain a copy of this SWPP on-site.

2. Pollution Prevention (P2) Team

Each agency shall create a Storm Water Pollution Prevention (P2) team. The P2 team shall be responsible for implementing, maintaining the SWPPP with respect to its agency's operations at the Badger-Emil 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.

Each agency 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 agency operations.

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

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

Agency 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 south side at 1600 Emil Street in Madison, Wisconsin. The 9.47 acre parcel has frontage on Emil Street and West Badger Road and is zone M-1 (Manufacturing).

This site is shared by the Engineering, Fleet and Streets Divisions.

The Streets Division Westside facility is located at 1501 West Badger Road and occupies 6.7 acres of the site. Streets facilities on this site include 4 buildings providing office space, vehicle and equipment storage, maintenance and washing facilities and salt storage. An employee parking lot is located in the northeast corner. Streets also uses the public works yard as a citizen drop off site for yard waste, brush, refuse, recyclables and hazardous waste.

Fleet Services operates a satellite vehicle maintenance and repair facility out of the Streets main building. It also operates a fueling station for City vehicles and equipment at this site.



Engineering facilities on the Badger-Emil site cover approximately 2.77 acres and include three buildings. These buildings provide office space, vehicle and equipment storage, maintenance and washing facilities and material storage bins. Engineering uses yard space on the site for uncovered storage of vehicles and equipment and materials. An employee parking lot is located in the southeast corner of the site.

3.1 Site Drainage

3.1.1 Outfalls

The Badger/Emil Public Works (BEPW) site is located in Outfall Basin WI07-D-0230-H-MAD-C in the Lake Wingra (W07) watershed. The BEPW site makes up 5% of the basin's 197.10 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 BEPW site discharges at two outfalls. Outfall No. 1 is located along the site's west property line and is identified as DT 4565-009 in the City's GIS records. Outfall No. 2 is located in a storm water easement north of the site and is identified as HD 4664-001 in the City's GIS records.

Runoff from Outfall No. 1 flows to the UW Arboretum Southeast marsh via a drainage ditch. Outfall No. 2 flows to Ar boretum Pond No. 4 then to the Southeast Marsh. After entering the Southeast marsh, runoff flows through Gardner Marsh before discharging into Wingra Creek and ultimately Lake Monona. The maps provided in Appendix 5 show outfall locations and drainage from the site to Lake Monona.

3.1.2 Site Drainage

The Badger/Emil Public Works yard storm water conveyance system consists of 2 drainage basins (A and B).

Basin A drains to Outfall No. 1. It is 3.03 acres in size with 87.02% of its surface being impervious. Basin A represents 31.02% of the total site drainage area and 31.86% of the impervious site drainage area. The area identified as A1 is the drainage area for the Engineering office building and employee visitor parking lot located west of the building. The 18,000 square foot, 2-story office building housing Engineering Construction Inspection, Mapping and Operations staff was constructed in 2006. The building features both intensive and extensive green roofs to help stop runoff pollution by evapotranspiration. Water not absorbed by the growth media is routed through the building's internal storm sewer pipes and discharged to a bioretention area on the west side of the building. In the event the bioretention area is not able to handle the volume of storm water coming from the roof and parking lot surfaces it would overtop and flow into an inlet and be transported with other parking lot run off to a BaySaver storm water quality device to filter trash, debris and sediment prior to storage in a 18,000 gallon below grade cistern for later re-use. Overflow from the cistern is routed via pipe and discharged at Outfall No. 1.

Area A2 is the drainage area for the portion of the Public Works yard north of the Engineering employee/parking lot and west of a break line between the SE corner of the Streets Main building and the NW corner of the Engineering Vehicle Storage Building. Storm water flows over the surface untreated to Outfall No. 1.

Basin B connects to the City's storm sewer system on W Badger Road and discharges at Outfall No. 2. Basin B is 6.74 acres representing 68.98% of the total site drainage area and 68.14% of the impervious site drainage area. Area B1 is a X square foot turfed area which captures runoff from a portion of the Badger Maintenance Building roof. Area B2 serves the Streets employee parking lot and a small area of the Public Works yard along the eastern edge of the site between the Streets Vehicle Storage Building (VSB) No. 2 and salt storage building. Runoff from the Public Works yard flows to an open-end pipe located at the SE corner of VSB No. 2. This pipe travels under VSB No. 2 and discharges at an outlet on the north side of the building from where runoff enters the employee parking lot drainage at storm inlet IN 4665-061 located on the eastern edge of the employee parking lot drainage system. The parking lot drainage system consists of 3 storm inlets and 157' of 12" RCP storm pipe. The parking lot drainage system connects to the public storm water system at AS 4665-015 and at a point 96' US from this structure in AS 4665-017/AS 4665-015 located on West Badger Road. A single inlet (IN 4665-062) also connected to AS 665-017/AS 4665-015 provides drainage for the Streets entrance drive. Area B3 serves the majority of the PW yard. Storm water in this sub-basin runs over the surface to a series of three catchbasins located in the center of eastern half of the site. Run-off entering these structures is transported via a 24 " RCP pipe to a Stormceptor treatment device (AS 4665-064) prior to discharge to the public storm water system at AS 4665-017, also on West Badger Road.

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 Badger Emil Public Works site is shared by the Engineering, Fleet and Streets Divisions. An overview of each agency's operations is provided in the following sections.

3.2.1 Streets Division

The primary responsibilities of the Streets Division are solid waste disposal and street maintenance. Solid waste disposal Streets provides year-round curbside collection of refuse and recyclables as well as seasonal collection of brush and leaves. Streets also operates citizen drop off sites for disposal of refuse, recyclables, hazardous waste, brush, yard waste and leaves. Street maintenance activities include street sweeping, street maintenance (pothole filling and chip sealing of unimproved streets), ROW mowing, stump grubbing and snow/ice control.

The Streets Division has four facilities city-wide to support its operations. The Westside facility is located at 1501 West Badger Road on the Badger Emil Public Works site. The main Streets facility at Badger-Emil is a 73,725 square foot pre-engineering steel building (B-S1) housing the Streets Division west side offices and vehicle storage, maintenance and washing facilities. An overflow vehicle storage building (B-S2) provides storage for Streets' seasonal equipment, street patching equipment and materials and a brine tank. Two additional buildings (B-S3 and B-S4) provide covered storage at the Badger-Emil site. A citizen drop off site for disposal of yard waste, brush, refuse, recyclables and hazardous waste is operated in the Badger-Emil public works yard.

3.2.2 Fleet Services

Fleet Services is responsible for the acquisition, maintenance and repair of the City of Madison's varied fleet including passenger vehicles, squad cars, fire engines, refuse and recycling trucks, snow plows, dump trucks, and other specialized equipment. Fleet has four (4) facilities city-wide to provide these services. This includes a satellite vehicle maintenance/repair shop located in the main Streets facility (B-S1) at Badger-Emil. This shop consists of 2 repair bays, a small office and storage.

Fleet is also responsible for operating fueling stations for the City fleet including. The fueling station at Badger-Emil includes 2 gas pumps and 4 diesel pumps. There are two 10,000 gallon underground storage tanks one for gas and another for diesel. A small building houses fluids (i.e. windshield washer, oil) and a restroom.

3.2.3 Engineering

The Engineering Division is responsible for the design, construction, operation and maintenance of City facilities, infrastructure (streets, bridges, sidewalks, paths, sanitary sewer and storm sewer and drainage systems) and various environmental facilities (closed landfills, public waste oil collection sites, etc). The Engineering main office is located in the City-County Building at 215 Martin Luther King, Jr. and houses administrative and design staff. The Larry D. Nelson Engineering Operations Facility (EOF) located at 1600 Emil Street houses the Engineering Division's Construction Inspection, Mapping and Operations sections. The EOF consists of 3 buildings – a 2-story office building (B-E1), vehicle storage building (B-E2) including maintenance and washing facilities and covered material storage bins (B-E3).

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

An on-site inspection revealed that the floor drains in B-S2 located at the east end of the building are connected to a storm sewer that runs under the building. The Streets Division has been advised that the open grates on these drains need to be replaced with the solid lids so that materials spilled or leaked onto the floor cannot enter the storm sewer system.

On May 16, 2013 the Streets Division Brine Xtreme machine went into an unscheduled recirculation of the beet juice bulk storage tank. The product was whipped into dense foam and overflowed from the top of the tank flooding the floor of B-S2 with several inches of foam. It was estimated 200 to 400 gallons was discharged to the public sanitary sewerage system through the building's floor drains at the west end of the building. No material from the spill entered the storm sewer system.

In April 2012 the Fleet satellite repair shop released 308.75 gallons of motor oil. This release occurred when a pipe broke, the shut off did not function and the system continued pumping oil. Clean up was done by an external remediation contractor. No material discharged to the public storm sewer system. To prevent against reoccurrence a three-way motor operated ball valve and timer was installed and connected to the City's Building Automation System. The valve only operates when the building is in occupied mode. When in unoccupied mode there is no air flow to system and the line behind the valve is purged of any pressure.

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 currently eight structural controls installed to treat stormwater at the Badger Emil site.

These included a green roof, bioretention, a screen structure, catchbasins, and four hydrodynamic separators. 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.

he 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 Disharge Detection and Elimination

The Engineering Division shall perform dry weather inspections of Outfalls No. 1 and 2 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 Quarterly Visual Monitoring

The Engineering Division shall perform and document quarterly visual inspections of storm water discharge quality at each storm water discharge outfall. Inspections shall be conducted within the first 30 minutes of discharge or as soon thereafter as practical, but not exceeding 60 minutes. The inspections shall include any observations of color, odor, turbidity, suspended solids, foam, oil sheen, or other obvious indicators of storm water pollution.

Information reported shall include the inspection date, inspection personnel, visual quality of the storm water discharge, and probable sources of any observed storm water contamination. Records of the inspections must be kept on file with the SWPPP.

5.2 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 01/01/201. The non-structural controls will be implemented by 07/01/2016. Structural controls were installed in March 2015.

7.0 Record Keeping and Reporting

The monthly inspections, quarterly water quality samples 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

12/29/15



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 fi-om

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:

Dated:

Lloyd E al Region Director

vv..l.'d- t)Qo

EFFECTIVE DATE: July I, 2009 EXPIRATION DATE: June 30,2014

TABLE OF CONTENTS

Section	Description	Page
A	Applicability	3
В	General Responsibilities for All Co-Permittees	7
c	Storm Water Management Program Requirements (I) Public Education and Outreach (2) Public Involvement and Participation (3) Illicit Discharge Detection and Elimination (4) Construction Site Pollution Control (5) Post-Construction Site Storm Water Management (6) Municipal Pollution Prevention	9 10 10 11 12 12
D	Storm Sewer System Map Requirements	14
E	Assessment of Controls	
F	Biennial Report	18
G	Schedule of Compliance	19
Н	Special Responsibilities for Cetiain Co-Permittees	20
I	Standard Conditions	27

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 fi:om the group's municipal separate storm sewer systems (MS4s) to waters of the state. Discharges fi:om these MS4s consist ofrunofffi:om rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fettilizer, and traces oftoxic materials.

This permit regulates storm water discharges in accordance with ch. 283, Wis. Slats. 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 intennunicipal 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 pmicipation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial repmting. 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.

 $\begin{tabular}{lll} \textbf{Note: Wisconsin Administrative Codes referenced in this permit are available online at: $$http://www.legis.state.wi.us/rsb/$ \end{tabular}$

A. APPLICABILITY

- (I) 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 mtificial, 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 copermittees 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 Depatiment of Natural Resources determines that the discharge of storm water from a copermittee'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 tlu-eaten 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 detennine whether any pmt of its MS4 discharges to an impaired water body listed in accordance with section 303(d)(l) of the federal Clean Water Act, 33 USC §1313(d)(l)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(l). Impaired waters are those that are not meeting applicable water quality standards. A list of Wisconsin impaired water bodies may be found on the Depmtment'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 Creel<, Darn Creel<, Tol<en Creek, Maunesha River, Starkweather Creek, Murphy (Wingra) Creel<, 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 Pari< beaches on Lake Mendota; Bernies, Brittingham, Esther Pari<, Olbrich and Olin Park beaches on Lake Monona; and Vilas Pari< Beach on Lake Wingra. The Depa1-tment'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 pmt 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 repmt 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 Depmtment 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-pennittee,s assessment of whether the TMDL wasteload allocation is being met shall focus on the adequacy of the copermittee'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 Depmtment and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:
 - 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 Depmiment to quantity 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 Depmiment has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Depmiment under section (13)(e).
- (14) WETLANDS: The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions inch. 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. Slats., 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 inventmy or on the list of locally designated historic places under s. 44.45, Wis. Slats., 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. Slats.
- (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 sanitaty sewer or a combined sewer system conveying both sanitmy and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Slats.
 - (b) Agricultural Facilities and Practices: Discharges fi-om "agricultural facilities" and "agricultural practices." uAgricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur fanning; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod fanning; 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: Stonn water discharges rrom 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 fi-om 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.

WPDES PennitNo. WI-S058416-3 Page 7 of 29

B. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

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

- (I) Minimize the discharge of pollutants from its MS4.
- (2) Implement the stormwater management program and other pet1inent 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 pm1ions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and f\'mn 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 ordinari.ces, 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 ofillicit 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 qum1erly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a qum1erly 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 repm1s, 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.
- (!!)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 linknown 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 fi∙om citizens and concerns raised by the Department of Natural Resources relating to pollution and stonn water issues within the co-permittee's jurisdiction.
- (!?)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. Slats.

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) Pat1icipate in the implementation of the *Madison Area Municipal Storm Water Partnership* (*MA!v!SWaP*) biformation and Education Plan 2009-2013 (JamtGI)' 2009) prepared on behalf of the co-permittees (herein known as the information and education plan). By December I 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.
 - 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 ofleaves 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.
 - 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 pellinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues patlicipation 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 fol-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 repmi 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 bie1mial report to the Depm1ment 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 Depm1ment 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 fi-om riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit issued by the Depm1ment 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; conective 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 Depmiment 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 Depatiment 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 ofthe 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. !fit will take more than 30 days to remove an illicit connection, the Depat1ment 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.
- (I) In the case of an illicit discharge that originates fi om 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 fi·om 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. Ill 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 ofss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (I) 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. Ill 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-pennittees 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 fi-om areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undettaken by the co-permittee and those of other landowners. The co-pennittee shall:
 - (a) Exercise legal authority to enforce the standards ofss. NR 151.!2 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 fi⋅om storm water runoff fi⋅om new development and redevelopment, and that ensure the implementation of the standards ofss. NR 151.!2 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.!2 and 151.24, Wis. Adm. Code, and the requirements of subch. Ill 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 inventmy oflong-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 mnnicipal 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.

WPDES Penni!No. Wl-S0584!6-3 **Page 13 of 29**

(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 copermittees 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

- (I) 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 Depm1ment 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 stmm 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:
 - I. A single pipe with an inside diameter<: 36 inches <u>and</u> associated with a drainage area 2: 50 acres; a **similar conveyance** (**box culveti**, **ditch**, **etc.**, **other than a round pipe**) **with a cross sectional area** 2: 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.
 - (h) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (e) 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.
 - (f) The location of publicly owned parks, recreational areas and other open lands.
 - (g) The location of municipal garages, storage areas and other public works facilities.
 - (h) Geographic features including streets, highways, railroads, airpm1s, 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, 20 II 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.

VPDES Permit No. \VI-S058416-3 Page 16 of 29

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 repmt 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 effmts 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 delively 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 copermittees will be expected to report on their respective public information and education efforts.

- (b) A description of public involvement and pmticipation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of effmts 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 Depmtment by March 31, 20 II 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 necessmy 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 Depa1-tment'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, 20 II, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (I) 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 repmt 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:

Action to be tal <en< th=""><th>Reference</th><th><u>Due date</u></th></en<>	Reference	<u>Due date</u>		
All Co-Permittees:				
Annual I&E Work Plan	Section C. (I)(b)	December I, 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		
City of Madison:				
Common Storm Sewer Map	Section D. (4)	March 31" of eve1y 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 qumterly 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 approximation 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 Depmtment 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 Depmtment 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 Emth 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 Emth 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 Emth 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 Depattment 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 Depattment 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, Maunesha 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 ofNatural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department ofNatural 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 imisdiction 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

WPDES PennitNo. WI-S058416-3 Page 22 of 29

- 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 BluffMS4 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.
- (IO)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 Depat1ment 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 Sixmile 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 pat1icipating 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 patlicipating in public information and education effm1s.
 - (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:

IVPDES Penni! No. W!-S058416-3 Page 23 of 29

(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 patticipating in public information and education effmts.
- (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.

{IS) 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 Eatth Creek watershed. The Town of Middleton shall ensure that post-construction site storm water management at new development facilitates infiltration within the Black Eatth 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 Depmtment 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 Westpmi shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by patiicipating in public information and education effmis.
- (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 effmis.
- (c) Within the jurisdiction of the Town of Westpmi, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westpmi 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 Westpmi shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts fi-om 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 Depatiment 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 Sixmile 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 patiicipating in public information and education effmis.
- (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 ofNatural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Depatiment 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 qum1erly 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 Eat1h 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 fi-om storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Depat1ment ofNatural Resources of new development in these watersheds early in the County's review process to accommodate the Depat1ment ofNatural 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 I, 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 ofthis 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(!) 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.(!) 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 Depatiment 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 Depatiment, 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 ifnecessaly 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 cmiail 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: St01-age 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 fi-equently than required by this permit, the results of that monitoring shall be reported to the Depmtment in the biem1ial report required under section **F.**
- (10) INSPECTION AND ENTRY: Each co-permittee shall allow authorized representatives of the Depmtment, 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 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 Depaltment, 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, repmt or application.
- (16) PERMIT ACTIONS: As provided ins. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in patt, 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 cellify that the information was gathered and prepared under his or her supervision and, based on inquhy 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 Depmiment that the receiving water or groundwater is attaining the water quality standard.

Appendix 2 - SWPPP (P2) Team Rosters

Engineering Division

SWPPP Coordinator

Kathy Cryan, Engineering Operations Manager

Contact Info: 608-266-4819 (O)

608-220-9093 (C) 608-832-6888 (H)

Team Members

Dan Badertscher, Building & Grounds Supervisor Jay Schlimgen, Sewer Maintenance & Rehab Supervisor Phil Gaebler, Water Resources Specialist

Fleet Division

SWPPP Coordinator

Bill Vandenbrook, Division Head

Contact Info: 608- 246-4546 (O) _____(C)

_____(C)

Team Members

Ron Janowski 608-246-4545 Rich Saric 608-246-4541 Gary Kramer 608-246-4542

Streets Division

SWPPP Coordinator

Chris Kelley

Contact Info: 608-266-4680 (O)

_____(C)

Team Members

1 .John Blotz Office - 246-4536 Cell 515-6894 2. John Marshall Office - 267-1174 Cell 209-3601 3. Donna Grossman Office - 267-1962 Cell 515-6893

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'spotential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates	Signature
1. July 1, 2018	
2. July 1, 2021	
3. July 1, 2024	
4. July 1, 2027	
5. July 1, 2030	
* CDCC also sussed ad sold south it is allow a Day	sistented Duefoosieral Faminaeu neu 10 CFD 112 2

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		

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

Facility Distance to Navigable Waters and Adjoining Shorelines

The Badger/Emil Public Works (BEPW) site is located in the Lake Wingra watershed Storm water runoff from the BEPW site discharges at two outfalls. Outfall No. 1 is located along the site's west property line and is identified as DT 4565-009 in the City's GIS records. Outfall No. 2 is located in a storm water easement north of the site and is identified as HD 4664-001 in the City's GIS records. Runoff from Outfall No. 1 flows to the UW Arboretum Southeast marsh via a drainage ditch. Outfall No. 2 flows to Arboretum Pond No. 4 then to the Southeast Marsh. After entering the Southeast marsh, runoff flows through Gardner Marsh before discharging into Wingra Creek and ultimately Lake Monona.

Facility Storage

Tank Volume (gallons) Contents Location

UST 10,000 Diesel Fueling Station

UST 10,000 Unleaded Gasoline Fueling Station

AST 550 Used Oil Motor Pool

Potential Spill Predictions, Volumes, Rates and Control

Aboveground Storage Tanks not associated with emergency generators

Source	Type of failure	Volume	Rate of Flow	Direction of Flow	Containment (Gal.)
		(gal)	(Gal./Hr.)		
				50 feet SW to Storm	
Waste				Inlet, then to	
Oil	Rupture/leak / overfill	550	550	detention basin	0

Spill Prevention Measures

Aboveground Storage Tanks and Secondary Containment:

- a. The waste oil tank in protected from vehicle collisions with steel barrier poles.
- b. The tank is filled from indoors.
- c. Aboveground storage tank is painted to inhibit the effects of corrosion.
- d. The aboveground storage tank is inspected at least monthly for signs of deterioration or leakage. Appendix 5 provides the fueling station monthly inspection report form for the Inspector to document these inspections.

e. Every ten years, or more frequently if necessary as indicated by monthly inspection results, the tanks will be drained, cleaned, inspected, repaired as needed and painted. Prior to placing the AST's back into service, the tanks will be pressure tested for integrity according to standard industry practice recommended by the manufacturer.

Fueling Station Transfer Operations:

- a. All tank piping and associated equipment are inspected during the monthly inspections and documented on the report form in Appendix 5.
- b. The City of Madison requires all motor carriers who transport fuel on to the campus to comply with the DOT regulations in 49 CFR 177. All fuel transfer operations must be attended at all times by a "qualified person".

Inspections and Record Keeping:

- a. Fueling Station inspections are conducted on a monthly basis. Inspections are documented and records are maintained at the Motor Pool for a minimum of three years.
- b. Drainage discharge, training, tank integrity testing and other related records are maintained at the City of Madison Fleet Services facilty for a minimum of three years.

Site Safety and Security:

- a. The Fueling Station is located within a gated fenced compound.
- b. Lights illuminate the entire Fueling Station area. The lighting is sufficient to detect spills during the night and to prevent vandalism.

Personnel Training:

- a. All BEPW Department personnel will be trained on the contents and use of the City of Madison BEPW SPCC Plan.
- b. BEPW employees will be trained in spill prevention procedures and in the use of spill cleanup equipment and materials. Refresher training will be provided annually or more frequently if needed.
- c. All City of Madison employees who utilize the Fueling Station will be provided information on the proper use of the fueling equipment and spill prevention procedures.
- d. Mr. William Vandenbrook is the designated person responsible for Spill Prevention regarding BEPW Fleet Services fueling operations.

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 Fleet Services 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 Forms

ENGINEERING STORMWATER MONTHLY INSPECTION REPORT

FACILITY NAME:		INS	PEC	CTION TIME:	DATE:
WEATHER INFORMATION:					
• Description of Weather Conditions (e.g., sunny, cloudy, raining, si	ow	ing, e	etc.):	:	
 Was stormwater (e.g., runoff from rain or snowmelt) flowing at our inspection: Yes No Comments: 	tfall	s and	d/or	discharge areas shown on t	the Site Map during the
inspection: Tes No Comments:					
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND					
SWPPP and Site Map : Have a copy of the SWPPP and site map with	Yes	No		ndings and Remedial Acti	
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				scribe any findings below a medial action completion in	
identify during the inspection.				d date completed or expect	
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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
	Voc	No	NI A	Findings and Remedial	Action
Vehicle/Equipment Areas:	1 68	110	INA	Documentation:	Action
Equipment cleaning: Check NA if not performed on-site. Skip section.					
Is equipment washed and/or cleaned only in designated areas?					
 Observe washing: Is all wash water captured and properly disposed of? 					
Equipment fueling: Check NA if not performed on-site. Skip section.					
 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?					
 If not, is there any water or other fluids accumulated within the containment area? 					
o 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.					
ansposed on					
		•	•	•	

Equipment maintenance:	Yes	No	NA	
 Are maintenance tools, equipment and materials stored under shelter, elevated and covered? 				Documentation:
 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)?				
Add any additional site-specific BMPs:				
-				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN				
Good Housekeeping BMPs:	Yes	No	NA	Findings and Remedial Action Documentation:
1. Are paved surfaces free of accumulated dust/sediment and debris?				Documentation.
Date of last quarterly vacuum/sweep				
• Are there areas of erosion or sediment/dust sources that discharge to storm drains?				
2. Are all waste receptacles located outdoors:				
In good condition?				
Not leaking contaminants?				
Closed when is not being accessed?				
• External surfaces and area free of excessive contaminant buildup?				
3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?				
External dock areas				
Pallet, bin, and drum storage areas				
Pallet, bin, and drum storage areasMaintenance shop(s)				
_				
Maintenance shop(s)				
 Maintenance shop(s) Equipment staging areas (loaders, tractors, trailers, forklifts, etc) 				
 Maintenance shop(s) Equipment staging areas (loaders, tractors, trailers, forklifts, etc) Around bag-house(s) Around bone yards 				
 Maintenance shop(s) Equipment staging areas (loaders, tractors, trailers, forklifts, etc) Around bag-house(s) 				
 Maintenance shop(s) Equipment staging areas (loaders, tractors, trailers, forklifts, etc) Around bag-house(s) Around bone yards 				

Spill Response and Equipment:	Yes	No	NA	S
Are spill kits available, in the following locations?				Documentation:
Fueling stations				
Transfer and mobile fueling units				
Vehicle and equipment maintenance areas				
Do the spill kits contain all the permit required items?				
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.				
Are contaminated absorbent materials properly disposed of?				

II. CORRECTIVE ACTION AND S and corrective actions if needed. Provide	SWPPP MC de brief expl	DIFICATIONS DI lanation of the gener	ESCRIPTIONS: all location and the	Additional space to des	scribe insponal or dif	ection findings ferent BMPs.
III. CERTIFICATION STATEMEN	TS AND S	IGNATURES:				
Inspector - Certification: This section to the person with signature authority (tting this form
☐ The facility is in compliance with the	he terms and	I conditions of the S	WPPP and the Indi	ustrial Stormwater Gene	eral Permi	t.
☐ The facility is out of compliance we report includes the remedial actions implementation of the remedial actions.	that must b					
"I certify that this report is true, accur	cate, and con	aplete, to the best of	my knowledge and	l belief."		
Inspector's Name – Printed	Inspector'	s Signature		Inspector's Title		Date
Permittee – Certification:			, , , , , , , , , , , , , , , , , , ,			
The facility is in compliance with the	he terms and	l conditions of the S	WPPP and the Indi	ustrial Stormwater Gene	eral Permi	t.
The facility is out of compliance we report includes the remedial actions implementation of the remedial actions.	that must b					
"I certify under penalty of law, that accordance with a system designed Based on my inquiry of the person of information, the information submit are significant penalties for submits	to assure the or persons w tted is, to the	at qualified personn who manage the syste e best of my knowled	el properly gather m, or those persor ge and belief, true	red and evaluated the ing ns directly responsible f e, accurate, and complet	formation for gatheri te. I am aw	submitted. ing vare that there
PRINTED NAME of person with Signatu Authority or a Duly Authorized Repres		SIGNATURE of pers Authorized Represe		Authority or a Duly	DAT	E
¹ A person is duly authorized representa and submitted to Engineering, and 2) to operation of the regulated <i>facility</i> , such individual or position having overall re	the authorizants as the posit	ation specifies either tion of plant manager	an individual or a r, superintendent, p	position having respons	sibility for	the overall

FLEET SERVICES STORMWATER MONTHLY INSPECTION REPORT

FACILITY NAME:		INS	PEC	CTION TIME:	DATE:
WEATHER INFORMATION:					
• Description of Weather Conditions (e.g., sunny, cloudy, raining, sn	owi	ing, e	etc.):	:	
 Was stormwater (e.g., runoff from rain or snowmelt) flowing at our inspection: Yes No Comments: 	tfall	s and	d/or o	discharge areas shown o	n the Site Map during the
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND) BF	ST	M A I	NAGEMENT PRACT	 ICES EVALUATION
			Fin Des	ndings and Remedial A scribe any findings below	ction Documentation: w and the schedule for including the date initiated
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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
Vehicle/Equipment Areas:	Yes	No	NA	Findings and Remedi Documentation:	ial Action
Equipment cleaning: Check NA if not performed on-site. Skip section.				Documentation.	
Is equipment washed and/or cleaned only in designated areas?					
 Observe washing: Is all wash water captured and properly disposed of? 					
Equipment fueling: Check NA if not performed on-site. Skip section.					
 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? 					
 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. 					

Equipment maintenance:	Yes	No	NA	Findings and Remedial Action Documentation:
 Are maintenance tools, equipment and materials stored under shelter, elevated and covered? 				Documentation:
 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)? 				
Add any additional site-specific BMPs:				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D BI	ST	MAI	NAGEMENT PRACTICES EVALUATION
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN				NAGEMENT PRACTICES EVALUATION Findings and Remedial Action
Good Housekeeping BMPs:				
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors:				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? 				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? Not leaking contaminants? 				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? Not leaking contaminants? Closed when is not being accessed? 				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? Not leaking contaminants? Closed when is not being accessed? External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, 				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? Not leaking contaminants? Closed when is not being accessed? External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? 				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: In good condition? Not leaking contaminants? Closed when is not being accessed? External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? External dock areas Pallet, bin, and drum storage areas 				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s)				Findings and Remedial Action
 Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? Date of last quarterly vacuum/sweep				Findings and Remedial Action

Spill Response and Equipment:	Yes	No	NA	
Are spill kits available, in the following locations?				Documentation:
Fueling stations				
Transfer and mobile fueling units				
Vehicle and equipment maintenance areas				
Do the spill kits contain all the permit required items?				
 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.				
Are contaminated absorbent materials properly disposed of?				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D B E	ST	IA M	NAGEMENT PRACTICES EVALUATION
General Material Storage Areas:	Yes	No	NA	
 Are damaged materials stored inside a building or another type of storm resistance shelter? 				Documentation:
 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?				

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."									
Inspector's Name – Printed	Inspector's Signa	ature	Inspector's Title	Date					
Permittee – Certification: The facility is in compliance with to the facility is out of compliance we report includes the remedial actions implementation of the remedial action implementation of the remedial action. "I certify under penalty of law, that accordance with a system designed Based on my inquiry of the person information, the information submit are significant penalties for submit."	with the terms and co is that must be taken cions. It this document and if to assure that qual or persons who man itted is, to the best of	onditions of the SWPPP and to meet the requirements of all attachments were prepared personnel properly going the system, or those poff my knowledge and belief,	d the Industrial Stormwater Ge of the SWPPP and permit, inclusive ared under my direction or supporthered and evaluated the inforversons directly responsible for true, accurate, and complete.	eneral Permit. This adding a schedule of opervision in submitted. I gathering I am aware that there					
PRINTED NAME of person with Signature Authority or a Duly Authorized Representative¹ SIGNATURE of person with Signature Authority or a Duly Authorized Representative¹ Authorized Representative¹									
¹ A person is duly authorized represent submitted to Engineering, and 2) the a operation of the regulated <i>facility</i> , such	uthorization specific	es 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.

STREETS STORMWATER MONTHLY INSPECTION REPORT

FACILITY NAME:		INS	PEC	CTION TIME: DATE:	
WEATHER INFORMATION:					
• Description of Weather Conditions (e.g., sunny, cloudy, raining, sr	owi	ing, e	etc.):):	
 Was stormwater (e.g., runoff from rain or snowmelt) flowing at ou inspection: Yes No Comments: 	tfall	s and	d/or	discharge areas shown on the Site Map during the	ie
inspection: Lifes Life Comments:					
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND					
SWIII and site map. Have a copy of the SWIII and site map with	Yes	No		Indings and Remedial Action Documentation: escribe any findings below and the schedule for	
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				medial action completion including the date initial	ited
identify during the inspection.				nd date completed or expected to be completed.	
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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
	1 7.00	Nia	NT A	Tindings and Damadial Astion	
Vehicle/Equipment Areas:	res	No	NA	A Findings and Remedial Action Documentation:	
Equipment cleaning: Check NA if not performed on-site. Skip section.					
Is equipment washed and/or cleaned only in designated areas?					
 Observe washing: Is all wash water captured and properly disposed of? 					
Equipment fueling: Check NA if not performed on-site. Skip section.					
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?					
 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.					
disposed off					
				•	

 Equipment maintenance: 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. 	Yes	No	NA	Findings and Remedial Action Documentation:
 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)? Add any additional site-specific BMPs: 				
	DRE	СТ	A A A I	NIA C E M E NIT DD A CTI C E C E V A I II A TI O NI
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN Good Housekeeping BMPs:				Findings and Remedial Action
Good Housekeeping BMPs:				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors:				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris,				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s)				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc)				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s)				Findings and Remedial Action

Spill Response and Equipment:	Yes	No	NA	
Are spill kits available, in the following locations?				Documentation:
Fueling stations				
Transfer and mobile fueling units				
Vehicle and equipment maintenance areas				
Do the spill kits contain all the permit required items?				
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.				
Are contaminated absorbent materials properly disposed of?				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D B I	ST	IA M	NAGEMENT PRACTICES EVALUATION
General Material Storage Areas:	Yes	No	NA	S
 Are damaged materials stored inside a building or another type of storm resistance shelter? 				Documentation:
 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?				

II. CORRECTIVE ACTION AND DESCRIPTIONS: Additional space to corrective actions if needed. Provide location and the rationale for the additional space to the additional space to the additional space.	o describe insp brief explana	pection findings and ation of the general			
III. CERTIFICATION STATEMEN	NTS AND SIG	CNATURES:			
III. CERTIFICATION GIATEMEN		MATURES.			
Inspector - Certification: This section	n must be com	upleted by the person who	conducte	ed the site inspection prior to	submitting this form
to the person with signature authority of					, successing this 101111
The facility is in compliance with t	he terms and c	conditions of the SWPPP	and the St	tormwater General Permit.	
The facility is out of compliance we report includes the remedial actions implementation of the remedial actions.	s that must be				
"I certify that this report is true, accur	rate, and comp	plete, to the best of my kn	owledge at	nd belief."	
Inspector's Name – Printed	Inspector's	Signature		Inspector's Title	Date
Permittee – Certification:					
The facility is in compliance with t	he terms and c	conditions of the SWPPP	and the In	idustrial Stormwater Genera	ıl Permit.
The facility is out of compliance w report includes the remedial actions implementation of the remedial actions.	s that must be				
"I certify under penalty of law, that accordance with a system designed Based on my inquiry of the person of information, the information submit are significant penalties for submit.	l to assure that or persons who tted is, to the l	t qualified personnel prop o manage the system, or best of my knowledge and	perly gathe those pers l belief, tri	ered and evaluated the infor ons directly responsible for ue, accurate, and complete.	rmation submitted. gathering I am aware that there
PRINTED NAME of person with Signatu Authority or a Duly Authorized Represe		SIGNATURE of person with Authorized Representative		e Authority or a Duly	DATE
¹ A person is duly authorized representa submitted to Engineering, and 2) the autoperation of the regulated <i>facility</i> , such	uthorization sp	pecifies either an individu	ial or a pos	sition having responsibility	for the overall

individual or position having overall responsibility for environmental matters.

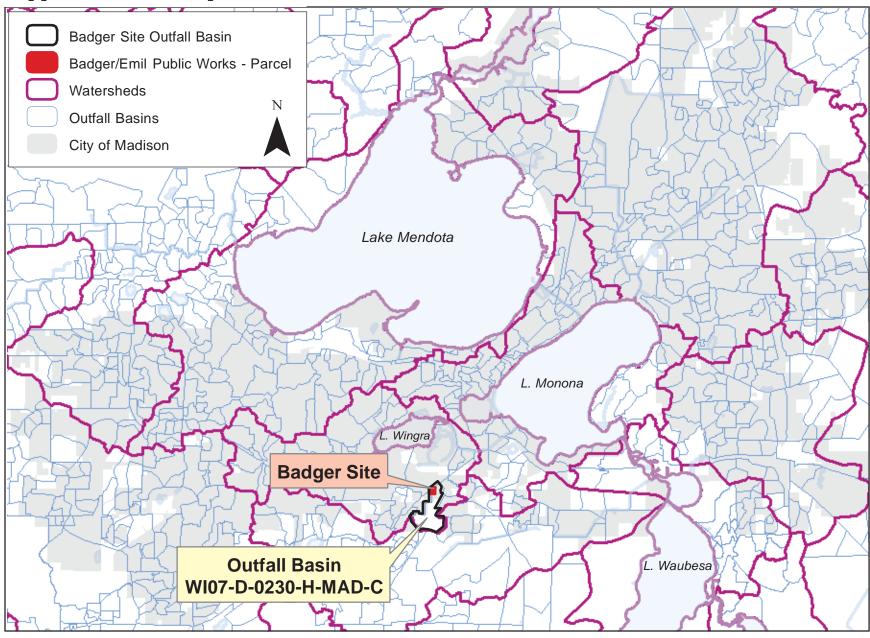
ENGINEERING STORMWATER BIANNUAL TREATMENT DEVICE INSPECTION REPORT

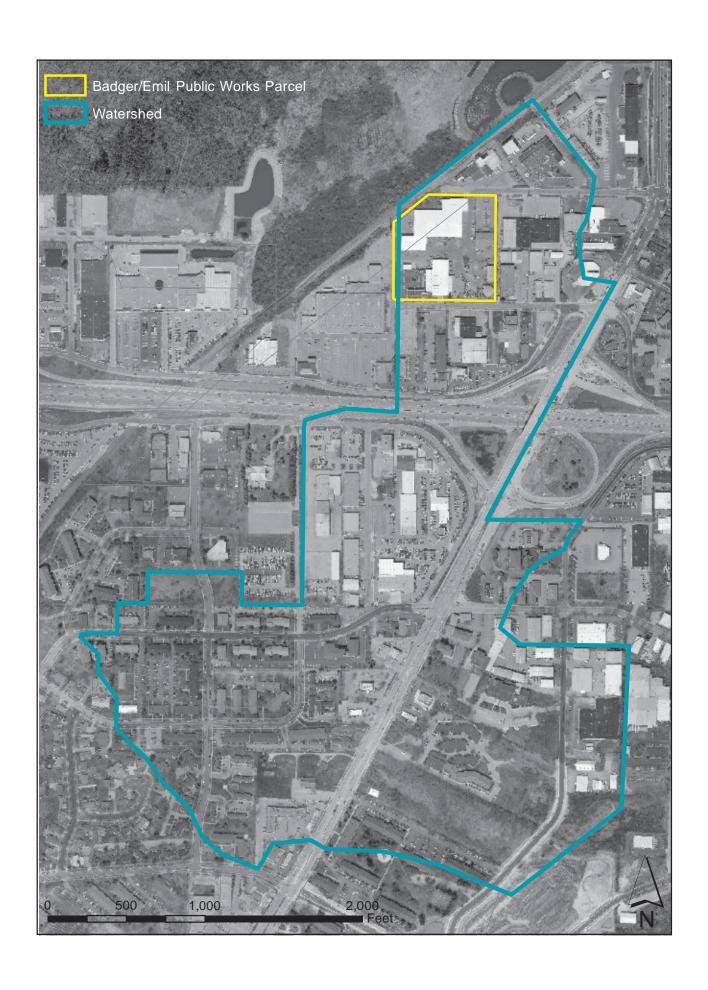
FACILITY NAME:		INS	PEC	CTION TIME:	DATE:
WEATHER INFORMATION:					
Description of Weather Conditions (e.g., sunny, cloudy, raining, sr	owi	ing, e	etc.):):	
 Was stormwater (e.g., runoff from rain or snowmelt) flowing at ou inspection: Yes No Comments: 	tfall	s and	d/or	discharge areas shown on	the Site Map during the
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND			_		
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.	Y es	NO	De ren	ndings and Remedial Act escribe any findings below medial action completion in d date completed or expect	and the schedule for ncluding the date initiated
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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
Stormwater BMPs and Treatment Structures: Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map.	Yes	No	NA	Findings and Remedia Documentation:	l Action
 Are BMPs and treatment structures in good repair and operational? 					
 Are BMPs and treatment structures free from debris buildup that may impair function? 					
• The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned?					
 Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition? 					

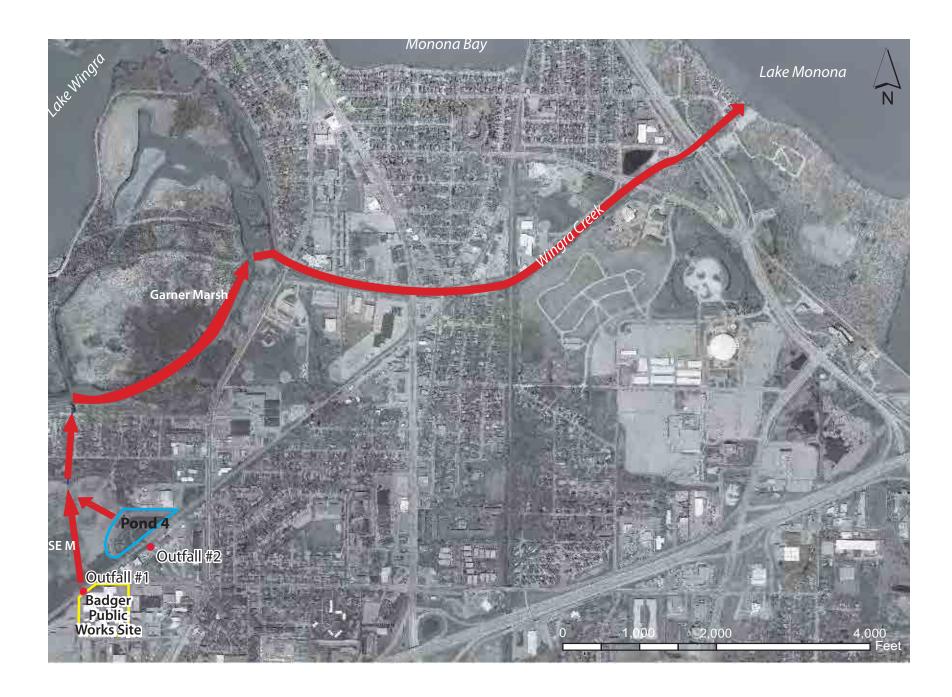
Observation of Stormwater Discharges:	Yes	No	NA	S		
 Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? 				Documentation:		
 Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? 						
 Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). Were any illicit discharges observed during the inspection? 						

II. CORRECTIVE ACTION AND S and corrective actions if needed. Provide						
III CEDTIEICATION CTATEMEN	ITC AND C	CNATUDEC.				
III. CERTIFICATION STATEMEN			1 1	41	1	
Inspector - Certification: This section to the person with signature authority (ing this form
☐ The facility is in compliance with t	he terms and	conditions of the SWPPP ar	nd the Ind	ustrial Stormwater Genera	al Permit	
The facility is out of compliance w report includes the remedial actions implementation of the remedial actions.	that must b					
"I certify that this report is true, accur	cate, and con	aplete, to the best of my know	ledge and	l belief."		
Inspector's Name – Printed	Inspector's	s Signature		Inspector's Title		Date
Permittee – Certification:						
☐ The facility is in compliance with t	he terms and	conditions of the SWPPP ar	nd the Indi	ustrial Stormwater Genera	al Permit	•
The facility is out of compliance we report includes the remedial actions implementation of the remedial actions.	s that must b					
"I certify under penalty of law, that accordance with a system designed Based on my inquiry of the person of information, the information submit are significant penalties for submits."	to assure the or persons we tted is, to the	at qualified personnel prope tho manage the system, or th to best of my knowledge and b	rly gather ose persor pelief, true	ed and evaluated the info ns directly responsible for , accurate, and complete.	rmation : gatherir I am aw	submitted. ng are that there
PRINTED NAME of person with Signatu Authority or a Duly Authorized Representation		SIGNATURE of person with S Authorized Representative ¹	Signature A	Authority or a Duly	DATE	<u> </u>
¹ A person is duly authorized representa and submitted to Engineering, and 2) operation of the regulated <i>facility</i> , such individual or position having overall re	the authorizants as the posit	tion specifies either an indivion of plant manager, superior	idual or a	position having responsib	oility for	the overall

Appendix 6: Site Maps









Appendix 7: SWPPP BADGER-EMIL PUBLIC WORKS SITE ACTIVITY & MATERIALS

ACTIVITY/MATERIAL	LOCATIO	ON MAP ID					POTENTIAL POLLUTANTS	STORM W	ATER RISK	CURRENT PRACTICE
	Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Other	Likelihood of Contact		
Brine Filling	-	M-S6	-	-	_	-	- Calcium Chloride	•	0	Brine tank is stored indoors; trucks fill outdoors
Gasoline and diesel fuel dispensing	=	B-F1	-	-	•	•	-	•	0	Vehicles fuel outdoors
Vehicle Repair and maintenance	B-S1 B-E2	-	0		•	•	Leaks and spills - fuel, benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol (antifreeze), lead acid	0	0	 Vehicle Repair and maintenance activities are predominantly performed indoors Floor drains in these facilities are connected to the sanitary sewer system Oil separators.
Vehicle Storage and Parking	B-S1 B-S2 B-E2	Site Wide	•	_	•	•	Leaks and spills - fuel, benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol (antifreeze), lead acid	•	0	Three on-site structure provide indoor vehicle and equipment storage and parking
Vehicle Washing	B-S1 B-E2	-	•	•	•	•	-	0	0	 Vehicle washing is performed indoors Washbays are connected to the sanitary sewer system Sediment from washing activities is collected in sump and periodically removed by vactor
Asphalt Emulsion	=	M-E6	=	_	=	•	_	0	0	5 gallon container is sealed and only amount required for work is stored on hot box
Batteries - lead acid and household	-	M-S5	_	-	•	_	cadmium, lead, zinc, manganese, nickel, silver, mercury, lithium, acids	0	0	Batteries are collected in a covered housing with a containment
Brush	=	M-S15	•	•	-	-		•	•	Stored in uncovered piles
Castings - new and salvaged.	-	M-E6	0	-	•	-	-	•	0	New castings are received on pallets and stored in yard until needed on job sites. Salvaged castings are stockpiled in yard and periodically transported to salvage yard for recycling
Clear stone	-	M-E2	•	_	_	-		•	•	Stockpiled on site; uncovered.
Electronics	=	M-S10	-	_	•	-	- =	•	•	Most material is outdoors.
Empty sand barrels	-	M-S8	0	_	_	_	-	•	0	Barrels are washed at end of season, prior to storage
Excavation Spoils	-	M-E3	•	_	-	_	_	•	•	 Temporariliy stored on impermeable surface until loaded in dump trucks using end loader and hauled to clean fill site for disposal; uncovered.
Large Items - Appliances, furniture, construction debris	=	M-S11 M-S12	_	-	•	-	heavy metals, CFCs, Freon, PCBs	•	0	Collected in bins
Pipe (new - PVC, concrete, HDPE)	-	M-E7	-	-	_	_		•	_	Stored in racks and on impermeable surface
Polystyrene	-	M-S2	-	-	_	-	-	•	-	Collected in lage bags inside an uncovered container
Recyclables	=	M-S1	-	_	_	-	=	•	-	Collected in trucks or bins
Refuse	-	M-S13	•	•	-	_	-	•	•	Collected in trucks or bins
Sand mixed w/5%salt	_	M-S14	•	-	=	=	O Sodium Chloride, Ferrocyanide	•	•	 May through October Stored indoors (B-S4) May through October November through April Stored outdoors (M-S14) Stored under cover (B-E3)
Sanitary & Storm Structures	-	M-E1	_	_	_	_		•	_	Stored outdoors; uncovered
Select fill	B-E3	_	•	† <u>-</u>	 	_		0	0	Stock piled and stored under cover in material bin
Top Soil	B-E3	-	•	_	-	-	-	0	0	Stock piled and stored under cover in material bin (May through October)
Used Cooking Oil	_	M-S9	-	0	-	-	-	•	•	Double walled outdoor storage tank outdoors
Waste Asphalt	-	M-E4	•	-	-	•	-	•	•	 Sorted and temporarily stored on impermeable surface until loaded in dump trucks using end loader and hauled to recycler.
Waste Concrete	_	M-E5	•	-	_	_	– Calcium Alkalinity pH	•	•	Sorted and temporarily stored on impermeable surface until loaded in dump trucks using end loader and

Appendix 7: SWPPP BADGER-EMIL PUBLIC WORKS SITE ACTIVITY & MATERIALS

ACTIVITY/MATERIAL	LOCATIO	POTENTIAL POLLUTANTS						STORM WATER RISK		CURRENT PRACTICE	
	Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	Other	Likelihood of Contact	_	
											hauled to recycler.
Yard Waste	=	M-S7	•	•	-	-	•	pesticides, phosphorous	•	•	In outdoor piles

KEY

High

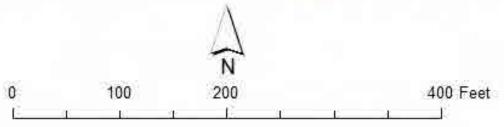
Medium

O Low

Not Applicable



Badger/Emil Public Works
Activity and Materials Inventory Map



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-permitees 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

Date

12/21/18

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 fi-om

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:

Dated:

Joyd E al Region Director

vv..l.'d- t)Qo 1

EFFECTIVE DATE: July I, 2009 EXPIRATION DATE: June 30,2014

TABLE OF CONTENTS

Section	Description	Page
A	Applicability	3
В	General Responsibilities for All Co-Permittees	7
c	Storm Water Management Program Requirements (I) Public Education and Outreach (2) Public Involvement and Participation (3) Illicit Discharge Detection and Elimination (4) Construction Site Pollution Control (5) Post-Construction Site Storm Water Management (6) Municipal Pollution Prevention	9 10 10 11 12 12
D	Storm Sewer System Map Requirements	14
E	Assessment of Controls	16
F	Biennial Report	18
G	Schedule of Compliance	19
Н	Special Responsibilities for Cetiain Co-Permittees	20
I	Standard Conditions	27

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 fi:om the group's municipal separate storm sewer systems (MS4s) to waters of the state. Discharges fi:om these MS4s consist ofrunofffi:om rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fettilizer, and traces oftoxic materials.

This permit regulates storm water discharges in accordance with ch. 283, Wis. Slats. 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 intennunicipal 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 pmicipation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial repmting. 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

- (I) 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 mtificial, 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 copermittees 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 Depatiment of Natural Resources determines that the discharge of storm water from a copermittee'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 tlu eaten 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 detennine whether any pmt of its MS4 discharges to an impaired water body listed in accordance with section 303(d)(l) of the federal Clean Water Act, 33 USC §1313(d)(l)(C), and the implementing regulation of the US Environmental Protection Agency, 40 CFR §130.7(c)(l). Impaired waters are those that are not meeting applicable water quality standards. A list of Wisconsin impaired water bodies may be found on the Depmtment'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 Creel<, Darn Creel<, Tol<en Creek, Maunesha River, Starkweather Creek, Murphy (Wingra) Creel<, 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 Pari< beaches on Lake Mendota; Bernies, Brittingham, Esther Pari<, Olbrich and Olin Park beaches on Lake Monona; and Vilas Pari< Beach on Lake Wingra. The Depa1·tment'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 pmt 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 repmt 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 Depmtment 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-pennittee,s assessment of whether the TMDL wasteload allocation is being met shall focus on the adequacy of the copermittee'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 Depmtment and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:
 - 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 Depmiment to quantity 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 Depmiment has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Depmiment under section (13)(e).
- (14) WETLANDS: The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions inch. 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. Slats., 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 inventmy or on the list of locally designated historic places under s. 44.45, Wis. Slats., 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. Slats.
- (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 sanitaty sewer or a combined sewer system conveying both sanitmy and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Slats.
 - (b) Agricultural Facilities and Practices: Discharges fi-om "agricultural facilities" and "agricultural practices." uAgricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur fanning; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod fanning; 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: Stonn water discharges rrom 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 fi-om 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.

WPDES PennitNo. WI-S058416-3 Page 7 of 29

B. GENERAL RESPONSIBILITIES FOR ALL CO-PERMITTEES

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

- (I) Minimize the discharge of pollutants from its MS4.
- (2) Implement the stormwater management program and other pet1inent 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 pm1ions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and f\'mn 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 ordinari.ces, 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 ofillicit 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 qumlerly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a qumlerly 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 repm1s, 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.
- (!!)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 linknown 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 fi-om citizens and concerns raised by the Department of Natural Resources relating to pollution and stonn water issues within the co-permittee's jurisdiction.
- (!?)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. Slats.

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) Pat1icipate in the implementation of the *Madison Area Municipal Storm Water Partnership* (MA!v!SWaP) biformation and Education Plan 2009-2013 (JamtGI)' 2009) prepared on behalf of the co-permittees (herein known as the information and education plan). By December I 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.
 - 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 ofleaves 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.
 - 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 pellinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues patlicipation 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 fol-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 repmi 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 bie1mial report to the Depm1ment 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 Depm1ment 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 fi-om riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit issued by the Depm1ment 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; conective 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 Depmiment 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 Depatiment 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. !fit will take more than 30 days to remove an illicit connection, the Depat1ment 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.
- (I) In the case of an illicit discharge that originates fi om 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 fi-om 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. Ill 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 ofss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (I) 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. Ill 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-pennittees 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 fi-om areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undettaken by the co-permittee and those of other landowners. The co-pennittee shall:
 - (a) Exercise legal authority to enforce the standards ofss. NR 151.!2 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 fi⋅om storm water runoff fi⋅om new development and redevelopment, and that ensure the implementation of the standards ofss. NR 151.!2 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.!2 and 151.24, Wis. Adm. Code, and the requirements of subch. Ill 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 inventmy oflong-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 mnnicipal 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.

WPDES Penni!No. Wl-S0584!6-3
Page 13 of 29

(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 copermittees 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

- (I) 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 Depm1ment 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 stmm 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:
 - I. A single pipe with an inside diameter<: 36 inches <u>and</u> associated with a drainage area 2: 50 acres; a <u>similar conveyance</u> (box culveti, ditch, etc., other than a round pipe) with a cross sectional area 2: 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.
 - (h) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (e) 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.
 - (f) The location of publicly owned parks, recreational areas and other open lands.
 - (g) The location of municipal garages, storage areas and other public works facilities.
 - (h) Geographic features including streets, highways, railroads, airpm1s, 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, 20 II 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.

VPDES Permit No. **VI-S058416-3**Page 16 of 29

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 repmt 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 effmts 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 delively 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 copermittees will be expected to report on their respective public information and education efforts.

- (b) A description of public involvement and pmticipation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of effmts 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 Depmtment by March 31, 20 II 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 necessmy 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 Depa1-tment'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, 20 II, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (I) 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 repmt 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:

Action to be tal <en< th=""><th>Reference</th><th><u>Due date</u></th></en<>	Reference	<u>Due date</u>
All Co-Permittees:		
Annual I&E Work Plan	Section C. (I)(b)	December I, 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
City of Madison:		
Common Storm Sewer Map	Section D. (4)	March 31" of evely 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 qumterly 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 approximation 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 Depmtment 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 Depmtment 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 Emth 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 Emth 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 Emth 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 Depattment 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 Depattment 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, Maunesha 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 ofNatural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department ofNatural 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 imisdiction 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

WPDES PcnnitNo. WI-S058416-3 Page 22 of 29

- 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 BluffMS4 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.
- (IO)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 Depat1ment 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 Sixmile 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 patlicipating 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 patlicipating in public information and education effm1s.
 - (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:

IVPDES Penni! No. W!-S058416-3
Page 23 of 29

(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 patticipating in public information and education effmts.
- (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.

{IS} 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 Eatth Creek watershed. The Town of Middleton shall ensure that post-construction site storm water management at new development facilitates infiltration within the Black Eatth 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 Depmtment 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 Westpmi shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by patiicipating in public information and education effmis.
- (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 effmis.
- (c) Within the jurisdiction of the Town of Westpmi, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westpmi 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 Westpmi shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts fi-om 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 Depatiment 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 Sixmile 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 patiicipating in public information and education effmis.
- (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 ofNatural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Depatiment 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 qum1erly 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 Eat1h 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 fi-om storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Depat1ment ofNatural Resources of new development in these watersheds early in the County's review process to accommodate the Depat1ment ofNatural 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-l.

- (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 I, 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 ofthis 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(!) 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.(!) 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 Depatiment 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 Depmiment 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 Depatiment, 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 ifnecessaly 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 cmiail 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: St01-age and/or treatment of material collected under Section 1. (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 fi-equently than required by this permit, the results of that monitoring shall be reported to the Depmtment in the biem1ial report required under section **F.**
- (10) INSPECTION AND ENTRY: Each co-permittee shall allow authorized representatives of the Depmtment, 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 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 Depaltment, 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, repmt or application.
- (16) PERMIT ACTIONS: As provided ins. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in patt, 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 cellify that the information was gathered and prepared under his or her supervision and, based on inquhy 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 Depmiment 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)

<u>608-843-2375</u> (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

R	e١	/i	ρ	w	P	a	σ	ρ
	٠,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·	44		u	۶.	·

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	
* CDCC -	

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		

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

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

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:		INS	PEC	CTION TIME:	DATE:
WEATHER INFORMATION:					
Description of Weather Conditions (e.g., sunny, cloudy, raining, su	now	ing, e	etc.):	:	
Was stormwater (e.g., runoff from rain or snowmelt) flowing at our inspection: Yes No Comments:	ıtfall	s and	d/or	discharge areas shown o	on the Site Map during the
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND	D BI	EST	MA	NAGEMENT PRACT	ICES 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.	_		Fir De	ndings and Remedial A escribe any findings belo	ction Documentation: w and the schedule for including the date initiated
 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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
Vehicle/Equipment Areas:	Yes	No	NA	Findings and Remed Documentation:	ial Action
Equipment cleaning: Check NA if not performed on-site. Skip section.				Documentation:	
Is equipment washed and/or cleaned only in designated areas?					
 Observe washing: Is all wash water captured and properly disposed of? 					
Equipment fueling: Check NA if not performed on-site. Skip section.					
 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?					
 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. 					

Equipment maintenance:	Yes	No	NA	
 Are maintenance tools, equipment and materials stored under shelter, elevated and covered? 				Documentation:
 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)?				
Add any additional site-specific BMPs:				

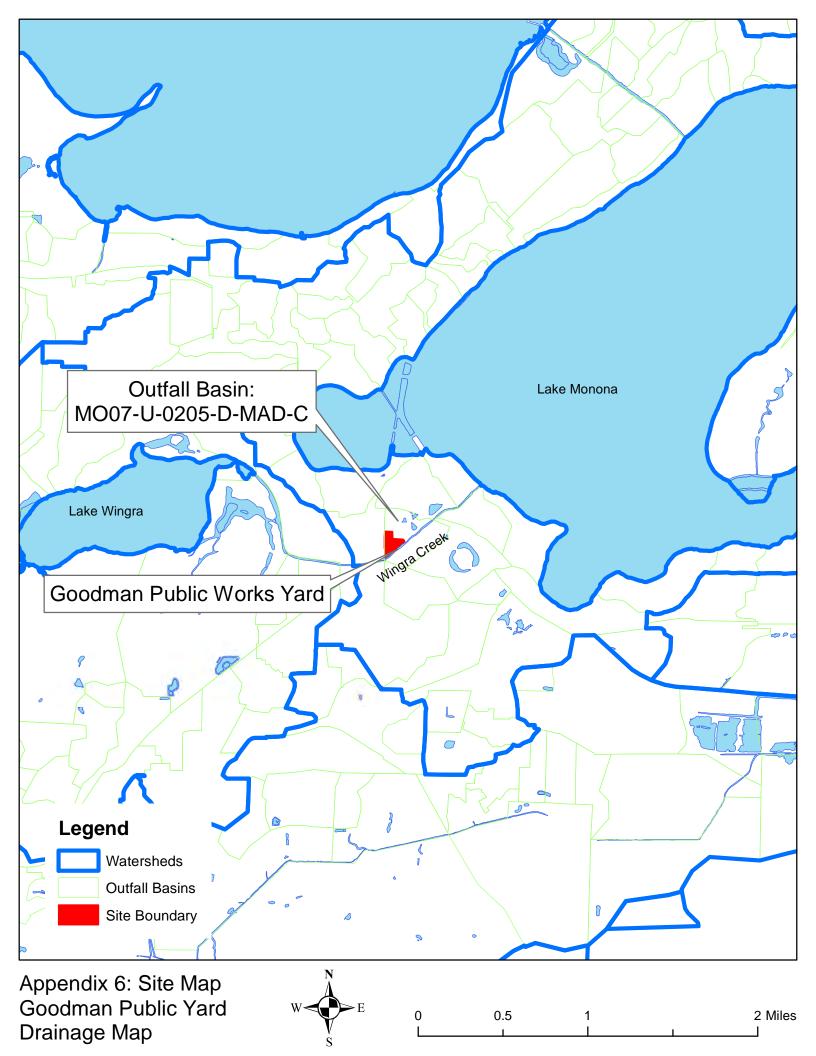
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D BI	EST	MA	NAGEMENT PRACTICES EVALUATION
Good Housekeeping BMPs:	Yes	No	NA	
1. Are paved surfaces free of accumulated dust/sediment and debris?				Documentation:
Date of last quarterly vacuum/sweep				
• Are there areas of erosion or sediment/dust sources that discharge to storm drains?				
2. Are all waste receptacles located outdoors:				
• In good condition?				
Not leaking contaminants?				
 Closed when is not being accessed? 				
• External surfaces and area free of excessive contaminant buildup?				
3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?				
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: 				
·				

Spill Response and Equipment:	Yes	No	NA	S
Are spill kits available, in the following locations?				Documentation:
Fueling stations				
Transfer and mobile fueling units				
Vehicle and equipment maintenance areas				
Do the spill kits contain all the permit required items?				
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.				
Are contaminated absorbent materials properly disposed of?				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D BI	EST	MA	NAGEMENT PRACTICES EVALUATION
General Material Storage Areas:	Yes	No	NA	
 Are damaged materials stored inside a building or another type of storm resistance shelter? 				Documentation:
 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?				

II. CORRECTIVE ACTION AND DESCRIPTIONS: Additional space to corrective actions if needed. Provide location and the rationale for the additional space to the additional space to the additional space.	to describe inspection findings and brief explanation of the general							
III. CERTIFICATION STATEMEN	VTS AND SIGNATURES:							
Inspector - Certification: This section to the person with signature authority of			I the site inspection prior to	submitting this form				
☐ The facility is in compliance with t	he terms and conditions of the SWI	PPP and the Sto	ormwater General Permit.					
The facility is out of compliance w report includes the remedial actions implementation of the remedial act	s that must be taken to meet the requ							
"I certify that this report is true, accur	rate, and complete, to the best of my	knowledge an	d belief."					
Inspector's Name – Printed	Inspector's Signature		Inspector's Title	Date				
Permittee – Certification:								
☐ The facility is in compliance with t	he terms and conditions of the SWI	PPP and the Inc	dustrial Stormwater Genera	ıl Permit.				
☐ 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 Signatu Authority or a Duly Authorized Represe			Authority or a Duly	DATE				
¹ A person is duly authorized represent submitted to Engineering, and 2) the a operation of the regulated <i>facility</i> , such	uthorization specifies either an indi- n as the position of plant manager, s	vidual or a pos uperintendent,	ition having responsibility	for the overall				
individual or position having overall re	esponsibility for environmental mat	ters.						

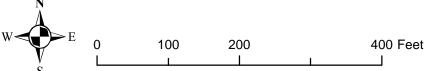
Page 4

Appendix 6 - Drainage Maps





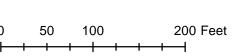
Goodman Public Yard Drainage Map



Appendix 7 - Potential Pollutants



Goodman Public Works Madison, WI



ACTIVITY/MATERIAL	LOCATI	ION MAP ID				POTE	NTIAL PC	DLLUTANTS	STORM WAT	ER RISK	CURRENT PRACTICE
	Indoors	Outdoors	Sediment	Nutrients	Metals	Hydrocarbons	Toxins	other	Likelihood of Contact	Risk of release	
Rubber Mulch		M-1	0	_	-	0	-		•	0	Stored in plastic totes outside uncovered
Vehicle storage and parking	B1-1 B1-2	M-2 M-3 M-4 M-17	•	_	•	•	0	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	•	0	 Outside vehicle storage drains to stormsewer and overland flow to drainage way (M-8) Indoor trench drains connected to santitary sewer.
Fence Post Storage		M-5	-	-	•	-	-		•	•	Material stored in uncovered outside
Oil Dispensing Station	B1-3 B3-1		-	-	-	•	•	household cleaners	0	•	 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		0	-	•	•	•	Leaks and spills - Fuel benzene, oil, hydraulic oil, transmission fluids, brake fluids, ethylene glycol, lead acid	0	0	 Vehicles repaired and maintained indoors Floor drains in theses facilities are connected to the sanitrary sewer system
Used batteries	B2-2		-	_	•		•	Lead, acid	0	0	 Stored inside in a container, leaks would be collected in floor drains and sent to sanitary sewer
Waste oil		M-15	-	_	-	•	•	ethylene glycol	0	•	outside storage tank without containment. May be double walled.
Machine Shop	B2-3		•	-	•	•	•	Sovlents, Spray Paint	0	0	All activities done indoors and builiding has floor drains connected to sanitary sewer
Fuel Storage Enclosure Garbage Cans		M-16 M-7	-	-	-	_	-		<u> </u>	0	 Stored outdoors Used 55 gallon drums are painted and store outside until needed in City Parks

ACTIVITY/MATERIAL	LOCATIO	ON MAP ID				POTE	NTIAL PO	LLUTANTS	STORM WATI	R RISK	CURRENT PRACTICE
	Indoors	Outdoors	nt	ıts	slx	su	ins	other	Likelihood of	Risk of	
			Sediment	Nutrients	Metals	Hydrocarbons	Toxins		Contact	release	
Soil Pile		M-11	•	•	-	-	-		•	$\overline{\bullet}$	 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		•	<u> </u>	<u></u>	-	-		0	0	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
\bigcirc	Medium
\bigcirc	Low
_	Not Applicable



Parks Goodman Yard M-1: Rubber Mulch Storage



Parks Goodman Yard M-2: Trailer Storage



M-3: Storage



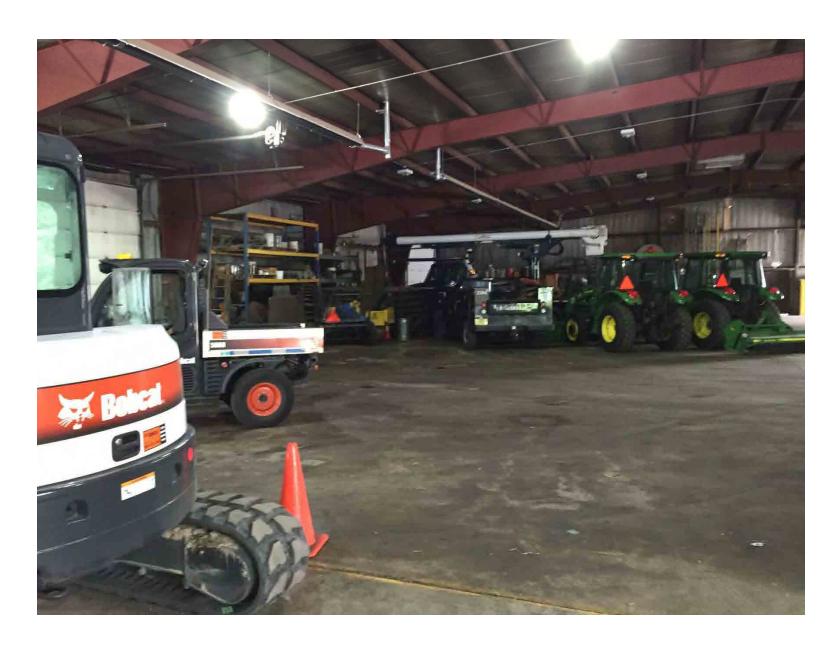
M-4: Vehicle and Rubber Mulch Storage



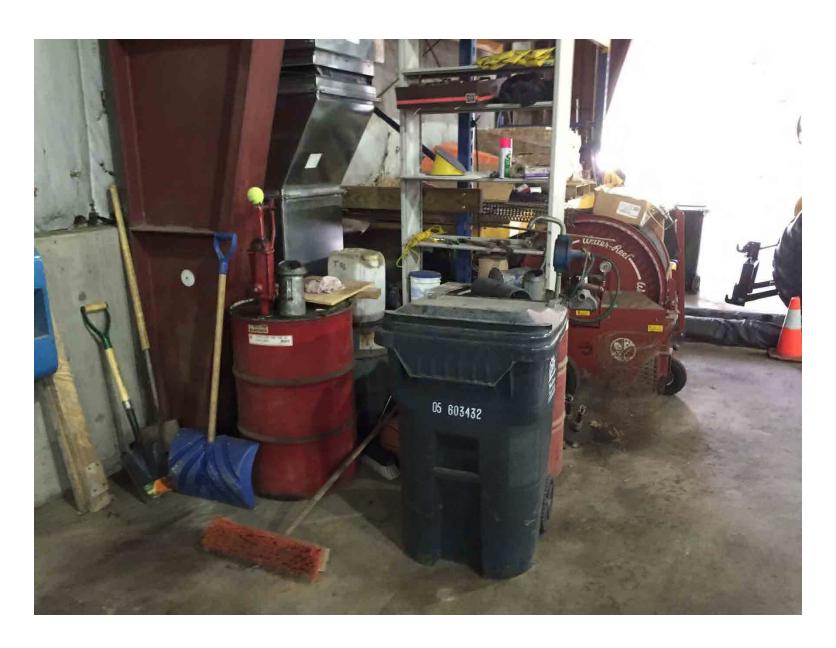
Parks Goodman Yard M-5 : Fence Post Storage



Parks Goodman Yard B1-1 : Vehicle Storage



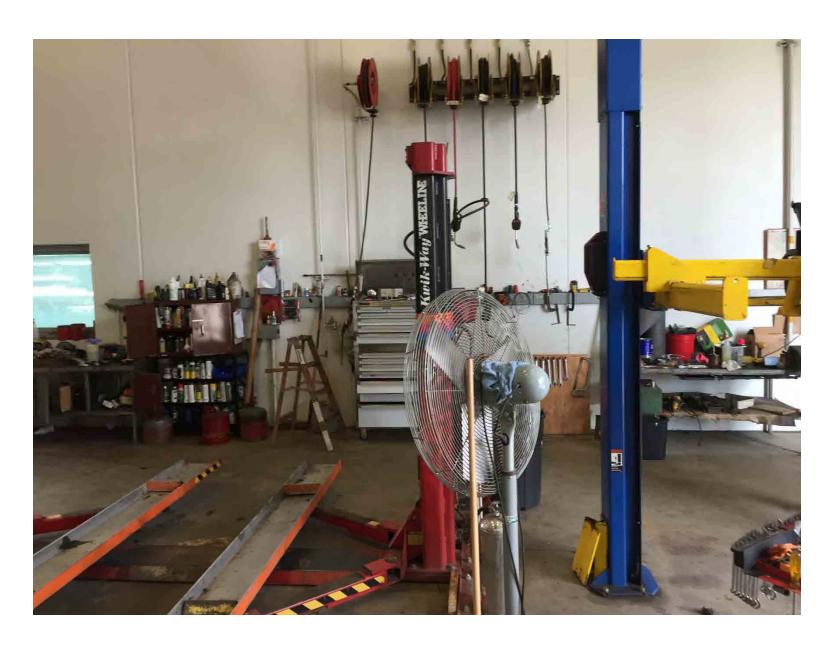
Parks Goodman Yard B1-2 : Vehicle Storage



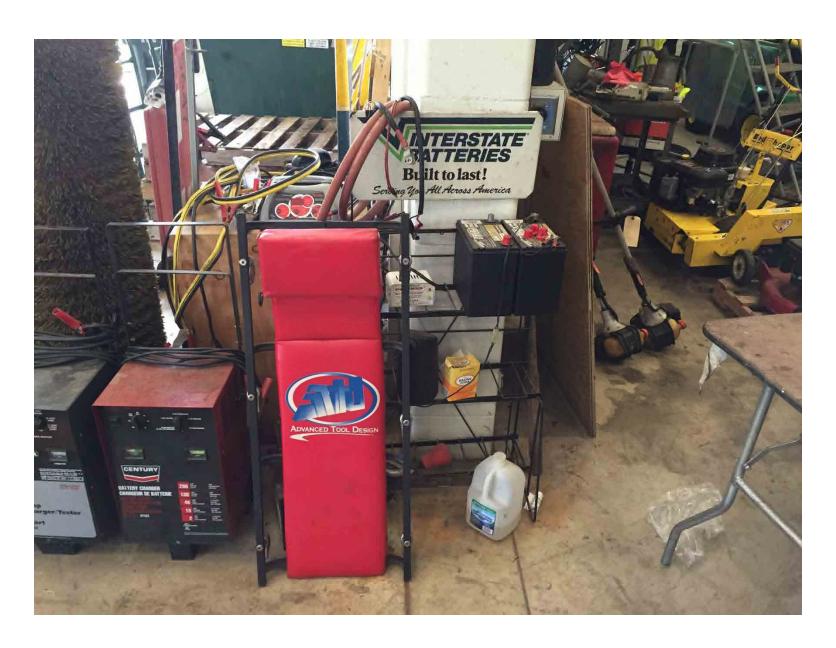
Parks Goodman Yard B1-3: Oil Storage and Spill kit



Parks Goodman Yard B1-4: Floor Drain



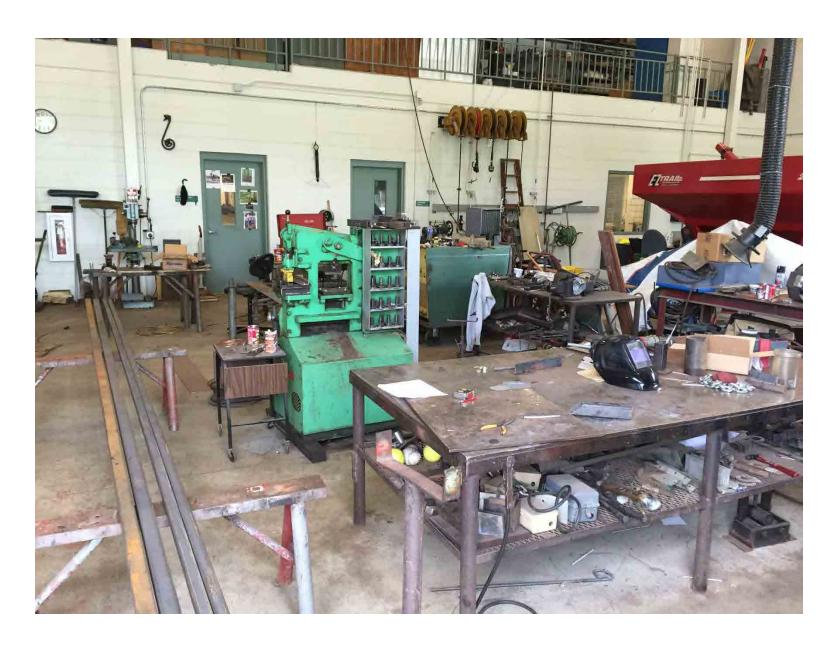
B2-1: Vehicle Maintenance



B2-2: Battery Charging and Storage



M-15 : Outdoor Waste Oil Storage



Parks Goodman Yard B2-3: Metalworking Shop



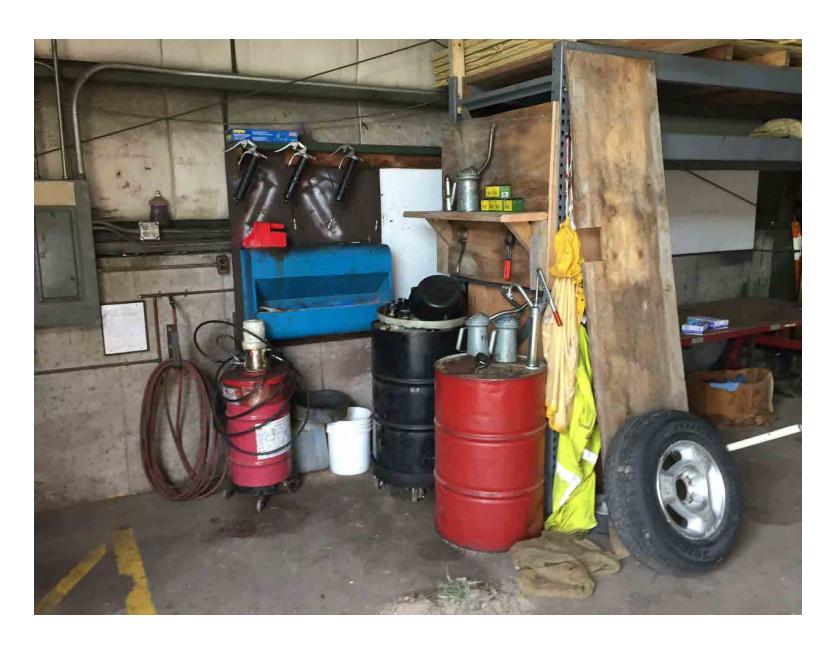
Parks Goodman Yard B2-43: Vehicle Maintenance, Metalworking Shop Trench Drain



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



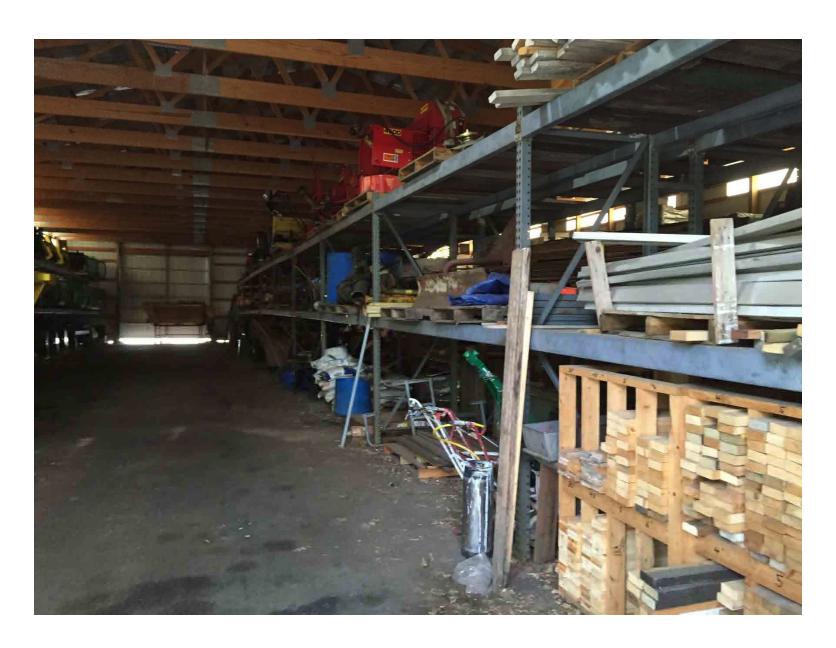
Parks Goodman Yard M-7: Garbage Can Storage



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-permitees 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.



3.6 acre South Point Road Facility

Figure 1

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 $\frac{1}{2}$ 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 inth 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 Disharge 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 monthly 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 prepare a system designed to assure that qualified personnel proper the plan. Based on my inquiry of the person, or persons, where the plan is gathering the information; the information knowledge and belief, true, accurate and complete. Based and to the best of my knowledge and belief, the provisions water permit for the development and implementation of plan will be complied with.	erly gather and evaluate the information contained in ho manage the system, or those persons directly contained in this document is, to the best of my upon inquiry of persons directly under my supervisions of this document adhere to the provisions of the sto	on, orm
Greg Fries, P.E. Principal Engineer		

Apendix 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 fi-om

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:

Dated:

Joyd E al Region Director

vv..l.'d- t)Qo

EFFECTIVE DATE: July I, 2009 EXPIRATION DATE: June 30,2014

TABLE OF CONTENTS

Section	Description	Page
A	Applicability	3
В	General Responsibilities for All Co-Permittees	7
c	Storm Water Management Program Requirements (I) Public Education and Outreach (2) Public Involvement and Participation (3) Illicit Discharge Detection and Elimination (4) Construction Site Pollution Control (5) Post-Construction Site Storm Water Management (6) Municipal Pollution Prevention	9 10 10 11 12 12
D	Storm Sewer System Map Requirements	14
E	Assessment of Controls	16
F	Biennial Report	18
G	Schedule of Compliance	19
Н	Special Responsibilities for Cetiain Co-Permittees	20
I	Standard Conditions	27

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 fi:om the group's municipal separate storm sewer systems (MS4s) to waters of the state. Discharges fi:om these MS4s consist ofrunofffi:om rain, and snow and ice melt. Pollutants of concern in storm sewer system discharges include organic materials, suspended solids, metals, nutrients, bacteria, pesticides, fettilizer, and traces oftoxic materials.

This permit regulates storm water discharges in accordance with ch. 283, Wis. Slats. 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 intennunicipal 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 pmicipation, illicit discharge detection and elimination, construction site pollution control, post-construction site storm water management, pollution prevention, monitoring, and biennial repmting. 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.

 $\begin{tabular}{lll} \textbf{Note: Wisconsin Administrative Codes referenced in this permit are available online at: $$http://www.legis.state.wi.us/rsb/$ \end{tabular}$

A. APPLICABILITY

- (I) 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 mtificial, 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 copermittees 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 Depatiment of Natural Resources determines that the discharge of storm water from a copermittee'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 tlu eaten 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 detennine whether any pmt 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 Depmtment'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 Creel<, Darn Creel<, Tol<en Creek, Maunesha River, Starkweather Creek, Murphy (Wingra) Creel<, 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 Pari< beaches on Lake Mendota; Bernies, Brittingham, Esther Pari<, Olbrich and Olin Park beaches on Lake Monona; and Vilas Pari< Beach on Lake Wingra. The Depa1-tment'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 pmt 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 repmt 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 Depmtment 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-pennittee,s assessment of whether the TMDL wasteload allocation is being met shall focus on the adequacy of the copermittee'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 Depmtment and the US Environmental Protection Agency. This proposed storm water management plan shall include the following:
 - 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 Depmiment to quantity 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 Depmiment has reviewed and provided a written response to the co-permittee on its storm water management plan submitted to the Depmiment under section (13)(e).
- (14) WETLANDS: The co-permittee's MS4 discharge shall comply with the wetland water quality standards provisions inch. 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. Slats., 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 inventmy or on the list of locally designated historic places under s. 44.45, Wis. Slats., 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. Slats.
- (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 sanitaty sewer or a combined sewer system conveying both sanitmy and storm water. These discharges are regulated under a separate WPDES permit issued pursuant to s. 283.31, Wis. Slats.
 - (b) Agricultural Facilities and Practices: Discharges fi-om "agricultural facilities" and "agricultural practices." uAgricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur fanning; grazing; livestock raising; orchards; poultry raising; growing of grain, grass, mint and seed crops; growing of fruits, nuts and berries; sod fanning; 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: Stonn water discharges rrom 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 fi-om 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.

WPDES PennitNo. WI-S058416-3 Page 7 of 29

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 pet1inent 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 pm1ions of the municipality that discharge to an MS4.
- (7) Exercise and enforce its legal authority to control discharges to and f\'mn 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 ordinari.ces, 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 ofillicit 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 qum1erly meetings shall take place the first Tuesday of February, May, August, and November of each year. If appropriate, a qum1erly 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 repm1s, 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.
- (!!)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 linknown 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 fi-om citizens and concerns raised by the Department of Natural Resources relating to pollution and stonn water issues within the co-permittee's jurisdiction.
- (!?)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. Slats.

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) Pat1icipate in the implementation of the *Madison Area Municipal Storm Water Partnership* (MA!v!SWaP) biformation and Education Plan 2009-2013 (JamtGI)' 2009) prepared on behalf of the co-permittees (herein known as the information and education plan). By December I 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.
 - 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 ofleaves 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.
 - 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 pellinent information requested by the coordinator to facilitate implementation of the information and education plan. This section is not applicable if the co-permittee discontinues patlicipation 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 fol-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 repmi 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 bie1mial report to the Depm1ment 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 Depm1ment 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 fi-om riparian habitats and wetlands, fire fighting, and other discharges covered by a WPDES permit issued by the Depm1ment 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; conective 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 Depmiment 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 Depatiment 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. !fit will take more than 30 days to remove an illicit connection, the Depat1ment 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.
- (I) In the case of an illicit discharge that originates fi om 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 fi-om 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. Ill 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 ofss. NR 151.11 and 151.23, Wis. Adm. Code, or equivalent local standards.
 - (e) Inspect construction sites and enforce erosion control standards.
 - (I) 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. Ill 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-pennittees 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 fi-om areas of new development and redevelopment, after construction is completed. The program shall apply to areas of new development and significant redevelopment undettaken by the co-permittee and those of other landowners. The co-pennittee shall:
 - (a) Exercise legal authority to enforce the standards ofss. NR 151.!2 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 fi·om storm water runoff fi·om new development and redevelopment, and that ensure the implementation of the standards ofss. NR 151.!2 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.!2 and 151.24, Wis. Adm. Code, and the requirements of subch. Ill 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 inventmy oflong-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 mnnicipal 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.

WPDES Penni!No. Wl-S0584!6-3 **Page 13 of 29**

(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 copermittees 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

- (I) 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 Depm1ment 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 stmm 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:
 - I. A single pipe with an inside diameter<: 36 inches <u>and</u> associated with a drainage area 2: 50 acres; a <u>similar conveyance</u> (box culveti, ditch, etc., other than a round pipe) with a cross sectional area 2: 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.
 - (h) The location of any known discharge to the MS4 covered under an individual WPDES permit (not a general WPDES permit).
 - (e) 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.
 - (f) The location of publicly owned parks, recreational areas and other open lands.
 - (g) The location of municipal garages, storage areas and other public works facilities.
 - (h) Geographic features including streets, highways, railroads, airpm1s, 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, 20 II 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.

\VPDES Permit No. \VI-S058416-3 Page 16 of 29

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 repmt 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 effmts 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 delively 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 copermittees will be expected to report on their respective public information and education efforts.

- (b) A description of public involvement and pmticipation activities required under Section C. (!)(c), (d) and (e) and (2), including an assessment of the effectiveness of effmts 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 Depmtment by March 31, 20 II 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 necessmy 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 Depa1-tment'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, 20 II, shall include the assessment and analysis performed under Section E. (2).

F. BIENNIAL REPORT

- (I) 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 repmt 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:

Action to be tal <en< th=""><th>Reference</th><th><u>Due date</u></th></en<>	Reference	<u>Due date</u>
All Co-Permittees:		
Annual I&E Work Plan	Section C. (I)(b)	December I, 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
City of Madison:		
Common Storm Sewer Map	Section D. (4)	March 31" of eve1y 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 qumterly 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 approximation 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 Depmtment 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 Depmtment 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 Emth 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 Emth 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 Emth 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 Depattment 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 Depattment 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, Maunesha 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 ofNatural Resources of new development in the Badger Mill Creek and Sugar Creek watersheds early in the City's review process to accommodate the Department ofNatural 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 imisdiction 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

WPDES PcnnitNo. WI-S058416-3 Page 22 of 29

- 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 BluffMS4 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.
- (IO)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 Depat1ment 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 Sixmile 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 patlicipating 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 patlicipating in public information and education effm1s.
 - (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:

IVPDES Penni! No. W!-S058416-3
Page 23 of 29

(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 patticipating in public information and education effmts.
- (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.

{IS} 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 Eatth Creek watershed. The Town of Middleton shall ensure that post-construction site storm water management at new development facilitates infiltration within the Black Eatth 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 Depmtment 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 Westpmi shall meet the following requirements:

- (a) Assist Dane County in implementation of the County's construction site pollution control program within the Town by patiicipating in public information and education effmis.
- (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 effmis.
- (c) Within the jurisdiction of the Town of Westpmi, give special attention to activities affecting the quality of storm water discharges in the Yahara River and Six Mile Creek watersheds. The Town of Westpmi 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 Westpmi shall work with developers, consultants, contractors, and others representing the development community to prevent and reduce negative water quality impacts fi-om 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 Depatiment 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 Sixmile 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 patiicipating in public information and education effmis.
- (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 ofNatural Resources of new development in the Yahara River and Token Creek watersheds early in the Town's review process to accommodate the Depatiment 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 qum1erly 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 Eat1h 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 fi-om storm water discharges under its jurisdiction and to promote infiltration within the area covered by this permit. Dane County shall notify the Depat1ment ofNatural Resources of new development in these watersheds early in the County's review process to accommodate the Depat1ment ofNatural 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-l.

- (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 I, 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 ofthis 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(!) 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.(!) 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 Depatiment 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 ofthe 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 oftime 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 Depatiment, 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 ifnecessaly 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 cmiail 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: St01-age 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 fi-equently than required by this permit, the results of that monitoring shall be reported to the Depmtment in the biem1ial report required under section **F.**
- (10) INSPECTION AND ENTRY: Each co-permittee shall allow authorized representatives of the Depmtment, 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 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 Depaltment, 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, repmt or application.
- (16) PERMIT ACTIONS: As provided ins. 283.53, Wis. Stats., after notice and opportunity for a hearing, this permit may be modified, suspended or revoked, in whole or in patt, 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 cellify that the information was gathered and prepared under his or her supervision and, based on inquhy 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 Depmiment that the receiving water or groundwater is attaining the water quality standard.

Appendix 2 - SWPPP (P2) Team Roster

Streets Division

SWPPP Coordinator

Chris Kelley

Contact Info: 608-266-4680 (O) (C) (H)

Team Members

1 .John Blotz Office - 246-4536 Cell 515-6894 2. John Marshall Office - 267-1174 Cell 209-3601 3. Donna Grossman Office - 267-1962 Cell 515-6893

Appendix 3: Spill Prevention, Control and Counter Measures Plan

Compliance Inspection

R	ev	ie	w	P	a	g	e
••	_	•	••	•	u	-	•

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'spotential for discharge of oil into or upon the Navigable Waters of the United States or adjoining shorelines.

Review Dates	Signature
1. July 1, 2019	
2. July 1, 2022	
3. July 1, 2025	
4. July 1, 2028	
5. July 1, 2031	
* SPCC plan amended and certified by a Registered Profes	sional Engineer per 40 CFR 112.3

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	

⁽d)

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 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:		INS	PEC	CTION TIME: DATE:	
WEATHER INFORMATION:					
• Description of Weather Conditions (e.g., sunny, cloudy, raining, sr	owi	ing, e	etc.):):	
 Was stormwater (e.g., runoff from rain or snowmelt) flowing at ou inspection: Yes No Comments: 	tfall	s and	d/or	discharge areas shown on the Site Map during the	ie
inspection: Lifes Life Comments:					
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND					
SWIII and site map. Have a copy of the SWIII and site map with	Yes	No		Indings and Remedial Action Documentation: escribe any findings below and the schedule for	
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				medial action completion including the date initial	ited
identify during the inspection.				nd date completed or expected to be completed.	
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 SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.					
	1 7.00	Nia	NT A	Tindings and Damadial Astion	
Vehicle/Equipment Areas:	res	No	NA	A Findings and Remedial Action Documentation:	
Equipment cleaning: Check NA if not performed on-site. Skip section.					
Is equipment washed and/or cleaned only in designated areas?					
 Observe washing: Is all wash water captured and properly disposed of? 					
Equipment fueling: Check NA if not performed on-site. Skip section.					
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?					
 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.					
disposed off					
				•	

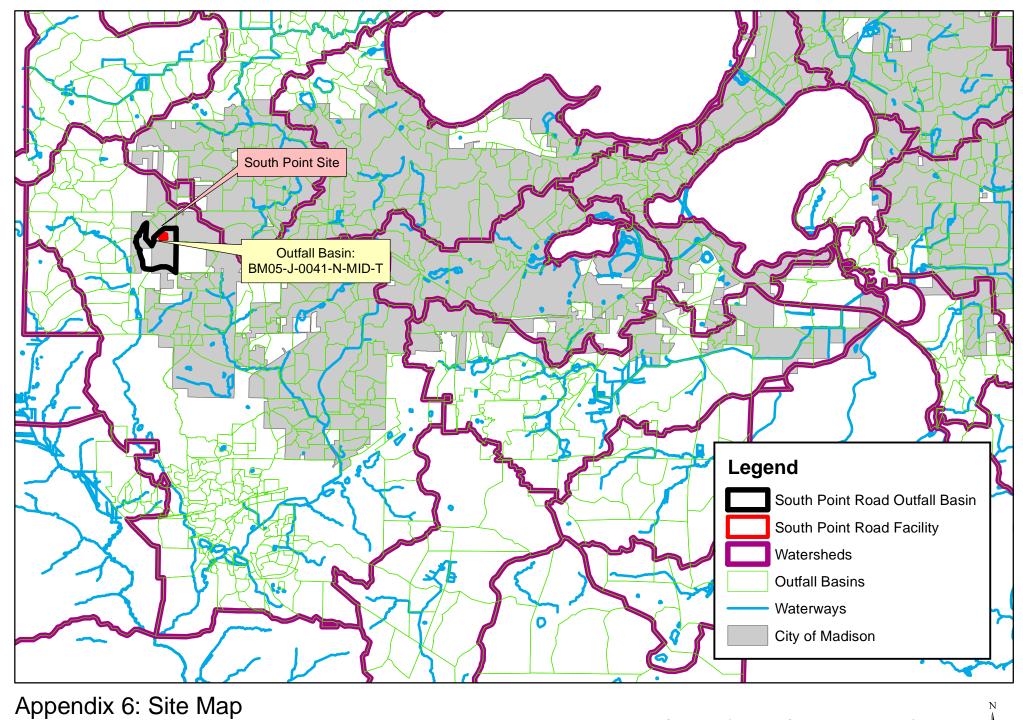
 Equipment maintenance: Are maintenance tools, equipment and materials stored under shelter, elevated and covered? Are all drums and containers of fluids stored with proper cover and containment? Are exteriors of containers kept outside free of deposits? Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. Is there evidence of leaks or spills since last inspection? Identify and address. 	Yes	No	NA	Findings and Remedial Action Documentation:
 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)? Add any additional site-specific BMPs: 				
	DRE	СТ	A A A I	NIA C E M E NIT DD A CTI C E C E V A I II A TI O NI
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN Good Housekeeping BMPs:				Findings and Remedial Action
Good Housekeeping BMPs:				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors:				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris,				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s)				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc)				Findings and Remedial Action
Good Housekeeping BMPs: 1. Are paved surfaces free of accumulated dust/sediment and debris? • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? 2. Are all waste receptacles located outdoors: • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? 3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids? • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s)				Findings and Remedial Action

Spill Response and Equipment:	Yes	No	NA	
Are spill kits available, in the following locations?				Documentation:
Fueling stations				
Transfer and mobile fueling units				
Vehicle and equipment maintenance areas				
Do the spill kits contain all the permit required items?				
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.				
Are contaminated absorbent materials properly disposed of?				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AN	D B I	ST	IA M	NAGEMENT PRACTICES EVALUATION
General Material Storage Areas:	Yes	No	NA	S
 Are damaged materials stored inside a building or another type of storm resistance shelter? 				Documentation:
 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?				

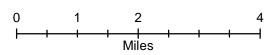
II. CORRECTIVE ACTION AND DESCRIPTIONS: Additional space to corrective actions if needed. Provide location and the rationale for the additional space to the additional space to the additional space.	o describe insp brief explana	pection findings and ation of the general			
III. CERTIFICATION STATEMEN	NTS AND SIG	CNATURES:			
III. CERTIFICATION GIATEMEN		MATURES.			
Inspector - Certification: This section	n must be com	upleted by the person who	conducte	ed the site inspection prior to	submitting this form
to the person with signature authority of					, successing this 101111
The facility is in compliance with t	he terms and c	conditions of the SWPPP	and the St	tormwater General Permit.	
The facility is out of compliance we report includes the remedial actions implementation of the remedial actions.	s that must be				
"I certify that this report is true, accur	rate, and comp	olete, to the best of my kn	owledge at	nd belief."	
Inspector's Name – Printed	Inspector's	Signature		Inspector's Title	Date
Permittee – Certification:					
The facility is in compliance with t	he terms and c	conditions of the SWPPP	and the In	idustrial Stormwater Genera	ıl Permit.
The facility is out of compliance w report includes the remedial actions implementation of the remedial actions.	s that must be				
"I certify under penalty of law, that accordance with a system designed Based on my inquiry of the person of information, the information submit are significant penalties for submit.	l to assure that or persons who tted is, to the l	t qualified personnel prop o manage the system, or best of my knowledge and	perly gathe those pers l belief, tri	ered and evaluated the infor ons directly responsible for ue, accurate, and complete.	rmation submitted. gathering I am aware that there
PRINTED NAME of person with Signatu Authority or a Duly Authorized Represe		SIGNATURE of person with Authorized Representative		e Authority or a Duly	DATE
¹ A person is duly authorized representa submitted to Engineering, and 2) the autoperation of the regulated <i>facility</i> , such	uthorization sp	pecifies either an individu	ial or a pos	sition 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.

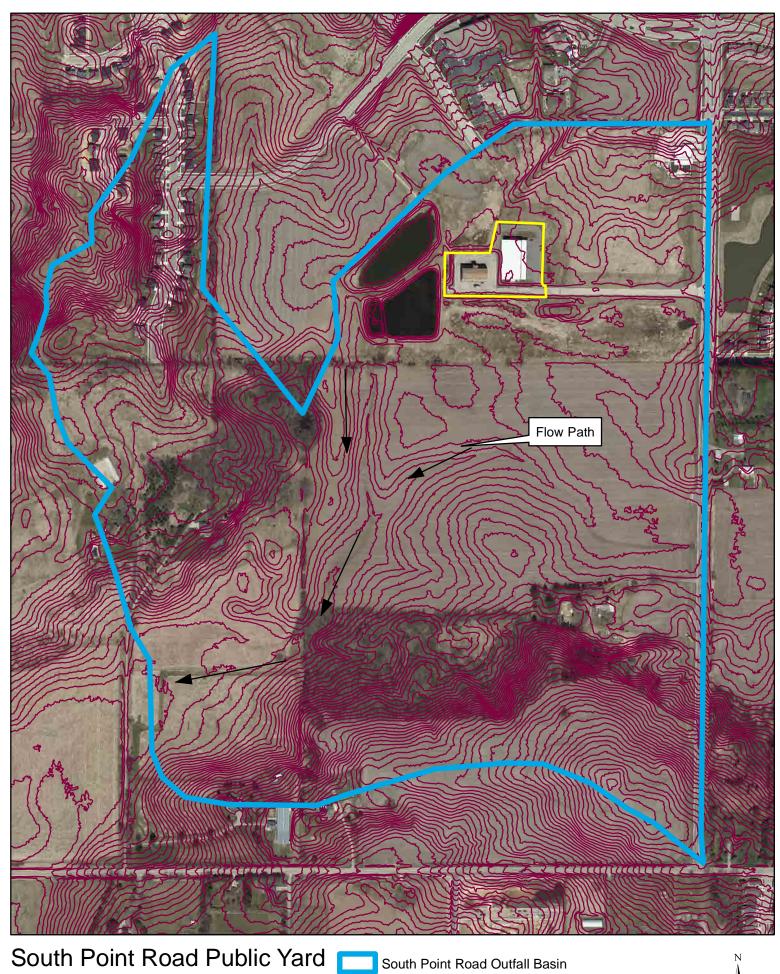
Appendix 6: Site Maps



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





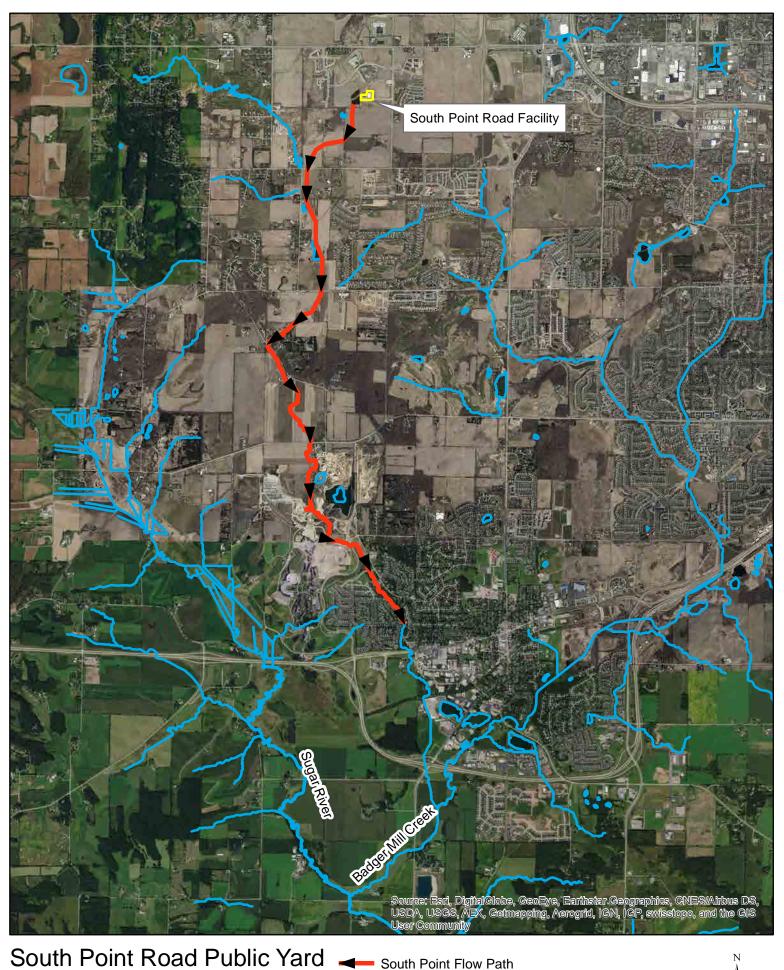


South Point Road Public Yard Drainage Direction Madison, WI



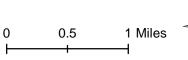
250

500 Feet



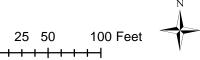
South Point Road Public Yard Receiving Water Madison, WI



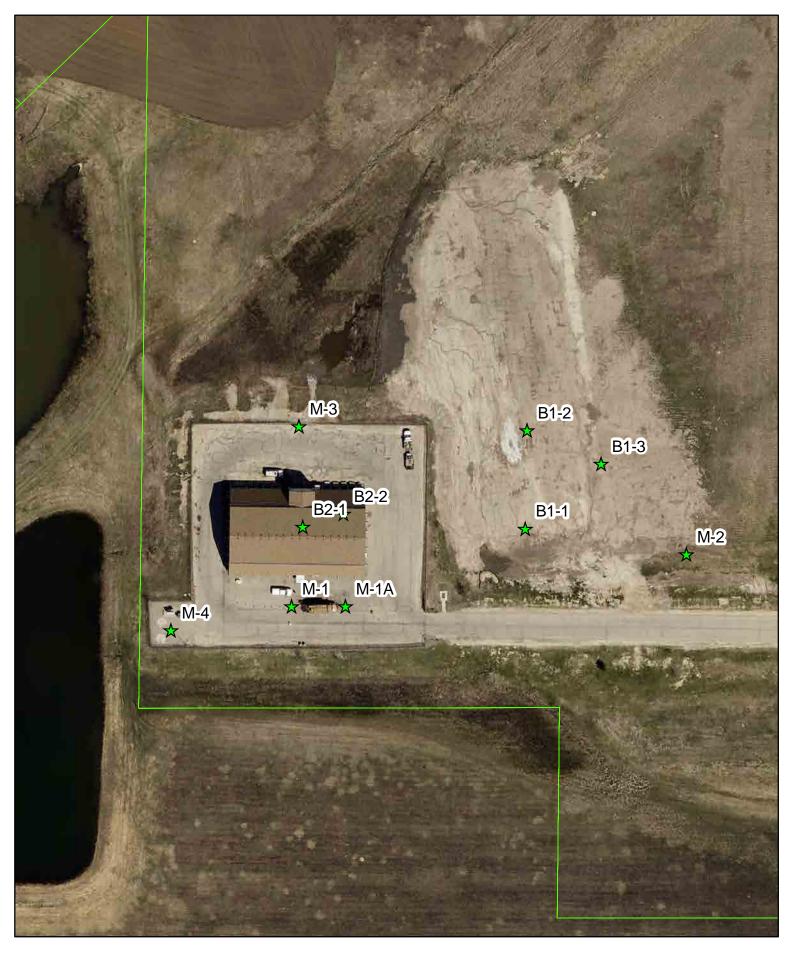




South Point Road Public Yard Sub-Basins Madison, WI



Appendix 7: Site Assessment



South Point Road Public Yard Madison, WI



ACTIVITY/MATERIAL	LOCATI	ON MAP ID		POTENTIAL POLLUTANTS STORM WATER RISK		CURRENT PRACTICE					
	Indoors	Outdoors	nt	ıts	als	ns	ins	other	Likelihood of	Risk of	
			Sediment	Nutrients	Metals	Hydrocarbons	Toxins		Contact	release	
Vehicle storage and parking	B1-1, B1-2	M-1	•	-	•	•	0	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		-	-	\bigcirc	-	\bigcirc	Empty brine tank	\circ	\bigcirc	Covered Storage for large items
Public brush drop off		M1-A			-	-	-		0	()	 Brush is loaded directly into a garbage truck by citizens and City staff
Salt and Sand storage	B2-1, B2-2		•	-	-	-	0	Sodium Chloride, Ferrocyanide	0	0	Stored in building

KEY

High

Medium

Low

Not Applicable



South Point Yard M-1 : Vehicle Storage Building

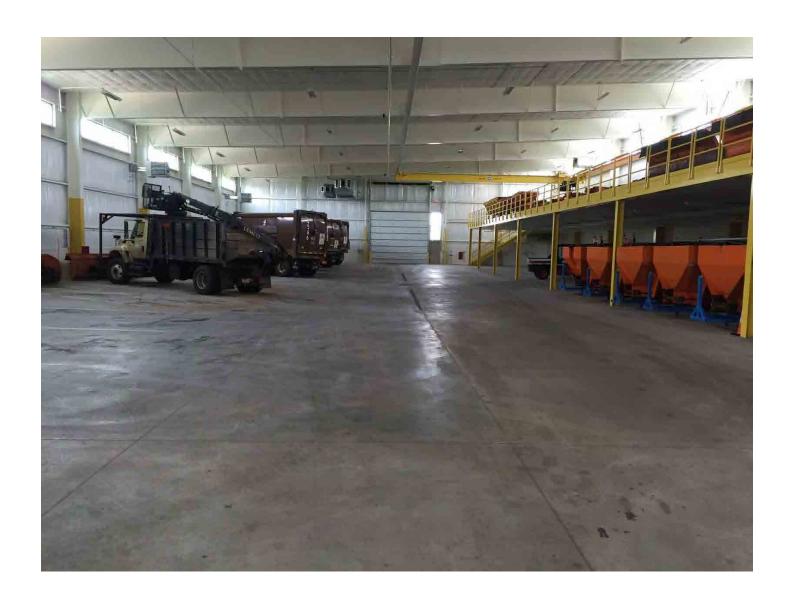


South Point Yard

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

Modeling Post-Construction Stormwater Management and Treatment NR 151, Wis. Adm. Code

Prepared for:

Wisconsin Department of Natural Resources

Submitted by:

Greg Fries, PE Assistant City Engineer City of Madison Engineering Division

Date:

December 26, 2017

BACKGROUND

The City of Madison was issued a MS4 General Permit (WPDES Permit No. WI-S058416-3) by the Wisconsin Department of Natural Resources (WDNR). The Permit requires that the City of Madison comply with the total suspended solids (TSS) removal requirements of the WDNR. The initial requirement was that by March 10, 2008, 20% TSS be removed from storm water runoff generated within the City on an average annual basis. A 40% reduction in TSS was to be achieved by March 10, 2013. Additionally, the City of Madison is within the Rock River Total Maximum Daily Load (TMDL) implementation boundary and the baseline condition for the TMDL is a 40% reduction in TSS. This document and subsequent attachments are provided to fulfill the requirements of the City of Madison's permit.

The City of Madison has elected to use the WinSLAMM (Source Loading and Management Model for Windows) to model TSS and total phosphorus (TP) reductions due to stormwater treatment in the City. Although the City has used other programs in the past to model stormwater treatment and pollutant reduction, City modelers made the decision to utilize WinSLAMM based on several factors.

First, unlike other water quality modeling programs, WinSLAMM is well-recognized and understood by the WDNR. WinSLAMM models both TSS and TP removal by varying treatment practices at rates supported by WDNR research and accepted by WDNR reviewers. Additionally, WinSLAMM undergoes regular updates by its Wisconsin-based technical team. Such updates ensure that WinSLAMM includes a broad array of treatment practices, and that loading and reduction rates used by the program reflect the latest stormwater management and treatment research.

It was the City's goal during this modeling effort to develop a modeling process that was precise, accurate and simple for future modelers to replicate. A primary consideration, as is discussed in the following section of this report, was to divide each subcatchment by land use to ensure that the proper loading pollutant loading rates were applied. The City of Madison elected to use WinSLAMM's Standard Land Use files, combined with recent (2015) Dane County land use data, to quantify the contributions of each land use type to total runoff and pollutant loading in each catchment. The Standard Land Use files, which were developed largely based on Madison data, were a simple and vetted way to get relatively accurate, precise loading values.

The report that follows includes information on the City of Madison's modeling process, including model setup and data processing, modeling results, model limitations, methodology and results of leaf management guidance application, and a discussion of future work. Included as appendices are maps of each watershed, as divided in WinSLAMM and with treatment practices included, a map of TP reduction due to leaf management practices, a list of private treatment practices included in the City of Madison boundaries that were not included in this modeling effort, and all modeling files developed by the City of Madison during this effort.

MODEL SETUP

WinSLAMM Input Files

All WinSLAMM models developed by the City of Madison during this modeling effort are included with this report as Appendix B.

All WinSLAMM models were run with the following input files and parameters, as directed by the WDNR:

Parameter	Input File
-----------	------------

. a. a		mpat i no		
Rain File		C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN		
Pollutant Probability D	istribution File	C:\WinSLAMM Files\WI_GEO03.ppdx		
Runoff Coefficient File	:	C:\WinSLAMM Files\WI_SL06 Dec06.rsvx		
Particulate Solids Con	centration File	C:\WinSLAMM Files\v10.1 WI_AVG01.pscx		
	Residential LU	C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std		
	Institutional LU	C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std		
Stroot Dolivory File	Commercial LU	C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std		
Street Delivery File	Industrial LU	C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std		
	Other Urban LU	C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std		
	Freeways	C:\WinSLAMM Files\Freeway Dec06.std		
Source Area PSD and Peak to Average Flow Ratio File		C:\WinSLAMM Files\NURP Source Area PSD Files.csv		
Source Area Particle Size Distribution File		C:\WinSLAMM Files\NURP.cpz		

Note that all models were run using the one-year, 1981 Madison rainfall file, with start and end dates of 01/01/81 and 12/31/81, and a winter season range of 12/02 to 03/12. Although it would have been preferred to run the models using the five-year regulatory rainfall, WinSLAMM was unable to process the large models that the City developed with the five-year rainfall. To avoid any inappropriate "skewing" of results, when street sweeping was added in the WinSLAMM models, City staff applied street sweeping on a "once per week" or "once per month" basis depending on area. Street sweeping was NOT applied on a particular day of the week. Street sweeping is discussed in more detail in a subsequent section.

Pond/Treatment Practice Discovery and Digitization

The City of Madison began developing the WinSLAMM model by finding as-builts from the 307 ponds and major raingardens built within the City. The majority of the ponds are publicly funded and administered; however, as large private ponds were found, the City included them in their model. With the as-builts from the ponds, the City georeferenced the plans into ArcGIS and created traced polygons for each pond contour. This provided the City with detailed information of each pond's stage storage information and also the plans for the control structure. The stage/storage data was copied and pasted into the pond profile in WinSLAMM.

The City of Madison had a variety of archived pond plans that were lost in a flood and unrecoverable. For lost dry ponds, the City used the 2016 LiDAR data to draw contours. For lost wet ponds, the City of Madison used Doppler technology to survey the ponds. The survey data was processed in InRoads and transferred into ArcGIS.

Once all the pond data had been processed, the City created a pond catalog WinSLAMM file for each watershed. The Watersheds were divided into treatment areas and due to the limitations of WinSLAMM, each treatment WinSLAMM file began as a copy of the catalog. Ponds from other treatment areas were deleted so that the land use files could be imported per treatment area.

Subwatershed Delineation

The City of Madison has a comprehensive watershed and subwatershed file. Delineations at the watershed level are based on receiving water body (lakes, streams and rivers in the Madison area) and delineations at the subwatershed level are based on major treatment practices/ponds as described in the section above. Many of the subwatersheds were delineated prior to recent development in the City of Madison, particularly at the western and eastern edges of the City in the Badger Mill, Pheasant Branch, Door Creek and Starkweather Creek watersheds where much new development has occurred during the past decade. For the modeling effort described in this report, City of Madison staff reviewed the existing watershed/subwatershed ArcGIS file and made corrections to basin boundaries based on current conditions.

Land Use

The City of Madison used ArcGIS to process Dane County's 2015 land use data, converting that information within City of Madison municipal boundaries into a format compatible with WinSLAMM. City staff intersected the Dane County layer with the City of Madison's municipal boundary, then exported all parcels within that boundary. These parcels were sorted based on generalized landuse, landuse subcategory, landuse description, and (for residential parcels) density, and duplicates were omitted to obtain a comprehensive list of all landuse types within the City of Madison.

In parallel, City of Madison staff compiled a full list of all WinSLAMM standard land use files.

After both comprehensive lists were developed, City staff matched each City of Madison landuse type with a WinSLAMM standard land use type. Microsoft Access was used to assign the appropriate WinSLAMM land use to each individual parcel within City boundaries.

The WDNR's 2010 MS4 guidance states that agricultural land should not be included in a municipality's TP loading or reduction calculations. Therefore, land with an agricultural land use classification within the City of Madison's municipal boundary was flagged and omitted from the City's WinSLAMM modeling effort.

Per guidance from the WDNR, areas draining to enclosed depressions were flagged and, like agricultural areas, omitted from the City's WinSLAMM modeling effort.

Land Use Export

Following the assignment of WinSLAMM standard land uses to parcels, and subwatershed cleanup, City staff used ArcGIS to intersect land uses, soil types (based on Dane County's NRSC soil polygon database), and subwatershed boundaries. Roads and right-of-way were not included in Dane County's land use file. As WinSLAMM's standard land use files include road area, City of Madison staff elected to account for roads and right-of-way on a subwatershed level. For each subwatershed, road area was summed and then divided between all standard land uses within the subwatershed. The division of road area was weighted based on the amount of each land use within that subwatershed to ensure the most accurate land use and loading totals.

City staff aggregated subwatersheds into treatment "chains" that fed to major common treatment practices for export to WinSLAMM. This resulted in between one (Koshkonong, Lake Waubesa) and 13 (Starkweather Creek) models per major watershed. City staff used this process due to WinSLAMM's size limitations. It was explained to City staff that each WinSLAMM model could only include 256 nodes without model overload; as each landuse and treatment practice is considered a "node" by WinSLAMM, this necessitated the divisions within watersheds.

City staff used Microsoft Access to aggregate totals of each land use type within each subwatershed. Each landuse was broken up by soil type (sandy, silty or clayey) based on NRCS soil information. All of this data was compiled into a format compatible with WinSLAMM's data import function. An example input

file is included with this report as Appendix C. The data was then imported into WinSLAMM and matched with the appropriate Standard Land Use files using WinSLAMM's "Create Land Uses from Data File" tool.

Street Sweeping

The City of Madison sweeps all city streets within its municipal boundary. For much of the City, sweeping is carried out on a monthly recurrence interval; however, City Streets crews clean a portion of downtown streets (largely on the isthmus and south and west of Monona Bay) on a weekly basis. The boundaries of the weekly sweeping zone are shown on the watershed-level maps included in Appendix A.

For weekly sweeping areas, City staff added sweeping with the following parameters:

Parameter	Value		
Street Cleaning Frequency	One Pass per Week		
Type of Street Cleaner	Mechanical Broom Cleaner		
Street Cleaner Productivity	Coefficients based on street texture, parking density and parking controls		
Parking Densities	*Varies*		
Are Parking Controls Imposed	*Varies*		

For all other areas, City staff added sweeping with the following parameters:

Parameter	Value		
Street Cleaning Frequency	One Pass Every Four Weeks		
Type of Street Cleaner	Mechanical Broom Cleaner		
Street Cleaner Productivity	Coefficients based on street texture, parking density and parking controls		
Parking Densities	*Varies*		
Are Parking Controls Imposed	*Varies*		

Inclusion of street sweeping into WinSLAMM models caused several issues. WinSLAMM considers each individual sweeping instance as a separate control practice/node; therefore, when street cleaning was added to the models, it often very nearly doubled the size of the models and caused model overloads. When models exceeded 256 nodes with the inclusion of street sweeping, City staff dealt with this problem in two ways:

- 1. For model areas with weekly sweeping, model areas in which sweeping frequencies were mixed, or models which included subwatersheds with several ultimate treatment practices, City staff broke up the models into several sub-models and entered the appropriate sweeping parameters for each subwatershed.
- 2. For models in which all areas fell into the monthly sweeping zone, City staff elected to add TP reductions due to sweeping on the back end. To do this, City staff ran a "control" 100-acre medium density residential no alleys parcel through WinSLAMM with monthly sweeping controls on all road land uses. This control model gave a reduction of 1.73% TP. Then, City staff would develop a model but omit street sweeping practices, and add 1.73% TP reduction to the TP reduction calculated by WinSLAMM. This calculation, although very imperfect, was done to avoid destabilizing large WinSLAMM models by deleting land uses or adding sweeping control practices.

Even when the models remained under 256 nodes with sweeping, the added nodes caused WinSLAMM to overload when trying to run the five-year rainfall file. Therefore, as discussed in the "Model Inputs" section, City staff elected to run all models using the regulatory one-year rainfall file. It was the

understanding of City staff that the WDNR generally requires the five-year rainfall file due to possible manipulations of the street sweeping control practice. Therefore, City staff attempted to minimize any potential bias due to weekly street sweeping by checking the "One Pass per Week" option instead of scheduling sweeping on a particular day of the week.

In an attempt to simplify models and minimize destabilization, City staff made one assumption/modification pertaining to street sweeping. Lake Monona Treatment Area 5 was modeled to have weekly sweeping throughout its area, although this does not accurately reflect the City's weekly sweeping boundary. The added sweeping area in that watershed replaces the residential area where weekly sweeping is implemented in Starkweather Treatment Area 3, but not modeled.

Catch Basins

In order to calculate the proper catch basin loading, the City of Madison used their storm structure database in ArcGIS to manipulate catch basin information. The City estimated the percentage of area the catch basins served in each treatment area by using the maps included with this report as Appendix A. The number of catch basin per acre was calculated, sometimes having the catch basins serve a smaller subset of outfall basins if appropriate. The average depth of the catchbasins in each treatment area was calculated assuming a 3' sump. Combined areas (in square feet) of catchbasins were calculated for each treatment area using City of Madison records. City of Madison catchbasins are shown for each watershed in the maps included as Appendix A to this report.

Coanda Screen Treatment Structures

The City of Madison has several screen treatment structures of varying sizes installed throughout the City. These structures contain large angled wedge-wire screens that utilize the Coanda effect to enhance sediment capture and removal from stormwater. The City's largest screen treatment structures are located immediately north of the West Beltline Highway west of Fish Hatchery Rd (upstream of Arboretum Pond 3) and northeast of the intersection Allied Dr and Crescent Dr (upstream of Dunns Marsh), although many smaller devices can be found throughout the City.

The City of Madison and the USGS are currently collaborating on a study to quantify the TSS removal efficiency of the City's screen structures. Preliminary study results have suggested that these structures remove an average of 40% TSS from treated stormwater runoff. Therefore, during this modeling effort, City staff isolated the watersheds feeding to each screen treatment structure; each structure was then modeled as an "Other Device" with 40% particulate removal. Screen treatment structures are shown in the figures included as Appendix A of this report.

Freeways

The City of Madison implemented special modeling procedures for state and county highways and collector streets within the City's boundaries. Based on guidance from WDNR staff, the City of Madison chose to include runoff from these freeways in the model to ensure that treatment practices that capture the water experience realistic hydraulic loading conditions. However, WDNR staff instructed the City to omit pollutant runoff from those major roads in its calculations of both initial loading and pollutant reductions. In layman's terms, the City was instructed to assume that only "clean" water runoff from these roads; the City was not to be penalized, nor receive credit, for any pollutants from those roads.

To implement this guidance, City staff included state and county highway and collector areas as "Freeway" land uses in the WinSLAMM models. Each of these "Freeway" land uses was treated immediately downstream with an "Other Device" that removed 100% of particulate and dissolved pollutants. The City ran all of its models with the following WinSLAMM Program Option selected:

"It Other Device pollutant load reduction values are set to 1, remove off-site pollutant loads from pollutant load percent reduction calculations."

RESULTS

The following tables summarize total suspended sediment (TSS) and total phosphorus (TP) yield with no controls, yield with controls (including sweeping), and reduction (yield and percent) by watershed and in the City of Madison overall.

Table 1. Total Suspended Solids Loading and Reduction by Watershed, City of Madison

Watershed	Area (ac)	TSS Yield - No Controls (lbs)	TSS Yield - With Controls (lbs)	TSS Reduction (lbs)	TSS Reduction (%)
Badger Mill Creek	5,443	1,234,410	640,377	594,033	48.1%
Door Creek	1,688	235,995	115,192	120,803	51.2%
Lake Mendota	6,455	1,857,557	1,283,760	573,797	30.9%
Lake Monona	4,061	1,460,619	998,412	462,207	31.6%
Nine Springs Creek	2,111	554,237	404,370	149,867	27.0%
Pheasant Branch Creek	2,082	608,697	289,164	319,533	52.5%
Pennito Creek	5,121	1,311,504	557,964	753,540	57.5%
Starkweather Creek	10,178	2,603,129	2,107,923	495,206	19.0%
Upper Yahara	1,292	247,315	158,706	88,609	35.8%
Lake Waubesa	507	127,091	72,607	54,484	42.9%
Lake Wingra	4,681	1,094,073	638,879	455,194	41.6%
Koshkonong	186	1,653	13	1,640	99.2%
Total	43,806	11,336,280	7,267,366	4,068,914	35.9%

Table 2. Total Phosphorus Loading and Reduction by Watershed (No Leaf Management), City of Madison

Watershed	Area (ac)	TP Yield - No Controls (lbs)	TP Yield - With Controls (lbs)	TP Reduction (lbs)	TP Reduction (%)
Badger Mill Creek	5,443	4,723	3,125	1,598	33.8%
Door Creek	1,688	992	685	307	31.0%
Lake Mendota	6,455	6,242	4,901	1,342	21.5%
Lake Monona	4,061	4,531	3,459	1,071	23.6%
Nine Springs Creek	2,111	1,926	1,409	518	26.9%
Pheasant Branch Creek	2,082	1,937	1,150	787	40.6%
Pennito Creek	5,121	4,221	2,412	1,809	42.9%
Starkweather Creek	10,178	8,110	7,040	1,070	13.2%
Upper Yahara	1,292	991	755	236	23.8%
Lake Waubesa	507	422	302	120	28.4%
Lake Wingra	4,681	3,810	2,713	1,097	28.8%
Koshkonong	186	7	2	5	73.8%
Total	43,806	37,912	27,952	9,960	26.3%

To evaluate the consistency of the City's 2016/2017 modeling efforts with past modeling, City staff compared acreages and percent TSS reduction by watershed with the City's last large modeling effort in

2011. At that time, City staff elected to use the P8 water quality model, which yielded slightly different results. The results of that comparison are shown in Table 3.

Several watershed acreages differ by substantial amounts between modeling efforts. City staff used maps developed by the 2011 modelers to compare the areas used in that effort with the areas chosen for this more current effort. City staff are confident that, based on updated City municipal boundaries, and guidance from the WDNR on how to address agricultural areas and enclosed depressions, the areas used in the modeling project outlined in this report are correct.

Table 3. Comparison of Areas and TSS Percent Reductions by Watershed between 2016/2017 and 2011

Modeling Efforts, City of Madison

Watershed	Area (ac) (2017)	Area (ac) (2011)	Area Difference (%)	TSS Reduction (%) (2017)	TSS Reduction (%) (2011)	TSS Reduction Difference (%)
Badger Mill Creek	5,443	6,224	-14%	48.1%	48.9%	-0.8%
Door Creek	1,688	2,149	-27%	51.2%	70.2%	-19.1%
Lake Mendota	6,455	6,772	-5%	30.9%	35.4%	-4.5%
Lake Monona	4,061	3,984	2%	31.6%	18.5%	13.1%
Nine Springs Creek	2,111	1,900	10%	27.0%	17.0%	10.1%
Pheasant Branch Creek	2,082	2,794	-34%	52.5%	48.5%	4.0%
Pennito Creek	5,121	4,141	19%	57.5%	61.0%	-3.5%
Starkweather Creek	10,178	4,034	60%	19.0%	44.6%	-25.6%
Upper Yahara	1,292	1,257	3%	35.8%	5.6%	30.2%
Lake Waubesa	507	420	17%	42.9%	52.1%	-9.3%
Lake Wingra	4,681	4,253	9%	41.6%	51.6%	-10.0%
Koshkonong	186	210	-13%	99.2%	58.3%	40.9%
Yahara	Included with Lake Monona	110.8	-	Included with Lake Monona	1.5%	-
Total	43,806	38,247	13%	35.9%	40.6%	-5%

Leaf Management

On October 5, 2017, the WDNR released its "Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs." This guidance outlined the WDNR's preliminary approach to quantifying TP reduction credit for municipalities with fall leaf management programs. The City of Madison has a robust fall street leaf collection program in place, and is actively partnering with the USGS in Middleton, WI on its leaf study, which aims to provide further data on how leaf management affects dissolved phosphorus in runoff, both overall and seasonally. The City of Madison provided comment to the WDNR on the draft guidance on November 9, 2017. The draft guidance is included with this report as Appendix D.

The draft guidance states that municipalities may assume 17% TP reduction in areas where the following conditions are met:

- 1. Medium Density (2-6 units/acre) Residential (Single-family) land use without alleys. Medium density Residential with alleys land use may be included if the alleys receive the same level of leaf collection and street cleaning as the streets.
- 2. Curb and gutter with storm sewer drainage systems.
- 3. A tree cover defined as an average of one or more mature trees between the sidewalk and the curb for every 80 linear feet of curb. Where sidewalk is not present, trees within 10 feet of the curb may be counted toward tree cover. Generally, this equates to a tree canopy over the street of 17% or greater. Field investigations or aerial photography may be used to document the tree cover.
- 4. The municipality has an ordinance prohibiting residents from placement of leaves in the street and a policy stating that residents may place leaves on the terrace in bags or piles for collection.
- 5. Municipal leaf collection provided at least 4 times spaced throughout the months of October and November. Leaves may be pushed, vacuumed, or manually loaded into a garbage vehicles. No leaf piles are left in the street overnight.
- 6. Within 24 hours of leaf collection, remaining leaf litter in the street must be collected using street cleaning machines, such as a mechanical broom or vacuum assisted street cleaner. A brush attachment on a skid steer is not an acceptable equivalent.

The draft guidance states that "further evaluation is required to determine how leaf collection methods may reduce loading to structural best management practices (BMPs) such as ponds. Therefore, this credit may not be taken in addition to phosphorus reductions from other BMPs in the drainage area at this time." However, due to complexities of isolating medium density residential – no alleys (MDRNA) land uses from other land uses for each subwatershed, calculating a 17% reduction for just those areas where the canopy cover requirement above is met, and comparing that number to the TP reductions from the use of traditional treatment practices, the City of Madison chose to work with the WDNR to develop an acceptable method of calculating a TP reduction credit after modeling was completed.

The Madison USGS leaf study (Selbig 2016) has demonstrated that the leaf leaching contribution to the phosphorus content of runoff water is nearly entirely dissolved phosphorus; as ponds, catchbasins and other traditional treatment practices target particulate phosphorus, the USGS study would suggest that leaf management and traditional treatment devices target phosphorus in separate phases and, thus, are unlikely to overlap in their effect. Additionally, the same study showed that on average, the TP content of runoff is approximately 50% dissolved phosphorus and 50% particulate phosphorus. Therefore, City staff estimated that an assumption of 8.5% TP removal (half of the 17% TP removal allowed in the draft guidance) due to leaf management, applied in addition to TP removals from traditional stormwater practices (calculated in WinSLAMM), for MDRNA land uses that meet the canopy cover requirements outlined in the draft guidance, would be a conservative and scientifically sound value. City staff discussed this methodology with WDNR staff, who approved their approach.

City staff used ArcGIS to isolate MDRNA parcels and intersect those parcels with watershed boundaries to calculate total MDRNA acreage in each watershed. City staff then added the City of Madison Forestry Division tree inventory layer and the City of Madison street centerline layers and cropped them by proximity to MDRNA areas in each watershed, giving a total street length and tree count in MDRNA areas within each watershed. The tree inventory was then limited to trees 10" in diameter and greater to ensure that only trees with significant canopy cover were included in calculations. Finally, the street distance was multiplied by two (to account for two curb lines/street) and divided by the number of trees to obtain the curb length per tree in each watershed. This value was then divided by 80 to obtain an estimate of the percentage of roads, and MDRNA area, in each watershed that meet the draft guidance requirements.

After calculating the applicable area, City staff built a "control" model with one land use (MDRNA, 100 acres) and no controls. This model was used to obtain the "no controls" TP loading for 100 acres of MDRNA, which was calculated to be 96.79 lbs/year. For each watershed, this value was scaled to match the total MDRNA acreage in the watershed, then scaled again to apply only to the calculated applicable area (based on trees/curb length, as discussed in the paragraph above). These calculations resulted in TP loadings for each watershed that the City considered "eligible" for the leaf management TP reduction; for each watershed, the TP reduction due to leaf management efforts was estimated by calculating 8.5%

of that eligible TP loading. These leaf management TP reductions are summarized, by watershed, in the table below, and shown in Figure 1, "TP Reductions per Leaf Management Guidance by Watershed."

Table 4. TP Reduction Due to Leaf Management in the City of Madison

Watershed	TP Reduction (lbs)
Badger Mill Creek	44.8
Door Creek	0.5
Lake Mendota	86.6
Lake Monona (inc. Yahara)	9.0
Lake Wingra	40.2
Nine Springs Creek	17.0
Pennito Creek	23.4
Pheasant Branch	15.4
Starkweather Creek	53.2
Upper Yahara	21.1
Lake Waubesa	0.0
Koshkonong	0.0
Total	311.1

The table below summarizes the City of Madison's complete TP loading and reduction yields and percentages by watershed due to traditional stormwater treatment practices (modeled in WinSLAMM and shown in figures in Appendix A to this report) and leaf management practices.

Table 5. Total Phosphorus Loading and Reduction by Watershed, City of Madison

		TP Yield - No	TP Yield - With	TP Reduction	TP Reduction
Watershed	Area (ac)	Controls (lbs)	Controls (lbs)	(lbs)	(%)
Badger Mill					
Creek	5,443	4,723	3,080	1,643	34.8%
Door Creek	1,688	992	684	308	31.0%
Lake Mendota	6,455	6,242	4,814	1,428	22.9%
Lake Monona	4,061	4,531	3,459	1,071	23.6%
Nine Springs	2 444	4.000	4 202	525	27.00/
Creek Pheasant Branch	2,111	1,926	1,392	535	27.8%
Creek	2,082	1,937	1,135	802	41.4%
Pennito Creek	5,121	4,221	2,389	1,833	43.4%
Starkweather					
Creek	10,178	8,110	6,987	1,123	13.8%
Upper Yahara	1,292	991	734	257	25.9%
Lake Waubesa	507	422	302	120	28.4%
Lake Wingra	4,681	3,810	2,673	1,137	29.9%
Koshkonong	186	7	2	5	73.8%
Total	43,806	37,912	27,650	10,262	27.1%

MODEL LIMITATIONS AND EXCLUSIONS

It is important to note that no Waters of the State were included in this modeling effort. Although water bodies such as Tenney Lagoons and Warner Lagoons provide substantial treatment of City of Madison stormwater runoff, they are not eligible for credit under the terms of Madison's MS4 permit and were therefore omitted from this project.

Additionally, private treatment facilities within City of Madison boundaries were not included in this effort. The analysis outlined herein was conducted for public maintained and owned facilities only. According to City of Madison General Ordinance (MGO) Chapter 37, private property owners are required to maintain all private storm water facilities. Chapter 37 MGO requires annual reports carried out for inspection and maintenance of these facilities. At this current date of this report there are 830 private practices that are required to provide reports to the City of Madison on an annual basis. The private facilities have been documented to reduce sediment on a site development basis but have not been incorporated into the total City reduction model. A detailed list of all private practices required to submit annual reports is included in Appendix E.

Private practices were excluded for several reasons, chief among them the relatively small areas that each treats, the difficulty in finding complete information in the City of Madison archives on private practices, and concerns about WinSLAMM model stability if more treatment practices were added to existing models. The City of Madison is currently undertaking an inventory of private ponds and bioretention facilities, and is working with the WDNR to develop a method of including TSS and TP reductions from those private practices in future modeling reports. The City plans to complete the inventory and analysis within the year; an updated modeling report will be issued at that time with more complete reduction numbers.

While undergoing the modeling effort described in this report, the City of Madison faced a variety of challenges stemming from the instability of the WinSLAMM program. Although the programmer (PV and Associates) was very responsive and helpful in dealing with these issues as they arose, the limitations of WinSLAMM for modeling large and complex treatment practice networks was obvious. City staff have relayed their concerns to the WDNR and anticipate that further discussions will follow.

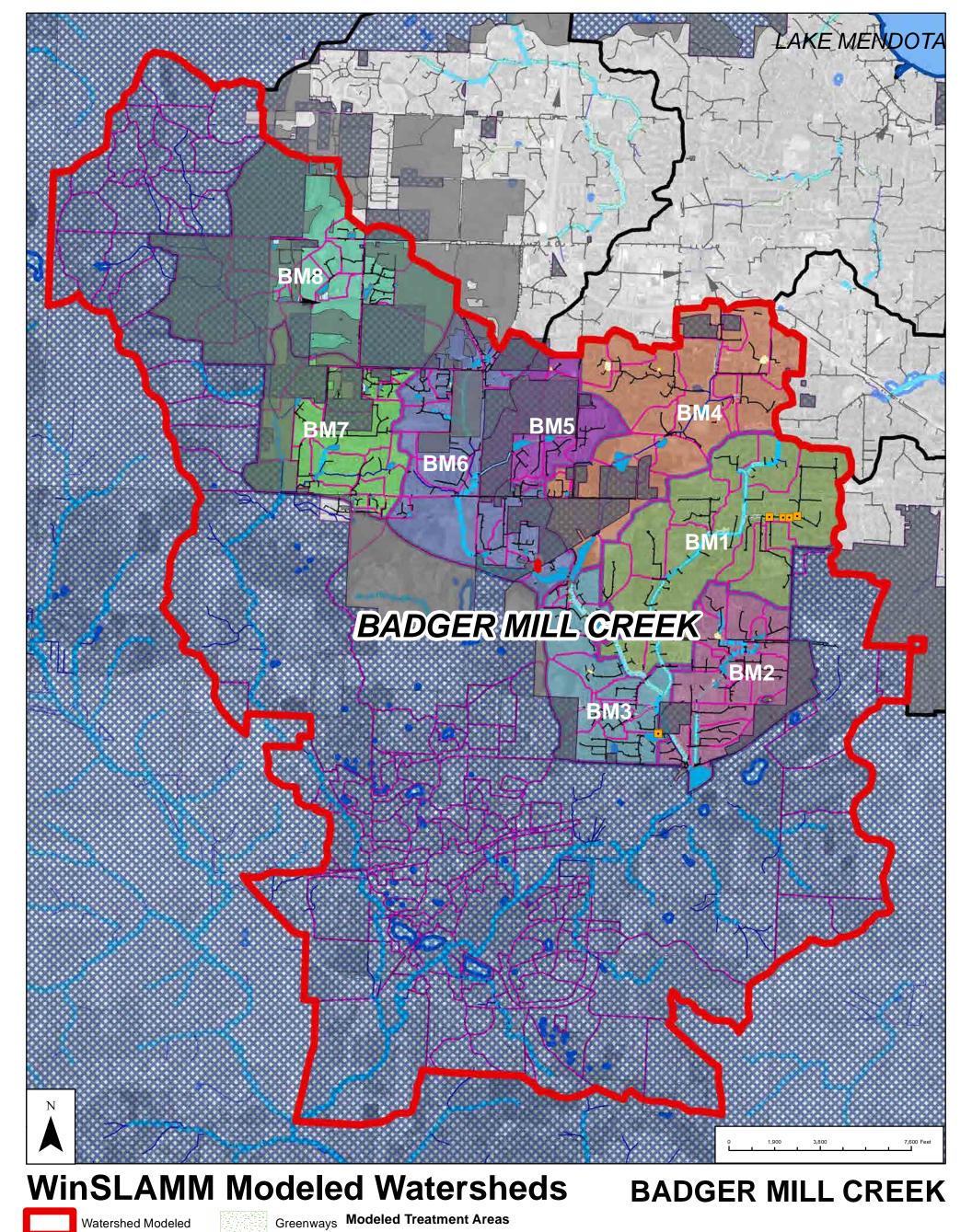
CONCLUSIONS

The City of Madison's modeled TSS reduction has decreased slightly from its modeled 2011 reduction. This discrepancy is likely due to differences in modeling approach, including changes in the way different land uses were included and/or modeled in WinSLAMM, and in differences between WinSLAMM and P8. Despite the changes, the City of Madison modeling team is confident in the results outlined in this report.

The City of Madison is committed to reducing its TSS and TP load through a variety of practices within its municipal boundaries. All newly platted residential developments must achieve an annual average 80% TSS reduction and 90% stay-on rate. Additionally, the City is continually adding inline treatment devices, including Coanda screen treatment devices, proprietary stormwater treatment devices, and catchbasins to City storm sewer systems in conjunction with road reconstruction projects. Finally, the City is committed to investigating and implementing new treatment technologies, such as coagulant stormwater treatment, that have the potential to remove more TSS and TP from stormwater runoff than traditional stormwater treatment practices.

REFERENCES

Selbig, W.R., 2016, Evaluation of leaf removal as a means to reduce nutrient concentrations and loads in urban stormwater, Science of the Total Environment, 571, pp. 124 – 133. http://dx.doi.org/10.1016/j.scitotenv.2016.07.003



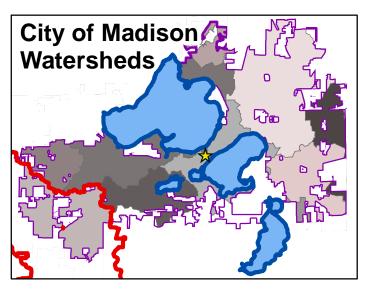
All Watersheds Catchbasin BM1 BM2 Outside City of Madison City of Madison Dry Pond Exempt from Model Outfall Basins Wet Pond BM3 BM4 BM5

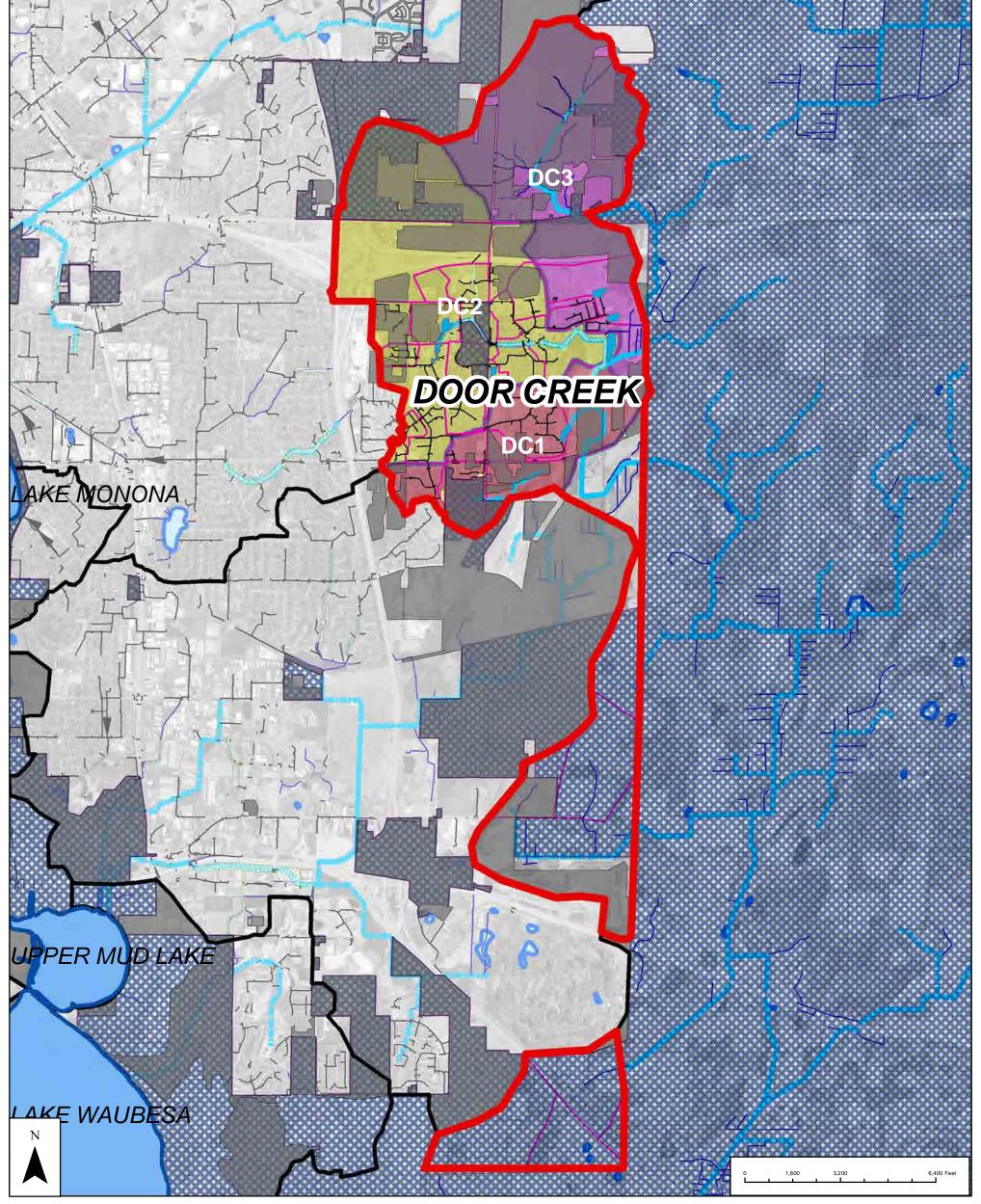
- Storm Sewer

BM6

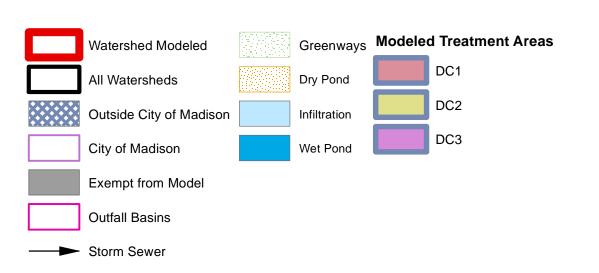
BM7

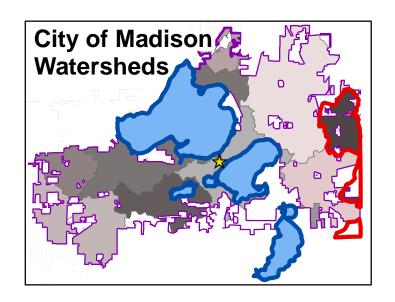
BM8

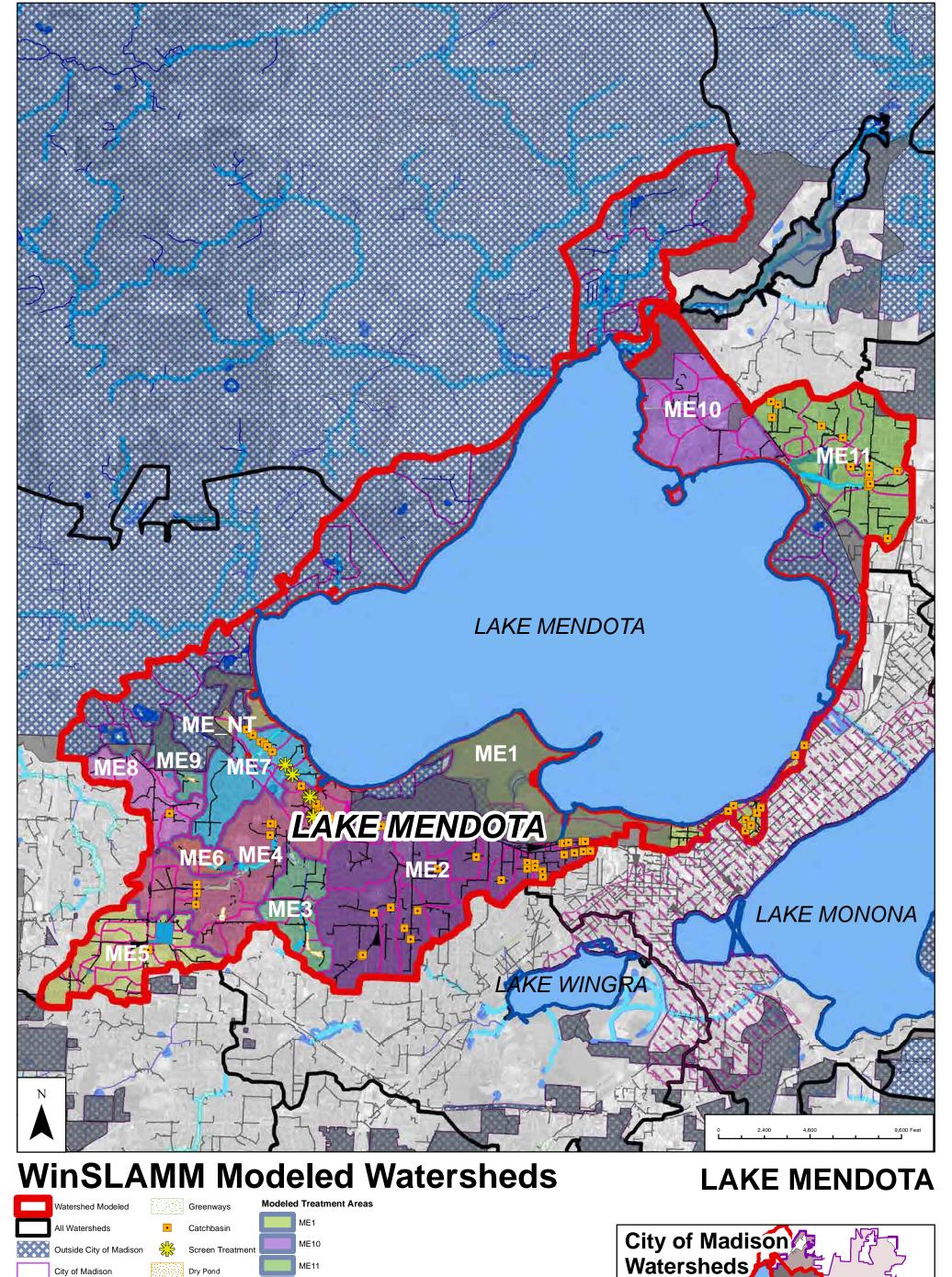




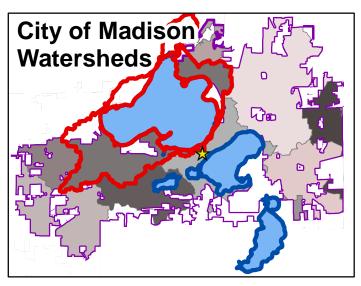
DOOR CREEK

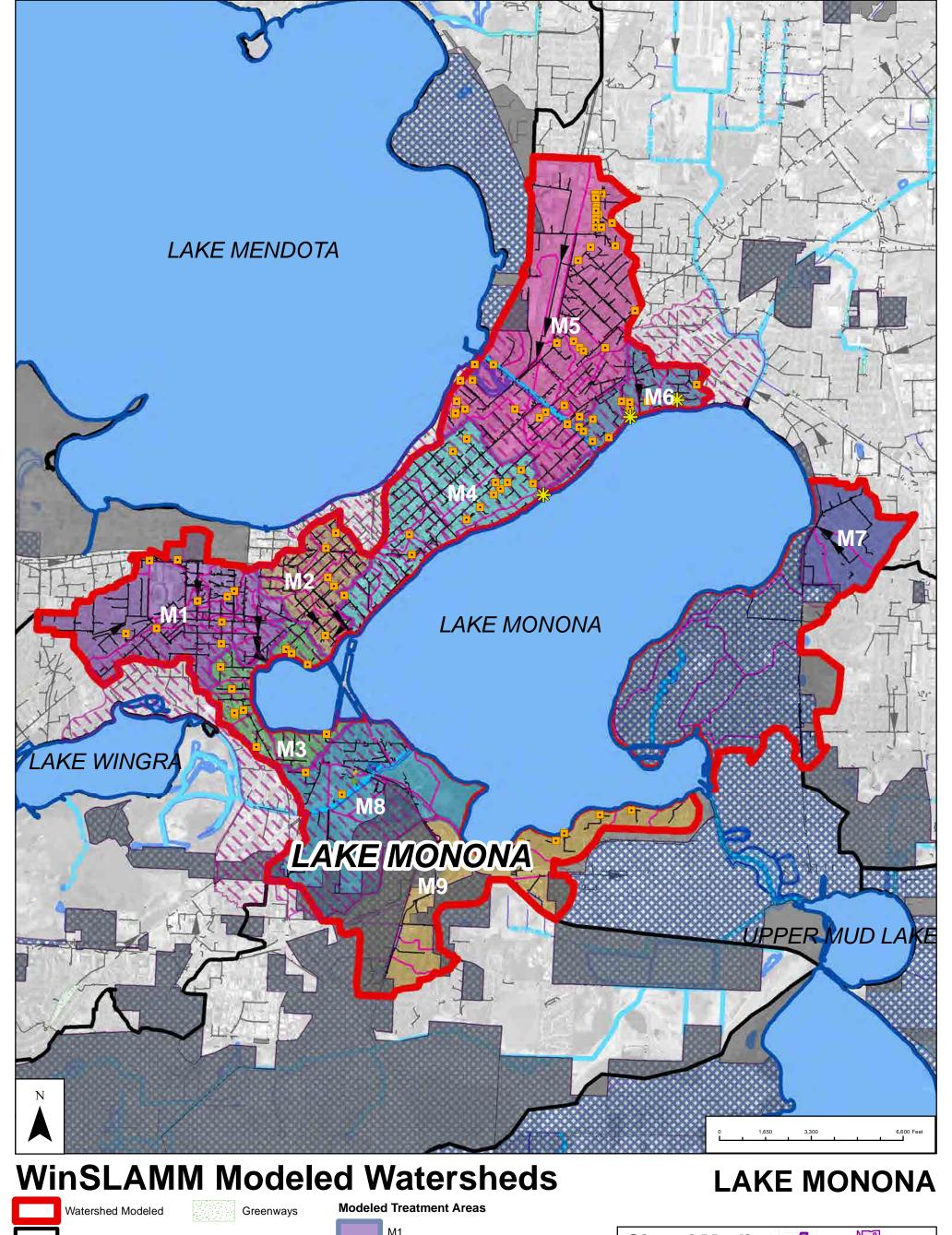






Dry Pond ME2 Infiltration Weekly Street Sweeping ME3 Exempt from Model Wet Pond ME4 Outfall Basins ME5 Storm Sewer ME6 ME7 ME8 ME9 ME_NT

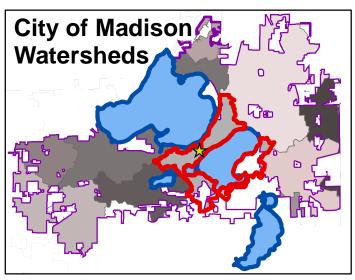


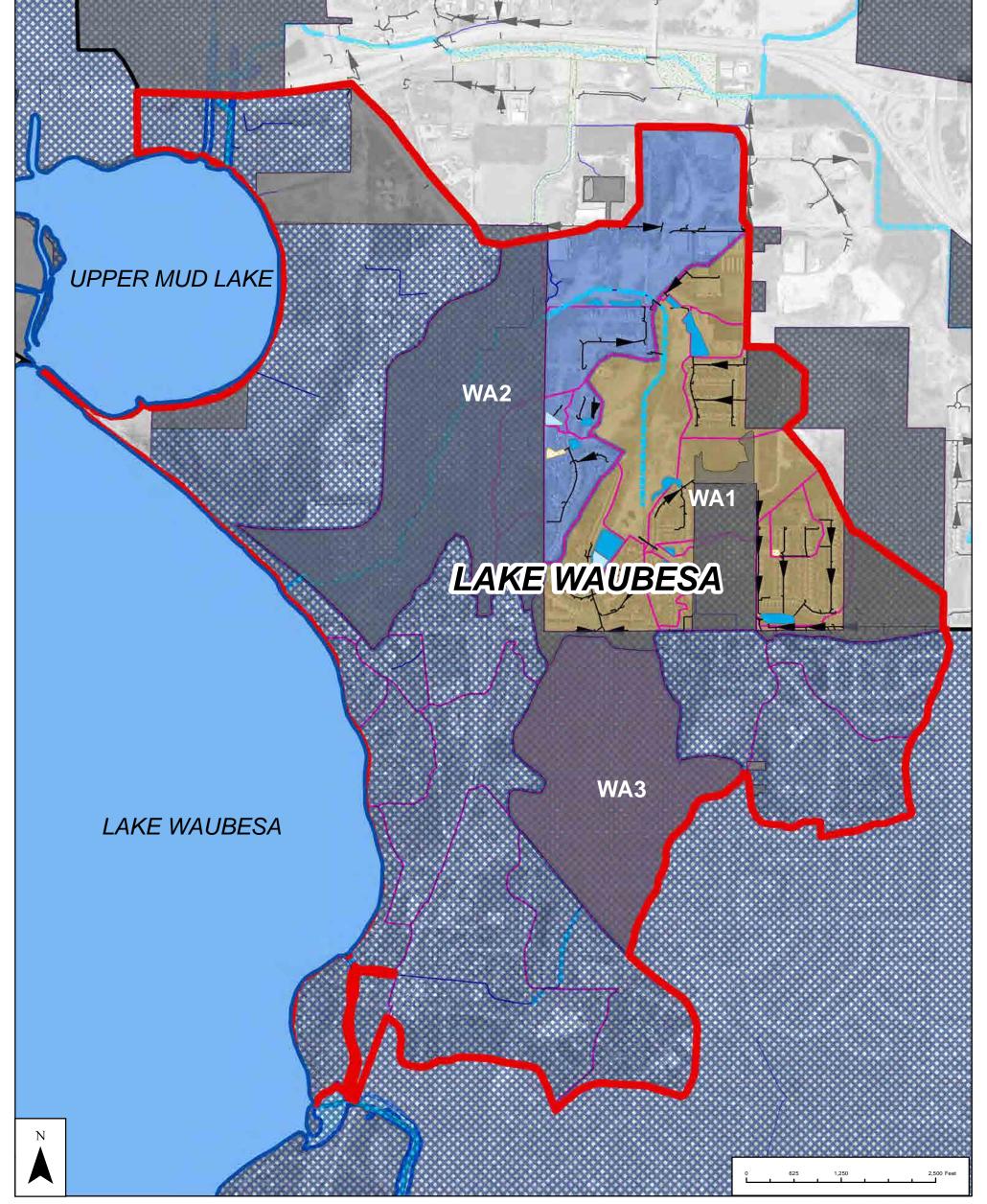


M1 All Watersheds Catchbasin M2 Outside City of Madison Screen Treatment МЗ City of Madison Bioretention Μ4 Weekly Street Sweeping Dry Pond М5

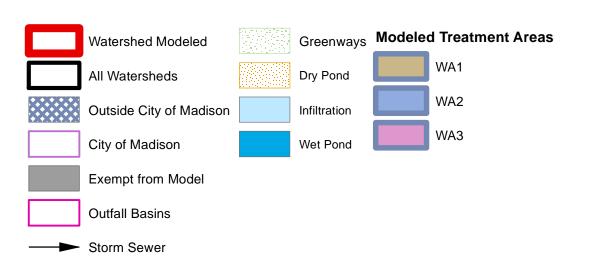
Exempt from Model Wet Pond M6 **Outfall Basins** M7 Storm Sewer M8

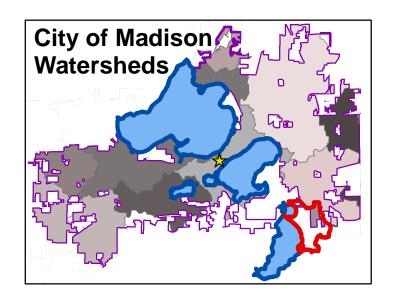
М9

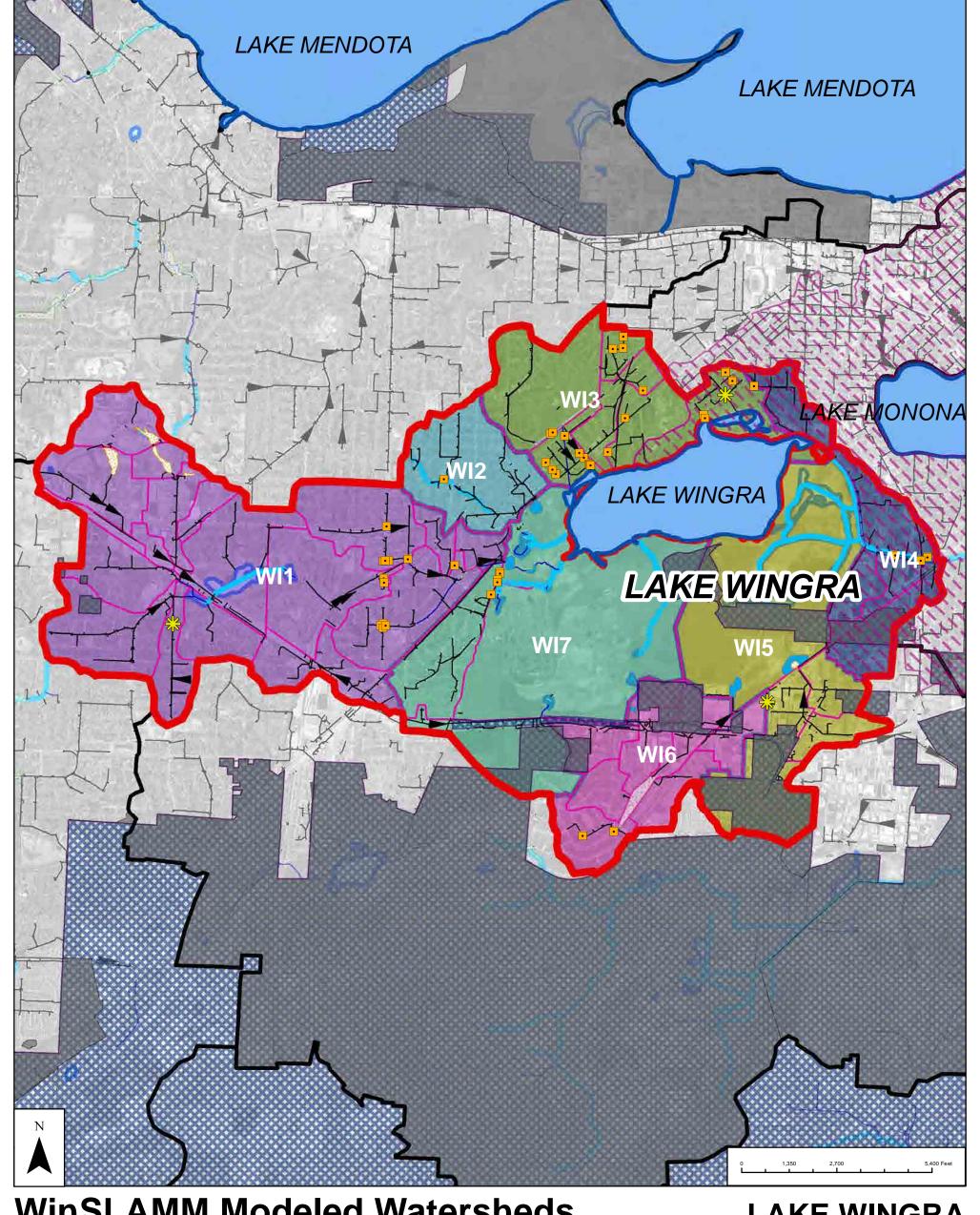




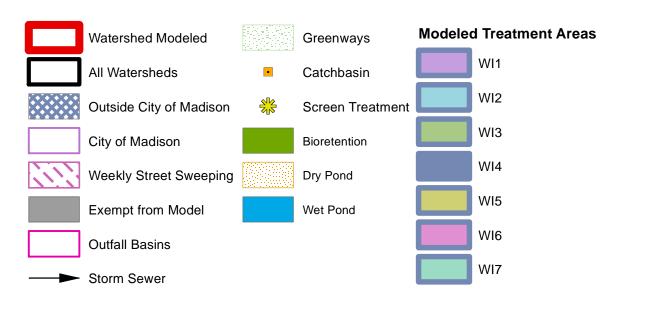
LAKE WAUBESA

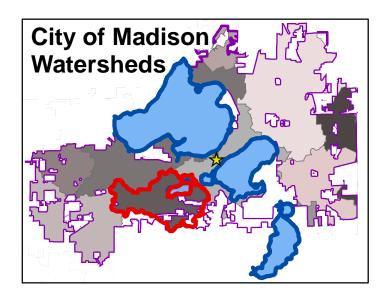


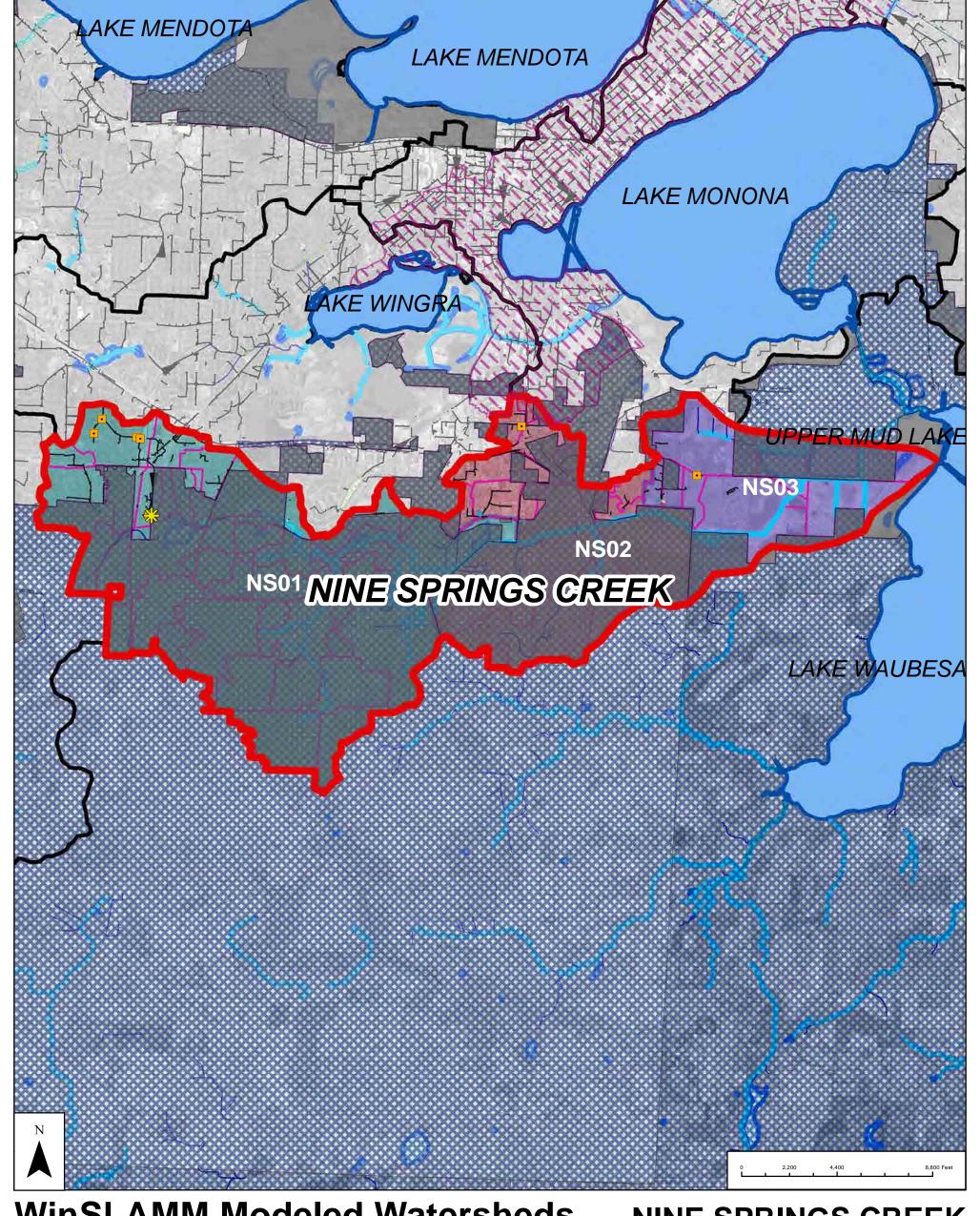




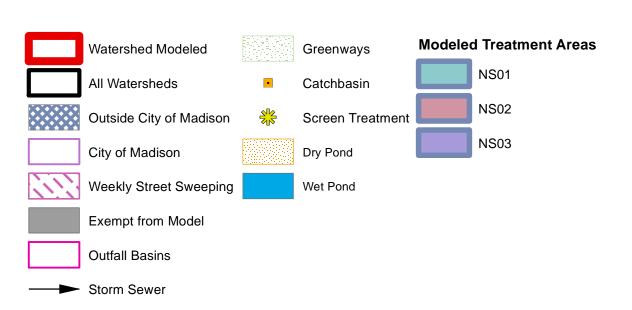
LAKE WINGRA

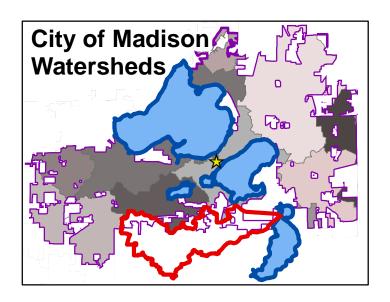


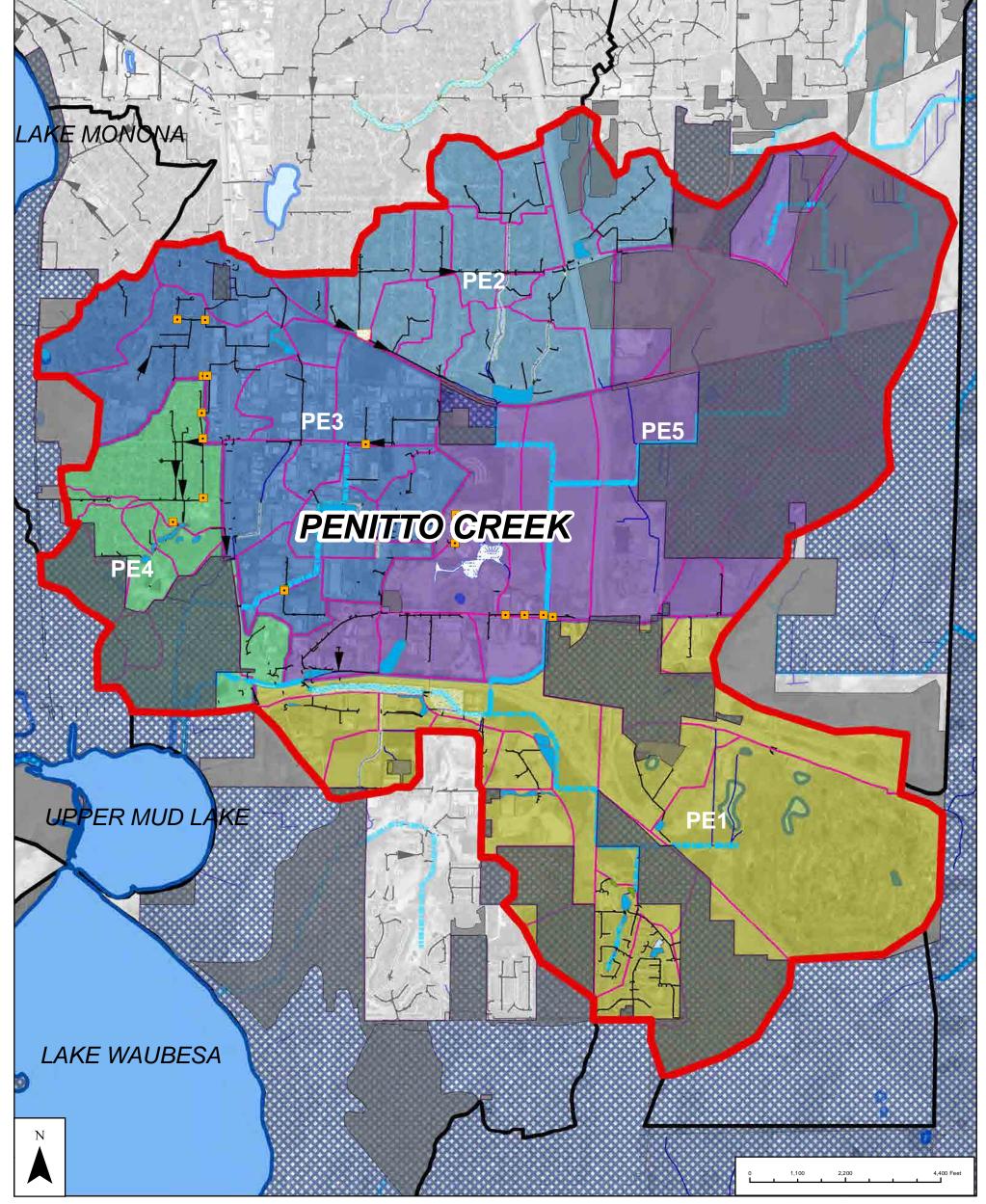




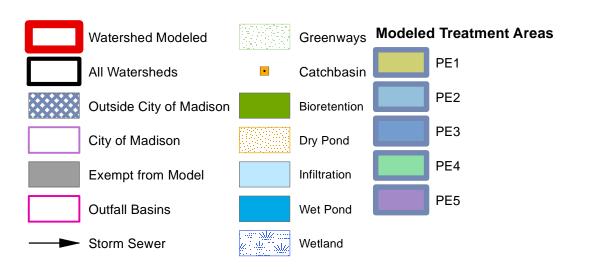
NINE SPRINGS CREEK

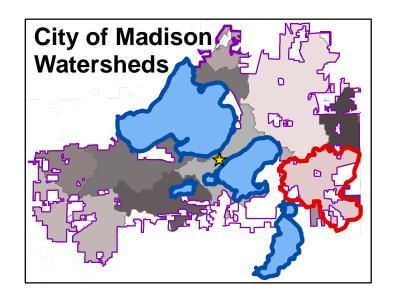


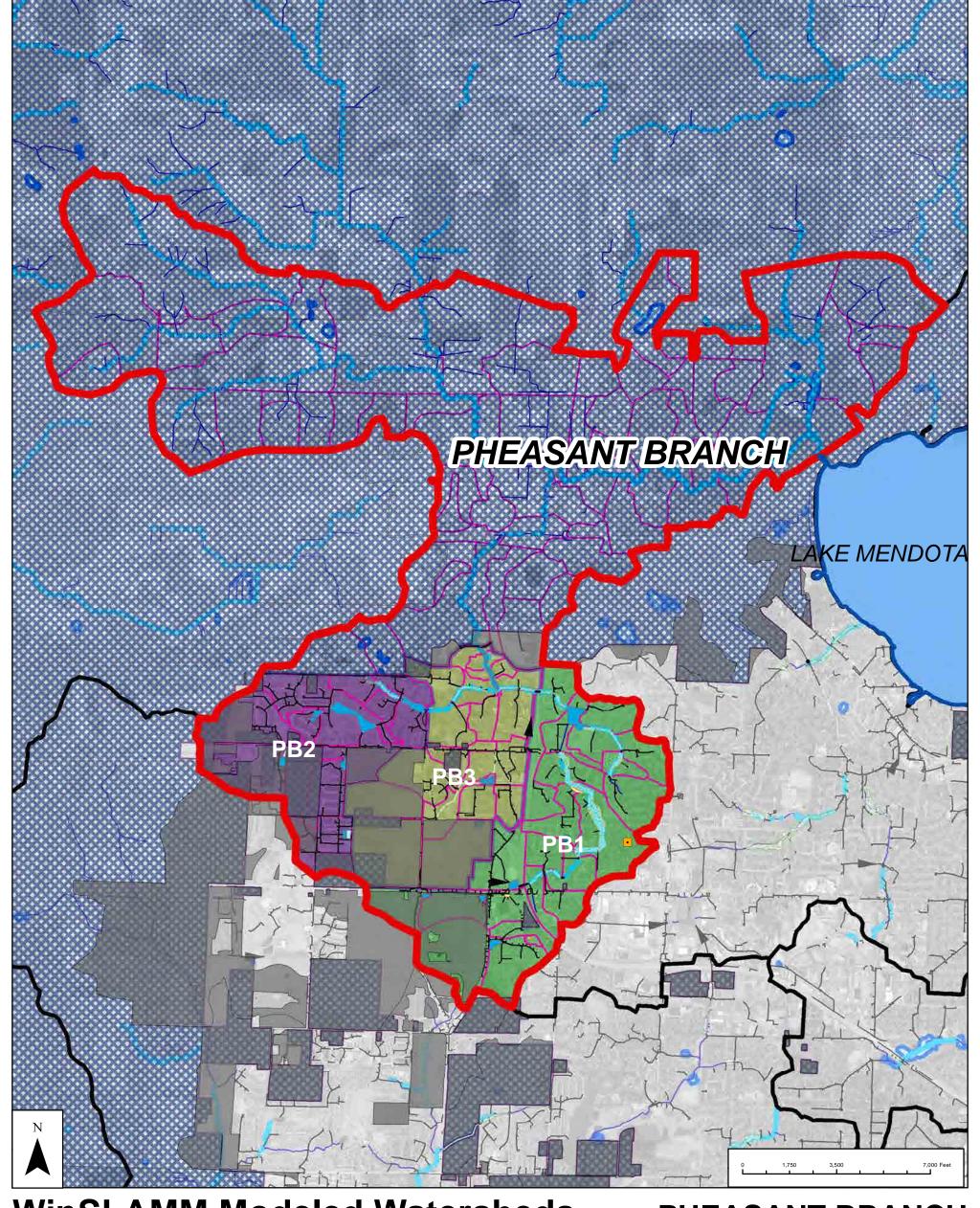




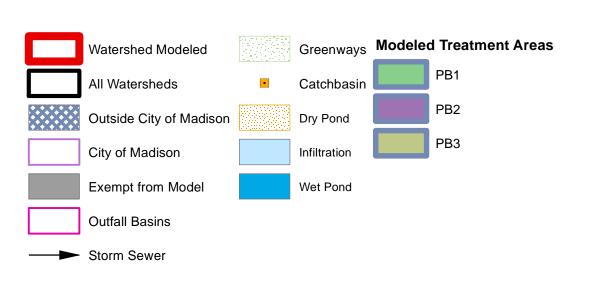
PENITTO CREEK

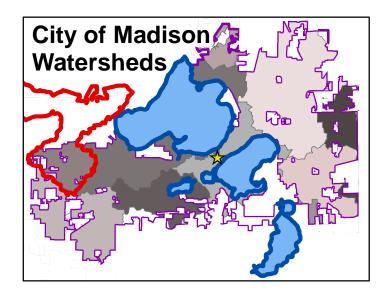


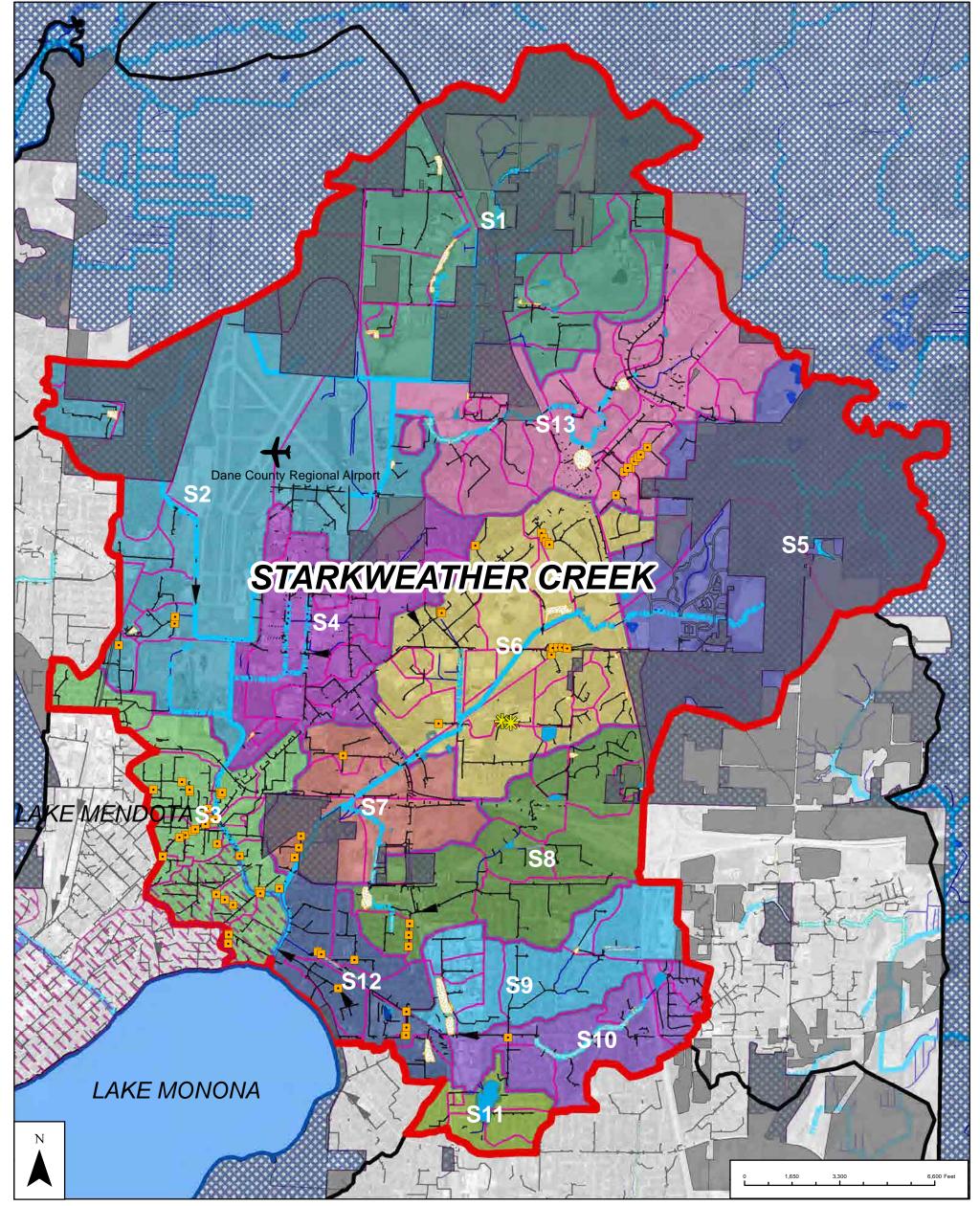




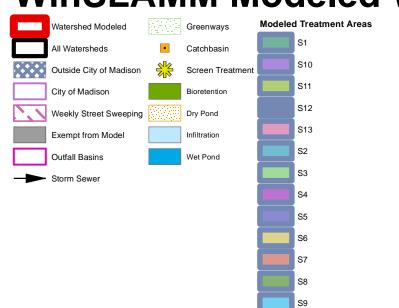
PHEASANT BRANCH

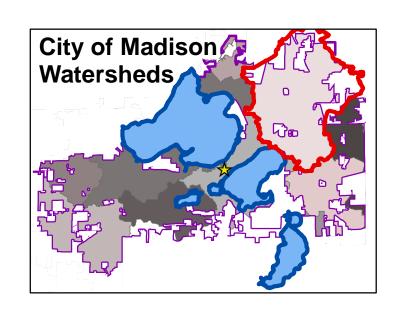


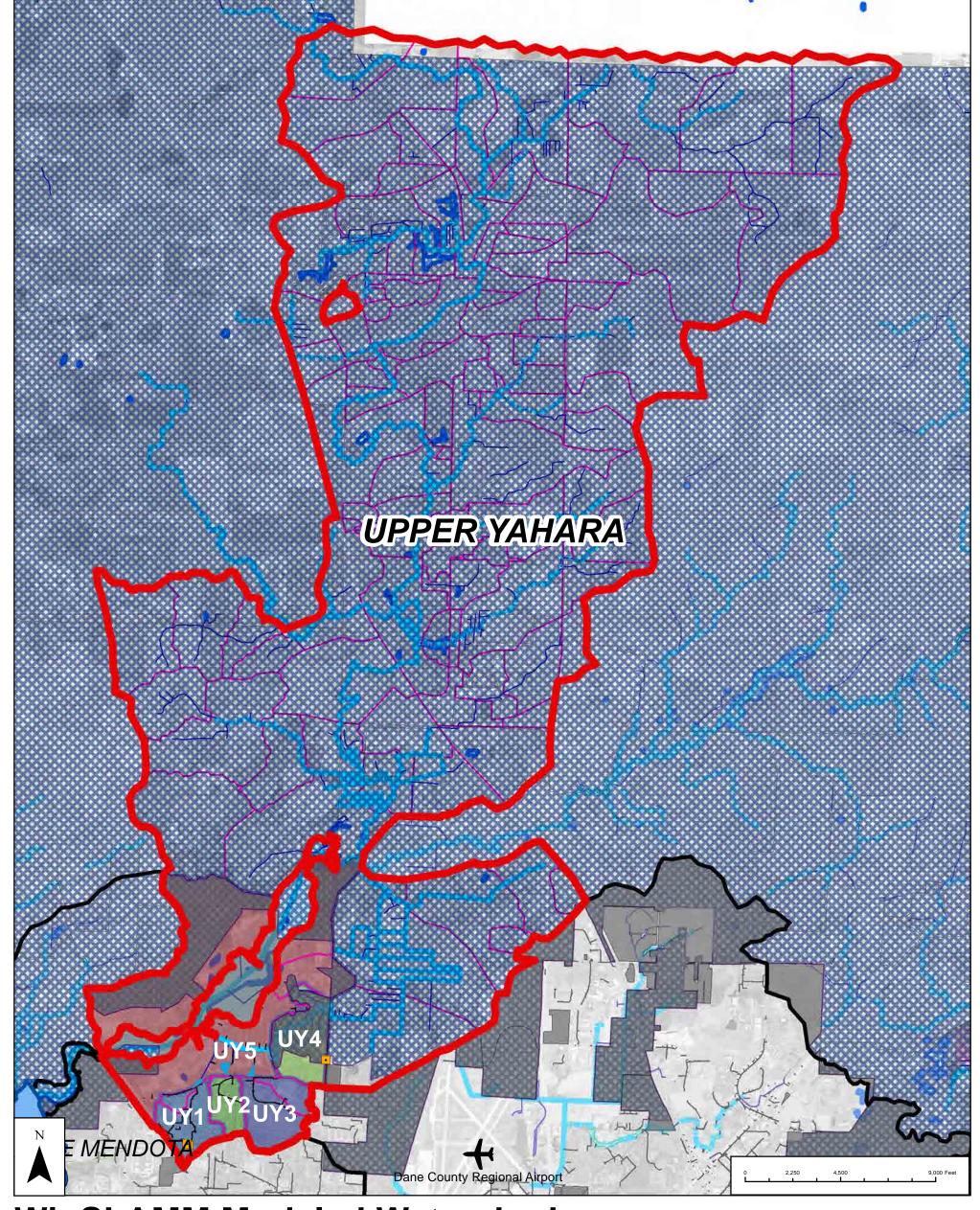




WinSLAMM Modeled Watersheds STARKWEATHER CREEK

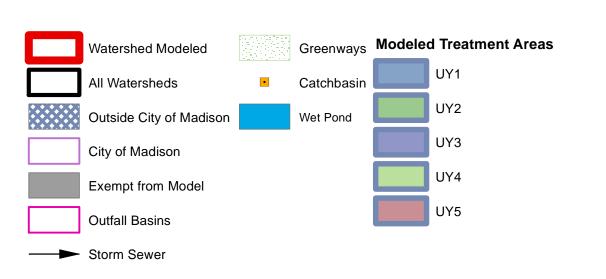


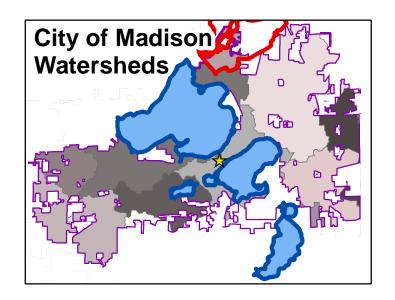


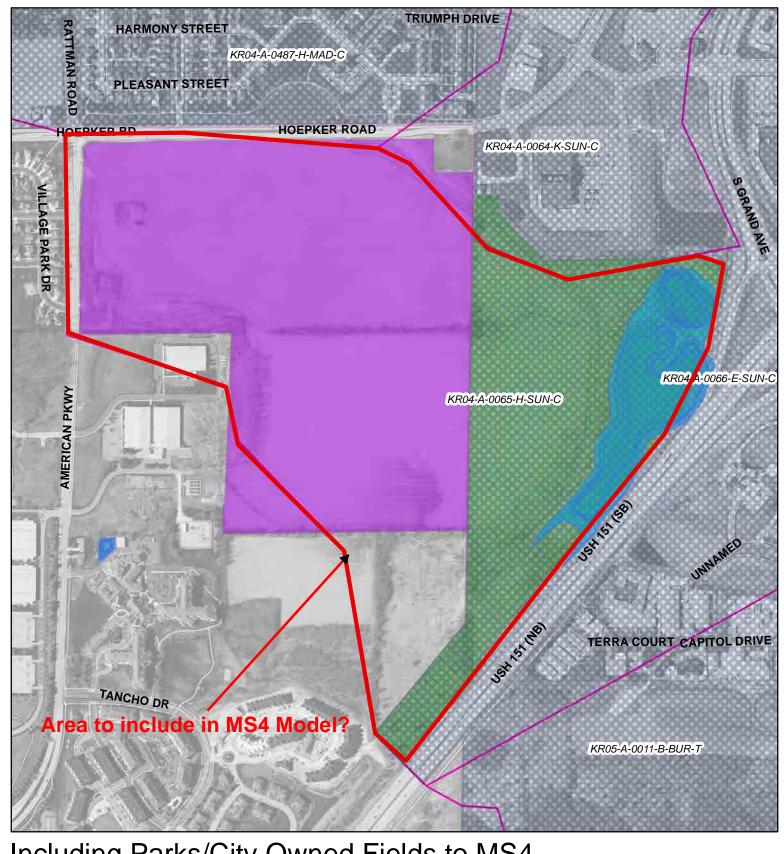


WinSLAMM Modeled Watersheds

UPPER YAHARA









MADISON AREA MUNICIPAL STORMWATER PARTNERSHIP 2018 ANNUAL INFORMATION AND EDUCATION WORK PLAN

The Madison Area Municipal Stormwater Partnership (MAMSWaP), under the auspices of a five-year memorandum of understanding through 2018, currently consists of 22 entities that have agreed to jointly implement stormwater outreach to reduce negative stormwater impacts. Members include the Cities of Fitchburg, Madison, Monona, Middleton, Stoughton, Sun Prairie and Verona; the Villages of Cottage Grove, Cross Plains, DeForest, Maple Bluff, McFarland, Shorewood Hills, Waunakee and Windsor; and the Towns of Burke, Blooming Grove, Madison, Middleton, Westport and; Dane County and the University of Wisconsin–Madison.

The MAMSWaP Information and Education (I&E) Committee assists the Dane County Stormwater Education Coordinator (SWEC) with development and implementation of projects and plans. Regular participation on the I&E Committee has included representatives from the Cities of Fitchburg, Madison, and Stoughton, Village of DeForest, Town of Westport, Dane County, Madison Metropolitan Sewerage District (MMSD), Wisconsin Department of Natural Resources (WDNR), AECOM, the University of Wisconsin Extension and UW Madison.

The MAMSWaP Annual I&E Work Plan seeks to meet or exceed the minimum requirements and elements outlined in the current WPDES Permit Number WI-S058416-3 (effective July 1, 2009 – June 30, 2014 and continuing until permit re-issuance); WPDES Permit Number WI-S050075-2 (May 1, 2014 – April 30, 2019) for the Village of Cottage Grove and City of Stoughton); and WPDES Permit Number WI-S050181-1 (May 1, 2014 – April 30, 2019) for the Village of Cross Plains 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. Numbered items are the specific elements from the permit language. Language for elements C(1)(b)(6) and (7) has been updated to reflect permit reissuance language anticipated by Wisconsin Department of Natural Resources staff. Proposed activities addressing the following required permit elements for 2018 are listed in <u>Table</u> 1.1.

- C(1)(b)(1). Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.
- C(1)(b)(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.
- C(1)(b)(3). Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.
- C(1)(b)(4). Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
- C(1)(b)(5). Promote infiltration of residential stormwater runoff from rooftop downspouts, driveways and sidewalks.

C(1)(b)(6). Inform and where appropriate 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.

C(1)(b)(7). Identify businesses and activities that may pose a stormwater contamination concern, and where appropriate, educate specific audiences on methods of stormwater pollution prevention.

C(1)(b)(8). Promote environmentally sensitive land development designs by developers and designers.

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 the articles and other tools developed for municipalities in municipal newsletters or utility bill inserts,
 - using displays developed for municipalities,
 - providing information on municipal web sites and social media sites
 - issuing press releases to local newspapers, and
 - implementing storm drain marking programs.

Municipalities must document in their reports to WDNR how they have used the materials developed by the I&E Committee.

Additional Activities and Ongoing Tasks

The actions listed below are completed and/or implemented annually by the SWEC and consume a considerable amount of the half-time hours available.

- Quarterly reporting to member municipalities.
- Biennial reporting to WDNR.
- Bill municipalities and track payments.
- Develop annual work plan.
- Develop/provide presentations focused on audience interests/concerns.
- Maintain and use existing listserv and distribution lists and develop new lists (as needed) to disseminate information.
- Continue providing organizations and community groups' assistance and collaborating with projects.
- Promote and advocate for stormwater focused trainings, webinars and lectures for contractors, municipal staff, designers and developers.
- Search and promote grant opportunities to fund stormwater practices or programs for municipalities, citizens, schools, water groups, businesses, etc.
- Promote stormwater related resources including: curriculum developed for MAMSWaP, A Reflection of Us All DVD and other videos on stormwater practices, the Dane Co. Erosion Control and Stormwater Management Manual, and the Enviroscape model.
- Continue to coordinate outreach with other local water groups.

Acknowledgments

The Madison Area Municipal Stormwater Partnership's 2018 Annual Information and Education Work Plan was developed by the MAMSWaP I&E Committee. Committee member 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.

I&E Committee Members Contributing to the 2018 Annual I&E Work Plan

Bill Balke, City of Fitchburg

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

Phil Gaebler, City of Madison

Mindy Habecker, Dane County - UW Extension

Sue Jones, Dane County Land and Water Resources Department

Kathy Lake, Madison Metropolitan Sewerage District

Kim McCutcheon, Wisconsin Department of Natural Resources

Rodney Scheel, City of Stoughton

Tom Wilson, Town of Westport

For more information, visit http://www.ripple-effects.com/ or contact Christal Campbell at 608-224-3746 or campbell.christal@countyofdane.com.



City of Madison

City of Madison Madison, WI 53703 www.cityofmadison.com

Legislation Details (With Text)

Version: 1 File #: 31219 Name: Authorizing the Mayor and City Clerk to enter into

> an inter-governmental agreement with Dane County for continuation of an ongoing Information and Education Program as part of the Madison Area

Municipal Stormwater Permit group (MAMSWaP).

Passed Type: Resolution Status:

File created: 8/9/2013 In control: **COMMON COUNCIL**

On agenda: 9/3/2013 Final action: 9/3/2013

Enactment date: 9/5/2013 Enactment #: RES-13-00683

Title: Authorizing the Mayor and City Clerk to enter into an inter-governmental agreement with Dane County

for continuation of an ongoing Information and Education Program as part of the Madison Area

Municipal Stormwater Permit group (MAMSWaP).

BOARD OF PUBLIC WORKS Sponsors:

Indexes:

Code sections:

Attachments: 1. FINAL_2014-18_MAMSWaPIntergovAgmnt.pdf

Date	Ver.	Action By	Action	Result
9/3/2013	1	COMMON COUNCIL	Adopt Under Suspension of Rules 2.04, 2.05, 2.24, and 2.25	Pass
8/21/2013	1	BOARD OF PUBLIC WORKS	RECOMMEND TO COUNCIL TO ADOPT UNDER SUSPENSION OF RULES 2.04, 2.05, 2.24, & 2.25 - REPORT OF OFFICER	Pass
8/9/2013	1	Engineering Division	Refer	

Funds for this project are available in account number ESTM-54967-563110 Stormwater - Administration. Estimated annual cost is \$12,493, with 5% increases annually.

Authorizing the Mayor and City Clerk to enter into an inter-governmental agreement with Dane County for continuation of an ongoing Information and Education Program as part of the Madison Area Municipal Stormwater Permit group (MAMSWaP).

WHEREAS, the City has previously entered into a joint municipal agreement with Dane County to meet the requirements of its Wisconsin Pollution Discharge and Elimination System (WPDES) Stormwater discharge permit for Information and Education (I&E), as part of a group now addressed as the Madison Area Municipal Storm Water Partnership (MAMSWaP); and

WHEREAS, the County is willing and able to maintain a half-time position (1,040 hours annually), to provide information, education, and outreach services in furtherance of the stormwater management programs conducted under the WPDES permit;

WHEREAS, the City, WDNR and the other members of the MAMSWaP group have agreed to update the agreement and believe that sharing the cost of I&E is more efficient than each municipality completing the work independently; and

WHEREAS, the I&E work completed by the members of MAMSWaP has been well received by the WDNR; and

File #: 31219, Version: 1

WHEREAS, the existing agreement expires on December 31, 2013; and

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and City Clerk are authorized to enter into an Intergovernmental Agreement with Dane County to provide I&E services as part of the City's WPDES stormwater discharge permit.

NR 216 Related Activities 2017-2018

Background

Public Health Madison and Dane County (PHMDC) engages in several activities related to storm water quality. Two City of Madison ordinances, promulgated circa 1975, direct these efforts, Madison General Ordinance (MGO) 7.46 and MGO 7.47.

MGO 7.46 "is designed to prevent any potentially polluting substance from reaching lakes or streams where it can create hazard to health, a nuisance, or produce ecological damage, and to assess responsibility and costs of clean-up to the responsible party". It prohibits releases, discharges and unsecure storage of potentially polluting substances. Further, the ordinance provides penalties and assigns enforcement responsibility to PHMDC.

MGO 7.47 requires a discharge license from PHMDC for point-source discharges to the storm sewer system within the City of Madison. Its goal is to ensure permitted discharges are of suitable quantity and quality to prevent degradation of surface and groundwater within the City's jurisdiction.

More recent programs and additions to the code of ordinances further address non-point source pollution. MGO 7.48 regulates or prohibits the sale or use of phosphorus containing fertilizer and Dane County Code of Ordinances Chapter 80.0 prohibits the application of high Polycyclic Aromatic Hydrocarbons (PAH), Coal-Tar Sealcoat.

Illicit Discharge Detection and Elimination

The Illicit Discharge Detection and Elimination (IDDE) program surveys all 590 major outfalls in the City on a four year rotation. City of Madison Engineering surveys one quarter of the outfalls once each year. They notify PHMDC whenever standing water with unusual characteristics or flowing water is found. We sample, analyze, and determine if the water quality indicates the presence of an inappropriate source.

Escherichia coli (*E. coli*) levels are used as the primary indicator of a sanitary discharge in a flowing storm sewer. Any result greater than 1,000 MPN (Most Probable Number)/100mL (level that triggers a beach closure) coupled with a positive fluoride and high ammonia and/or potassium results is considered suspect. Other analytes used and their trigger levels are as follows:

- Calcium and magnesium are used for hardness calculations. Hardness can be used
 in conjunction with fluoride concentration to determine the approximate ratio of
 storm water and municipal water in a sample. Excessive hardness can also indicate
 evaporation. Hardness above 500 mg CaCO₃/L is abnormal.
- Fluoride is maintained in the City's municipal drinking water at 0.7-0.8 mg/L. Sample concentration can be used to determine the approximate ratio of storm water and municipal water. Fluoride levels above 0.3 mg/L in standing water suggest municipal water influence.
- Ammonia is an indicator of sanitary waste. Concentrations over 1 mg/L are considered high.

- Dissolved oxygen is measured during sample collection. Values less than 4 mg/L are considered low.
- Total phosphorus is used as an indicator of nutrient load.
- Potassium is an indicator of sanitary waste. Concentrations greater than 5 mg/L are high. An Ammonia to potassium ratio greater than one is a strong indicator of sanitary waste.

High *E. coli*, ammonia, or potassium in a storm sewer with standing water result in checking for resident raccoons (*Procyon lotor*) before searching for a sanitary sewer input. This is accomplished by hanging marshmallows in storm sewer inlets near the suspect standing water. The sites are checked at 24 and 48 hour intervals. Missing marshmallows within 48 hours are considered positive tests for resident raccoons. A resident population of raccoons will cause significant water quality degradation to standing water in a storm sewer. Therefore, no further investigation is conducted when resident raccoons are noted unless fluoride levels are similar to drinking water.

In 2017, Engineering identified six storm sewer structures with flowing water. Two of these required further investigation. Both sewer lines were traced back to their origins. No source was found for either flow. The discharges were likely inflow from shallow groundwater. There were no flowing storm sewers discovered during the survey of 2018.

In addition to storm sewer screening, PHMDC investigates complaints of illegal dumping and questionable discharges. City field personnel are trained annually in identification and reporting of potential surface water pollutants. Approximately 100 employees from Engineering, Parks, and Water Utility received training in 2017 and again in 2018. Furthermore, about 25 civil engineers and planners from other municipalities in the watershed attended a training session. Another session for roughly 50 field staff from surrounding municipalities was recorded and posted to the Dane County storm water improvement website. In 2018, the local power utility hosted a training session for their contractors. About 40 people were in attendance.

Investigations are tabulated below. Black font indicates a violation was discovered by incidental observation from the environmental protection unit or lab staff. Red font indicates field staff trained in IDDE observation reported the issue. Citizen complaints and referrals from other departments are indicated by blue font. Bold font show locations outside the City of Madison. The responsible party is billed for clean-up when Engineering performs remediation.

Table 1

DATE	ADDRESS	ISSUE	OUTCOME
1/5/17	204 S Thornton Ave	Discharge of contaminated groundwater	No violation
2/20/17	120 S Fairchild St	Discharge of waste water	No violation
2/22/17	3910 Mineral Point Rd	Sediment laden discharge	RP corrected
2/22/17	5201 University Ave	Waste water discharge	Citation: \$313
3/2/17	1 E Main St	Concrete waste discharge	Citation: \$313
3/9/17	800 E Washington Ave	Debris from tree trimming in street	Referred to Parks
3/16/17	5710 Mineral Point Rd	Deicing salt spill	RP corrected
3/29/17	3734 Speedway Rd	Concrete waste discharge	RP corrected
3/30/17	548 W Johnson St	Styrofoam release	No source found
4/3/17	149 E Wilson St	Improper demo procedures	Referred to BI
4/6/17	1922 Raptor Dr	Paint waste discharge	Warning issued
4/6/17	3497 Hargrove St	Sediment laden discharge	RP corrected
4/6/17	4502 Milwaukee St	Sawdust deposited in street	Referred to Parks
4/40/47	C==4 11 ' ' A	Dischause of somewate weeks	Referred to Middleton
4/19/17	6771 University Ave	Discharge of concrete waste	Referred to Milduleton
4/19/17	514 Division St	Discharge of cleaning waste	Referred for prosecution
	-	-	
4/24/17	514 Division St	Discharge of cleaning waste	Referred for prosecution
4/24/17 4/25/17	514 Division St 514 Division St	Discharge of cleaning waste Discharge of cleaning waste	Referred for prosecution Referred for prosecution
4/24/17 4/25/17 5/1/17	514 Division St 514 Division St 2002 Pankratz St	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste	Referred for prosecution Referred for prosecution RP corrected
4/24/17 4/25/17 5/1/17 5/1/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release	Referred for prosecution Referred for prosecution RP corrected RP corrected
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St Hwy 30	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste Discharge of concrete waste	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown RP corrected
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17 6/9/17 6/12/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St Hwy 30 211 E Main St	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste Discharge of concrete waste Restaurant hood cleaning discharge	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown RP corrected Referred to Stoughton
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17 6/9/17 6/12/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St Hwy 30 211 E Main St 1010 Ann St	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste Discharge of concrete waste Restaurant hood cleaning discharge Grass clippings left in street	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown RP corrected Referred to Stoughton Sweeper dispatched
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17 6/9/17 6/12/17 6/12/17 6/14/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St Hwy 30 211 E Main St 1010 Ann St 601 Bay View	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste Discharge of concrete waste Restaurant hood cleaning discharge Grass clippings left in street No sediment control	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown RP corrected Referred to Stoughton Sweeper dispatched Referred to Engineering
4/24/17 4/25/17 5/1/17 5/1/17 5/25/17 6/6/17 6/9/17 6/12/17 6/12/17 6/14/17 6/15/17	514 Division St 514 Division St 2002 Pankratz St 515 University Ave 1402 Sycamore Ave 122 W Main St Hwy 30 211 E Main St 1010 Ann St 601 Bay View 226 State St	Discharge of cleaning waste Discharge of cleaning waste Discharge of brewery waste Styrofoam release Grass clippings left on pavement Discharge of concrete waste Discharge of concrete waste Restaurant hood cleaning discharge Grass clippings left in street No sediment control Cooking oil spill	Referred for prosecution Referred for prosecution RP corrected RP corrected Referred to Engineering Source unknown RP corrected Referred to Stoughton Sweeper dispatched Referred to Engineering Vandalism, RP corrected

DATE	ADDRESS	ISSUE	OUTCOME
6/20/17	609 E Washington Ave	Discharge of concrete waste	RP corrected
7/6/17	2302 Fish Hatchery Rd	Discharge of paint waste	Referred for prosecution
7/11/17	2501 Royal Ave	Coal tar application	No violation
7/17/17	4714 Hammersley Rd	Discharge of water	Fire suppression system test
7/17/17	3601 Nakoma Rd	Discharge w/o sediment control	Citation: \$313
7/20/17	University Ave	Discharge w/o sediment control	Warning issued
7/25/17	Atwood Ave bridge	Discharge of concrete waste	Referred for prosecution
7/25/17	1524 Williamson St	Discharge of waste water	Warning issued
7/25/17	2947 University Ave	Dumpster cleaning procedure ?	Consultation
7/26/17	152 Dixon St	Incomplete clean-up of hydraulic oil release	Engineering corrected
7/26/17	446 Holly Ave	Sawdust deposited in street	Referred for prosecution
7/27/17	4209 Dwight St	Discharge of paint waste	Warning issued
7/28/17	428 Livingston St	Discharge of concrete waste	Citation: \$313
8/1/17	458 S Owen Dr	Discharge of concrete waste	Referred for prosecution
8/2/17	209 Ramsey Ct	Sewage discharge	RP corrected
8/3/17	602 Cottage Grove Rd	Grease trap overflow	RP corrected
8/3/17	Capitol Square	Street festival storm water impact assessment	Action needed
8/4/17	3221 Milwaukee St	Sawdust deposited in street	Referred for prosecution
8/8/17	1 W Wilson St	Discharge of concrete waste	Referred to Engineering
8/10/17	111 S Hamilton St	Discharge of dumpster leachate	RP corrected
8/14/17	2717 Hammersley Rd	Discharge of concrete waste	Referred for prosecution
8/22/17	Sheboygan Ave	Sawdust deposited in street	
8/24/17	1330 Regent St	Discharge of cleaning waste water	Warning issued
8/24/17 8/24/17	1330 Regent St 1821 Regent St	Discharge of cleaning waste water Discharge of concrete waste	Warning issued Referred for prosecution
	_		-
8/24/17	1821 Regent St	Discharge of concrete waste	Referred for prosecution

DATE	ADDRESS	ISSUE	OUTCOME
10/5/17	739 E Johnson St	Sawdust deposited in street	
10/16/17	502 N Midvale Blvd	Concrete spill	Streets cleaned up
10/17/17	303 N Hamilton St	Oil sheen at outfall	RP not found
10/26/17	6001 Femrite Dr	Discharge of seal coat	Referred to WDNR
11/2/17	4317 Tokay Blvd	Discharge of concrete waste	Referred for prosecution
11/25/17	6754 Odana Rd	Restaurant hood cleaning	No violation
12/7/17	1525 Williamson St	Discharge of concrete waste	Warning issued
12/13/17	4822 University Ave	Discharge of bentonite slurry	RP corrected
12/14/17	2330 Atwood Ave	Discharge of waste water	Warning issued
12/15/17	201 W Mifflin St	Discharge of waste water	Foundation drain
1/8/18	699 S Whitney Way	Car wash drain plugged	Citation: \$313
1/11/18	4100 Monona Dr	Excessive deicing salt application	No violation
1/12/18	1701 Wright St	Excessive deicing salt application	RP corrected
1/24/18	423 Warbler Ln	Plugged sanitary sewer line	Referred to sanitarian
1/26/18	2002 S Gammon Rd	Deicing salt spill	RP not found
2/1/18	4201 sycamore Ave	Vehicle leaking motor oil	RP corrected
2/14/18	2424 University Ave	Sanitary sewer overflow	Citation: \$313
2/22/18	2701 Progress Rd	Discharge of bentonite slurry	Engineering cleaned up
3/15/18	216 Cottage Grove Rd	Excessive deicing salt application	No violation
3/20/18	901 E Washington Ave	Release of Styrofoam beads	RP corrected
3/21/18	519 State St	Discharge of cooking oil	Referred for prosecution
3/23/18	1779 Norman Way	Broken sanitary line	RP corrected
3/26/18	3401 E Washington Ave	Fire suppressant foam discharge	Engineering cleaned up
3/29/18	803 E Washington Ave	Discharge of concrete waste	Citation: \$691
4/6/18	337 E Sunset Ct	Discharge of concrete waste	Referred to Engineering
4/6/18	Doyle Square	Discharge of concrete waste	Warning issued
4/19/18	Lake Mendota	Discharge of sediment to lake	Proper controls used

DATE	ADDRESS	ISSUE	OUTCOME
5/4/18	215 Martin Luther King Jr Blvd	Sediment laden discharge	Citation: \$313
5/22/18	1 John Nolen Dr	Sediment laden discharge	No violation
6/4/18	2574 Hoard St	Sinkhole	Referred to Engineering
6/8/18	Lakeside St	Sediment laden discharge	No violation
6/11/18	1 N Bedford St	Sediment laden discharge	Referred for prosecution
6/18/18	921 Oakland Ave	Sediment deposits in street	RP corrected
6/21/18	3255 Monroe St	Sanitary sewer overflow	RP corrected
6/26/18	2827 Atwood Ave	Grease trap overflow	RP corrected
6/26/18	3821 Dennett Dr	Discharge of automotive fluids	Citation issued by BI
7/3/18	1 W Dayton St	Carpet cleaning waste discharge	Warning issued
7/3/18	115 S Paterson St	Sediment tracking	RP corrected
7/9/18	2302 Packers Ave	Coal tar sealant application	No violation
7/9/18	2418 N Sherman Ave	Coal tar sealant application	No violation
7/9/18	4611 Verona Rd	Coal tar sealant application	No violation
7/9/18	3801 Hwy M	Coal tar sealant application	No violation
7/17/18	1102 E Washington Ave	Concrete waste discharge	Warning issued
7/23/18	6718 Odana Rd	Discharge of dumpster leachate	Citation: \$313
7/24/18	110 S Patterson St	Discharge of concrete waste	Warning issued
7/24/19	314 S Orchard St	Discharge of paint waste	RP not found
7/24/18	4820 Hayes Rd	Coal tar sealant application	No violation
7/25/18	905 Merrill Springs Rd	Discharge of paint waste	RP not found
7/27/18	1325 Debra Ln	Discharge of paint waste	No violation
8/8/18	3394 E Washington Ave	Fertilizer application on sidewalk	RP corrected
8/20/18	1618 Jefferson St	Discharge of paint waste	Warning issued
9/10/18	402 Luster Ave	Overspray of herbicide	Unable to verify
9/17/18	1514 Packers Ave	Fuel oil spill on soil	Owner remediated
11/28/18	Town of Roxbury	Illegal dumping of yard waste	Referred to DCLWR
12/4/18	626 S Park St	Restaurant hood cleaning waste discharge	Citation: \$313

Complete files for each issue are in separate, attached files.

Letters are sent annually summarizing proper wastewater disposal or product application procedures to all business types that have a history of illicit discharges (concrete contractors, carpet cleaning, pressure washing, and lawn care companies). The letters are sent in late winter to ensure all contractors are informed before the start of the construction season. Copies of the letters and a list of the businesses receiving them are in the Appendix A.

Non-storm water discharges

There are 163 licensed discharges to the storm sewer system, comprised mostly of swimming pool and non-contact cooling waters. The number of licenses in each of the six discharge volume categories is:

Number of discharges
76
45
26
10
5
2

In the past biennium, 197 pool samples were analyzed for permit compliance. Results are tabulated below. Metals and phosphorus values are for total recoverable forms. For values with non-detects, half the LOD was used.

Table 2

	Total Chloride mg/L	Copper μg/L	Lead μg/L	Nickel μg/L	Phosphorus mg/L	Zinc μg/L
Minimum	16	2.1	1.05	0.65	0.002	0.2
1 st Quartile	227	12.5	1.05	0.65	0.145	12.7
Median	604	24.6	1.05	0.65	0.256	23.2
3 rd Quartile	1000	58.5	1.05	1.86	0.522	45.1
Maximum	5600	3430	4.46	38.1	8.09	306

Monthly outfall monitoring

Grab samples were collected monthly from seven outfalls into Lake Mendota, Lake Monona, Dunn's Marsh, and from one storm water retention pond. Ninety two samples were analyzed in the past two years. The minimum, median, maximum, and first and third quartiles are presented in table 3 for total chloride, total

recoverable chromium, total recoverable copper, calculated hardness, total recoverable iron, ammonia, nitrate, dissolved reactive phosphorus, total phosphorus, sodium and zinc.

Τa	ıb	le	3

	Cl ⁻ mg/L	Cr μg/L	Cu μg/L	Hard mg/L	Fe mg/L	NH₃ mg/L	NO₃ Mg/L	DRP Mg/L	P _T μg/L	Na mg/L	Zn μg/L
Min	9.5	0.15	0.45	32.2	0.004	0.007	0.05	0.011	0.009	7.2	1.8
25%	115	0.3	4.14	271	0.042	0.007	0.88	0.026	0.029	55.0	4.6
Median	173	0.70	7.25	374	0.119	0.020	1.61	0.043	0.092	94.1	7.6
75%	400	1.14	13.2	509	0.521	0.054	2.21	0.081	0.155	197	15.2
Max	1710	2.62	101	805	2.710	0.663	3.59	0.617	0.732	984	110

Additional elements analyzed were: aluminum, arsenic, barium, cadmium molybdenum, nickel, manganese, and lead (total recoverable form for all). Arsenic was detected three times out of 90 samples, with a maximum level of 5.4 micrograms per liter. Lead was over the minimum detection limit five times out of 90 samples, with a maximum concentration of 7.5 micrograms per liter.

Monthly road salt monitoring

Samples were collected at the outlets of the Yahara Lakes, Dunn's Marsh, the Yahara River upstream from Lake Mendota, and the Nakoma Road spring each month to monitor long-term effects of road salt use. Eight additional creeks were added to the sampling sites in 2018 to characterize their contributions to lake water quality. Additional long-term water quality monitoring is achieved through analysis of the suite of metals and nutrients used for outfall analysis. Two hundred thirty one samples were analyzed in the past two years.

Water quality monitoring of Starkweather Creek

Water quality monitoring of Starkweather Creek was started in 2008 to assess trends in water quality, document the impact of road salt, and detect illicit discharges to the creek. Sampling sites were established to isolate the different sections of the stream. Both branches (west and east) are sampled as near to the headwaters as practical. The west branch is sampled downstream of the airport to detect changes in water quality caused by airport operations. Both branches are sampled again before they merge and a final sample point is near the mouth of the creek at Lake Monona.

The creek is monitored for common metals, nutrients, bacteria, road salt, and dissolved oxygen. Sixty eight samples were collected in the past two years. Sections of Starkweather Creek are seasonally impaired by low dissolved oxygen or high chloride concentrations.

APPENDIX A

BMP Letter Recipients 2017

CONCRETE CONTRACTORS	LAWN CARE	CARPET CLEANERS
A&E Concrete Construction	Accurate Lawn Care LLC	A Clean Carpet and Upholstery
Advanced Concrete	Ace Mulches LLC	A J Specialty Services Inc
Ageless Concrete	Alpine Lawn Care	AAA Madison Carpet Cleaning
Bachman Construction Co	Anderson Lawn Service	BD Clean LLC
Bauer & Raether Builders	Badger Lawn Professionals	Capital City Carpet Cleaning
Becker Construction	Badger Pro Landscape Service	Carpet Care Experts LLC
Benninger Concrete Construction	Barnes	Carpet Clinic
Benschop Concrete Construction	Big Country Lawn Care	Clean Team Madison
Butches Concrete & Excavation	Bill's Lawn Service	'Cleen Trax Maintenance
Capitol City Concrete	Boley Tree and Landscape	Concept Cleaning Co
Carpenter Construction	Bonner Lawn and Landscape LLC	Crown Carpet Care
Casey Concrete & Construction	Breunig Lawn Care	Designer's Choice Upholstery
Chris Construction Corp	Caretakers	Duff's Carpet Cleaning
Chris Foss Contractors	Carrington Lawn Service LLC	Ever Fresh Carpet & Floor Care
Chrisler Concrete	Chapin Services	Helbach Cleaning Services
Cliff's Custom Concrete	Clear Cut Lawn Service	Access Janitorial Plus Inc
Conco Concrete Construction	Complete Lawn and Garden Service	Jerry's Carpet Service
D & K Concrete Construction	Cutting Edge Lawn Care	Mackesey Carpet Cleaning LLC
D & M Concrete	David J Frank	Madison Area Carpet Cleaners
Dan's Concrete	Earthscapes	Maintenance Services of Madison Inc
Decorative Concrete Services	Evan's Landscape	Mass Carpet Care LLC
Docken Concrete	Evergreen Everbloom	Northern Building Maintenance
E P McMahon & Sons	Evergreen Lawn Care	Northland Carpet Cleaning
Eastside Concrete Construction	Fabick Lawn Care	P & H Carpet Installation
E C Voit & Sons	Fourleaf Lawn Care	Precision Cleaning
Economy Cement	Target Stores	Preferred Carpet Cleaning
F & M Concrete	Glacier Landscape Inc	Procarpet of Dane Co
Feuling Concrete Construction	Green Acres Lawn Service	R & Carpet Cleaning
Fink's Construction	Habitats	Rainbow International of Dane Co
Fisher Concrete	Hanson Family Lawn Care	Renew Carpet and Upholstery Care
Fisher Construction	Hugo Lawn Service	Renovation Floor Care
Foust Foundations	J & B Lawn Service	Restoration Specialists
Hard Rock Sawing and Drilling	Jesse's Lawn Care	RestorX
Hermanson Concrete and Masonry	Keyman Lawn Care	Sears Carpet & Upholstery & Airduct Cleaning
Homborg Contractors	Landscape Care Co	Servicemaster Clean
Hottman Construction	Landscapes Design	Servicemaster Restoration
Interstate Sawing Co	Lawn Doctor of Madison	Stanley Steamer
JB Crete Inc	Lawncare Plus	Stanley Steamer Carpet Cleaners
Joe Daniel's Construction	Lawns by Tim LLC	Steam and Dry Madison
Jones Concrete Products	Lawns Unlimited	TC Carpet Care
K & M Concrete	Leisure Lawns	Twoie Gallagher Floor Refinishing
Kittleson Concrete	Madison Horticulture Service	Ultimate Carpet Cleaning LLC
Krizan Concrete	Manthe Lawn Service	White Knight Carpet Rescue
Legler Concrete	Maple Leaf Inc	Zerorez Madison
Lovell Concrete	Messner Landscape Maintenance	Steam Plus
Lycon Inc	Miller Rhode	Brother's Cleaning and Painting

Malibu Pools	Mother Earth's Lawn Care	
Meade Construction	Naturescape	
Middleton Construction	Norland Landscape	
Midwest Concrete Contractors	Northern Landscape Service	
MJM Concrete Lifting	Olson-Toon Landscaping	
Morrick Concrete	PFD LLC	
Nature Stone of Madison	Precision Mowing	
Nelson Mud Jacking	Property Services of Madison	
Newman Concrete Lifing	Proscapes	
O'Neil Construction Inc	Quality Mowing Services	
Parisi Construction	Richardson Lawn Care	
Peckham Landscaping and Excavating	Rick's Lawn and Garden LLC	
R&R Concrete	Schmidt Landscape Services Inc	
Rockcrete	Scott's Lawn Service Inc	
Rutland Concrete Construction	Spectrum Home Services	
Steel Forms Construction	Superlawns LLC	
Sun Prairie Concrete Inc	The Bruce Co	
The Concrete Company	The Care of Trees and Turf	
The Concrete Remover	Tiplok Home Services	
Tom Hellenbrand Bobcat Service & Concrete Removal	Top 2 Bottom Lawn Care	
Wingra Redi-Mix Inc	Top Cut Lawn Service	
Wirth Construction	Trugreen	
Woodland Construction	Weed Man	
Bauer & Raether Builders Inc	Windsor Lawns	
C&C Concrete	Haus Services LLC	
Mr Concrete		
K & S Energy		
Raymond Cattell Inc		
KSW Construction		
Intercon Construction		
Kraemer Brothers Inc		
Michaels Construction		
Paradise Valley Concrete		

PRESSURE WASHING	SEAL COAT	FETILIZER SALES	MARKETS
A Super Painters	7 Hills Striping Inc	Ace Hardware Center	Asian Midway Foods
Accent Painting	American Seal and Stripe	Ace Hilldale	Copps
Accurate Power Washing	Asphalt and Concrete Specialties	Ace Lakeside Hardware	Copps
Action Professional Window Cleaning	Asphalt Maintenance Systems	Dorn True Value	Pick N Save
American Painting Co	B&D Sealcoating	Dorn True Value	Pick N Save
Summit Companies	Badger Asphalt	Farm & Fleet	Metcalf's Sentry
Badger Spray	Badger Blacktop Sealing	Farm & Fleet	Hy-Vee
Brent's Fine Painting LLC	Bartelt Enterprises	Home Depot	Jennifer St Market
CCR & Co	C & M Asphalt	Home Depot	Knoche's Food Center
Classic Concepts Painting	Davis Constr of Portage	Jung Garden Centers	Willy St Grocery Coop
Clearview Window Washing	Directional Striping Co	Jung Garden Centers	Target Stores
Cubic Wall Systems	DNS Asphalt	Menard's	Target Stores

Eco-reliable LLC	DRS LTD	Menard's East	Target Stores
Ellingson Pro-clean Inc	Fahrner Asphalt Sealers LLC	Menard's West	Target Stores
Extreme Painting	Fink's Paving & Excavating	North Side True Value	Whole Foods Market
Genesis Painting	Four Lakes Paving Co Inc	Paradigm Gardens	Willy St Grocery Coop
Glacier Painting	General Asphalt	Quality True Value	Woodman's Markets
Gottschalk Painting	Hallman Asphalt Paving	Shopko	Hy-Vee
Haus Services LLC	Hinzman Balcktop	Shopko	Metro Market
Hood Clenaing Inc	JD Hellenbrand	Shopko	Pick N Save
Hoodz of Greater Madison	Marks and Stripes	Target	Metcalf's Sentry
Kvalheim Kountry Painters	Midwest Asphalt Maint	Target	Metcalf's Sentry
PFD LLC	Modern Striping	Wal-Mart	Metro Market
Servicemaster Cleaning	NR Asphalt Pavement	Wal-Mart	Hy-Vee
Squeege Plus	O & H Sealcoating	Target Stores	Pick N Save
Stefan Schmidt Painting LLC	Poblocki Paving Corp	Target Stores	
Thrift Painting	Renu Sealcoating		
Tiplock	Struck and Irwin Paving		
Top 2 Bottom Lawncare	Tri-County Paving		
TW Painting	United Paving		
Warden and Son	Tri-county Sealcoating Inc		
Ziegler Pressure Washing	Wolf Paving		
New Look Painting	Well's Paving		
BD Clean LLC	Asphalt Reheat Systems		
AMD	Payne and Dolan		
Shon & Mike's Hood	Summerseal Asphalt		
Cleaning	Maintenance		
Tom's Painting	Quality Sealcoat Co		
Peter Onsager Painting			
Best Painting Service			
Tru Colors Painting			
Eric Welch Painting			
Megna Painting			
Peter's Painting			
Brent's Fine Painting			
Frontier Hood Services LLC			
American Pressure Cleaning			

BMP Letter Recipients 2018

CONCRETE CONTRACTORS	LAWN CARE	CARPET CLEANERS
A&E Concrete Construction	Accurate Lawn Care LLC	A Clean Carpet and Upholstery
Advanced Concrete	Ace Mulches LLC	A J Specialty Services Inc
Ageless Concrete	Alpine Lawn Care	AAA Madison Carpet Cleaning
Bachman Constr co	Anderson Lawn Service	BD Clean LLC
Bauer & Raether Builders	Badger Lawn Professionals	Capital City Carpet Cleaning
Bauer & Raether Builders Inc	Badger Pro Landscape Service Inc	Carpet Care Experts LLC
Becker Construction	Barnes	Carpet Clinic
Benninger Concrete Constr	Big Country Lawn Care	Clean Team Madison
Benschop Concrete Constr	Bill's Lawn Service	'Cleen Trax Maintenance
Bullhead Construction	Boley Tree and Landscape	Concept Cleaning Co
Butches Concrete & Excavating	Bonner Lawn and Landscape LLC	Crown Carpet Care

C0 C C	Durantia Langua Cana	Designana Chaine Hababatana
C&C Concrete	Breunig Lawn Care	Designers Choice Upholstery
Capitol City Concrete	Caretakers	Duffs Carpet Cleaning
Carpenter Construction	Carrington Lawn Care LLC	Ever Fresh Carpet & Floor Care
Casey Concrete & Constr	Chapin Services	Hellbach Cleaning Services
Chris Construction Corp	Clear Cut Lawn Service	Access Janitorial Plus Inc
Chris Foss Contractors	Complete Lawn and Garden Service	Jerry's Carpet Service
Cliffs Custom Concrete	Cutting Edge Lawn Care	Mackesey Carpet Cleaning LLC
Conco Concrete Constr	David J Frank	Madison Area Carpet Cleaners
Core Vac	Earthscapes	Maintenance Services of Madison Inc
D&k Concrete Constr	Evan's Landscape	Mass Carpet Care LLC
D &M Concrete	Evergreen Everbloom	Northern Bldg Maintenance
Dane County Contracting	Evergreen Lawn Care	Northland Carpet Cleaning
Dan's Concrete	Fabick Lawn Care	P & h Carpet Installation
Decorative Concrete Systems	Fourleaf Lawncare	Precision Cleaning
Docken Concrete	Ganshert Nursery	Preferred Carpet Cleaning
Eastside Concrete Constr	Glacier Landscape Inc	Procarpet of Dane Co
EC Voit & Sons	Green Acres Lawn Service	R&R Carpet Cleaning
Economy Cement	Habitats	Rainbow International of Dane County
Elastizell	Hanson Family Lawn Care	Renew Carpet and Upholstery Cleaning
F&M Concrete	Hugo Lawn Service	Renovation Floor Care
Feuling Concrete Constr	J&B Lawn Service	Restoration Specialists
Finks Concrete	Jesse's Lawn Care	Restorx
Fisher Concrete	Keyman Lawn Care	Sears Carpet & Upholstery & Airduct Cleaning
Fisher Construction	Landscape Care Co	Servicemaster Clean
Foust Foundation	Landscapes Design	Servicemaster Restoration
Great Lakes Power Vac	Lawn Doctor of Madison	Stanley Steamer
Hard Rock Sawing & Drilling	Lawncare Plus	Stanley Steamer Carpet Cleaners
Hermanson Concrete & Masonry	Lawns by Tim LLC	Steam and Dry Madison
Homburg Contractors	Lawns Unlimited	TC Carpet Care
Hottmann Constr	Leisure Lawns	Twoie Gallagher Floor Refinishing
Intercon Construction	Madison Horticultural Service	Ultimate Carpet Cleaning LLC
Interstate Sawing Co	Manthe Lawn Care	White Knight Carpet Rescue
JB Crete Inc	Maple Leaf Inc	Zeroez Madison
Joe Daniels Constr	Messner Landscape Maintenance	Steam Plus
Jones Concrete Products	Miller Rohde	Brothers Cleaning and Painting
K&M Concrete	Mother Earth's Organics	
K&S Energy	Naturescapes	
Kittleson Concrete	Norland Landscape	
Kraemer Bros	Northern Landscape Service	
Krizan Concrete	Olson Toon Landscaping	
KSW Construction	PFD LLC	
Legler Concrete	Precision Mowing	
Lovell Concrete	Property Services of Madison	
Lycon Inc	Proscapes	
Malibu Pools	Quality Mowing Service	
Meade Construction Co	Richardson Lawn Care	
	Rick's Lawn and Garden LLC	
Michaels Construction		
Michaels Construction Middleton Construction	Schmidt Landscape Service Inc	
Middleton Construction	Schmidt Landscape Service Inc Scott's Lawn Service	
	Schmidt Landscape Service Inc Scott's Lawn Service Spectrum Home Services	

Mr Concrete	The Bruce Co	
Nature Stone of Wisconsin	The Care of Trees and Turf	
Nelson Mud Jacking	Tiplok Home Service	
Newman Concrete Lifting	Top 2 Bottom Lawncare	
Norcon Corp	Top Cut Lawn Service	
O'Neil Concrete LLC	Trugreen	
Paradise Valley Concrete	Weed Man	
Parisi Construction	Windsor Lawns	
Peckham Landscaping & Excavating	Haus Services LLC	
RG Huston	John Flatman Precision Mowing	
Raymond Cattell Inc	Green & Gold Lawn Service	
Rockcrete		
Rutland Concrete Constr		
Steel Forms Construction		
Sun Prairie Concrete Inc		
The Concrete Company		
The Concrete Remover		
Tom Hellenbrand Bobcat Service &		
Concrete Removal		
Wingra Redi-mix Inc		
Wirth Concrete		
Woodland Construction		

PRESSURE WASHING	SEAL COAT	FETILIZER SALES	MARKETS
A Super Painters	7 Hills Striping Inc	Ace Hardware Center	Asian Midway Foods
Accent Painting	American Seal and Stripe	Ace Hilldale	Copp's
Accurate Power Washing	Asphalt & Concrete Specialties	Ace Lakeside Hardware	Copp's
Action Professional Window Cleaning	Asphalt Maintenance Systems	Dorn True Value	Pick N Save
AMD	B&D Sealcoating	Dorn True Value	Pick N Save
American Painting Co	Badger Asphalt	Farm & Fleet	Metcalf's Sentry
American Pressure Cleaning	Badger Blacktop Sealing	Farm & Fleet	Hy-Vee
Badger Spray	Bartelt Enterprises	Home Depot	Jennifer St Market
BD Clean LLC	C&M Asphalt	Home Depot	Knoche's Food Center
Best Painting Service	Davis Constr of Portage	Jung Garden Centers	Willy St Grocery Coop
Brent's Fine Painting	Directional Striping	Jung Garden Centers	Target Stores
Brent's Fine Painting LLC	DNS Asphalt	Menards	Target Stores
CCR & Co	DRS Ltd	Menards East	Target Stores
Classic Concepts Painting	Fahrner Asphalt Sealers LLC	Menards West	Target Stores
Clearview Window Washing	Fink's Paving & Excavating	North Side True Value	Whole Foods Market
Cubic Wall Systems	Four Lakes Paving Co Inc	Paradigm Gardens	Willy St Grocery Coop
Eco-Reliable LLC	General Asphalt	Quality True Value Hardware	Woodman's Food Markets
Ellingson Pro-Clean Inc	Hallman Asphalt Paving	Shopko	Hy-Vee
Eric Welch Painting	Hinzman Blacktop and Sealcoating	Shopko	Metro Market
Extreme Painting	ID Hellenbrand	Shopko	Pick N Save
Frontier Hood Services LLC	Marks and Stripes	Target	Metcalf's Sentry
Genesis Painting	Midwest Asphalt Maint	Target	Metcalf's Sentry
Glacier Painting	Modern Striping	Wal-Mart	Metro Market

Gottschalk Painting	NR Asphalt Pavement	Wal-Mart	Hy-Vee
Haus Services LLC	O and H Asphalt Sealcoating	Target Stores	Pick N Save
Hood Cleaning Inc	Poblocki Paving Corp	Target Stores	
Hoodz of Greater Madison	Renu Sealcoating		
House Painters of Madison	Struck and Irwin Paving		
Kvalheim Kountry Painters	Tri-County Paving		
Megna Painting	Tri-County Sealcoating		
New Look Painting	United Paving		
Peter Onsager Painting	Wolf Paving and Excavating		
Peter's Painting	Wells Paving & Sealcoating		
PFD LLC	Asphalt Reheat Systems		
Polansky Painting	Payne and Dolan		
Servicemaster Cleaning	Summerseal Asphalt		
Services	Maintenance		
Shon & Mikes Commercial	Asphalt Maintenance/		
Hood Cleaning	Quality Sealcoat Co		
Squeegee Plus			
Stefan Schmidt Painting LLC			
Summit Companies			
Thrift Painting			
Tiplock			
Tom's Painting			
Top 2 Bottom Lawncare			
Tru Colors Painting			
TW Painting			
Warden and Son			
Ziegler Pressure Washing			

PRESSURE WASHING	SEAL COAT	FETILIZER SALES	MARKETS
A Super Painters	7 Hills Striping Inc	Ace Hardware Center	Asian Midway Foods
Accent Painting	American Seal and Stripe	Ace Hilldale	Copps
Accurate Power Washing	Asphalt and Concrete Specialties	Ace Lakeside Hardware	Copps
Action Professional Window Cleaning	Asphalt Maintenance Systems	Dorn True Value	Pick N Save
AMD	B&D Sealcoating	Dorn True Value	Pick N Save
American Painting Co	Badger Asphalt	Farm & Fleet	Metcalf's Sentry
American Pressure Cleaning	Badger Blacktop Sealing	Farm & Fleet	Hy-Vee
Badger Spray	Bartelt Enterprises	Home Depot	Jennifer St Market
BD Clean LLC	C&M Asphalt	Home Depot	Knoche's Food Center
Best Painting Service	Davis Constr of Portage	Jung Garden Centers	Willy St Grocery Coop
Brent's Fine Painting	Directional Striping Co	Jung Garden Centers	Target Stores
Brent's Fine Painting LLC	DNS Asphalt	Menards	Target Stores
CCR & Co	DRS LTD	Menards East	Target Stores
Classic Concepts Painting	Fahrner Asphalt Sealers LLC	Menards West	Target Stores
Clearview Window Washing	Fink's Paving and Excavating	North Side True Value	Whole Foods Market
Cubic Wall Systems	Four Lakes Paving Co Inc	Paradigm Gardens	Willy St Grocery Coop
Eco-Reliable IIc	General Asphalt	Quality True Value Hardware	Woodman's Food Markets
Ellingson Pro-Clean Inc	Hallman Asphalt Paving	Shopko	Hy-Vee

Eric Welch Painting	Hinzman Blacktop and Sealcoating	Shopko	Metro Market
Extreme Painting	ID Hellenbrand	Shopko	Pick N Save
Frontier Hood Services LLC	Marks and Stripes	Target	Metcalf's Sentry
Genesis Painting	Midwest Asphalt Maint	Target	Metcalf's Sentry
Glacier Painting	Modern Striping	Wal-Mart	Metro Market
Gottschalk Painting & Wallpapering	NR Asphalt Pavement	Wal-Mart	Hy-Vee
Haus Services LLC	O and H Asphalt Sealcoating	Target Stores	Pick N Save
Hood Cleaning Inc	Poblocki Paving Corp	Target Stores	
Hoodz of Greater Madison	Renu Sealcoating		
House Painters of Madison	Struck and Irwin Paving		
Kvalheim Kountry Painters	Tri-County Paving		
Megna Painting	Tri-County Sealcoating Inc		
New Look Painting	United Paving		
Peter Onsager Painting	Wolf Paving and Excavating		
Peter's Painting	Wells Paving & Sealcoating		
PFD LLC	Asphalt Reheat Systems		
Polansky Painting	Payne and Dolan		
Servicemaster Cleaning	Summerseal Asphalt		
Services	Maintenance		
Shon & Mikes Commercial	Asphalt Maintenance/		
Hood Cleaning	Quality Sealcoat Co		
Squeegee Plus			
Stefan Schmidt Painting LLC			
Summit Companies			
Thrift Painting			
Tiplock			
Tom's Painting			
Top 2 Bottom Lawncare			
Tru Colors Painting			
TW Painting			
Warden and Son			
Ziegler Pressure Washing			



City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703

> Phone (608) 266-4821 Fax (608) 266-4858 www.publichealthmdc.com

April 2, 2019

RE: Discharge of Carpet Cleaning Waste Water to the City Storm Sewer System

Madison General Ordinance (MGO) 7.46 "Water Pollution Control" prohibits the discharge of waste water to the ground, or the storm sewer system. Carpet cleaning wastewater must be directed to an inside drain that is connected to the sanitary sewer for proper disposal. Screening the waste water at the time of disposal in order to capture carpet fibers, pet hair and grit is advisable. This captured debris can then be disposed of in the trash. Additionally, clean water discharges to the street, gutter or any storm water conveyance are prohibited under MGO 7.47

Any business found in violation of MGO 7.46 or MGO 7.47 will be immediately referred to the City Attorney's Office for prosecution or ticketed. Failure to comply may result in a fine of not less than fifty dollars (\$50) or more than two thousand dollars (\$2000) per offense. Clean-up costs may also be incurred.

If you have any questions concerning this matter, please contact Rick Wenta: 608-243-0351, or George Parrino: 608-243-0318, of the Environmental Protection Unit, Public Health and Madison and Dane County.



Healthy people. Healthy places.

Janel Heinrich, MPH, MA, Director

City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703 608 266-4821 608 266-4858 fax www.publichealthmdc.com

April 2, 2019

«COMPANY_NAME» «SUITE_No» «NUMBER» «STREET_NAME» «CITY» WI__«ZIP_CODE»

RE: NEW DANE COUNTY SEALCOAT BAN

Dane County Code of Ordinances Chapter 80.08 bans the commercial application of any pavement sealants containing **>0.01% PAHs** in Dane County. Any sealcoat product applicator that violates Chapter 80.08 shall be subject to a forfeiture of \$500 up to \$2000.

The sale of all sealcoat products that contain more than **0.01% PAHs** is restricted within Dane County. The sale of a sealcoat product containing coal tar and other high PAH sealants intended for use outside Dane County is permitted. The following conditions apply:

- The seller requires the purchaser to complete and sign the form from the Land and Water Resources Department (http://pdf.countyofdane.com/lwrd/lakes/retailerExemption.pdf).
- The seller retains the completed form for a period of not less than three years from the date of sale and allows the inspection and copying of the form by Dane County staff upon request.

Additionally, any retailer that sells any pavement sealcoat products shall prominently display, in the area where such products are sold, a notice that contains Dane County's warning on the use of coal tar sealcoat. A suitable poster can be obtained here: http://pdf.countyofdane.com/lwrd/lakes/coalTarFlyer.pdf.

Further information is available at: http://danewaters.com/business/coalTar.aspx. If you have any questions contact Dane County Lakes and Watersheds: 608-224-3730 or Public Health-Madison and Dane County 608-266-4821.



City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703

> Phone (608) 266-4821 Fax (608) 266-4858 www.publichealthmdc.com

February 21, 2018

A&E CONCRETE CONSTRUCTION 3460 MEIER RD MADISON, WI 53718

RE: Discharge/Disposal of Concrete Wash Water to the City Storm Sewer System.

This letter serves to advise you regarding the proper disposal of your waste. Madison General Ordinance (MGO) 7.46 Water Pollution Control prohibits the discharge of any concrete, mortar, wash water, concrete cutting water or exposed aggregate wash to the City storm sewer system. This practice is also prohibited under State Statutes 29.601(3); Deleterious Substances and State Statues Chapter 283; Pollution Discharge Elimination.

Any concrete waste, including wash water or delivery truck chute clean out must be contained and collected for proper disposal. The contractor in control of the construction site is responsible for providing suitable concrete waste containment. Saw cutting slurry may be detained by sandbags in the curb at the first practical location down slope, but must be removed at the end of the workday or sooner if impending rain is forecast. It is illegal to allow concrete waste to flow unchecked on any paved surface. Detained slurry can be retrieved with a vacuum. Other retrieval methods may also be suitable. Best management practices for concrete wash out water are available from the US EPA.

http://www3.epa.gov/npdes/pubs/concretewashout.pdf

Businesses found in violation of MGO 7.46 will be referred to the City Attorney's office for prosecution or ticketed. Failure to comply with this ordinance may result in regulatory enforcement including a fine of not less than fifty dollars (\$50.00) or more than two thousand dollars (\$2000.00) per offense. Each day of a continuing violation is a separate offense. Cleanup costs may also be incurred.

If you have any questions or require further information, please contact either Rick Wenta 243-0351 or George Parrino 243-0318 of the Environmental Protection Unit, Public Health Madison-Dane County.



City-County Building, Room 507 2:10 Martin Luther King, R. Boulevard Madison, WI.53703

> Phone (608) 266-4821 Pay (608) 266-4858 www.publichealthmdc.com

April 2, 2019

ACCURATE LAWN CARE LLC 9180 MINERAL POINT RD MT HOREB WI 53572

RE: Regulation on the Use and Application of Lawn Fertilizer.

Dane County Code of Ordinances Chapter 80 and Madison General Ordinance (MGO) 7.48 prohibit the use of lawn fertilizers containing phosphorus except on new lawns during the first growing season or lawns confirmed to be deficient in phosphorus through recent soil testing.

Furthermore, applying any fertilizer to an impervious surface or under conditions that create or promote runoff is prohibited. Incidental application of fertilizer to any sidewalk, parking lot, or driveway must be immediately recovered and legally applied or containerized.

Any person or company that violates Dane County Chapter 80.07 shall be subject to a forfeiture of \$50 to \$300. MGO 7.48 provides for a penalty of not less than \$50, or more than \$2000 for each offense.

If you have any questions please contact Rick Wenta: 608-243-0351, or George Parrino: 608-243-0318, Public Health Madison and Dane County.



City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703

> Phone (608) 266-4821 Fax (608) 266-4858 www.publichealthmdc.com

March 8, 2018
ASIAN MIDWAY FOODS
Store Manager
301 S. PARK
MADISON WI 53715

RE: Liquids Leaking from Garbage Dumpsters.

Madison General Ordinance (MGO) 7.46 prohibits discharges from garbage containers. Allowing liquids to escape from your dumpster can result in a fine of \$50-\$2000.

When liquids are placed in the garbage or a trash compactor, they can saturate the garbage and seep from the dumpster. This liquid, called leachate, is nutrient-rich and can become very acidic through bacterial decomposition. It can corrode metal dumpsters, weaken rubber seals, and dissolve concrete.

When leachate flows from a dumpster onto a hard surface, it is transported via the storm sewer system to our lakes. As bacteria break down the leachate they consume large amounts of oxygen that fish and other aquatic organisms need to survive. Bacterial decomposition converts the leachate into nutrients that promote algae growth much like lawn fertilizer spread on a lawn causes the grass to grow.

If the leachate has entered the City's storm sewer, the City will remove it at your expense. To prevent a leachate discharge, consider the following:

- Ensure your dumpster has a plug installed. Contact your waste hauler to have a plug installed if it is missing.
- Keep your dumpster covered. Rainwater that collects in a dumpster will help form leachate.
- Consider dumping expired milk and juices down an interior drain. Liquids poured down
 the sink will be properly treated at the sewage plant and not end up in our lakes.
- If you see your dumpster leaking, capture the liquid in a container and dump it down an
 interior drain until the leak is repaired or the dumpster replaced.

If you have any questions please contact Rick Wenta at 243-0351 or George Parrino at 243-0318.



Environmental Health Laboratory City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703

> Phone (608) 243-0357 Fax (608) 266-4858 www.publichealthmdc.com

March 9, 2018
A SUPER PAINTERS
1317HOBBY HORSE RD
OREGON WI 53575

RE: Discharge of Pressure Washing Wastewater to the Storm Sewer System.

Madison General Ordinance (MGO) 7.46(3) "Water Pollution Control" and MGO 7.47(3) "Regulation of Discharge of Non-storm Water", as well as State Statutes 29.601(3); "Deleterious Substances" and State Statutes Chapter 283; "Pollution Discharge Elimination" regulate the discharge of outdoor pressure washing wastewater to the storm sewer system.

Wastewater from any outdoor washing must be directed to a permeable surface or collected for proper disposal. For areas where this is not practical, these practices must be followed:

- Detain the wash water long enough to allow suspended solids to settle, or filter suspended solids from the waste stream.
- Properly dispose of settled or filtered solids.
- 3. Only biodegradable detergents containing less than 0.5% phosphate are permitted.
- 4. Use of detergents must be minimized. The waste stream shall be free of visible foam.
- Oil and grease from kitchen ventilation systems must be removed before the wastewater reaches the storm sewer system.

Additional Best Management Practices (BMPs) are found at the Wisconsin Department of Natural Resources website: http://dnr.wi.gov/topic/wastewater/documents/59153_fs.pdf.

Removal of paint with power equipment, including power washing, is subject to further regulation.

Contact Public Health Madison and Dane County at 608-243-0330 or http://www.publichealthmdc.com for more information.

Businesses found in violation of MGO 7.46/7.47 will be referred to the City Attorney for prosecution or ticketed. Failure to comply may result in a fine of not less than fifty dollars (\$50) or more than two thousand dollars (\$2000) per offense. Each day of a continuing violation is a separate offense. Violators will also be assessed for cleanup costs associated with the violation.

If you have any questions concerning this matter, please contact Rick Wenta 243-0351, or George Parrino 243-0318, Environmental Protection Unit, Public Health-Madison and Dane Co.



Environmental Health Laboratory City-County Building, Room 507 210 Martin Luther King, Jr. Boulevard Madison, WI 53703

> Phone (608) 243-0357 Fax (608) 266-4858 www.publichealthmdc.com

March 9, 2018

ACE HARWARE CENTER

ATTN: Store Manager

1398 WILLIAMSON ST

MADISON WI 53703

RE: Dane County and City of Madison Regulations on the Sale of Fertilizer Containing Phosphorus.

Dane County Code of Ordinances Chapter 80.07 and Madison General Ordinance (MGO) 7.48 prohibit the sale and display of lawn fertilizers containing phosphorus. Signs may be posted to alert customers that fertilizer-containing phosphorus is available for use on new lawns during the first growing season, or lawns confirmed to be deficient in phosphorus through recent soil testing.

Additionally, all fertilizer retailers must prominently display a sign containing Dane County regulations on phosphorus fertilizer and the effects of phosphorus on Dane County's waters. A suitable poster is available at:

https://olw-lwrd.countyofdane.com/documents/PDFs/P%20Free%20Fertilizer%20-%202017%20sign.pdf

Any person who violates Dane County Chapter 80.07 shall be subject to a forfeiture of \$50 to \$300. MGO 7.48 provides for a penalty of not less than \$50, nor more than \$2000 for each offense.

Information on phosphorus control in Dane County is available at the following website: http://www.danewaters.com/management/phosphorus.aspx. If you have any questions please contact Dane County Lakes and Watersheds: 608-224-3730 or Public Health-Madison and Dane County: 608-266-4821.

2018

	20
AS 6522-005	AS 6923-008
AS 6523-018	AS 6931-006
AS 6531-007	IN 6932-027
AE 6532-003	AS 6941-001
IN 6533-003	AS 6950-001
AS 6535-004	IN 6952-002
AS 6543-001	AS 6953-008
AS 6543-006	IN 6957-004/003
AS 6544-006	AS 6959-014
IN 6549-008	IN 6967-023
IN 6556-011	IN 6968-002
AS 6557-004	IN 6969-001
IN 6621-066	AS 7014-005
AS 6622-008	AS 7019-005
AS 6634-008	AS 7019-024
AS 6640-022	IN 7020-087
AS 6644-002	AS 7022-017
AS 6645-014	AS 7023-021
AS 6645-030	AS 7026-013
AE 6650-046	IN 7027-007
AS 6652-009	IN 7036-009
IN 6717-001	AS 7042-011
IN 6722-002	AS 7045-003
AS 6730-008	IN 7048-027
AE 6731-005	IN 7053-015
AS 6737-007	IN 7053-021
AS 6745-024	AS 7057-001
AS 6745-027	IN 7062-005
AS 6746-013	AS 7064-038
IN 6749-008	AS 7065-001
IN 6750-007	AS 7066-009
AE 6755-003	AS 7067-002
AE 6755-004	IN 7069-012
AS 6756-001	AE 7130-008
CB 6758-022	IN 7143-013
AS 6760-014 AS 6819-001	IN 7143-023
IN 6821-012	AS 7149-006
IN 6828-003	IN 7150-044
AE 6834-009	AE 7150-062
AS 6836-002	AS 7151-014
AS 6836-003	IN 7163-005
AE 6838-006	IN 7168-021 AS 7169-016
AS 6851-009	AS 7169-038
IN 6854-002	AE 7221-028
IN 6855-007 DOWN TEST	AE 7221-048
IN 6861-006	IN 7249-004
AS 6863-006	AE 7322-001
IN 6920-017	AS 7343-037
IN 6921-005	IN 7343-047
IN 6921-006	AS 7344-009
AS 6923-005	IN 7347-009
	AND THE PROPERTY OF STREET AND STREET

AS 7364-003 IN 7367-014 IN 7367-018 IN 7439-010 IN 7439-039 AS 7439-045 IN 7441-015 AS 7443-049 IN 7540-013 AS 7541-039 IN 7545-002 IN 7640-005 IN 7645-011 IN 7645-015 IN 7739-002 IN 7740-027 IN 7745-001

Co

Co

Dit

No

No

Ea

En

W€

Primary Name	Secondary Name	City Maint	Year Est	Major_basin	Area (ac)
EAST BADGER MILL CREEK GREENWAY	CANTERBURY ROAD SECTION	Υ	1978	BM01	1.3
EAST BADGER MILL CREEK GREENWAY	CARNWOOD ROAD SECTION	Υ	1981	BM01	3.3
EAST BADGER MILL CREEK GREENWAY	HAMMERSLY ROAD SECTION	Υ	1968	BM01	7.3
EAST BADGER MILL CREEK GREENWAY	LANCASTER LANE SECTION	Υ	1981	BM01	2.7
EAST BADGER MILL CREEK GREENWAY	MCKEE ROAD SECTION	Υ	1996	BM01	2.9
EAST BADGER MILL CREEK GREENWAY	MCKENNA BOULEVARD SECTION	Υ	1973	BM01	1.1
EAST BADGER MILL CREEK GREENWAY	PILGRIM ROAD SECTION	Υ	1973	BM01	2.9
EAST BADGER MILL CREEK GREENWAY	PRAIRIE ROAD SECTION	Υ	1965	BM01	10.1
EAST BADGER MILL CREEK GREENWAY	RAYMOND ROAD SECTION	Υ	1973	BM01	10.7
EAST BADGER MILL CREEK GREENWAY	RIVA ROAD SECTION	Υ	1965	BM01	1.8
BADGER MILL CREEK-MAPLE GROVE GREENWAY	CAPITOLAND CHRISTIAN SECTION	Υ	2000	BM02	0.8
BADGER MILL CREEK-MAPLE GROVE GREENWAY	FAIRHAVEN ROAD SECTION	Υ	2002	BM02	1.7
BADGER MILL CREEK-MAPLE GROVE GREENWAY	MANCHESTER ROAD SECTION	Υ	2001	BM02	3.1
BADGER MILL CREEK-MAPLE GROVE GREENWAY	WESTIN DRIVE SECTION	Υ	1994	BM02	4.1
BADGER MILL CREEK-GLACIER GREENWAY	EAST PASS SECTION	Υ	1999	BM03	2.6
BADGER MILL CREEK-GLACIER GREENWAY	ICE AGE DRIVE SECTION	Υ	1999	BM03	2.5
BADGER MILL CREEK-GLACIER GREENWAY	ICE AGE TRAIL SECTION	Υ	1999	BM03	1.7
BADGER MILL CREEK-GLACIER GREENWAY	MAMMOTH TRAIL SECTION	Υ	1999	BM03	3.4
EAST BADGER MILL CREEK GREENWAY	EAST PASS SECTION	Υ	1999	BM03	4.2
MAIN BADGER MILL CREEK GREENWAY	EAST PASS SECTION	Υ	1999	BM03	3.5
MAIN BADGER MILL CREEK GREENWAY	SCHMIDT ROAD SECTION	Υ	2003	BM03	6.6
WEST BADGER MILL CREEK GREENWAY	CONFLUENCE SECTION	Υ	1999	BM03	3.8
WEST BADGER MILL CREEK GREENWAY	EAST PASS SECTION	Υ	1993	BM03	4.1
WEST BADGER MILL CREEK GREENWAY	INTERLAKEN PASS SECTION	Υ	1999	BM03	4.2
WEST BADGER MILL CREEK GREENWAY	MCKEE ROAD SECTION	Υ	1993	BM03	11.3
WEST BADGER MILL CREEK GREENWAY	MUIR FIELD ROAD SECTION	Υ	1982	BM03	1.2
WEST BADGER MILL CREEK GREENWAY	TUSCON TRAIL SECTION	Υ	1982	BM03	1.8
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	CHAPEL HILL ROAD SECTION	Υ	1968	BM03	2.9
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	ELVER NORTH SECTION	Υ	1968	BM03	3.8
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	GREENTREE SOUTH SECTION	Υ	1972	BM03	3
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	PIPING ROCK ROAD SECTION	Υ	1960	BM03	1.4
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	SCHROEDER ROAD SECTION	Υ	1972	BM03	4.8
WEST BADGER MILL CREEK-ELVER PARK GREENWAY	WATTS ROAD SECTION	Υ	1973	BM03	3.5
UPPER BADGER MILL CREEK GREENWAY	NORTH HAWKS LANDING SECTION	N	2001	BM04	1.2
UPPER BADGER MILL CREEK GREENWAY	VALLEY VIEW ROAD SECTION	Υ	2005	BM04	7.6
UPPER BADGER MILL CREEK GREENWAY	WATERBEND DRIVE SECTION	N	2001	BM04	7.2
WEST BADGER MILL CREEK GREENWAY	HIGH POINT ROAD SECTION	Y	1998	BM04	1.6

WEST BADGER MILL CREEK GREENWAY	MANSION HILL AVENUE SECTION	Υ	2001	BM04	4
WEST BADGER MILL CREEK GREENWAY	WALDORF BOULEVARD SECTION	Y	2001	BM04	2.7
LBMC GREENWAY-EAST TRIBUTARY	PINE LAWN PARKWAY SECTION	Y	2007	BM05	1.2
LBMC HAWKS LANDING TRIBUTARY	SHADY POINT DR SECTION	Υ	2000	BM05	0.3
NORTH DOOR CREEK GREENWAY	EAST HILL PARKWAY SECTION	Υ	2002	DR01	13.5
NORTH DOOR CREEK GREENWAY	I-94 SECTION	N	2003	DR01	1.5
NORTH DOOR CREEK GREENWAY	MILWAUKEE STREET SECTION	Υ	2004	DR01	0.8
NORTH DOOR CREEK GREENWAY	RUSTIC DRIVE SECTION	Υ	2004	DR01	3.2
NORTH DOOR CREEK GREENWAY	RUSTIC POND SECTION	Y	2004	DR01	0.6
NORTH DOOR CREEK GREENWAY	SATURN DRIVE SECTION	Y	2012	DR01	0.8
NORTH DOOR CREEK GREENWAY	SPRECHER ROAD SECTION	Y	2002	DR01	2
NORTH DOOR CREEK GREENWAY	TOWN CENTER DRIVE SECTION	N	2003	DR01	1
NORTH DOOR CREEK GREENWAY	WYALUSING DRIVE SECTION	Υ	2002	DR01	0.9
SOUTH DOOR CREEK GREENWAY	HARRINGTON DRIVE SECTION	Υ	1999	DR01	1.3
KOSHKONONG CREEK GREENWAY	HOEPKER ROAD SECTION	Υ	2001	KR04	1.4
MENDOTA-WILLOW CREEK GREENWAY	MERLHAM DRIVE SECTION	Υ	1950	ME01	0.7
MENDOTA-WILLOW CREEK GREENWAY	REGENT STREET SECTION	Υ	1967	ME01	1.2
MENDOTA-WILLOW CREEK GREENWAY	SOUTH OWEN DRIVE SECTION	Υ	1940	ME01	0.9
MENDOTA-SPRING HARBOR GREENWAY	ELDER PLACE SECTION	Υ	1960	ME02	2.9
MENDOTA-SPRING HARBOR GREENWAY	INNER DRIVE SECTION	Υ	1965	ME02	6.2
MENDOTA-SPRING HARBOR GREENWAY	MASTHEAD DRIVE SECTION	Υ	1963	ME02	4
MENDOTA-SPRING HARBOR GREENWAY	MEMORIAL HIGH SCHOOL SECTION	Υ	1965	ME02	4.9
MENDOTA-SPRING HARBOR GREENWAY	MINERAL POINT SECTION	Υ	1964	ME02	1.2
MENDOTA-SPRING HARBOR GREENWAY	NORTH ROCK ROAD SECTION	Y	1926	ME02	6.5
MENDOTA-SPRING HARBOR GREENWAY	NORTH YELLOWSTONE DRIVE SECTION	Y	1966	ME02	4.5
MENDOTA-SPRING HARBOR GREENWAY	QUARTERDECK DRIVE SECTION	Y	1968	ME02	8.4
MENDOTA-SPRING HARBOR GREENWAY	REGENT STREET SECTION	Y	1927	ME02	1.7
MENDOTA-SPRING HARBOR GREENWAY	SOUTH HILL DRIVE SECTION	Y	1958	ME02	3.8
MENDOTA-SPRING HARBOR GREENWAY	SOUTH YELLOWSTONE DRIVE SECTION	Y	1964	ME02	1.1
MENDOTA-GAMMON GREENWAY	ROUGH LEE CT SECTION	Y	1984	ME03	0.9
MENDOTA-GRASSMAN GREENWAY	CAMELOT DRIVE SECTION	Y	1974	ME03	0.8
MENDOTA-GRASSMAN GREENWAY	OLD MIDDLETON ROAD SECTION	Y	1984	ME03	2.9
MENDOTA-GRASSMAN GREENWAY	UNIVERSITY AVENUE SECTION	Y	1974	ME03	1.9
UPPER YAHARA GREENWAY	BROWN LANE SECTION	Y	1998	ME06	1.3
UPPER YAHARA GREENWAY	MEADOW VALLEY DRIVE SECTION	N	1998	ME06	2
WARNER PARK GREENWAY	N. SHERMAN AVENUE SECTION	Y	1967	ME06	5.1
MOWING AREA	STORCK RD EAST	Y	2003	MOW1	8.5
MOWING AREA	STORCK RD WEST	Y	2003	MOW1	3.7

NINE SPRINGS VALLEY GREENWAY	KNOLLWOOD WAY SECTION	Y	2001	NS02	1.4
NINE SPRINGS VALLEY GREENWAY	LEYTON LANE SECTION	Υ	1960	NS02	0.3
NINE SPRINGS CREEK GREENWAY	LAKE FARM PARK SECTION	Υ	1971	NS09	11.8
NINE SPRINGS CREEK GREENWAY	OCEAN ROAD SECTION	Y	1972	NS09	0.3
NINE SPRINGS VALLEY GREENWAY	ENGELHART DRIVE SECTION	Y	1990	NS09	2.9
EAST MENDOTA-PHEASANT BRANCH GREENWAY	COMMERCE DRIVE CENTRAL SECTION	Y	1990	PB01	0.6
EAST MENDOTA-PHEASANT BRANCH GREENWAY	COMMERCE DRIVE SOUTH SECTION	Y	1990	PB01	0.5
EAST MENDOTA-PHEASANT BRANCH GREENWAY	FOURIER DRIVE SECTION	Y	1986	PB01	1.8
EAST MENDOTA-PHEASANT BRANCH GREENWAY	LOWER OLD SAUK ROAD SECTION	Υ	1989	PB01	5.3
EAST MENDOTA-PHEASANT BRANCH GREENWAY	MINERAL POINT ROAD SECTION	Υ	1977	PB01	1.4
EAST MENDOTA-PHEASANT BRANCH GREENWAY	NORTH HIGHPOINT ROAD SECTION	Υ	1989	PB01	1.1
EAST MENDOTA-PHEASANT BRANCH GREENWAY	NORTH TREE LANE SECTION	Υ	1991	PB01	31.2
EAST MENDOTA-PHEASANT BRANCH GREENWAY	SOUTH HIGHPOINT ROAD SECTION	Υ	1971	PB01	3.3
EAST MENDOTA-PHEASANT BRANCH GREENWAY	SOUTH TREE LANE SECTION	Υ	1977	PB01	1.6
EAST MENDOTA-PHEASANT BRANCH GREENWAY	UPPER OLD SAUK ROAD SECTION	Υ	1989	PB01	1.9
EAST MENDOTA-PHEASANT BRANCH GREENWAY	WEST BELTLINE HIGHWAY SECTION	Υ	1986	PB01	1.3
EAST MENDOTA-PHEASANT BRANCH GREENWAY	WHITACRE ROAD SECTION	Υ	1973	PB01	4.2
NORTH MENDOTA-PHEASANT BRANCH GREENWAY	DEMING WAY SECTION	Υ	1995	PB01	3
SOUTH MENDOTA-PHEASANT BRANCH GREENWAY	ATTIC ANGEL CIRLCE SECTION	Υ	1998	PB01	0.8
SOUTH MENDOTA-PHEASANT BRANCH GREENWAY	ATTIC ANGEL POND SECTION	Υ	1998	PB01	0.8
SOUTH MENDOTA-PHEASANT BRANCH GREENWAY	BLACKWOLF DRIVE SECTION	Υ	1998	PB01	2.1
SOUTH MENDOTA-PHEASANT BRANCH GREENWAY	ELDERBERRY ROAD SECTION	Υ	2001	PB01	3.1
WEST MENDOTA-PHEASANT BRANCH GREENWAY	BLACKHAWK ROAD SECTION	Υ	1995	PB01	3.7
WEST MENDOTA-PHEASANT BRANCH GREENWAY	DEMING WAY SECTION	Υ	1987	PB01	3.6
WEST MENDOTA-PHEASANT BRANCH GREENWAY	PLEASANT VIEW ROAD SECTION	Υ	1987	PB01	2.2
NORTH EDNA TAYLOR MARSH GREENWAY	HELGESON DRIVE SECTION	Υ	1979	PE02	0.6
NORTH EDNA TAYLOR MARSH GREENWAY	PFLAUM ROAD SECTION	Υ	1973	PE02	2.4
NORTH EDNA TAYLOR MARSH GREENWAY	TOMPKINS DRIVE SECTION	N	1939	PE02	2.1
EAST EDNA TAYLOR MARSH GREENWAY	BROADWAY TIF POND SECTION	Y	1974	PE03	3.8
EAST EDNA TAYLOR MARSH GREENWAY	PFLAUM ROAD SECTION	Y	1973	PE03	3.1
EAST EDNA TAYLOR MARSH GREENWAY	PROGRESS ROAD SECTION	Y	1974	PE03	3.9
EAST EDNA TAYLOR MARSH GREENWAY	WORLD DAIRY DRIVE SECTION	Y	1988	PE03	4.6
NORTH PENITO CREEK GREENWAY	WORLD AG CENTER CENTRAL SECTION	N	1996	PE04	8.6
NORTH PENITO CREEK GREENWAY	BUCKEYE ROAD - I-90 SECTION	Υ	1986	PE05	0.2
NORTH PENITO CREEK GREENWAY	BUCKEYE ROAD SECTION	Υ	1984	PE05	7.5
NORTH PENITO CREEK GREENWAY	RUSTIC WOODS DRIVE SECTION	Υ	1992	PE05	3.3
NORTH PENITO CREEK GREENWAY	STARKER AVENUE SECTION	Υ	1978	PE05	2.5
NORTH PENITO CREEK GREENWAY	VONDRON ROAD SECTION	Υ	1978	PE05	1.8
	· · · · · · · · · · · · · · · · · · ·		-		

MAIN PENITO CREEK GREENWAY	AGRICULTURE DRIVE SECTION	Υ	2004	PE06	12.4
MAIN PENITO CREEK GREENWAY	MARSH ROAD SECTION	Υ	2004	PE06	11.4
PENITO CREEK GREENWAY	PARK & RIDE SECTION	Υ	1988	PE06	0.6
PENITO CREEK GREENWAY	TRADEWINDS PARKWAY SECTION	Υ	2012	PE06	0.7
PENITO CREEK GREENWAY	VOGES ROAD SECTION	Υ	2004	PE06	3.6
UPPER MUD LAKE GREENWAY	EAGLE CAVE DRIVE SECTION	N	2004	PE06	4.7
UPPER MUD LAKE GREENWAY	SLEDDING PARKWAY SECTION	N	2004	PE06	2
WEST STARKWEATHER CREEK GREENWAY	PEARSON STREET SECTION	N	1960	ST03	3.8
WEST STARKWEATHER CREEK GREENWAY	SWANSON STREET SECTION	N	1960	ST03	0.8
WEST STARKWEATHER-USH 151 GREENWAY	CHURCHILL HEIGHTS WETLANDS	Υ	2002	ST04	31.6
WEST STARKWEATHER-USH 151 GREENWAY	CLOVE DRIVE GREENWAY / WETLAND	Υ	1980	ST04	14.4
WEST STARKWEATHER-USH 151 GREENWAY	HAYES ROAD SECTION	Υ	2003	ST04	1.1
WEST STARKWEATHER-USH 151 GREENWAY	WESTCHESTER PARK SECTION	Υ	1980	ST04	5.7
WEST STARKWEATHER-USH 1-90/94 MOW	PORTAGE RD	Υ	2003	ST04	0
WEST STARKWEATHER-USH-151 GREENWAY	SUN GARDENS WETLANDS	Υ	2002	ST04	16.9
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	EASTPARK BOULEVARD SECTION	N	1997	ST06	0.9
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	FIELDWOOD ROAD SECTION	N	1993	ST06	0.4
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	NORTHEAST POND SECTION	N	1993	ST06	4.9
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	RATTMAN ROAD SECTION	N	1993	ST06	3.6
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	SOUTH BILTMORE LANE SECTION	N	1993	ST06	1.5
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	TERRACE COURT SECTION	N	2000	ST06	0.4
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	TREE RIDGE TRAIL SECTION	N	1993	ST06	1
WEST STARKWEATHER-AMERICAN CENTER GREENWAY	WEST TERRACE DRIVE SECTION	N	2000	ST06	6.8
EAST STARKWEATHER-EAST TOWNE GREENWAY	LIEN ROAD SECTION	Υ	1970	ST08	3.1
EAST STARKWEATHER-EAST TOWNE GREENWAY	TARGET STORE NORTH SECTION	Υ	2010	ST08	1.5
EAST STARKWEATHER-EAST TOWNE GREENWAY	TARGET STORE SOUTH SECTION	Υ	1981	ST08	1.7
EAST STARKWEATHER-EAST TOWNE GREENWAY	WISCONSIN & SOUTHERN SECTION	Υ	1970	ST08	9
EAST STARKWEATHER-EAST TOWNE GREENWAY	ZEIER ROAD SECTION	Υ	1970	ST08	1.7
EAST STARKWEATHER-EAST TOWNE GREENWAY	I-90 & I-94 SECTION	Υ	1961	ST09	5.7
EAST STARKWEATHER-MILWAUKEE GREENWAY	CORPORATE DRIVE SECTION	Υ	1995	ST11	1.7
EAST STARKWEATHER-MILWAUKEE GREENWAY	HIESTAND DRIVE SECTION	Υ	1982	ST11	2.2
EAST STARKWEATHER-MILWAUKEE GREENWAY	MILWAUKEE STREET SECTION	Υ	1992	ST11	1.1
EAST STARKWEATHER-MILWAUKEE GREENWAY	N THOMPSON DRIVE SECTION	Υ	1970	ST11	1.2
EAST STARKWEATHER-MILWAUKEE GREENWAY	RICHARD STREET SECTION	Υ	1955	ST11	1.4
EAST STARKWEATHER-MILWAUKEE GREENWAY	SWANTON RD SECTION	Υ	1970	ST11	2.1
EAST STARKWEATHER-MILWAUKEE GREENWAY	SWANTON ROAD POND SECTION	Υ	1970	ST11	1.6
STARKWEATHER CREEK EAST BRANCH	COMMERCIAL AVENUE SECTION	Υ	1997	ST11	0.3
WEST STARKWEATHER CREEK GREENWAY	EAST ANDERSON STREET SECTION	N	1960	ST12	5.3

WEST STARKWEATHER CREEK GREENWAY	HOFFMAN STREET SECTION	N	2002	ST12	4.9
WEST STARKWEATHER CREEK GREENWAY	MELVIN COURT SECTION	Υ	1956	ST12	1.7
WEST STARKWEATHER CREEK GREENWAY	PIERSTOFF STREET SECTION	N	1960	ST12	0.5
WEST STARKWEATHER CREEK GREENWAY	WEST ANDERSON STREET SECTION	N	1960	ST12	2.2
WEST STARKWEATHER CREEK GREENWAY	ABERG AVENUE SECTION	Υ	1965	ST14	3.1
STARKWEATHER CREEK WEST BRANCH	DIXON STREET SECTION	Υ	2008	ST15	2
STARKWEATHER-OLBRICH GREENWAY	DENNETT DRIVE SECTION	Υ	1930	ST16	1.9
STARKWEATHER-OLBRICH GREENWAY	OLBRICH PARK SECTION	Υ	1972	ST16	1.1
STARKWEATHER-OLBRICH GREENWAY	RING STREET SECTION	Υ	1930	ST16	1.8
STARKWEATHER-OLBRICH GREENWAY	WALTER STREET SECTION	Υ	1948	ST16	0.7
STARKWEATHER-OLBRICH GREENWAY	COTTAGE COURT SECTION	Υ	1979	ST17	0.5
STARKWEATHER-OLBRICH GREENWAY	COTTAGE GROVE ROAD WEST SECTION	Υ	1979	ST17	0.3
STARKWEATHER-OLBRICH GREENWAY	COTTAGE GROVE ROAD EAST SECTION	Υ	1965	ST18	8.9
STARKWEATHER-OLBRICH GREENWAY	PORTSMOUTH WAY SECTION	Υ	1970	ST18	4.1
STARKWEATHER-OLBRICH GREENWAY	QUEENSBRIDGE ROAD SECTION	Υ	1966	ST18	7
STARKWEATHER-OLBRICH GREENWAY	RETANA ROAD EAST SECTION	Υ	1968	ST18	4.8
STARKWEATHER-OLBRICH GREENWAY	VALLEY ROAD SECTION	Υ	1963	ST18	1.8
EAST STARKWEATHER-EAST TOWNE GREENWAY	PARKSIDE DRIVE SECTION	Υ	1973	STO8	1.6
CHEROKEE MARSH GREENWAY	CHEROKEE COUNTRY CLUB SECTION	Υ	1966	UY01	0.3
CHEROKEE MARSH GREENWAY	COMANCHE WAY SECTION	S	1966	UY01	5.7
CHEROKEE MARSH GREENWAY	DELAWARE BLVD SECTION	Υ	1970	UY01	1.5
CHEROKEE MARSH GREENWAY	ILENE LANE SECTION	Y	1970	UY01	4.7
UPPER MUD LAKE GREENWAY	LIBERTY PLACE WETLANDS	Υ	2002	WA01	18.6
UPPER MUD LAKE GREENWAY	LOST CREEK WETLANDS	Y	2002	WA01	8.9
UPPER MUD LAKE GREENWAY	OWL CREEK DRIVE SECTION	Y	2002	WA01	0.2
UPPER MUD LAKE GREENWAY	OWL CREEK WETLANDS	Y	2006	WA01	4.4
UPPER MUD LAKE GREENWAY	TWIN OAKS WETLANDS	Y	2003	WA01	1.8
UPPER MUD LAKE GREENWAY	VOGES ROAD SECTION	Y	2006	WA01	3
UPPER MUD LAKE GREENWAY	YESTERDAY DRIVE WETLAND	Υ	2002	WA01	2.3
LAKE WINGRA-FOREST HILLS GREENWAY	EAST CEMETERY SECTION	Y	1923	WI03	1.6
LAKE WINGRA-FOREST HILLS GREENWAY	GLENWAY STREET SECTION	Y	1923	WI03	2
LAKE WINGRA-SOUTH ARBORETUM GREENWAY	POST ROAD SECTION	Y	1965	WI07	8.8

Pond Name	Watershed	Max level Surface Area
Ashworth Drive	BADGER MILL CREEK	1.12
Brader Way Blackhawk ChurchS	BADGER MILL CREEK	2.00
Brader Way Blackhawk ChurchS2	BADGER MILL CREEK	1.33
BraderWayBlackhawkChurchSInfl	BADGER MILL CREEK	0.29
BurntSiennaDr	BADGER MILL CREEK	0.86
DegersWay	BADGER MILL CREEK	0.40
ElverParkMiddle	BADGER MILL CREEK	5.43
ElverParkUpper	BADGER MILL CREEK	2.67
FieldstoneUpper	BADGER MILL CREEK	0.56
GlacierCrossing	BADGER MILL CREEK	0.35
GoldenHue	BADGER MILL CREEK	0.31
Greentree	BADGER MILL CREEK	3.69
HawksLandingLBMCEast	BADGER MILL CREEK	1.79
HawksLandingLBMCNorth	BADGER MILL CREEK	2.41
HawksLandingLBMCSW	BADGER MILL CREEK	0.63
HawksWoodsSystem	BADGER MILL CREEK	1.54
HighPointEstates	BADGER MILL CREEK	2.24
IceAgeRidge	BADGER MILL CREEK	0.58
JeffyTrailHawksCreekUBMC	BADGER MILL CREEK	0.57
JeffyTrailHawksCreekUBMCInfl	BADGER MILL CREEK	0.12
JeffyTrailHawksCreekUBMCWet	BADGER MILL CREEK	0.38
LBMCMidtownWoods	BADGER MILL CREEK	0.59
LBMCMidtownWoods2	BADGER MILL CREEK	0.24
LBMCMidtownWoodsInfl	BADGER MILL CREEK	0.15
LBMCPineHIIIDr100yr	BADGER MILL CREEK	1.54
LBMCPineHillDrInfl	BADGER MILL CREEK	0.86
LBMCPineHillDrWetPond	BADGER MILL CREEK	0.52
ManchesterPark	BADGER MILL CREEK	2.86
ManchesterParkUpper	BADGER MILL CREEK	0.08
MansionHillAve	BADGER MILL CREEK	4.99
MapleGrove	BADGER MILL CREEK	1.54
MidTownAtHawksRidge	BADGER MILL CREEK	0.09
MidTownAtHawksRidgeBioret	BADGER MILL CREEK	0.08
MidtownCommons	BADGER MILL CREEK	0.31
MidtownRitz	BADGER MILL CREEK	0.60
MoonlightTrailLindenParkW	BADGER MILL CREEK	0.69
NewberyHeightsDry	BADGER MILL CREEK	0.34
PrairieHills	BADGER MILL CREEK	1.99
PrairieHills1	BADGER MILL CREEK	0.47
PrairieHills2	BADGER MILL CREEK	1.36
QuarryCove	BADGER MILL CREEK	0.12
Rayovac	BADGER MILL CREEK	2.62
RustlingBirchRd	BADGER MILL CREEK	2.16
RustlingBirchRd1	BADGER MILL CREEK	0.96
RustlingBirchRd2	BADGER MILL CREEK	0.90

Sandstone	BADGER MILL CREEK	1.04
ShadyBirchAtSugarMaple	BADGER MILL CREEK	0.95
SiliconPrairie	BADGER MILL CREEK	5.60
SiliconPrairieAtSugarMaple	BADGER MILL CREEK	1.14
SiliconPrairieAtSugarMaple1	BADGER MILL CREEK	0.33
SiliconPrairieAtSugarMaple2	BADGER MILL CREEK	0.45
SiliconPrairieInfl1	BADGER MILL CREEK	0.39
SiliconPrairieInfl2	BADGER MILL CREEK	1.75
SiliconPrairieRet	BADGER MILL CREEK	2.21
SPointAtHarvestMoon	BADGER MILL CREEK	3.59
SPointAtHarvestMoon2	BADGER MILL CREEK	2.28
StrawHarvestLane	BADGER MILL CREEK	1.18
StrawHarvestLane1	BADGER MILL CREEK	0.54
StrawHarvestLane2	BADGER MILL CREEK	0.50
SundanceAtPineHollow	BADGER MILL CREEK	0.27
SundanceAtPineHollow1	BADGER MILL CREEK	0.04
SundanceAtPineHollow2	BADGER MILL CREEK	0.19
UBMCAvalonLane	BADGER MILL CREEK	4.13
UBMCConfluenceNorthRainGarden	BADGER MILL CREEK	0.25
UBMCConfluenceSouthRainGarden	BADGER MILL CREEK	0.32
UBMCFlagstone	BADGER MILL CREEK	1.77
UBMCHawksCreek1	BADGER MILL CREEK	0.37
UBMCHawksCreek100yr	BADGER MILL CREEK	1.25
UBMCHawksCreek2	BADGER MILL CREEK	0.60
UBMCLindenParkEast	BADGER MILL CREEK	0.95
UBMCLindenParkEast1	BADGER MILL CREEK	0.41
UBMCLindenParkEast2	BADGER MILL CREEK	0.37
UBMCRegionalCentral2	BADGER MILL CREEK	12.93
UBMCRegionalCentralNW1	BADGER MILL CREEK	1.16
UBMCRegionalLindenParkS	BADGER MILL CREEK	1.63
UBMCRegionalWest1	BADGER MILL CREEK	2.32
UBMCRegionalWest2	BADGER MILL CREEK	9.61
UBMCSouthRegionalBasin100yr	BADGER MILL CREEK	14.92
UBMCSouthRegionalBasinE	BADGER MILL CREEK	3.34
UBMCSouthRegionalBasinW	BADGER MILL CREEK	9.99
UBMCSouthUWResearchNE	BADGER MILL CREEK	1.56
UBMCSouthUWResearchW_Main	BADGER MILL CREEK	2.72
ValleyRidge	BADGER MILL CREEK	2.29
ValleyRidgeApartments	BADGER MILL CREEK	0.52
ValleyViewatRedan	BADGER MILL CREEK	0.74
WestBadgerMillCreek	BADGER MILL CREEK	1.02
WesthavenMcKeeRd	BADGER MILL CREEK	0.11
WesthavenTrails	BADGER MILL CREEK	0.88
WoodsRoad1	BADGER MILL CREEK	0.13
WoodsRoad2	BADGER MILL CREEK	0.23
CoveredBridge	DOOR CREEK	0.59
HarringtonDrive	DOOR CREEK	2.55

Hopewell	DOOR CREEK	2.08
MaywickEstates	DOOR CREEK	0.33
McLeanDr	DOOR CREEK	0.74
MeadowlandsNorth	DOOR CREEK	2.40
MeadowlandsSouth	DOOR CREEK	2.05
RestonHeights	DOOR CREEK	5.19
RusticDriveRegional	DOOR CREEK	3.30
RusticDrRusticAcresS	DOOR CREEK	0.11
SaturnDrive	DOOR CREEK	2.42
SaturnDriveN	DOOR CREEK	1.02
SaturnDriveS	DOOR CREEK	0.38
VenusWay	DOOR CREEK	0.18
FarEastGolfCourse	KOSHKONONG CREEK	18.28
FarEastGolfCourseLower	KOSHKONONG CREEK	9.58
Far East Golf Course Upper	KOSHKONONG CREEK	2.18
Dahlen&Dale	LAKE MENDOTA	1.88
GanserHeightsLower	LAKE MENDOTA	0.56
Garner	LAKE MENDOTA	1.13
Grassman	LAKE MENDOTA	1.58
IndianHillParkBioret	LAKE MENDOTA	0.05
MeadowRidge	LAKE MENDOTA	1.36
Nautilus Dr	LAKE MENDOTA	2.45
OldMiddletonNorth	LAKE MENDOTA	0.15
OldMiddletonSouth	LAKE MENDOTA	0.26
OwenParkRetentionE	LAKE MENDOTA	1.26
OwenParkRetentionN	LAKE MENDOTA	0.74
OwenParkRetentionW	LAKE MENDOTA	1.79
PonwoodPrivate	LAKE MENDOTA	1.70
SpringHarborBeachBioRet	LAKE MENDOTA	0.04
Stonefield	LAKE MENDOTA	1.48
StrickersForebay	LAKE MENDOTA	2.76
UniversityAtUnivRowBio	LAKE MENDOTA	0.30
UWResearchParkEast_North1	LAKE MENDOTA	1.08
UWResearchParkEast_North2	LAKE MENDOTA	2.09
UWResearchParkEast_North3	LAKE MENDOTA	3.29
UWResearchParkWest_NE	LAKE MENDOTA	0.27
WarnerMainParkingN	LAKE MENDOTA	0.36
WarnerMainParkingS	LAKE MENDOTA	0.33
WestTowneField	LAKE MENDOTA	24.28
WestTowneN	LAKE MENDOTA	2.26
WestTownePondAddition	LAKE MENDOTA	0.35
WestTowneS	LAKE MENDOTA	4.31
WestTowneUpper	LAKE MENDOTA	0.94
BerniesBeachBioret	LAKE MONONA	0.07
GoodmanPoolBioswale	LAKE MONONA	0.55
GoodmanPoolNE	LAKE MONONA	0.37
GoodmanPoolNE1	LAKE MONONA	0.07

GoodmanPoolNE2	LAKE MONONA	0.16
GoodmanPoolNSwale	LAKE MONONA	0.05
GoodmanPoolSW	LAKE MONONA	0.25
MononaAtBuckeyeTrtmt	LAKE MONONA	0.29
MononaGolfCourse_SWInner	LAKE MONONA	0.93
MononaGolfCourse_SWOuter	LAKE MONONA	0.46
Brandenburg	LAKE WAUBESA	0.88
CrestedOwlAtValorWay	LAKE WAUBESA	0.36
CrestedOwlPondOwlsCreekSW	LAKE WAUBESA	0.57
GloryCourtLibertyPlaceN	LAKE WAUBESA	0.42
HornedOwlTormeyEast	LAKE WAUBESA	0.75
OwlCreek1	LAKE WAUBESA	0.38
OwlCreek2	LAKE WAUBESA	2.10
QuinnRanchDetention	LAKE WAUBESA	0.18
SiggelGroveRet	LAKE WAUBESA	1.30
SnowOwlatHornedOwl	LAKE WAUBESA	0.44
TwinOaksNorth	LAKE WAUBESA	0.23
TwinOaksSouth	LAKE WAUBESA	0.55
UpperMudLake	LAKE WAUBESA	3.50
UpperMudLakeInfl	LAKE WAUBESA	0.95
UpperMudLakeRet	LAKE WAUBESA	1.80
ValorWayDLibertyPlaceNW	LAKE WAUBESA	0.48
EastArboretum1	LAKE WINGRA	0.17
East Arboretum 2	LAKE WINGRA	0.68
East Arbore tum Forebay	LAKE WINGRA	0.55
EastArboretumForebay1	LAKE WINGRA	0.15
East Arbore tum Forebay 2	LAKE WINGRA	0.31
NorthArboretum	LAKE WINGRA	5.10
North Arbore tum Forebay	LAKE WINGRA	0.72
NorthwestArboretum	LAKE WINGRA	2.48
SecretPond1	LAKE WINGRA	1.97
SecretPond2	LAKE WINGRA	0.67
UWResearchParkWest_Central	LAKE WINGRA	2.16
UWResearchParkWest_SE	LAKE WINGRA	2.50
UWResearchParkWest_South	LAKE WINGRA	0.40
UWResearchParkWest_SW	LAKE WINGRA	3.80
WBadgerRd	LAKE WINGRA	2.69
WestmorelandRainGarden	LAKE WINGRA	0.02
AlliedDrBioPond	NINE SPRINGS CREEK	0.18
DunnsMarshForebay	NINE SPRINGS CREEK	0.53
EngelhartDrive	NINE SPRINGS CREEK	0.55
LorenaParkway	NINE SPRINGS CREEK	0.29
NineSpringsSyenePost	NINE SPRINGS CREEK	0.53
PostWatford	NINE SPRINGS CREEK	1.16
WBadgerRdandBeltinePrivate	NINE SPRINGS CREEK	0.24
BroadwayTIF	PENITTO CREEK	6.73
CatalinaParkway	PENITTO CREEK	1.86

CatalinaParkwayDet	PENITTO CREEK	0.92
CatalinaParkwayInfl	PENITTO CREEK	0.66
Dejope	PENITTO CREEK	0.84
DondeeRoadsBuckeyeMeadows	PENITTO CREEK	0.58
DondeeRoadsBioretention	PENITTO CREEK	0.10
DutchMill	PENITTO CREEK	0.36
EdnaTaylor1	PENITTO CREEK	0.64
EdnaTaylor2	PENITTO CREEK	0.41
EdnaTaylor3	PENITTO CREEK	0.34
EdnaTaylor3and4_100yr	PENITTO CREEK	1.80
EdnaTaylor4	PENITTO CREEK	0.74
EdnaTaylor5	PENITTO CREEK	0.37
EdnaTaylor6	PENITTO CREEK	0.58
HelgesenDr	PENITTO CREEK	2.95
KingsMillCircle	PENITTO CREEK	2.65
KippStreet	PENITTO CREEK	2.81
KippStreetE	PENITTO CREEK	0.32
KippStreetN	PENITTO CREEK	1.72
KippStreetNW	PENITTO CREEK	1.59
MononaGolfCourse_North	PENITTO CREEK	0.87
PenitoCreekFemriteDr	PENITTO CREEK	5.44
PenitoCreekPnR	PENITTO CREEK	1.27
PrairieSchooner	PENITTO CREEK	7.11
SandlewoodCircle	PENITTO CREEK	1.50
SecretPlacesAtSigglekowBioret	PENITTO CREEK	0.36
SecretPlacesAtSigglekowBioret2	PENITTO CREEK	0.58
SecretPlacesAtSigglekowEagleCave	PENITTO CREEK	0.13
SecretPlacesAtSigglekowPool1	PENITTO CREEK	0.05
SecretPlacesAtSigglekowPool2	PENITTO CREEK	0.04
SecretPlacesAtSigglekowPool3	PENITTO CREEK	0.01
SecretPlacesAtSigglekowPool4	PENITTO CREEK	0.44
SecretPlacesAtSigglekowWet	PENITTO CREEK	1.38
Tradewinds	PENITTO CREEK	1.57
WorldAgCenterSEWetland	PENITTO CREEK	9.37
AtticAngel	PHEASANT BRANCH	2.97
AtticAngel1	PHEASANT BRANCH	0.69
AtticAngel2	PHEASANT BRANCH	1.67
CapeSilverWay1	PHEASANT BRANCH	0.42
CapeSilverWay2	PHEASANT BRANCH	1.57
CommercialSquare	PHEASANT BRANCH	2.27
Fargo&CobaltE	PHEASANT BRANCH	1.11
Fargo&CobaltW	PHEASANT BRANCH	0.87
GanserHeightsUpper	PHEASANT BRANCH	0.27
Greystone	PHEASANT BRANCH	2.07
JunctionLoop	PHEASANT BRANCH	0.95
JunctionRidge	PHEASANT BRANCH	2.19
MenardsPondSystem	PHEASANT BRANCH	0.32

NorthBlackhawk	PHEASANT BRANCH	4.27
OldSaukTrail100yr	PHEASANT BRANCH	5.28
OldSaukTrailCenter	PHEASANT BRANCH	0.74
OldSaukTrailLowerStage3	PHEASANT BRANCH	0.70
OldSaukTrailLowerStage4	PHEASANT BRANCH	0.59
OldSaukTrailUpper	PHEASANT BRANCH	0.58
PleasantView	PHEASANT BRANCH	0.81
SaukCreekLower	PHEASANT BRANCH	1.67
SaukCreekUpper	PHEASANT BRANCH	0.94
SaukHeights	PHEASANT BRANCH	1.50
SWBlackhawk	PHEASANT BRANCH	12.22
WattsCommercePriv	PHEASANT BRANCH	0.19
Wexford	PHEASANT BRANCH	7.57
WexfordS	PHEASANT BRANCH	1.86
AmericanCenterAmericanPkwy	STARKWEATHER CREEK	3.12
AmericanCenterAmericanPkwy1	STARKWEATHER CREEK	0.18
AmericanCenterButtonwoodBioE	STARKWEATHER CREEK	0.14
AmericanCenterButtonwoodBioW	STARKWEATHER CREEK	0.11
AmericanCenterUWHealth1	STARKWEATHER CREEK	1.25
AmericanCenterUWHealth2	STARKWEATHER CREEK	0.11
AmericanCenterUWHealth3	STARKWEATHER CREEK	0.25
AmericanCenterUWHealth4	STARKWEATHER CREEK	1.07
AmericanCenterUWHealth5	STARKWEATHER CREEK	0.42
AmericanCenterUWHealth6	STARKWEATHER CREEK	0.38
AtlasAve	STARKWEATHER CREEK	8.69
BrighamWoods	STARKWEATHER CREEK	0.52
CenterForIndustryCommerceS	STARKWEATHER CREEK	1.58
CenterIndustryCommerceN	STARKWEATHER CREEK	4.63
ChurchillHeightsNorth	STARKWEATHER CREEK	0.35
ChurchillHeightsSouth	STARKWEATHER CREEK	1.31
CommercialAve	STARKWEATHER CREEK	0.84
CottageGroveRd_NE	STARKWEATHER CREEK	3.85
CottageGroveRd_SW	STARKWEATHER CREEK	4.20
CrescentOaks	STARKWEATHER CREEK	0.88
GrandviewCommons	STARKWEATHER CREEK	3.84
HighCrossing	STARKWEATHER CREEK	2.24
HolyCross1	STARKWEATHER CREEK	0.57
HolyCross2	STARKWEATHER CREEK	0.19
I94USH151InterchangeNRamp	STARKWEATHER CREEK	7.56
KennedySchool	STARKWEATHER CREEK	0.59
LienRoad	STARKWEATHER CREEK	0.43
MadisonCorporateCenterNorth	STARKWEATHER CREEK	0.27
MadisonCorporateCenterSouth	STARKWEATHER CREEK	0.29
ManufacturersAtCommerce	STARKWEATHER CREEK	2.73
MestaLane	STARKWEATHER CREEK	1.90
MonumentCenter	STARKWEATHER CREEK	1.18
MonumentCenter2	STARKWEATHER CREEK	0.56

MonumentCenterBioRetTrench	STARKWEATHER CREEK	0.08
NBarteltCt	STARKWEATHER CREEK	0.72
RegionalEast	STARKWEATHER CREEK	5.96
Ridgewood_East	STARKWEATHER CREEK	0.57
Ridgewood_North	STARKWEATHER CREEK	0.48
Ridgewood_West	STARKWEATHER CREEK	0.54
RoysterAve	STARKWEATHER CREEK	1.45
SHoepkerRd	STARKWEATHER CREEK	2.57
StarkweatherCreekRainGarden	STARKWEATHER CREEK	0.07
SwantonRoad	STARKWEATHER CREEK	1.91
SycamoreAve	STARKWEATHER CREEK	5.19
TanchDr_5541_Priv	STARKWEATHER CREEK	0.27
TanchoDr5302Priv1	STARKWEATHER CREEK	0.46
TanchoDr5302Priv2	STARKWEATHER CREEK	0.50
TruaxAirPark	STARKWEATHER CREEK	1.00
WalmartPrivate	STARKWEATHER CREEK	0.91
WhitetailRidge	STARKWEATHER CREEK	2.16
Woodmans	STARKWEATHER CREEK	5.04
Cherokee_atWheeler	UPPER YAHARA	1.40
WheelerRd@DelawareBlvdCherokee	UPPER YAHARA	2.87
WheelerRd@IleneLnCherokee	UPPER YAHARA	4.51
Wingra Park Bioretention	LAKE WINGRA	0.10



City of Madison

City of Madison Madison, WI 53703 www.cityofmadison.com

Legislation Details (With Text)

Version: 1 File #: 49185 Name: Authorizing the Mayor and City Clerk to enter into

> an agreement with the USGS to monitor runoff from leaf collection study area and to accept funding from

Clean Lakes Alliance, MaMSWAP and YaharaWins.

Status: Passed Type: Resolution

File created: 10/11/2017 In control: **BOARD OF PUBLIC WORKS**

On agenda: 10/31/2017 Final action: 10/31/2017 Enactment date: 11/3/2017 Enactment #: RES-17-00863

Title: Authorizing the Mayor and City Clerk to enter into an agreement with the USGS to monitor runoff from

leaf collection study area and to accept funding from Clean Lakes Alliance, MaMSWAP and

YaharaWins.

Sponsors: Mark Clear, Matthew J. Phair, Arvina Martin, Marsha A. Rummel

Indexes:

Code sections:

Attachments: 1. Leaf collection.pdf

Date	Ver.	Action By	Action	Result
10/31/2017	1	COMMON COUNCIL	Adopt	Pass
10/18/2017	1	BOARD OF PUBLIC WORKS	RECOMMEND TO COUNCIL TO ADOPT - REPORT OF OFFICER	Pass
10/17/2017	1	COMMON COUNCIL	Refer	Pass
10/11/2017	1	Engineering Division	Referred for Introduction	

The proposed resolution authorizes the agreement with the USGS in the amount of \$30,000 for monitoring runoff from leaf collection. The adopted 2017 operating budget contains sufficient budget authority for the work within the Stormwater Utility's operating budget. Funding is provided by partner entities Clean Lakes Alliance (\$10,000), MAMSWAPP (\$10,000), and YaharaWins (\$10,000).

MUNIS:

84262-54810-00000

Authorizing the Mayor and City Clerk to enter into an agreement with the USGS to monitor runoff from leaf collection study area and to accept funding from Clean Lakes Alliance, MaMSWAP and YaharaWins.

WHEREAS the City is one of many municipalities required to comply with the recently adopted Rock RiverTMDL; and

WHEREAS, WDNR staff believes that it is possible that we are not receiving sufficient credit for the leaf collections efforts that we currently undertake as they regard to the reduction in phosphorous that is achieved:and

WHEREAS, to document the existing levels of reduction compared to no controls and compared to maximum possible efforts a study of this nature is required as the work has not been done nationally; and

WHEREAS, initial results have be promising and expanding the study will expedite a decision by the WDNR in regards to leaf collection credits; and

File #: 49185, Version: 1

WHEREAS to document the existing levels of reduction compared to no controls and compared to maximum possible efforts a study of this nature is required as the device being tested was designed by City Staff; and

WHEREAS; MAMSWAPP and Clean Lakes Alliance and YaharaWins have funds dedicated to support the leaf collection study;

NOW, THEREFORE, BE IT RESOLVED that the Mayor and City Clerk are authorized to enter into an agreement with the USGS in the amount of \$30,000 to monitor storm water quality associated with a leaf collection, and to accept funding for this project from YaharaWins, MaMSWAPP and the Clean Lakes Alliance.

Madison **Water** Ways



News from your Stormwater Utility & Sewer Utility

www.cityofmadison.com/engineering/stormwater

FALL, 2018

Historic Flooding in Madison: Cleaning Up, Moving Forward from Summer Storms

Report Your Storm-Related Problems to City Engineering

by Greg Fries, Engineering Division

The historic flooding in Madison and surrounding areas this summer points to the need to reconsider how we, as a community, design new developments, manage our lakes and think about the extremes of our weather patterns now and in the future. The first step is to document all the problems that were experienced during the August 20th storm and the days that followed, as lake levels rose and Lake Monona flooded downtown Madison. City Engineering received hundreds of contacts as a result of this storm, but we know it is not a complete list.

We want to know about storm-related problems you experienced. If you haven't reported your flooding issue, please report at: cityofmadison.com/reportflooding. If you have already reported via 2-1-1 or other means, City Engineering would appreciate you re-reporting your flood concern through the portal to ensure that we have accurate and complete information.

The most severe storm that hit on August 20th dumped approximately 10 inches or more on the west side of Madison and Dane County. This rain happened over a span of approximately eight hours and qualifies as a 1000-year, or historic event. But what does that mean?

Engineers often use the term "100-year storm event" to describe an intense storm. This term offers little comfort when you may have been impacted by two in the same year. A short explanation of this term is, according to historical data about rainfall, the probability of Madison receiving 6.66 inches of rain in 24 hours is once in 100 years. In other words, such a rain event has a one percent chance of occurring in any year.

You may have noticed there were two components to the storm referenced above. First, there was the amount of rain and second, the span of time in which it fell. It is possible to have a 100-year, 1-hour storm (3.04 inches) and a 100-year, 24-hour storm (6.66 inches) and all the mixes of time and amount of rain in between those examples.

Damage from the August 20th storm has been devastating for many residents whose homes were significantly wrecked by flood waters. In some areas on the west side, flood water overtopped streets by nearly five feet. While most City critical infrastructure is functional again, City Engineering and other City agencies are still assessing all the damage reports to public and private properties.

As if the immediate flooding caused by the rain was not enough, the volume of water caused Lake Mendota to rise 16 inches one day after the rain. Within a few days, Lake Monona rose to more than 10 inches above the 100-year flood elevation, setting new record highs. Downtown Madison was flooded. Streets were closed, parking was removed, and sandbags were filled. Volunteer groups and the National Guard rallied to help sandbag impacted properties. Madison alone deployed over 225,000 sandbags.

The next stage of this event will be just as difficult to manage. Going into winter with high lake levels, significant ice damage along the shoreline can be expected. If we also have significant snowfall and spring rains, high lake levels and flooding concerns will persist in 2019.

We want to know about storm-related problems you experienced. Please report at: cityofmadison.com/reportflooding.



A Message from Our City Engineer

The severe storm that hit Madison on August 20, 2018 was arguably the most devastating storm in the City of Madison's 170-year history. Although even worse outside of Madison, here in the City it accounted for millions of dollars in damages and, sadly, the loss of a life.

The tragic storm and the threat of flooding that resulted from high lake levels that followed the storm brought out the very best in people. Staff from 11 agencies came together to manage the event. A public information campaign was launched that included press releases, social media, and the hand delivery of information to residents and businesses that were in harm's way. The City undertook its first sandbag production effort, at times working through the night producing sandbags. Staff also worked through the night to close roadways if necessary and to provide up to the minute information to the public. Using our website, the City undertook an effort to match volunteers with people needing help. Thousands of volunteers assisted in the effort to protect properties with sandbags. The National Guard and the Department of Corrections also assisted in the sandbagging effort.

The National Weather Service, Dane
County Emergency Management, Dane
County Land and Water Resources, the
Wisconsin DOT Traffic Operations Center,
Wisconsin Emergency Management and the
University of Wisconsin all assisted. Nonprofit organizations such as the United Way,
Community Partners, Big Top Events, the Red
Cross and the Salvation Army contributed in
meaningful ways.

These organizations and the many citizen volunteers who assisted, in most cases, helped people they had never met before.

Thank you to all who came together in service to our community at a great time of need.

Rob Phillips

MADISON WATER WAYS FALL, 2018

Winter Salt Certification Program: Best Practices for Environment and Safe Pavement

by Phil Gaebler, Engineering Division

The City's Winter Salt Certification Program, now in its second year, trains applicators to reduce the amount of deicers, including salt, to help cut chloride levels accumulating in our lakes and groundwater. As our lakes are freshwater, the plants and animals living in the lakes need chloride levels to stay low. While chloride levels are still at a point most lake life can tolerate, levels are increasing. An estimated 30% reduction in deicers would keep levels where they are at. A 60% reduction would return lake conditions to levels not recorded since the 1970's.

The City's goal is to certify all City employed salt applicators before the 2018-2019 winter and increasing the number of certified private applicators to meet demand. Residents can assist in achieving this important goal by asking anyone they hire to become certified and to make an effort to reduce their salt use. Wisconsin Saltwise, www.wisaltwise.com, has resources for both professionals and homeowners to reduce their winter salt use.

In general, winter salt can be dramatically reduced by removing as much snow as possible. Start by using a broom to get to bare pavement, and remembering that 12 ounces of salt is enough to treat 10 sidewalk panels (see Be Salt Wise! graphic to the right).

For a list of individuals who have successfully completed Winter Salt Certification training, please visit: www. cityofmadison.com/live-work/sustainability/winter-salt-certification/find-certified-applicators.

Comprehensive Plan Sets Priorities for Madison's Future

by Kirstie Laatsch, Department of Planning, Community and Economic Development

The City has adopted its 2018 Comprehensive Plan. The Plan is a document that will guide the City's actions within six distinct elements, shown in the diagram below. The City sought feedback from the community to inform the Comprehensive Plan through an extensive public engagement process called "Imagine Madison." Imagine Madison reached over 15,000 residents to learn what strategies should be prioritized over the next 10 years to improve Madison and address challenges within our community. The Plan covers strategies related to topics such as the environment, transportation, and housing that will enable our community to use resources effectively and adapt to change. The Plan also includes a growth framework, which addresses the physical aspects of the community's vision as it pertains to future growth. The growth framework is used regularly to review development proposals and make sure future growth is consistent with the community's vision.



One of the six themes set forth by the Plan is a green and resilient city. It outlines nine strategies and 27 accompanying actions to ensure Madison becomes a leader in stewardship of our land, air, and water resources. Some of those strategies and actions include:

- » Strategy #1: Protect Madison's water supply and infrastructure to provide safe, clean drinking water.
 - Continue accelerated water-main replacement and infrastructure renewal.
 - Expand education about road and parking lot salt application.
 - Continue to help lower-income homeowners make water conservation upgrades.
- » Strategy #2: Improve lake and stream water quality.
 - Keep phosphorus and other pollutants out of the lakes.
 - Increase frequency of leaf collection/street sweeping to reduce runoff.
 - Further incentivize rain gardens and other green infrastructure.
- » Strategy #6: Develop a healthy and diverse **urban tree canopy.**
 - Prioritize tree species diversity to create a resilient tree canopy.
 - Work across agencies to increase the tree canopy.
 - Encourage the placement of utilities that fosters street tree growth.

For more information or to view the adopted Comprehensive Plan, visit: www.cityofmadison.com/dpced/planning.



CITY ENGINEERING CONTACTS

Main Office: (608) 266-4751

Erosion Control: (608) 267-1199

Stormwater

Utility Billing: (608) 267-1199

Sidewalk Concerns: (608) 266-4537

Sewer Maintenance:

(608) 266-4430

FALL, 2018 MADISON WATER WAYS

Sanitary Sewer-Public vs. Private Ownership & Responsibilities

by Kathy Cryan, Engineering Division

Most people take the sanitary sewer system for granted—flush, and it goes away! Then comes the day when that doesn't happen. Unfortunately, that's when many homeowners realize for the first time that the sanitary sewer service line, or sewer lateral as it is often called, that runs between the public sewer main in the street and their home is owned by the homeowner, not the Madison Sewer Utility (MSU). And the homeowner is responsible for the maintenance and repair of their private sewer lateral.

City's Responsibilities Responsibilities

How to Protect Your Home and Family

Use the Sanitary Sewer Only for its Intended Purpose!

- » Stop allowing grease and food products to go down the kitchen sink. Your pipes are not built to handle these food items and they can cause a blockage.
- » Don't flush the wrong products. The only product that should be disposed of in your toilet is toilet paper. There is no such thing as a flushable wipe. Likewise, do not flush feminine products, diapers, paper towels or kitty litter. None of these products will disintegrate like toilet paper.

Maintain Your Sewer—Prevention Can Save You \$

- » Verify that you have a backwater valve and maintain it. This is a one-way valve that allows wastewater to flow from your home to the public system but prevents the backup of sewage into the home. This valve is a flap or ball that needs to be periodically cleaned to remove build-up that may prevent the valve from closing fully.
- » Do not plant trees and shrubs over the private sanitary sewer lateral. Tree roots are a major cause of lateral backups. Tree roots can enter the service pipe at joints and travel a long way, causing blockages along the way. Tree roots can also create structural defects when they crack and break pipes as they grow.

What to Do When You Have a Problem

If you experience a sewer backup, call City Engineering at (608) 266-4430. A crew will be dispatched to determine if the problem is in the public sewer main and if so, the crew will remove the blockage. If the problem is not in the public sewer main, the crew will let you know so you can contract with a private plumbing or sewer drain cleaning company to remove the blockage in your private lateral.

Structural defects occur as systems age and deteriorate. These defects can include full or partial pipe collapse, cracks, holes, and fractures. We recommend having your line televised by a plumbing or sewer drain cleaning company to verify a break prior to entering into a contract to repair. Engineering staff are available to review the video inspection and provide their opinion on the need for a repair.

Private Insurance and Warranty Options

Damage to your home and belongings resulting from a sanitary sewer backup is typically not covered by a standard homeowners' insurance policy. Affordable sewer backup riders or endorsements are available to provide this coverage. Consult with your insurance agent to determine if you have this coverage and assess your need for such coverage.

While a sewer backup rider or endorsement will cover damage to your home and belongings caused by a sewer backup, it will not cover the cost of repairs to your sewer lateral. Private companies offer warranties to protect homeowners against the repair cost of their privately-owned sanitary service lines. In 2013, the City issued a Request for Proposals and selected, Service Line Warranties of America (SLWA), to offer homeowners that are customers of the Madison Sewer Utility access to optional warranty coverage. If an enrolled customer's sewer line leaks, breaks or clogs, Service Line Warranties of America has a 24-hour hotline and will dispatch a local, licensed plumber to perform the necessary work. This is NOT a City program, but rather SLWA is a program partner. As such, SLWA is solely responsible for the administration and service of the warranty programs. More information on this program is available at www.SLWofA.com.

Risk Assessment

The likelihood of a problem with your sewer lateral is dependent upon the age of your line, material, number of trees in vicinity of the line and amount of routine maintenance that takes place. Older, clay and cast iron sewer laterals are more prone to root intrusion and deterioration resulting in breaks than newer PVC (plastic) laterals. Homes built after 1980 typically have PVC laterals and are less susceptible to these issues. Homeowners are advised to assess their risk and their risk tolerance in deciding whether or not to purchase warranty coverage.

Future Options

The MSU is currently evaluating various options to protect customers from the economic hardship a sewer lateral repair can cause. Complete our online survey at www.surveymonkey.com/r/Sewer_Lateral_Survey to provide us with your ideas.

How to Handle Fall Leaf & Yard Waste

by Maddie Dumas and Phil Gaebler, Engineering Division

The easiest way to manage leaves is to mow them directly into your lawn with a mulching lawn mower. This works well for yards with light leaf cover and helps to improve your lawn's soil

For heavier leaf cover, leaf mulching is an option to aerate and improve soil nutrient content while providing temperature and moisture insulation. Leaf mulching also prevents excess nutrients from washing into our lakes.

Three products can be made with leaves: mulch, leaf mold and compost. Raking and piling leaves around the base of trees or over garden beds is the simplest way to mulch. Leaf mulch can be piled as high as a foot. It will compress into a flat, dense material known as leaf mold. This nutritious product can last for 2-3 years, suppress weeds and retain soil moisture levels. Leaf compost can be made in as little as six months by finely shredding leaves with a lawnmower or weed whacker, then layering with grass clippings, green compost, or manure. Turning the mixture every three weeks and/or covering with plastic to trap heat and moisture will speed decomposition.

Beware of mulching leaves infected with disease. Place diseased foliage in a pile or in a bag on your terrace for the City to pick up.

For more information about leaf collection, the drop-off sites and composting, visit www. cityofmadison.com/streets.



Japanese Knotweed: City Works to Eradicate Noxious Weed

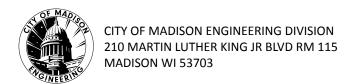
by Maddie Dumas, Engineering Division

Japanese knotweed is a highly aggressive perennial invasive that can take root in property foundations, driveways and roads. The damage it causes can lower your home's value and influence your chance of getting a mortgage.

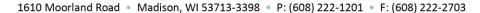
Japanese knotweed can reach massive proportions with heights of up to 13 feet, roots growing 9 feet deep, and up to 60 feet wide. Shoots can sprout at any point along their length allowing the plant to grow quickly into dense stands. It grows on hollow, bamboo-like stalks that a have mottled, reddish tinge when young, and a whitish coating when mature. Stems have a zig-zag pattern and can be red or green. Leaves are oval-shaped with pointed tips, flat bases and smooth edges. Small, creamy white flowers are held in upright spikes during boom in August-September.



Control of Japanese knotweed is extremely difficult. A multi-pronged approach involving cutting, treating with herbicide, and digging over the course of several years is needed to eradicate an invasion. The City of Madison has listed Japanese knotweed as a "noxious weed," therefore prohibiting it on all property. Property owners can contract with a private landscaping firm to provide treatment. For more information on how to treat, or if you see Japanese knotweed on public or private property, contact Maddie Dumas, Greenway Vegetation Coordinator at (608) 266-9525, mdumas2@cityofmadison.com.









NEWS RELEASE

FOR IMMEDIATE RELEASE

DATE: Nov. 15, 2018

CONTACTS: Martin Griffin, Yahara WINS executive committee president,

<u>MartinG@madsewer.org</u>, (608) 222-1201, ext. 124; Jennifer Sereno, communications, <u>Jennifer.Sereno@madsewer.org</u>, 608-770-8084

SUBJECT: Yahara WINS partnership continues progress on phosphorus reduction

MADISON, WI – During 2017, work by the Yahara Watershed Improvement Network and its partners kept more than 40,000 pounds of phosphorus from area surface waters, more than 40 percent of the total reduction of 96,000 pounds per year needed over the next 20 years to meet project goals.

The reduction came from a combination of efforts by farmers, Dane County, Rock County and area communities to implement practices aimed at capturing nutrients and reducing runoff. Phosphorus reduction totals included 18,859 pounds held back by members of Yahara Pride Farms, 18,015 pounds reported by Dane County; 566 pounds reported by Rock County and 2,629 pounds as a result of grants funded by Yahara WINS.

Practices implemented by farmers that contributed to the savings ranged from planting cover crops and harvestable buffers to stabilizing stream banks and using low-disturbance manure injection. Local municipalities and homeowners made further reductions through leaf management, erosion control and stormwater management.

"We are pleased by the progress of all the Yahara WINS partners during 2017 and our collaborative work was recognized in July when we earned the prestigious U.S. Water Prize from the U.S. Water Alliance," said Martye Griffin, Yahara WINS executive committee president. "While the results from the partnership's first full year of operation in 2017 represent a significant reduction in phosphorus from the documented practices, we also know that variability in precipitation including the timing and intensity of storms may affect phosphorus loading in the Yahara Watershed."

As a result, Griffin said, progress made through the phosphorus reducing practices may not be evident in water quality sampling reports during the early years of the project. Over the 20 year length of the project, however, implementation of new and continued practices is expected to achieve water quality goals.

Also during 2017, Yahara WINS gained new partnerships and agreements with Rock County, Town of Burke and Clean Lakes Alliance. There are now 24 governmental bodies contributing funds to the project as part of an intergovernmental agreement that enables municipalities with requirements to reduce phosphorus or sediment to meet their requirements through Yahara WINS reductions.

Project background

The Yahara Watershed Improvement Network, known as Yahara WINS, is a groundbreaking 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 a watershed work together to reduce phosphorus. The effort began in 2012 as a pilot project and in 2017 transitioned to a full scale effort.

The 20 year adaptive management project aims to achieve permit requirements and regional Clean Water Act goals identified through the Rock River Total Maximum Daily Load by 2036. To accomplish these goals, the group facilitates partnerships, conducts outreach, pools resources to fund phosphorus reducing practices in the watershed, analyzes stream samples and works with the Wisconsin Department of Natural Resources to address regulatory needs for the project. For more information and to view a copy of the annual report, check out the Yahara WINS webpage, http://www.madsewer.org/Programs-Initiatives/Yahara-WINs.