



Public Works Committee Meeting
April 9, 2019
6:00 p.m.
Cravath Lakefront Room
Municipal Building-2nd Floor
312 W Whitewater St
Whitewater, WI 53190

AGENDA

1. Call to order and roll call.
2. Approval of minutes from March 12, 2019
3. Hearing of Citizen Comments
 - a. No formal Public Works Committee action will be taken during this meeting although issues raised may become a part of a future agenda. Participants are allotted a three minute speaking period. Specific items listed on the agenda may not be discussed at this time; however citizens are invited to speak to those specific issues at the time the Public Works Committee discusses that particular item.
4. Old Business
5. New Business
 - a. Discussion and Possible Action for award of contract for Cravath Lakefront Park Amphitheater Structure.
 - b. Discussion and Possible Action on Income Survey results for Clay Street.
 - c. Discussion and Possible Action on submittal of projects to DNR for compliance with MS4 permit.
 - d. Discussion and Possible Action regarding the private road at the end of Coburn Lane.
 - e. Review of City's MS4 Annual Report.
 - f. Update on drainage along Walworth Avenue east of Indian Mound Parkway.
6. Future Agenda Items
7. Adjournment

It is possible that members of, and possibly a quorum of members of, other governmental bodies of the municipality may be in attendance at the above-stated meeting to gather information over which they may have decision-making responsibility; no action will be taken by any governmental body at the above-stated meeting other than the governmental body specifically referred to above in this notice.

**Anyone requiring special arrangements is asked to call the
Office of the City Manager / City Clerk
at least 72 hours prior to the meeting.**

Agenda Item No.
5a

STAFF REPORT TO PUBLIC WORKS COMMITTEE – 4-9-2019

AGENDA ITEM

Discussion and Possible Action for award of contract for Cravath Lakefront Park Amphitheater Structure.

BACKGROUND

Bid proposals for the design and furnishing of an engineered amphitheater structure including engineered footing design were advertised and received April 9, 2019. A review of the bids will be provided at the Public Works meeting.

FISCAL IMPACT

The fiscal impact will be the amount of the low bid received.

STAFF RECOMMENDATION

Staff will provide a recommendation at the meeting.

Staff contact: Brad Marquardt 262-473-0139

AGENDA ITEM

Discussion and Possible Action on Income Survey results for Clay Street.

BACKGROUND

The City received STP-Urban funding for the reconstruction of Clay Street. This funding does not help cover the cost of upgrading the sanitary sewer and water mains. To help fund a portion of these costs, the City inquired with the Department of Administration about applying for CDBG funding. To be eligible to apply for CDBG funding, the City needed to demonstrate that the majority of the population of citizens being served from these upgrades met the Low-Moderate income level thresholds. The City sent out an initial survey, followed by a follow-up survey to those residents who did not respond. Additionally, five door to door visits were made over four days at various times.

At this time, 59 out of 113 (52.2%) citizens residing along Clay Street meet the threshold for Low-Moderate income. However, the required responses of 72 families fell short by 4. This however does not take into account the additional vacant properties determined during the survey or the number of residents who did not want to participate in the survey.

Staff will forward the information to DOA for their review and final determination if the City will be eligible to apply for CDBG funding. The application deadline is May 17, 2019.

FISCAL IMPACT

The maximum amount of the CDBG funding is \$500,000.

STAFF RECOMMENDATION

Staff would like authorization to apply for the CDBG funding along with initiating other related documents required for the application if the DOA determines the City is eligible.

Staff contact: Brad Marquardt 262-473-0139

AGENDA ITEM

Discussion and Possible Action on submittal of projects to DNR for compliance with MS4 permit.

BACKGROUND

As part of the existing MS4 permit issued to the City by the DNR, the City was to submit a schedule of projects for storm water control measures which includes dates. Strand's Stormwater Quality Management Report, completed at the end of 2017, included a variety of alternatives but did not specifically state which projects the City would embark on or when.

The current MS4 permit expires at the end of April, 2019. The DNR would like the City to submit our project schedule by April 15, 2019 to be in compliance with the existing permit. The City will be issued a new permit May 1, 2019.

A summary of alternatives is included for your review along with Strand's powerpoint presentation from last year.

FISCAL IMPACT

The fiscal impact is an unknown at this time. It will depend on the type of project and when the project is completed.

STAFF RECOMMENDATION

The committee should recommend a list of projects that can be submitted to the DNR by April 15.

Staff contact: Brad Marquardt 262-473-0139

From: [Katt, Samantha J - DNR](#)
To: [Brad Marquardt](#)
Subject: Looking for MS4 permit documents - FYI webinar today
Date: Tuesday, March 12, 2019 8:34:43 AM
Attachments: [image001.gif](#)
[image002.gif](#)
[image003.gif](#)
[image004.gif](#)
[image005.gif](#)
[image006.gif](#)

Hi Brad,

Here is follow up to our previous phone conversation. As discussed, please submit the required information by April 15, 2019. Based on the information submitted, the Department has identified that the written plan describing how the permittee will make progress toward achieving TMDL compliance as required in Section 1.5.4.5 of WPDES Permit No. [WI-S0500075-02](#) is missing the following element:

Section 1.5.4.5.2, A proposed schedule for implementation of the recommendations and options identified under section 1.5.4.5.1. *Please provide a schedule of the planned storm water control measures which includes implementation dates.*

Section 5 of your Stormwater Quality Management Plan provides multiple alternatives however, we need to know which alternatives you are committing to with dates. Attachment B in the [TMDL Guidance for MS4 Permits](#) is an example of what we are looking for. Also note that while grant funding and/or cost-share may be used to expedite implementation, implementing best management practices cannot be entirely dependent on receiving funding.

I have also tried to answer your questions regarding flexibility within the Compliance Schedule, *What happens if we cannot implement what we committed to?*

WDNR negotiated with EPA that the MS4s have to show “continued progress” to remain in compliance with their permit. In the case where a proposed project is not implemented, an alternative project of equivalent water quality value should be proposed to replace the project which isn’t implemented. If no alternatives are complete, WDNR will assess the amount of “progress” and determine if the progress provides reasonable assurance that they will meet the goal in the future. If they cannot complete their proposed actions, the MS4 could be in noncompliance with the WPDES Permit **or the** MS4 must follow the Department prescribed schedule in the [draft general permit](#) outlined in A.5, Compliance Over Multiple Permit Terms.

An informational webinar about the proposed MS4 general permit is occurring **today March 12, 2019**, at 1:00 p.m. More information, and registration, can be found here <https://dnr.wi.gov/topic/stormwater/municipal/>

Please contact me with any additional questions,
Samantha

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Samantha Katt

Storm Water Specialist – Watershed Bureau/External Services Division

Wisconsin Department of Natural Resources

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dnr.wi.gov





STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

**GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN
POLLUTANT DISCHARGE ELIMINATION SYSTEM
WPDES PERMIT NO. WI-S050075-2**

In compliance with the provisions of ch. 283 Wis. Stats., and chs. NR 151 and 216, Wis. Adm. Code, owners and operators of municipal separate storm sewer systems are permitted to discharge storm water from all portions of the

MUNICIPAL SEPARATE STORM SEWER SYSTEM

owned or operated by the municipality to waters of the state in accordance with the conditions set forth in this permit.

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

State of Wisconsin Department of Natural Resources
For the Secretary

By 
Pamela A. Biersach, Director
Bureau of Watershed Management
Division of Water

April 29, 2014
Date Permit Signed/Issued

PERMIT EFFECTIVE DATE: May 1, 2014

EXPIRATION DATE: April 30, 2019

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1. APPLICABILITY CRITERIA

1.1 Permitted Area

This permit covers all areas under the ownership, control or jurisdiction of the permittee that contribute to discharges from a municipal separate storm sewer system (MS4) that receives runoff from any of the following:

1.1.1 An urbanized area, adjacent developing areas and areas whose runoff is connected or will connect to a municipal separate storm sewer regulated under subch. I of NR 216, Wis. Adm. Code; or

1.1.2 An area associated with a municipal population of 10,000 or more and a population density of 1,000 or more per square mile, adjacent developing areas and areas whose runoff is connected or will connect to an MS4 regulated under subch. I of NR 216, Wis. Adm. Code; or

1.1.3 An area that drains to an MS4 that is designated for permit coverage pursuant to s. NR 216.02(2) or 216.025, Wis. Adm. Code.

1.2 Authorized Discharges

This permit authorizes storm water point source discharges from the MS4 to waters of the state in the permitted area. This permit also authorizes the discharge of storm water co-mingled with flows contributed by process wastewater, non-process wastewater, and storm water associated with industrial activity, provided the discharges are regulated by other WPDES permits or are discharges which are not considered illicit discharges pursuant to Section 2.3.1.2 of this permit.

1.3 Water Quality Standards

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

1.3.2 This permit does not authorize discharges that the Department determines will cause or have reasonable potential to cause or contribute to an excursion above any applicable water quality standards. Where such determinations have been made, the Department may notify the municipality that an individual permit is necessary. However, the Department may authorize coverage under this permit where the storm water management programs required under this permit will include appropriate controls and implementation procedures designed to bring the storm water discharge into compliance with water quality standards.

1.4 Outstanding and Exceptional Resource Waters

1.4.1 The 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.

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

1.4.2 The permittee may not establish a new MS4 discharge of pollutants to an ORW or an ERW unless the storm water management programs required under this permit are designed to ensure

that any new MS4 discharge of pollutants to an ORW or ERW will not exceed background levels within the ORW or ERW.

1.4.2.1 “New MS4 discharge of pollutants” or “new MS4 discharge of a pollutant” means an MS4 discharge that would first occur after the permittee’s original start date of coverage under an MS4 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 to a surface water to which the MS4 discharged on or before coverage under this permit.

1.4.2.2 “Original start date of coverage under an MS4 permit” means the permittee’s Start Date of coverage under the first MS4 permit under which it received coverage.

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

1.4.4 If the permittee has an existing MS4 discharge to an ORW, it may increase the discharge of pollutants provided all of the following are met:

1.4.4.1 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.

1.4.4.2 The increased discharge would not result in a violation of water quality standards.

1.5 Impaired Waterbodies and Total Maximum Daily Load Requirements

1.5.1 Within 90 days after the start date of permit coverage under this permit and by March 31 of each odd-numbered year thereafter, the permittee shall determine whether any part of its MS4 discharges to an impaired waterbody 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).

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

1.5.2 If the permittee’s MS4 discharges to an impaired waterbody, the permittee shall include a written section in its storm water management program that discusses the management practices and control measures it will implement as part of its program to reduce, with the goal of eliminating, the discharge of pollutant(s) of concern that contribute to the impairment of the waterbody. This section of the permittee’s program shall specifically identify control measures and practices that will collectively be used to try to eliminate the MS4’s discharge of pollutant(s) of concern that contribute to the impairment of the waterbody and explain why these control measures and practices were chosen as opposed to other alternatives.

1.5.3 After the effective date of this permit, the permittee may not establish a new MS4 discharge of a pollutant of concern to an impaired waterbody or increase the discharge of a pollutant of concern to an impaired waterbody unless the new or increased discharge causes the receiving water to meet applicable water quality standards, or the Department and the USEPA have approved a total maximum daily load (TMDL) for the impaired waterbody. If there is an

approved TMDL for the receiving water, the permittee shall comply with Section 1.5.4 below. “New MS4 discharge of a pollutant” has the meaning specified under section 1.4.2.1 of this permit.

1.5.4 For the purposes of implementing an approved TMDL, a permittee shall comply with sections 1.5.4.3, 1.5.4.4, and 1.5.4.5 in accordance with the applicable compliance schedule of either section 1.5.4.1 or 1.5.4.2. An MS4 covered under this permit, which is not specifically identified as having a wasteload allocation in a TMDL approved by the Department and the USEPA, shall comply with this section by using the same percent reduction for a pollutant of concern as the city or village in which it is physically located.

Note: Some approved TMDLs do not assign a wasteload allocation to certain permitted MS4s such as a county, WisDOT transportation facilities, or University of Wisconsin campus. These MS4s and their wasteload allocations were not separated out from the city or village in which they are physically located.

1.5.4.1 If prior to the effective date of this permit the Department and the USEPA have approved a TMDL to which the permittee’s MS4 discharges a pollutant of concern and the TMDL assigns MS4 wasteload allocations, the permittee shall submit the information requested in accordance with the following compliance schedule:

1.5.4.1.1 For section 1.5.4.3, with the annual report due March 31, 2016.

1.5.4.1.2 For section 1.5.4.4, with the annual report due March 31, 2018.

1.5.4.1.3 For section 1.5.4.5, with the annual report due March 31, 2018.

1.5.4.2 If after the effective date of this permit the Department and the USEPA have approved a TMDL to which the permittee’s MS4 discharges a pollutant of concern and the TMDL assigns MS4 wasteload allocations, the permittee shall submit the information requested in accordance with the following compliance schedule:

1.5.4.2.1 For section 1.5.4.3, within 24 months of the approval date of the TMDL.

1.5.4.2.2 For section 1.5.4.4, within 48 months of the approval date of the TMDL.

1.5.4.2.3 For section 1.5.4.5, within 48 months of the approval date of the TMDL.

Note: Approved TMDLs are listed on the Department’s Internet site at: <http://dnr.wi.gov/topic/impairedwaters/>.

1.5.4.3 In accordance with the applicable compliance schedule specified in section 1.5.4.1 or 1.5.4.2, the permittee shall submit all of the following:

1.5.4.3.1 An updated storm sewer system map that identifies:

1.5.4.3.1.1 The current municipal boundary. For a permittee that is not a city or village, identify the permitted area.

Note: The permitted area for towns, counties and non-traditional MS4s pertains to the area within an urbanized area or the area served by its storm sewer system, such as a university campus.

1.5.4.3.1.2 The TMDL reachshed boundaries within the municipal boundary, and the area of each TMDL reachshed in acres within the municipal boundary.

1.5.4.3.1.3 The MS4 drainage boundary associated with each TMDL reachshed, and the area in acres of the MS4 drainage boundary associated with each TMDL reachshed.

1.5.4.3.2 Identification of areas on a map and the acreage of those areas within the municipal boundary that the permittee believes should be excluded from its analysis to show compliance with the TMDL wasteload allocation. In addition, the permittee shall provide an explanation of why these areas should not be its responsibility.

Note: An example of an area within a municipal boundary that may not be subject to a TMDL wasteload allocation for the permittee is an area that does not drain through the permittee's MS4.

Note: The information requested in section 1.5.4.3 will be used by the Department to facilitate implementation of the TMDL.

1.5.4.4 In accordance with the applicable compliance schedule specified in section 1.5.4.1 or 1.5.4.2, the permittee shall submit a tabular summary that includes the following for each MS4 drainage boundary associated with each TMDL reachshed as identified under section 1.5.4.3.1.3 and for each pollutant of concern:

1.5.4.4.1 The permittee's percent reduction needed to comply with its TMDL wasteload allocation from the no-controls modeling condition. The no-controls modeling condition means taking no (zero) credit for storm water control measures that reduce the discharge of pollutants.

1.5.4.4.2 The modeled MS4 annual average pollutant load without any storm water control measures.

Note: This model run is comparable to the no-controls condition modeled for the developed urban area performance standard of s. NR 151.13, Wis. Adm. Code.

1.5.4.4.3 The modeled MS4 annual average pollutant load with existing storm water control measures.

1.5.4.4.4 The percent reduction in pollutant load achieved calculated from the no-controls condition determined under section 1.5.4.4.2 and the existing controls condition determined under section 1.5.4.4.3.

1.5.4.4.5 The existing storm water control measures including the type of measure, area treated in acres, the pollutant load reduction efficiency, and

confirmation of the permittee's authority for long-term maintenance of each practice.

1.5.4.5 If the tabular summary required under section 1.5.4.4 shows that the permittee is not achieving the applicable percent reductions needed to comply with its TMDL wasteload allocation for each TMDL reachshed, then in accordance with the applicable compliance schedule specified in section 1.5.4.1 or 1.5.4.2, the permittee shall submit a written plan to the Department that describes how the permittee will make progress toward achieving compliance. The plan shall include the following information:

1.5.4.5.1 Recommendations and options for storm water control measures that will be considered to reduce the discharge of each pollutant of concern.

1.5.4.5.2 A proposed schedule for implementation of the recommendations and options identified under section 1.5.4.5.1.

Note: The proposed schedule may extend beyond the expiration date of this permit.

1.5.4.5.3 A cost effectiveness analysis for implementation of the recommendations and options identified under section 1.5.4.5.1.

Note: The Department has developed the guidance document "TMDL Guidance for MS4 Permits: Planning, Implementation, and Modeling Guidance" and will make it available on the Department's Internet site to assist a permittee with complying with the requirements of sections 1.5.4.3 through 1.5.4.5. For many pollutants of concern, water quality trading may be an option considered by a permittee as part of its plan. For phosphorus reduction, a permittee may consider entering into an adaptive management agreement with a traditional point source discharger as described in s. NR 217.18, Wis. Adm. Code.

1.6 Wetlands

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

1.7 Endangered and Threatened Resources

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

1.8 Historic Property

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

1.9 General Storm Water Discharge Limitations

The permittee may not discharge the following substances from the MS4 in amounts that have an unreasonable effect on receiving water quality, human health, or aquatic life:

1.9.1 Solids that may settle to form putrescence or otherwise objectionable sludge deposits.

1.9.2 Oil, grease, and other floating material that form noticeable accumulations of debris, scum, foam, or sheen.

1.9.3 Color or odor that is unnatural and to such a degree as to create a nuisance.

1.9.4 Toxic substances in amounts harmful to aquatic life, wildlife, or humans.

1.9.5 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 is a nuisance.

1.9.6 Any other substances that may impair, or threaten to impair, beneficial uses of the receiving water.

1.10 Obtaining Permit Coverage

1.10.1 The owner or operator of an MS4 covered under a previous version of an MS4 permit before the effective date of this permit shall be covered by this permit pursuant to written authorization by the Department.

Note: The Department will notify in writing the owner or operator of an MS4 covered under a previous version of an MS4 permit that this permit has been reissued and that the MS4 is covered under it. However, the City of Madison and the City of Milwaukee are not eligible for coverage under this permit.

1.10.2 Coverage under this permit does not become effective until the Department sends the owner or operator a letter expressly authorizing coverage under this permit.

1.11 Transfers

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

1.12 Exclusions

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

1.12.1 Combined Sewer and Sanitary Sewer Systems

Discharges of water from a sanitary sewer or a combined sewer system conveying both sanitary and storm water. These discharges are regulated under s. 283.31, Wis. Stats, and require an individual permit.

1.12.2 Agricultural Facilities and Practices

Discharges from agricultural facilities and agricultural practices. "Agricultural facility" means a structure associated with an agricultural practice. "Agricultural practice" means beekeeping; commercial feedlots; dairying; egg production; floriculture; fish or fur farming; grazing; livestock raising; orchards; poultry raising; raising of grain, grass, mint and seed crops; raising of fruits, nuts and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; and vegetable raising.

1.12.3 Other Excluded Discharges

Storm water discharges from industrial operations or land disturbing construction activities that require separate coverage under a WPDES permit pursuant to subchs. II or III of ch. NR 216, Wis. Adm. Code. For example, while storm water from industrial or construction activity may discharge to an MS4, this permit does not satisfy the need to obtain any other permits for those discharges. This exclusion does not apply to the permittee's responsibility to regulate construction sites within its jurisdiction in accordance with sections 2.4 and 2.5 of this permit.

1.12.4 Indian Country

Storm water discharges within Indian Country. The federal Clean Water Act requires that owners and operators of storm water discharges within Indian Country in Wisconsin to obtain permit coverage directly from the United States Environmental Protection Agency.

1.12.5 Non-MS4 Discharge

Storm water discharges that do not enter an MS4.

2. PERMIT CONDITIONS

The permittee shall maintain compliance with the measurable goals for the programs developed under sections 2.1 through 2.6. The following permit conditions apply to the permittee, unless the Department issues a written determination that a condition is not appropriate under the circumstances.

2.1 Public Education and Outreach

The permittee shall maintain its public education and outreach program to increase the awareness of storm water pollution impacts on waters of the state and to encourage changes in public behavior to reduce such impacts. The program shall have measurable goals and, at a minimum, include the following elements:

2.1.1 Promote detection and elimination of illicit discharges and water quality impacts associated with such discharges from municipal separate storm sewer systems.

2.1.2 Inform and educate the public about the proper management of materials that may cause storm water pollution from sources including automobiles, pet waste, household hazardous waste and household practices.

2.1.3 Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides.

2.1.4 Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.

2.1.5 Promote infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks.

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

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

2.1.8 Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development.

Note: Additional information on green infrastructure and low impact development may be found on the USEPA's Internet site at:

<http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm>

<http://water.epa.gov/polwaste/green/index.cfm>

2.2 Public Involvement and Participation

The permittee shall maintain its program to notify the public of activities required by this permit and to encourage input and participation from the public regarding these activities. This program shall have measurable goals for public involvement and participation and comply with applicable state and local public notice requirements.

2.3 Illicit Discharge Detection and Elimination

The permittee shall continue to implement and enforce its program to detect and remove illicit connections and discharges to the MS4. The program shall have measurable goals and include all of the following:

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

2.3.1.1 Prohibit illicit discharges and the discharge, spilling or dumping of non-storm water substances or materials into waters of the state or the MS4.

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

2.3.1.3 Establish inspection and enforcement authority.

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

2.3.2 On-going dry weather field screening of outfalls during the term of the permit. Field screening shall be conducted at selected outfalls on an annual basis. Consideration shall be given to hydrological conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, history of the area and land use types when selecting outfalls for annual field screening. However, field screening shall be conducted at all major outfalls at least once during the term of the permit. At a minimum, field screening shall be documented and include:

2.3.2.1 Visual Observation - A narrative description of visual observations including color, odor, turbidity, oil sheen or surface scum, flow rate and any other relevant observations regarding the potential presence of non-storm water discharges or illicit dumping.

2.3.2.2 Field Analysis - If flow is observed, a field analysis shall be conducted to determine the presence of illicit non-storm water discharges or illicit dumping. The field analysis shall include sampling for pH, total chlorine, total copper, total phenol and detergents, unless the permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters. Other alternative indicator parameters may be authorized by the Department in writing.

2.3.2.2.1 Field screening points shall, where possible, be located downstream of any source of suspected illicit activity.

2.3.2.2.2 Field screening points shall be located where practicable at the farthest manhole or other accessible location downstream in the system. Safety of personnel and accessibility of the location shall be considered in making this determination.

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

2.3.3 Procedures for responding to known or suspected illicit discharges. At a minimum, procedures shall be established for:

2.3.3.1 As soon as possible, investigating portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-storm water discharges.

2.3.3.2 Responding to spills that discharge into and/or from the MS4 including tracking and locating the source of the spill if unknown.

2.3.3.3 Preventing and containing spills that may discharge into or are already within the MS4.

2.3.3.4 Notifying the Department immediately in accordance with ch. NR 706, Wis. Adm. Code, in the event that the permittee identifies a spill or release of a hazardous substance, which has resulted or may result in the discharge of pollutants into waters of the state. The Department shall be notified via the 24-hour toll free spill hotline at 1-800-943-0003. The permittee shall cooperate with the Department in efforts to investigate and prevent such discharges from polluting waters of the state.

2.3.3.5 Detecting and eliminating cross-connections and leakage from sanitary conveyance systems into the MS4.

2.3.3.6 Providing the Department with advance notice of the time and location of dye testing within an MS4. Department notification prior to dye testing is required due to the

likelihood that dye observed in waterways will be reported to the Department as an illicit discharge or spill.

2.3.4 The permittee shall take appropriate action to remove illicit discharges from its MS4 system as soon as possible. If it will take more than 30 days to remove an illicit connection, the Department shall be contacted to discuss an appropriate action and/or timeframe for removal.

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

2.3.5.1 An illicit discharge that originates from the permittee's permitted area that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality.

2.3.5.2 An illicit discharge that has been tracked upstream to the interconnection point with or outfall from another municipality.

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

2.4 Construction Site Pollutant Control

The permittee shall continue to implement and enforce its program to reduce the discharge of sediment and construction materials from construction sites. The program shall have measurable goals and include:

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

2.4.1.1 Applicability and jurisdiction.

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

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

Note: Department approved erosion and sediment control practices may be found on the Department's Internet site at:

http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

2.4.1.3 Construction site performance standards equivalent to those in ss. NR 151.11(6m) and 151.23(4m), Wis. Adm. Code. If the current ordinance does not contain construction site performance standards equivalent to those in ss. NR 151.11(6m) and 151.23(4m), Wis. Adm. Code, the permittee shall create or amend the ordinance to meet this requirement within 24 months of the date of notification of coverage under this permit.

Note: The construction site performance standards in Chapter NR 151, Wis. Adm. Code, were amended January 1, 2011.

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

2.4.1.5 Inspection and enforcement authority.

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

2.4.2 Procedures for construction site inspection and enforcement of erosion and sediment control measures. At a minimum, the procedures shall establish:

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

2.4.2.2 Construction site inspection frequency.

2.4.2.3 Construction site inspection documentation.

2.4.2.4 Enforcement mechanisms that will be used to obtain compliance.

2.4.3 Procedures for receipt and consideration of information submitted by the public.

2.4.4 Procedures for construction site plan review which incorporate consideration of potential water quality impacts.

2.4.5 Procedures for the administration of the construction site pollutant control program including the process for obtaining local approval, managing and responding to complaints, and tracking regulated construction sites.

Note: A town may demonstrate to the Department that an adequate county ordinance that meets the requirements of this permit is administered and enforced within its town and then the town could be excused from having to adopt its own ordinance.

2.5 Post-Construction Storm Water Management

The permittee shall continue to implement and enforce its program to require control of the quality of discharges from areas of new development and redevelopment, after construction is completed. The program shall have measurable goals and include:

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

2.5.1.1 Applicability and jurisdiction that shall apply to construction sites with one acre or more of land disturbance, and sites of less than one acre if they are part of a larger common plan of development or sale under the jurisdiction of the permittee.

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

Note: Department approved post-construction storm water management control practices may be found on the Department's Internet site at:

http://dnr.wi.gov/topic/stormwater/standards/postconst_standards.html

2.5.1.3 For new development and infill, post-construction performance standards equivalent to those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code. If the current ordinance does not contain post-construction performance standards for new development and infill equivalent to those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, the permittee shall create or amend the ordinance to meet this requirement within 24 months of the date of notification of coverage under this permit. Post-construction performance standards for new development and infill may be more restrictive than those required in this section 2.5.1.3 if necessary to comply with federally approved TMDL requirements.

2.5.1.4 For redevelopment, post-construction performance standards equivalent to or more restrictive than those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code. If the current ordinance does not contain post-construction performance standards for redevelopment that, at a minimum, are at least as restrictive as those in ss. NR 151.122 through 151.126 and 151.242 through 151.246, Wis. Adm. Code, the permittee shall create or amend the ordinance to meet this requirement within 24 months of the date of notification of coverage under this permit.

Note: The post-construction performance standards in Chapter NR 151, Wis. Adm. Code, were amended January 1, 2011.

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

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

2.5.1.7 Inspection and enforcement authority.

2.5.2 Procedures that will be used by the permittee to ensure the long-term maintenance of storm water management facilities.

2.5.3 Procedures for the administration of the post-construction storm water management program including the process for obtaining local approval, managing and responding to complaints, and tracking regulated post-construction sites.

Note: A town may demonstrate to the Department that an adequate county ordinance that meets the requirements of this permit is administered and enforced within its town and then the town could be excused from having to adopt its own ordinance.

2.6 Pollution Prevention

The permittee shall continue to implement its pollution prevention program. The program shall have measurable goals and include:

2.6.1 An inventory of municipally owned or operated structural storm water management facilities.

2.6.2 Routine inspection and maintenance of municipally owned or operated structural storm water management facilities to maintain their pollutant removal operating efficiency.

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

2.6.3 Routine street sweeping and cleaning of catch basins with sumps where appropriate.

2.6.4 Proper disposal of street sweeping and catch basin cleaning waste.

2.6.5 If road salt or other deicers are applied by the permittee, no more shall be applied than necessary to maintain public safety. Information on deicing activities shall be submitted with the annual report required under section 2.9 of this permit beginning with the annual report due by March 31, 2016 and annually thereafter and include:

2.6.5.1 Contact information for the individual(s) with overall responsibility for winter roadway maintenance.

2.6.5.2 Description of the types of deicing products used.

2.6.5.3 The amount of deicing product used per month.

2.6.5.4 Description of the type of equipment used.

2.6.5.5 Snow disposal locations, if applicable.

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

2.6.5.6 Anti-icing, equipment calibration, and salt reduction strategies considered.

2.6.5.7 Other measurable data or information that the permittee used to evaluate its deicing activities.

Note: The Wisconsin Department of Transportation (WisDOT) "Highway Maintenance Manual", chapter 35, contains guidance on application of road salt and other deicers that can be used to determine whether not application is necessary and what application rate is appropriate for deicing and ice prevention. This information is held on a secured server and users must first register with the state of Wisconsin to obtain an ID and password. You can learn more about getting connected to this secured server at: <http://www.dot.wisconsin.gov/business/extranet/>. The WisDOT highway salt storage requirements are contained in ch. Trans 277, Wis. Adm. Code.

2.6.6 Proper management of leaves and grass clippings, which may include on-site beneficial reuse as opposed to collection.

2.6.7 Storm water pollution prevention planning for municipal garages, storage areas and other sources of storm water pollution from municipal facilities. Information on storm water pollution prevention activities for municipal garages, storage areas and other sources of storm water pollution from municipal facilities shall be submitted with the annual report required under section 2.9 of this permit beginning with the annual report due by March 31, 2016 and annually thereafter and include the information in sections 2.6.7.1 through 2.6.7.7. The Department may waive the requirements of this section on a case-by-case basis for a municipal facility provided the permittee certifies that the facility qualifies for a conditional no exposure exclusion pursuant to s. NR 216.21(3), Wis. Adm. Code and with the Department's written concurrence.

Note: The conditional no exposure exclusion provisions of s. NR 216.21(3), Wis. Adm. Code and the related certification request form (Form 3400-188) are intended for industrial facilities regulated under subch. II of NR 216. However, if a permittee believes that materials and activities at a municipal facility are not exposed to storm water, s. NR 216.21(3) provides an appropriate means for the permittee to evaluate the facility and request a waiver from the requirements of this section. The No Exposure Certification Form, Form 3400-1288, is available on the Department's Internet site at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>

Information on storm water pollution prevention activities shall include:

2.6.7.1 Location of each facility and contact information for the individual(s) with overall responsibility for each facility.

2.6.7.2 A map of each facility, drawn to scale, and including the following features:

2.6.7.2.1 The locations of major activities and storage areas.

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

2.6.7.2.3 Identification of nearby receiving waters or wetlands.

2.6.7.2.4 Identification of connections to the permittees MS4.

2.6.7.3 A description of good housekeeping activities and any best management practices installed to reduce or eliminate storm water contamination.

2.6.7.4 Recommendations for improvements to current storm water management practices at the facility and a timeline for installation and/or implementation of these recommendations.

2.6.7.5 Information on inspections of the facility to identify and address potential sources of storm water contamination.

2.6.7.6 Employee training on storm water pollution prevention at the facility.

2.6.7.7 Spills prevention and response procedures.

2.6.8 Application of turf and garden fertilizers on municipally controlled properties, with pervious surfaces over 5 acres each, in accordance with a site-specific nutrient application schedule based on appropriate soil tests.

2.6.9 Consideration of environmentally sensitive land development designs for municipal projects, including green infrastructure and low impact development.

Note: Additional information on green infrastructure and low impact development may be found on the USEPA's Internet site at:

<http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm>

<http://water.epa.gov/polwaste/green/index.cfm>

2.6.10 Education of appropriate municipal and other personnel involved in implementing this program.

2.6.11 Measures to reduce municipal sources of storm water contamination within source water protection areas.

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

2.7 Storm Water Quality Management

The permittee shall continue to implement its municipal storm water quality management program. This program shall maintain compliance with the developed urban area performance standards of s. NR 151.13(2)(b)1., Wis. Adm. Code, for those areas of the municipality that were not subject to the post-construction performance standards of ss. NR 151.12 or 151.24, or ss. NR 151.122 through 151.126 or ss. 151.242 through 151.246, Wis. Adm. Code. The program shall include:

2.7.1 To the maximum extent practicable, implementation and maintenance of storm water management practices necessary to meet the more restrictive total suspended solids reduction of either of the following:

2.7.1.1 The permittee shall maintain source area controls, structural storm water management facilities, and non-structural storm water best management practices that the permittee implemented on or before July 1, 2011 to achieve a reduction of 20% or more of total suspended solids carried by storm water runoff from existing development to waters of the state.

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

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

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

2.8 Storm Sewer System Map

The permittee shall continue to maintain its MS4 map. The municipal storm sewer system map shall include:

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

2.8.2 Identification of any known wetlands, endangered or threatened resources, and historical property, as defined in sections 1.6 through 1.8 of this permit, which might be affected.

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

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

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

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

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

2.8.8 Identification of streets.

2.9 Annual Report

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

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

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

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

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

2.9.5 An evaluation of program compliance, the appropriateness of identified best management practices, and progress towards achieving identified measurable goals. Any program changes made as a result of this evaluation shall be identified and described in the annual report. For any

identified deficiencies towards achieving the requirements under section 2 of this permit or lack of progress towards meeting a measureable goal, the permittee shall initiate program changes to improve their effectiveness.

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

2.9.7 A duly authorized representative of the permittee shall sign and certify the annual report and include a statement or resolution that the permittee's governing body or delegated representatives have reviewed or been apprised of the content of the annual report. A signed copy of the annual report and other required reports shall be submitted to the appropriate Department regional storm water contact or to the Wisconsin DNR, Storm Water Program – WT/3, P.O. Box 7921, Madison, WI 53707-7921.

2.10 Cooperation

The permittee may, by written agreement, implement this permit with another municipality or contract with another entity to perform one or more of the conditions of this permit. For example, if a county is implementing and enforcing an adequate storm water ordinance(s) within a town, the town would then not have to adopt its own ordinance. However, the permittee is ultimately responsible for compliance with the conditions of this permit. The permittee may rely on another municipality or contract with another entity to satisfy a condition of this permit if all of the following are met:

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

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

2.10.3 The other municipality or entity agrees to implement a control measure or permit requirement on the permittee's behalf.

2.11 Compliance Schedule for New and Updated Permit Requirements

The permittee shall meet the compliance schedule for the new and updated permit requirements listed in Table 1 below.

Note: Table 1 does not list all the requirements of this permit.

TABLE 1. Compliance Schedule for New and Updated Permit Requirements

PERMIT SECTION	ACTIVITY	COMPLIANCE DATE	COMMENTS
Section 1.5.1	Discharges to an impaired waterbody	Within 90 days of start date and by March 31 of each odd-numbered year thereafter	All permittees.
Section 1.5.4.3	Updated storm sewer system map and excluded areas	TMDL approved prior to the effective date of this permit: March 31, 2016 TMDL approved after the effective date of this permit: Within 24 months of date of approval of TMDL	Applies to a permittee that discharges to an impaired waterbody with an approved TMDL that assigns the permittee a wasteload allocation.
Section 1.5.4.4	Tabular summary	TMDL approved prior to the effective date of this permit: March 31, 2018 TMDL approved after the effective date of this permit: Within 48 months of date of approval of TMDL	Applies to a permittee that discharges to an impaired waterbody with an approved TMDL that assigns the permittee a wasteload allocation.
Section 1.5.4.5	Written plan	TMDL approved prior to the effective date of this permit: March 31, 2018 TMDL approved after the effective date of this permit: Within 48 months of date of approval of TMDL	Applies to a permittee not meeting all its wasteload allocations.
Section 2.4.1.3	Updated construction site pollutant control ordinance	Within 24 months of date of notification of coverage under this permit	All permittees.
Sections 2.5.1.3 and 2.5.1.4	Updated post-construction storm water management ordinance	Within 24 months of date of notification of coverage under this permit	All permittees.
Section 2.6.5	Information on deicing activities	With annual report due March 31, 2016 and annually thereafter	All permittees.
Section 2.6.7	Storm water pollution prevention planning for municipal facilities	With annual report due March 31, 2016 and annually thereafter	All permittees.
Section 2.9	Annual report	March 31 of each year reporting on previous calendar year	All permittees.

2.12 Amendments

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

2.13 Reapplication for Permit Coverage

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

3. STANDARD CONDITIONS

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

3.1 Duty to Comply: The permittee shall comply with all conditions of the permit. Any act of noncompliance with this permit is a violation of this permit and is grounds for enforcement action or withdrawal of permit coverage under this permit and issuance of an individual permit. If the permittee files a request for an individual WPDES permit or a notification of planned changes or anticipated noncompliance, this action by itself does not relieve the permittee of any permit condition.

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

3.3 Compliance Schedules: Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of the permit shall be submitted in writing within 14 days after the scheduled due date, except that progress reports shall be submitted in writing on or before each schedule date for each report. Any report of noncompliance shall include the cause of noncompliance, a description of remedial actions taken, and an estimate of the effect of the noncompliance on the permittee's ability to meet the remaining scheduled due dates.

3.4 Noncompliance

3.4.1 Upon becoming aware of any permit noncompliance that may endanger public health or the environment, the 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 permittee became aware of the noncompliance. The Department may waive the written report on a case-by-case basis based on the oral report received within 24 hours. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

3.4.2 Reports of any other noncompliance not covered under STANDARD CONDITIONS sections 3.3, 3.4.1, or 3.6. shall be submitted with the annual report. The reports shall contain all the information listed in STANDARD CONDITIONS section 3.4.1.

3.5 Duty to Mitigate: The permittee shall take all reasonable steps to minimize or prevent any adverse impact on the waters of the state resulting from noncompliance with the permit.

3.6 Spill Reporting: The permittee shall immediately notify the Department, in accordance with ch. NR 706, Wis. Adm. Code, in the event of a spill or accidental release of hazardous substances which 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 hotline at 1-800-943-0003.

3.7 Proper Operation and Maintenance: The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the municipality to achieve compliance with the conditions of the permit and the storm water management plan. Proper operation and maintenance 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.

3.8 Bypass: The permittee may temporarily bypass a storm water treatment facility if necessary for human safety or maintenance to assure efficient operation. A bypass shall comply with the general storm water discharge limitations in Section 1.9 of this permit. Notification of the Department is not required for these types of bypasses. Any other bypass is prohibited.

Note: A discharge from a storm water treatment facility that exceeds the operational design capacity of the facility is not considered a bypass.

3.9 Duty to Halt or Reduce Activity: Upon failure or impairment of storm water management practices identified in the storm water management program, the permittee shall, to the extent practicable and necessary to maintain permit compliance, modify or curtail operations until the storm water management practices are restored or an alternative method of storm water pollution control is provided.

3.10 Removed Substances: Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of storm water shall be stored and disposed of in a manner to prevent any pollutant from the materials from entering the waters of the state, and to comply with all applicable federal, state, and local regulations.

3.11 Additional Monitoring: If a permittee monitors any pollutant more frequently than required by the permit, the results of that monitoring shall be reported to the Department in the annual report.

3.12 Inspection and Entry: The permittee shall allow authorized representatives of the Department, upon the presentation of credentials, to:

3.12.1 Enter upon the municipal premises where a regulated facility or activity is located or conducted, or where records are required to be maintained under the conditions of the permit;

3.12.2 Have access to and copy, at reasonable times, any records that are required under the conditions of the permit;

3.12.3 Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and

3.12.4 Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

3.13 Duty to Provide Information: The permittee shall furnish the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, terminating, suspending revoking or reissuing the permit or to determine compliance with the permit. The permittee shall give advance notice to the Department of any planned changes to the storm water management program which may result in noncompliance with permit requirements. The permittee shall also furnish the Department, upon request, copies of records required to be kept by the permittee.

3.14 Property Rights: The permit does not convey any property rights of any sort, or any exclusive privilege. The permit does not authorize any injury or damage to private property or an invasion of personal rights, or any infringement of federal, state or local laws or regulations.

3.15 Other Information: Where the permittee becomes aware that it failed to submit any relevant facts in applying for permit coverage or submitted incorrect information in any plan or report sent to the Department, it shall promptly submit such facts or correct information to the Department.

3.16 Records Retention: The permittee shall retain records of all monitoring information, copies of all reports required by the permit, and records of all data used to complete the notice of intent for a period of at least 5 years from the date of the sample, measurement, report or application. The permittee shall retain records documenting implementation of the minimum control measures in sections 2.1 through 2.6 of this permit for a period of at least 5 years from the date the record was generated.

3.17 Permit Actions: Under s. 283.35, Wis. Stats., the Department may withdraw a permittee from coverage under this general permit and issue an individual permit for the municipality if: (a) The municipality is a significant contributor of pollution; (b) The municipality is not in compliance with the terms and conditions of the general permit; (c) A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants from the municipality; (d) Effluent limitations or standards are promulgated for a point source covered by the general permit after the issuance of that permit; or (e) A water quality management plan containing requirements applicable to the municipality is approved. In addition, as provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing this permit may be suspended, modified or revoked, in whole or in part, for cause. If the permittee files a request for a permit modification, termination, suspension, revocation and reissuance, or submits a notification of planned changes or anticipated noncompliance, this action by itself does not relieve the permittee of any permit condition.

3.18 Signatory Requirements: All applications, reports or information submitted to the Department shall be signed by a ranking elected official, or other person authorized by those responsible for the overall operation of the MS4 and storm water management program activities regulated by the permit. The representative shall certify that the information was gathered and prepared under his or her supervision and, based on report from the people directly under supervision that, to the best of his or her knowledge, the information is true, accurate, and complete.

3.19 Attainment of Water Quality Standards after Authorization: At any time after authorization, the Department may determine that the discharge of storm water from a permittee's MS4 may cause, have the reasonable potential to cause, or contribute to an excursion of any applicable water quality standard. If such determination is made, the Department may require the permittee to do one of the following:

3.19.1 Develop and implement an action plan to address the identified water quality concern to the satisfaction of the Department.

3.19.2 Submit valid and verifiable data and information that are representative of ambient conditions to demonstrate to the Department that the receiving water or groundwater is attaining the water quality standard.

3.19.3 Submit an application to the Department for an individual storm water discharge permit.

3.20 Continuation of the Expired General Permit: The Department's goal is to reissue this general permit prior to its expiration date. However, in accordance with s. NR 216.09, Wis. Adm. Code, a permittee shall reapply to the Department at least 180 days prior to the expiration date for continued coverage under this permit after its expiration. If the permit is not reissued by the time the existing permit expires, the existing permit remains in effect. To reapply for permit coverage, a permittee shall send a letter to the Department that includes proposed changes to the storm sewer system map, storm water management program and any other relevant change.

3.21 Need to Halt or Reduce Activity not a Defense: It is not a defense for a permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

4. DEFINITIONS USED IN THIS PERMIT

Definitions for some of the terms found in this permit are as follows:

4.1 Department means the Wisconsin Department of Natural Resources.

4.2 Erosion means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.

4.3 Hazardous substance means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the Department.

4.4 Illicit Connection means any man-made conveyance connecting an illicit discharge to a municipal separate storm sewer system.

4.5 Illicit Discharge means any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges authorized by a WPDES permit or other discharge not requiring a WPDES permit such as landscape irrigation, individual residential car washing, fire fighting, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, flows from riparian habitats and wetlands, and similar discharges. However, the occurrence of a discharge listed above may be considered an illicit discharge on a case-by-

case basis if the permittee or the Department identifies it as a significant source of a pollutant to waters of the state.

4.6 Impaired water means a waterbody impaired in whole or in part and listed by the Department pursuant to 33 USC 1313(d)(1)(A) and 40 CFR 130.7, for not meeting a water quality standard, including a water quality standard for a specific substance or the waterbody's designated use.

4.7 Infiltration means the entry and movement of precipitation or runoff into or through soil.

4.8 Jurisdiction means the area where the permittee has authority to enforce its ordinance(s) or otherwise has authority to exercise control over a particular activity of concern.

4.9 Land Disturbing Construction Activity means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover that may result in storm water runoff and lead to increased soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

4.10 Maximum Extent Practicable has the meaning given it in s. NR 151.002(25), Wis. Adm. Code.

4.11 Major Outfall means a municipal separate storm sewer outfall that meets one of the following criteria:

4.11.1 A single pipe with an inside diameter of 36 inches or more, or from an equivalent conveyance (cross sectional area of 1,018 square inches) which is associated with a drainage area of more than 50 acres.

4.11.2 A municipal separate storm sewer system that receives storm water runoff from lands zoned for industrial activity that is associated with a drainage area of more than 2 acres or from other lands with 2 or more acres of industrial activity, but not land zoned for industrial activity that does not have any industrial activity present

4.12 Municipality means any city, town, village, county, county utility district, town sanitary district, town utility district, school district or metropolitan sewage district or any other public entity created pursuant to law and having authority to collect, treat or dispose of sewage, industrial wastes, storm water or other wastes.

4.13 Municipal Separate Storm Sewer System or MS4 means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:

4.13.1 Owned or operated by a municipality.

4.13.2 Designed or used for collecting or conveying storm water.

4.13.3 Which is not a combined sewer conveying both sanitary and storm water.

4.13.4 Which is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.

4.14 Outfall means the point at which storm water is discharged to waters of the state or to a storm sewer (e.g., leaves one municipality and enters another).

4.15 Permittee means a person who has applied for and received WPDES permit coverage for storm water discharge. For the purposes of this permit, permittee is the owner or operator of a municipal separate storm sewer system authorized to discharge storm water into waters of the state.

4.16 Permitted Area means the areas of land under the jurisdiction of the permittee that drains into a municipal separate storm sewer system, which is regulated under a permit issued pursuant to subch. I of NR 216, Wis. Adm. Code.

4.17 Pollutant(s) of concern means a pollutant that is causing impairment of a waterbody.

4.18 Reach means a specific stream segment, lake or reservoir as identified in a TMDL.

4.19 Reachshed means the drainage area contributing runoff to a given reach.

4.20 Redevelopment means areas where development is replacing older development.

4.21 Riparian Landowners are the owners of lands bordering lakes and rivers.

4.22 Sediment means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.

4.23 Start Date is the initial date of permit coverage, which is specified in the Department letter authorizing coverage under this permit.

4.24 Storm Water Management Practice means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

4.25 Storm Water Pollution Prevention Planning refers to the development of a site-specific plan that describes the measures and controls that will be used to prevent and/or minimize pollution of storm water.

4.26 Structural Storm Water Management Facilities are engineered and constructed systems that are designed to provide storm water quality control such as wet detention ponds, constructed wetlands, infiltration basins and grassed swales.

4.27 Total maximum daily load or TMDL means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into a water quality limited segment and still ensure attainment of the applicable water quality standard.

4.28 Urbanized Area means a place and the adjacent densely settled surrounding territory that together have a minimum population of 50,000 people, as determined by the U.S. bureau of the census based on the latest decennial federal census.

4.29 Waters of the State has the meaning given it in s. 283.01(20), Wis. Stats.

4.30 WPDES Permit means a Wisconsin Pollutant Discharge Elimination System permit issued pursuant to ch. 283, Wis. Stats.



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Total Maximum Daily Load (TMDL) Stormwater Quality Management Plan

City of Whitewater & UW-Whitewater





Overview

- Introduction
- Current/Updated Stormwater Program
- Rock River TMDL
- Stormwater Quality Modeling
- Alternatives Analysis
 - BMPs in City/UWW
 - Water Quality Trading
 - Watershed Adaptive Management
- Stormwater Utility Rate Review and Update
- Recommendations

Introduction

- EPA and WDNR National/Wisconsin Pollutant Discharge Elimination System (NPDES/WPDES) Permitted Municipally Separate Storm Sewer Systems (MS4)
- WPDES Permit No. WI-S050075-2 (Effective-5/1/14; Expiration-4/30/19)
- City and UWW Stormwater Plans: Original (2008); Update (2011)
- MS4 Requirement: 20 percent TSS reduction (was 40%)
- Rock River Basin TMDL Requirement (Reach 59):
 - 49% TSS Reduction
 - 66% TP Reduction
- Tripp Lake & Rock River are 303(d) listed impaired waters.
- Updated plan prepared to address changing requirements and existing conditions TSS & TP removals in the City & UWW
- A variety of compliance options were evaluated.
- Stormwater Utility rates reviewed.

WPDES Permit-Required Stormwater Program

Page 1 of 26
WPDES Permit No. WI-S050075-2



STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

**GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN
POLLUTANT DISCHARGE ELIMINATION SYSTEM
WPDES PERMIT NO. WI-S050075-2**

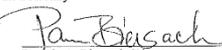
In compliance with the provisions of ch. 283 Wis. Stats., and chs. NR 151 and 216, Wis. Adm. Code, owners and operators of municipal separate storm sewer systems are permitted to discharge storm water from all portions of the

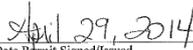
MUNICIPAL SEPARATE STORM SEWER SYSTEM

owned or operated by the municipality to waters of the state in accordance with the conditions set forth in this permit.

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

State of Wisconsin Department of Natural Resources
For the Secretary

By 
Pamela A. Biersach, Director
Bureau of Watershed Management
Division of Water


Date Permit Signed/Issued

PERMIT EFFECTIVE DATE: May 1, 2014 **EXPIRATION DATE:** April 30, 2019

Permit Condition
Public Education/Outreach
Public Involvement/Participation
Illicit Discharge Detection & Elimination
Construction Site Pollutant Control (Erosion Control)
Post-Construction Stormwater Management
Pollution Prevention-Municipal Operations
Stormwater Quality Management
Storm Sewer System Map
Annual Report
Rock River Stormwater Group Meetings

Updating Programs Via Task Order 15-06

WI DNR Urban Nonpoint Source & Stormwater Grant

Project Cost	State Share (70%)	Local Share (30%)
\$121,000	\$84,700	\$36,300

WDNR's cost share now at 50% / 50%

Current/Updated Stormwater Program

- **Public Education/Outreach Involvement/Participation**
 - Rock River Stormwater Group
- **Illicit Discharge Detection and Elimination**
 - Annual inspection at outfalls
- **Construction Site Pollutant Control**
 - Ordinances/Admin
 - Revisions necessary due to NR 151 updates
- **Postconstruction Stormwater Management**
 - Ordinances/Admin
 - Revisions necessary due to NR 151 updates
 - Initiate program to gather maintenance agreements for private BMPs
 - Initiate private BMPs maintenance program
- **Pollution Prevention – Municipal Operations**
 - Maintenance of municipally-owned stormwater BMPs (dredging)
 - Track quantities of street sweeping, catch basin cleaning, deicer, leaf collection
 - Stormwater Pollution Prevention Plan (SWPPP) at Public Works Garage
- **Stormwater Quality Management**
 - WinSLAMM Modeling and Alternatives Analysis
- **Storm Sewer System Map**
 - Update annually
- **Annual Report –March 31, Annually**

Rock River TMDL

Total Maximum Daily Loads for Total Phosphorus and Total Suspended Solids in the Rock River Basin

Columbia, Dane, Dodge, Fond du Lac, Green, Green Lake, Jefferson, Rock, Walworth, Washington, and Waukesha Counties, Wisconsin

July 2011

Prepared for:

U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

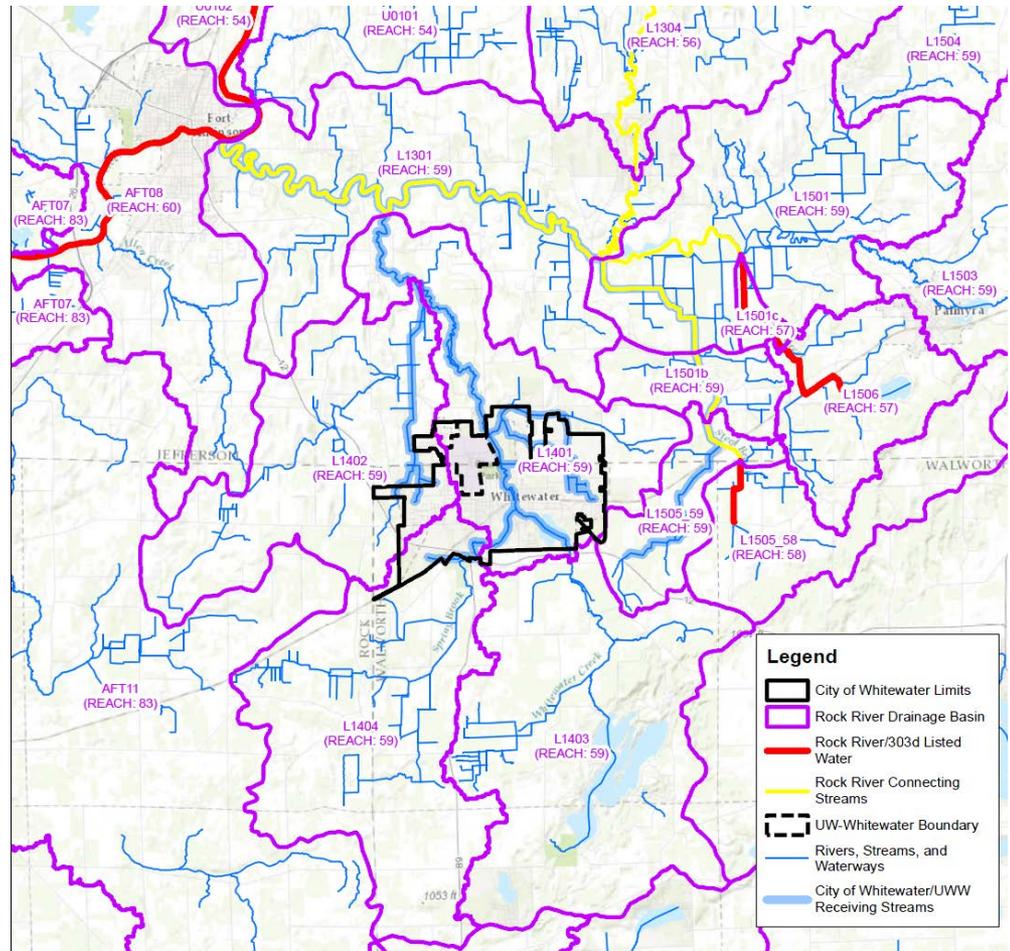
Wisconsin Department of Natural Resources
101 S. Webster Street, PO Box 7921
Madison, Wisconsin 53707-7921



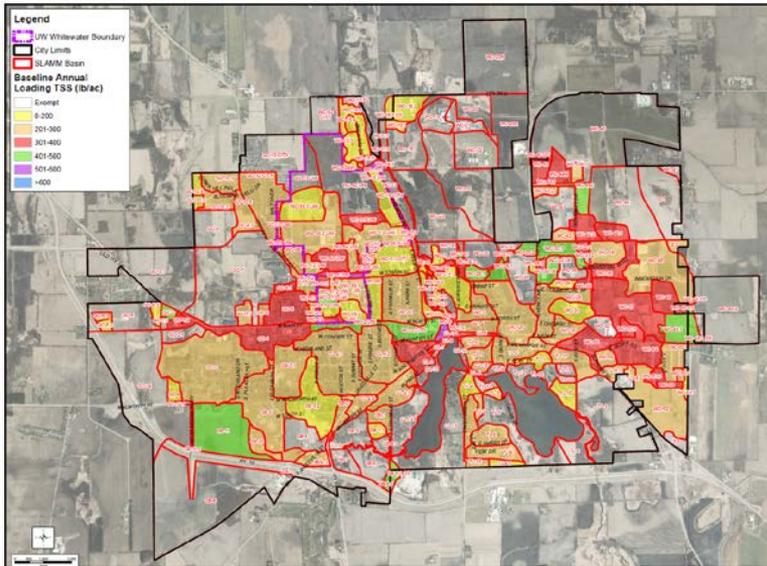
Prepared by:

THE CADMUS GROUP, INC.

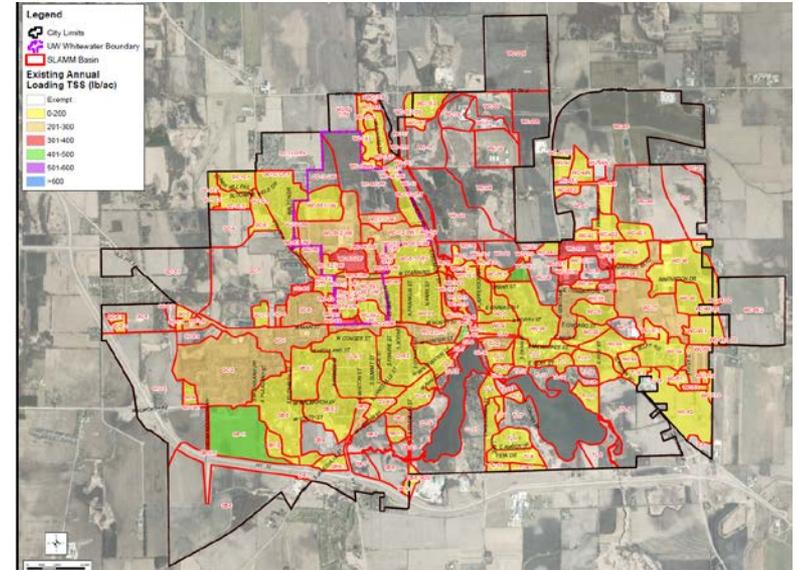
Approved by EPA on Sept. 28, 2011



Stormwater Quality Modeling



Baseline Conditions/No Controls

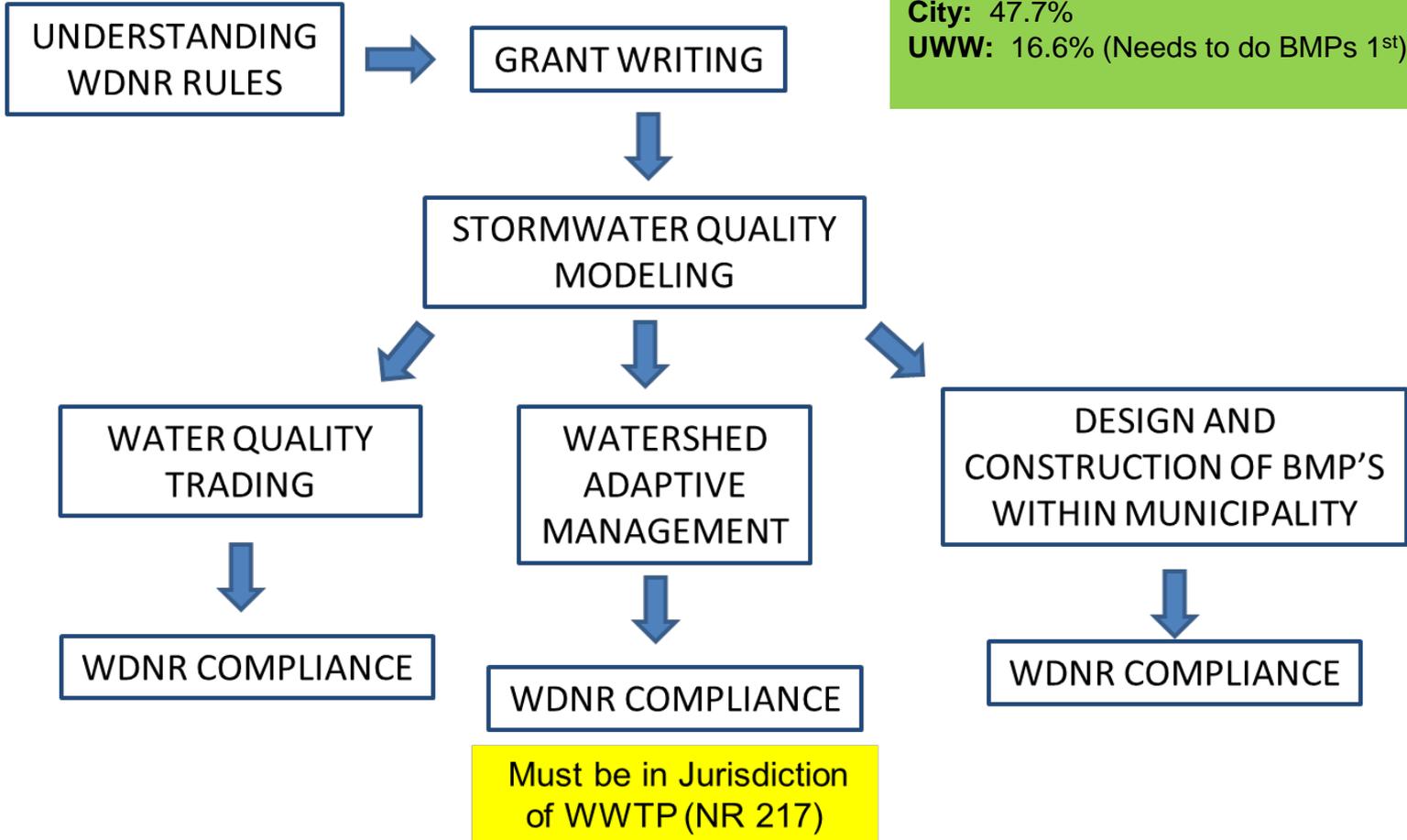


Existing Conditions/With Controls

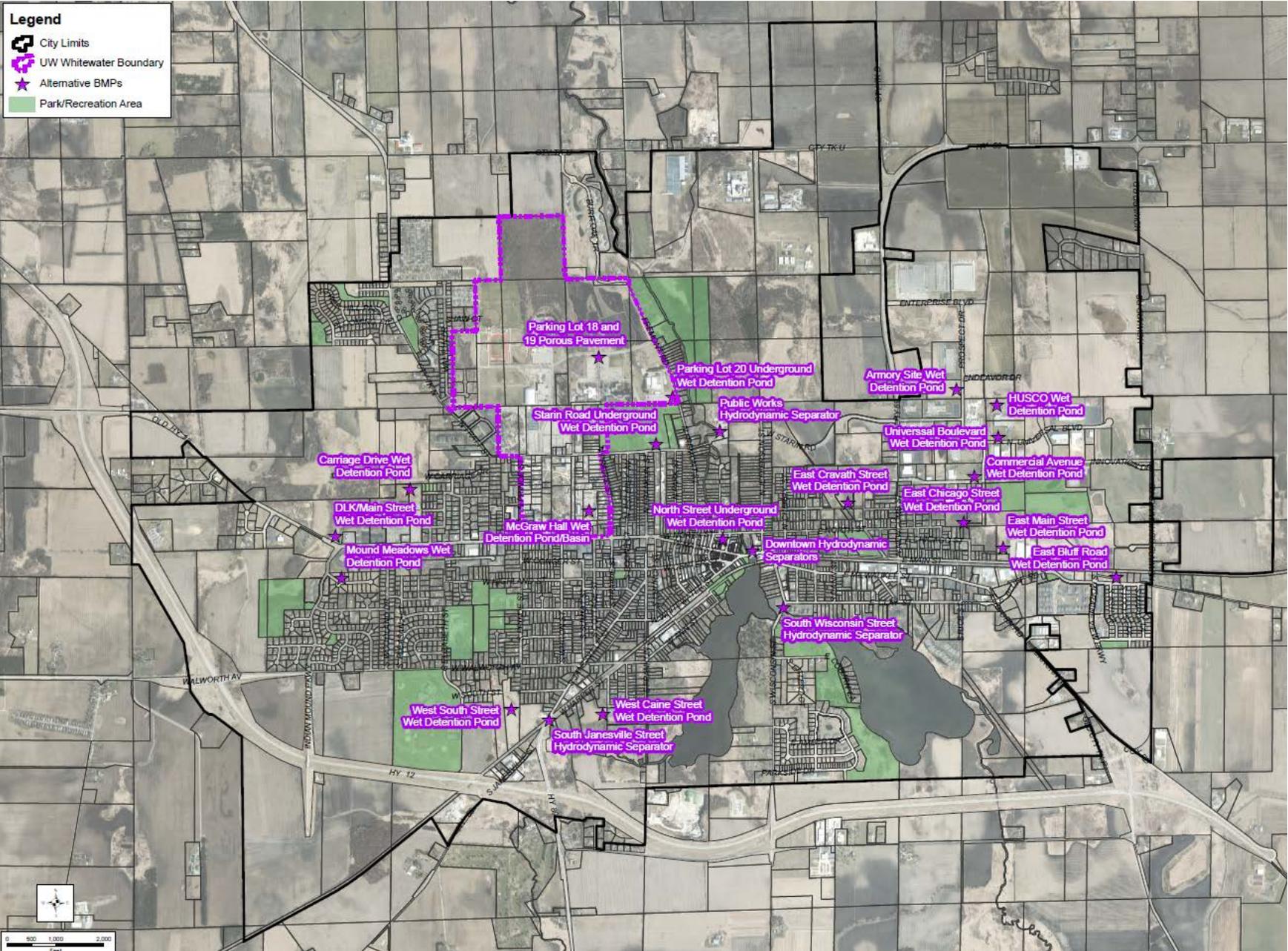
Pollutant	MS4 Permit Required Reductions	Rock River TMDL Required Reductions (Reach 59)	MS4 Modeled Existing Conditions Reduction (%)	TMDL Pollutant Reduction Gap (% and lbs)
City of Whitewater (WinSLAMM Version 10.2.1)				
TSS	20%	49%	47.7%	1.3% 7,067 lbs
TP	NA	66%	37.2%	28.8% 442.5 lbs
University of Wisconsin-Whitewater (WinSLAMM Version 10.2.1)				
TSS	20%	49%	16.6%	32.4% 22,968 lbs
TP	NA	66%	12.8%	53.2% 95.9 lbs

$$\begin{array}{r}
 442.5 \\
 + 95.9 \\
 \hline
 538.4
 \end{array}$$

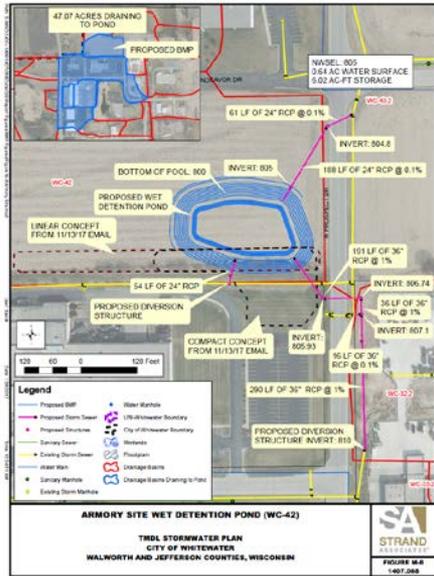
Alternatives Analysis



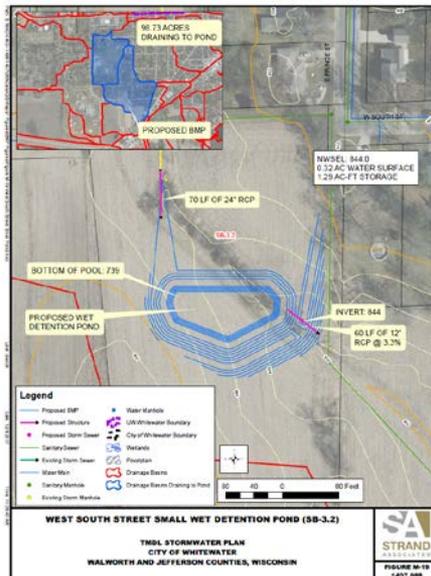
BMPs in the City/UWW



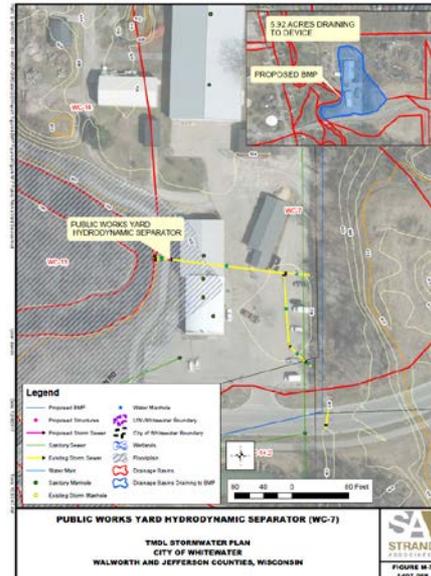
BMPs in the City/UWW (Alternative #5-example)



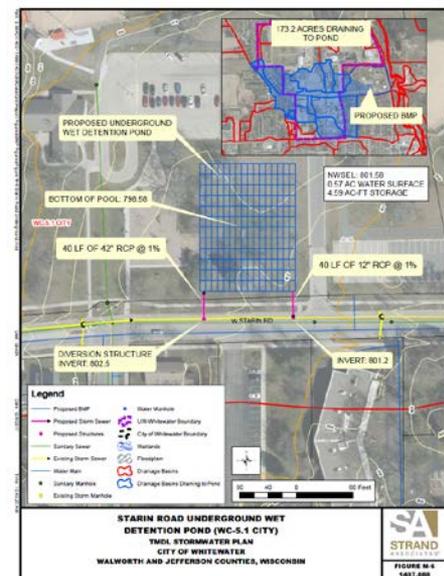
- Armory Wet Pond**
- Existing Grant
 - \$493,000



- South Street Wet Pond**
- Existing Grant
 - \$272,000



- Public Works Garage-HDS**
- \$45,000



- Starin Road Underground Wet Pond**
- Assists UWW get to 40% TSS red.
 - \$1.8 million
 - City \$600K
 - UWW \$1.2 million



- Vacuum Sweeping**
- Existing Frequencies but 2x per month at UWW
 - Assists UWW get to 40% TSS red.
 - \$293,000



- Agricultural Water Quality Trading (339 lbs TP)**
- \$2,100 in 2021 up to \$73,600 in 2040

Water Quality Trading

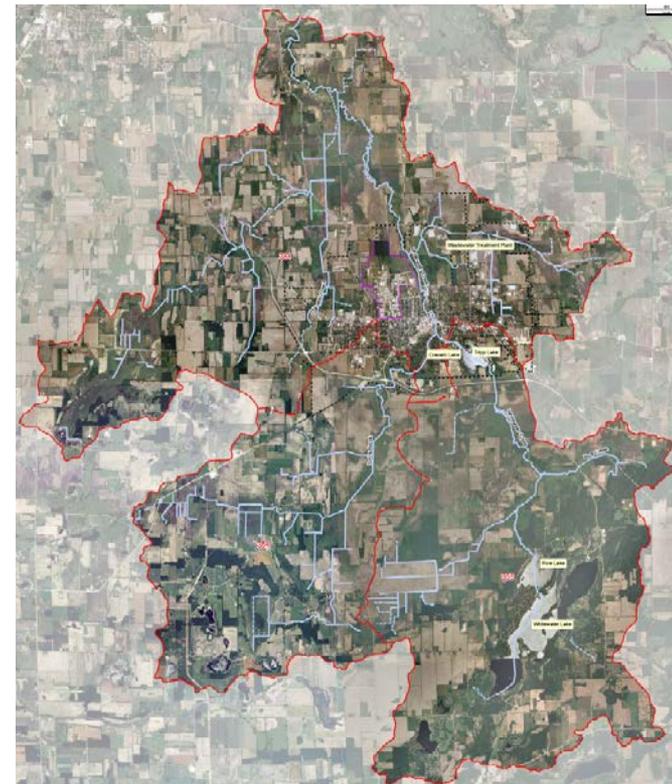
- Agricultural Land With Admin & Uncertainties Approx. \$110/lb TP

BMP ²	Acres To Achieve Reduction	Average Phosphorus Credit (lbs/acre/yr)	Total Phosphorus Credit (lbs/yr)	20-Year Present Worth Cost ¹	Present Worth Cost per Pound Phosphorus Credit
Buffer Strips	18.4	2.0	37	\$ 37,710	\$ 53
Cover Crops	376.8	0.5	188	\$ 326,660	\$ 91
Cropping, Tillage, and In-Field Conservation Practices	376.7	0.83	314	\$ 209,790	\$ 34
Total			539	\$ 574,160	\$ 55

¹Costs are 4th Quarter 2017 dollars and do not include modeling or administration costs, cost-sharing, or other grants. Costs do include maintenance and renewal at the end of the BMP life.

²Values in this table have been adjusted based on trade ratios.

Table 5.10-3 Present Worth Costs for WQT BMPs to Meet the City and UWW MS4s TP Reduction Gap



- Other MS4s
 - City of Fort Atkinson

- WWTFs (City of Whitewater)

WWTF Flow	Potentially Available TP at 0.225 mg/l monthly average effluent (lb)	Potentially Available TP at 0.075 mg/l six month average effluent (lb)
1.6 MGD (2015 to 2017)	2,367	3,097
2.5 MGD	1,750	2,892
3.65 MGD (Design Capacity)	963	2,629

Table 5.09-1 TP Available for Trading (lbs)

- Private Point Dischargers (LS Power)

- 1.2 Trade Ratio = 648 lbs needed for City and UWW
- Difference between TMDL wasteload allocation and NR 217.13 limits is tradeable.
- Must get to NR 217.13 limits requiring tertiary treatment at WWTF.
- Probably not available for 10 to 15 years.

Watershed Adaptive Management

- Point and nonpoint sources work collaboratively in protecting and restoring local water resources.
- Requires City WWTF to initiate.
- Involves agricultural BMPs like water quality trading.
- WWTF gets less restrictive interim phosphorus limits while pursuing WAM.
- WAM can extend over a 15-year timeframe (up to three 5-year permit terms).

Benefits

- Improved lake and stream water quality with compliance at lower overall cost, typically in the \$50 to \$100/lb TP range.
- Significantly delaying or eliminating effective date of stringent (0.075 mg/l 6-month average) effluent phosphorus limit at City's WWTF.

Difference Between WQT and WAM

- WQT requires trade ratios, WAM doesn't
- WQT requires credit thresholds, WAM doesn't
- WAM requires in-stream water quality monitoring, WQT doesn't
- WAM must be initiated by WWTF, WQT doesn't

City of Whitewater WWTF

- Multi-Discharger Variance
 - Preliminarily chosen as compliance option by WWTF
 - Buy in at a cost of \$50/lb TP
 - Extends compliance up to 2 (with potential for 3) 5-year permit terms.

Yahara WINS Buy-In: \$50/lb for MS4s
Madison Met.: Administers Program
Dane County: Broker for Ag BMPs with Farmers
USGS: Provides Water Quality Monitoring



Stormwater Utility Rate Review and Update

- City of Whitewater Rate History

Year	SWU Rates		% Rate Increase	No. of Base ERUs	No of O&M and C&D ERUs	No. of Credit and Adjustment ERUs	Annual Revenue
	\$/ERU/Month	\$/ERU/Yr					
2008	\$3.58	\$43.00	0%				
2009	\$3.58	\$43.00	0%				
2010	\$4.08	\$49.00	14.0%				
2011	\$4.08	\$49.00	0%				
2012	\$4.08	\$49.00	0%				
2013	\$4.75	\$57.00	16.3%				\$378,000
2014	\$5.58	\$66.96	17.5%				
2015	\$5.58	\$66.96	0%				
2016	\$6.17	74.04	10.6%	7,754.1	6,563.4	1,190.7	\$508,107
2017	\$6.17	\$74.04	0%	7,814.4	6,623.7	1,190.7	\$512,572

Note: SWU Rates are divided into a 25 percent Base rate, 31 percent O&M rate, and 43 percent C&D rate.

Table 6.02-1 City of Whitewater SWU Rate History

Community	SWU Rate (\$/ERU/Month)
Eau Claire	\$7.17
La Crosse	\$4.49
Menomonie	\$3.00
Oshkosh	\$10.24
River Falls	\$3.14
Stevens Point	\$4.92
Superior	\$5.90
Average	\$5.55

Table 6.03-1 SWU Rates for Wisconsin Communities With State Universities

- Existing City Stormwater Budget (\$512,572 in 2018)
- Proposed Stormwater Budget
 - Existing Stormwater Budget **plus**
 - Stormwater Program Updates **and**
 - Alternative 4 (12 BMPs, then WQT)
 - Alternative 5 (6 BMPs, then WQT): **Assists UWW to achieve 40% TSS red.**
 - Alternative 6 (4 BMPs, then WQT)
 - Alternative 7 (all WQT)

Stormwater Utility Budget

- **Assumptions**
 - Capital Projects: 3.875% at 20 Years
 - Capital Projects Funded by WDNR Grant (50% up to \$150,000)
 - City Existing Budget Inflated 3% Per Year
 - Total # ERUs increases 0.5% Per Year
 - Projects and water quality trading staggered to achieve TMDL compliance by 2040.
- **Rock River Basin TMDL Compliance Timeline**
 - No Specific Timeline, Though 20 to 30 Years Has Been Mentioned
 - Rather, WDNR expects continual progress within each 5-year permit term

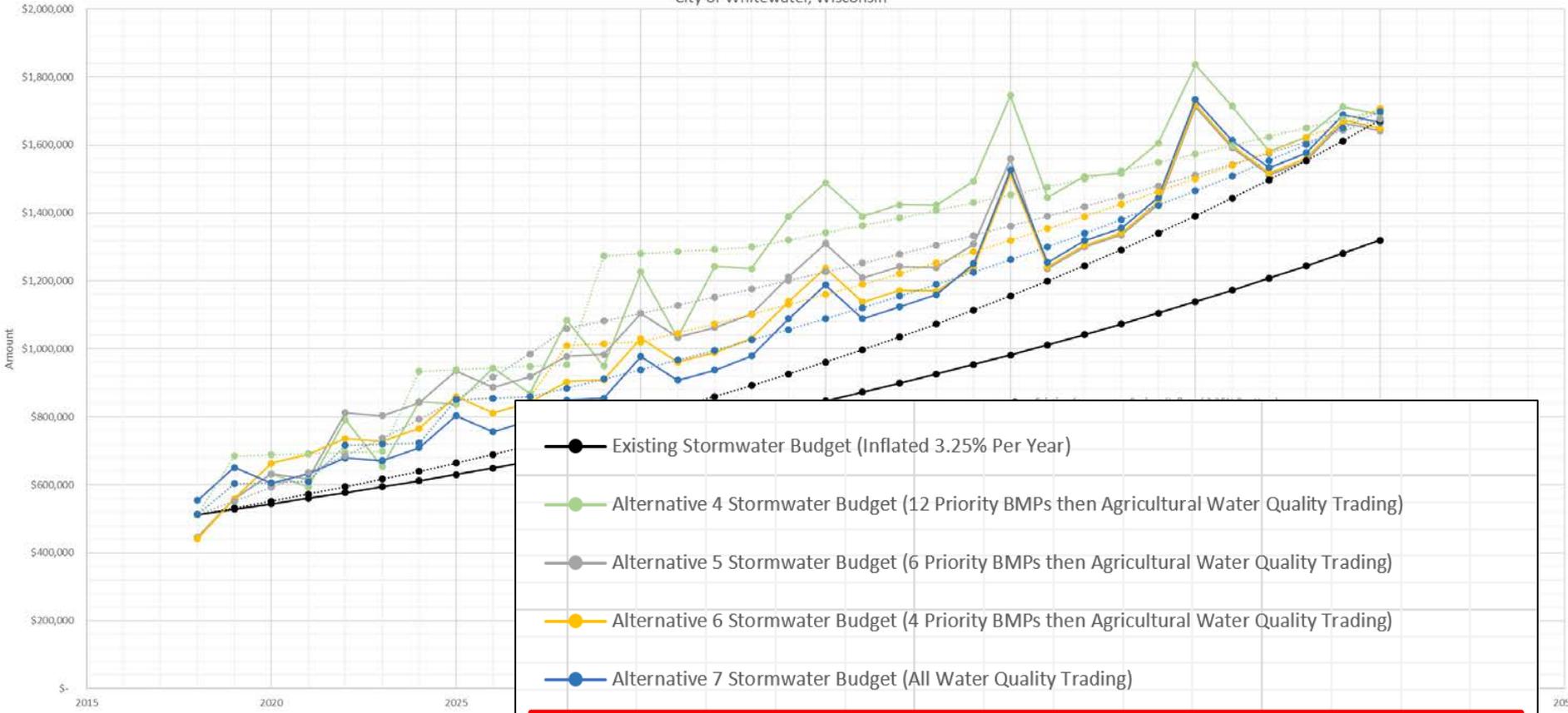
Stormwater Utility Budget (Alternative 5 Example)

Table 6.04-2											
Alternative No. 5-3 BMPs with Agricultural Water Quality Trading											
Expenses	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Assumed Expenses Funded by Stormwater Utility in 2018 (then 3% Inflation)	\$ 512,572	\$ 527,949	\$ 543,787	\$ 560,101	\$ 576,904	\$ 594,211	\$ 612,037	\$ 630,398	\$ 649,310	\$ 668,790	\$ 688,853
Additional Expenses											
Initiate Program to Gather All Maintenance Agreements for All Privately-Owned Stormwater BMPs	\$ 15,000										
Develop Private BMP Maintenance Program	\$ 20,000										
Initiate Private BMP Maintenance Program		\$ 45,000	\$ 46,350	\$ 47,741	\$ 49,173	\$ 50,648	\$ 52,167	\$ 53,732	\$ 55,344	\$ 57,005	\$ 58,715
Assessment of 12 City-Owned Wet Ponds for Dredging Need		\$ 12,000					\$ 16,059				
Design of City Owned Wet Pond Dredging	2017 Cost		\$ 65,000					\$ 86,985			
City-Owned Wet Pond Periodic Dredging (Project #1-2021)	\$ 150,000			\$ 12,285	\$ 12,285	\$ 12,285	\$ 12,285	\$ 12,285	\$ 12,285	\$ 12,285	\$ 12,285
City-Owned Wet Pond Periodic Dredging (Project #2-2026)	\$ 157,652								\$ 14,969	\$ 14,969	\$ 14,969
City-Owned Wet Pond Periodic Dredging (Project #3-2031)	\$ 165,693										
City-Owned Wet Pond Periodic Dredging (Project #4-2036)	\$ 174,145										
City-Owned Wet Pond Periodic Dredging (Project #5-2041)	\$ 183,029										
City-Owned Wet Pond Periodic Dredging (Project #6-2046)	\$ 192,365										
Create map of existing sumps and depths in City		\$ 10,000									
City SWPPP-Install Perimeter Sediment Control Devices at Public Works Garage	\$ 1,000										
Apply for WDNR UNPS Grant for Hydrodynamic Separator at Public Works Garage	2017 Cost	\$ 4,500									
Design (2019) and Construct (2020) HDS at Public Works Garage	\$ 44,875	\$ 15,000	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568	\$ 3,568
UNPS Grant for HDS			\$ (54,637)								
Review spill prevention and response procedures at Public Works Garage for improvements in 2018 and implement in 2019	\$ 500										
Review Public Works Department staff training for stormwater pollution prevention at the Public Works Garage for improvements in 2018 and implement in 2019	\$ 500	\$ 1,000	\$ 1,030	\$ 1,061	\$ 1,093	\$ 1,126	\$ 1,159	\$ 1,194	\$ 1,230	\$ 1,267	\$ 1,305
Joint City MS4, City WWTP, and UWW Water Quality Trading and Watershed Adaptive Management TMDL Compliance Study		\$ 40,000									
WDNR UNPS Grant Application for WinSLAMM Modeling Update				\$ 5,369						\$ 7,616	
WDNR UNPS Grant for WinSLAMM Modeling Update					\$ (30,000)						\$ (42,556)
WinSLAMM Modeling Update					\$ 60,000						\$ 85,111
WDNR UNPS Grant Application for Stormwater BMPs	\$ 4,500		\$ 5,056								
WDNR UNPS Grant for Stormwater BMP	\$ (150,000)	\$ (150,000)	\$ (61,866)	\$ (150,000)							
2017 Cost											
Design/Construct Armory Detention Basin	\$ 493,125	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961	\$ 36,961
Design/Construct South Street Detention Basin	\$ 271,750	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979	\$ 20,979
Purchase Vacuum Street Sweeper	\$ 292,624		\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269	\$ 23,269
Implement Vacuum Street Sweeping (Additional Cost Only)			\$ 2,637	\$ 2,716	\$ 2,798	\$ 2,882	\$ 2,968	\$ 3,057	\$ 3,149	\$ 3,243	\$ 3,340
Design/Construct Starin Road Underground Wet Detention Basin	\$ 622,924			\$ 51,019	\$ 51,019	\$ 51,019	\$ 51,019	\$ 51,019	\$ 51,019	\$ 51,019	\$ 51,019
Agricultural Water Quality Trading for TP (339.3 lbs at \$110/lb TP; 1/20 per year starting in 2021 with full implementation in 2040)	\$ 110.00	\$ -	\$ -	\$ -	\$ 2,100	\$ 4,327	\$ 6,685	\$ 9,181	\$ 11,820	\$ 14,609	\$ 17,556
Total Expenses	\$ 445,500	\$ 558,900	\$ 632,100	\$ 617,200	\$ 812,400	\$ 803,600	\$ 841,700	\$ 935,300	\$ 886,700	\$ 918,500	\$ 978,500

Alternative #	Stormwater Budget Range (2019 to 2038)
4 – 12 BMPs + WQT	\$558,900 to \$1.4 million
5 – 6 BMPs + WQT (Assists UW achieve 40% TSS Red.)	\$558,900 to \$1.2 million
6 – 4 BMPs + WQT	\$558,900 to \$1.2 million
7 – All WQT	\$650,900 to \$1.2 million

Stormwater Utility Potential Rate Scenarios

Existing and Future Stormwater Costs
 (assumes a 0.5% increase in ERUs per year)
 City of Whitewater, Wisconsin



- Existing Stormwater Budget (Inflated 3.25% Per Year)
 - Alternative 4 Stormwater Budget (12 Priority BMPs then Agricultural Water Quality Trading)
 - Alternative 5 Stormwater Budget (6 Priority BMPs then Agricultural Water Quality Trading)
 - Alternative 6 Stormwater Budget (4 Priority BMPs then Agricultural Water Quality Trading)
 - Alternative 7 Stormwater Budget (All Water Quality Trading)
- Stormwater Utility Revenue (3.25% Rate Increase Per Year) for Comparison
 - Stormwater Utility Revenue (Three 33% Rate Increases Every 5 Years, Then 1.1% Per Year) to Fund Alt. 4
 - Stormwater Utility Revenue (7 % Rate Increase Per Year for 10 Years, Then 1.6% Per Year) to Fund Alt. 5
 - Stormwater Utility Revenue (Four 17 % Rate Increases Every 3 Years, Then 2.1% Per Year) to Fund Alt. 6
 - Stormwater Utility Revenue (Three 17 % Rate Increases Every 3 Years, Then 2.5% Per Year) to Fund Alt. 7

Stormwater Utility Potential Rate Scenarios

Table 6.05-1

Potential Future Stormwater Utility Rates

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
# Base ERUs	7814.4	7853.5	7892.7	7932.2	7971.9	8011.7	8051.8	8092.0	8132.5	8173.2	8214.0
# ERUS for O&M and C&D	6623.7	6656.8	6690.1	6723.6	6757.2	6791.0	6824.9	6859.0	6893.3	6927.8	6962.4
<i>Future ERU Rate Per Year (3.25% Increase Per Year) for Comparison</i>	\$ 74.04	\$ 76.45	\$ 78.93	\$ 81.50	\$ 84.14	\$ 86.88	\$ 89.70	\$ 92.62	\$ 95.63	\$ 98.74	\$ 101.95
<i>Future Revenue (3.25% Increase Per Year) for Comparison</i>	\$ 512,572	\$ 531,870	\$ 551,902	\$ 572,688	\$ 594,257	\$ 616,638	\$ 639,862	\$ 663,961	\$ 688,967	\$ 714,915	\$ 741,841
<i>Future ERU Rate Per Year (Three 33% Increases Every 5 Years, Then 1.1% Per Year) to fund Alt. 4</i>	\$ 74.04	\$ 98.47	\$ 98.47	\$ 98.47	\$ 98.47	\$ 98.47	\$ 130.97	\$ 130.97	\$ 130.97	\$ 130.97	\$ 130.97
<i>Future Revenue (Three 33% Increases Every 5 Years, Then 1.1% Per Year) to fund Alt. 4</i>	\$ 512,572	\$ 685,121	\$ 688,547	\$ 691,989	\$ 695,449	\$ 698,927	\$ 934,220	\$ 938,891	\$ 943,586	\$ 948,304	\$ 953,045
<i>Future ERU Rate Per Year (7% Increase Per Year for 10 Years, Then 1.6% Per Year) to fund Alt. 5</i>	\$ 74.04	\$ 79.22	\$ 84.77	\$ 90.70	\$ 97.05	\$ 103.84	\$ 111.11	\$ 118.89	\$ 127.21	\$ 136.12	\$ 145.65
<i>Future Revenue (7% Increase Per Year for 10 Years, Then 1.6% Per Year) to fund Alt. 5</i>	\$ 512,572	\$ 551,188	\$ 592,720	\$ 637,381	\$ 685,408	\$ 737,053	\$ 792,590	\$ 852,312	\$ 916,533	\$ 985,594	\$ 1,059,859
<i>Future ERU Rate Per Year (Four 17% Increases Every 3 Years, Then 2.1% Per Year) to fund Alt. 6</i>	\$ 74.04	\$ 86.63	\$ 86.63	\$ 86.63	\$ 101.35	\$ 101.35	\$ 101.35	\$ 118.58	\$ 118.58	\$ 118.58	\$ 138.74
<i>Future Revenue (Four 17% Increases Every 3 Years, Then 2.1% Per Year) to fund Alt. 6</i>	\$ 512,572	\$ 602,700	\$ 605,714	\$ 608,743	\$ 715,790	\$ 719,369	\$ 722,966	\$ 850,099	\$ 854,350	\$ 858,621	\$ 1,009,610
<i>Future ERU Rate Per Year (Three 17% Increases Every 3 Years, Then 2.5% Per Year) to fund Alt. 7</i>	\$ 74.04	\$ 86.63	\$ 86.63	\$ 86.63	\$ 101.35	\$ 101.35	\$ 101.35	\$ 118.58	\$ 118.58	\$ 118.58	\$ 121.55
<i>Future Revenue (Three 17% Increases Every 3 Years, Then 2.5% Per Year) to fund Alt. 7</i>	\$ 512,572	\$ 602,700	\$ 605,714	\$ 608,743	\$ 715,790	\$ 719,369	\$ 722,966	\$ 850,099	\$ 854,350	\$ 858,621	\$ 884,487

Alternative #	Annual \$/ERU Range (2019 to 2038)	Revenue Generated
4 – 12 BMPs + WQT	\$98.47 to \$183.98	\$685,000 to \$1.4 million
5 – 6 BMPs + WQT	\$79.22 to \$170.70	\$551,000 to \$1.3 million
6 – 4 BMPs + WQT	\$86.63 to \$163.84	\$602,700 to \$1.2 million
7 – All WQT	\$86.63 to \$155.59	\$602,700 to \$1.2 million

2017 Annual \$/ERU = \$74.04

2017 Annual Revenue = \$512,572

Recommendations

- Initiate updates to Stormwater Programs discussed in Section 3.
- Consider pursuit of Alternative 4, 5, or 6 prior to pursuing Water Quality Trading (Alt. 7)
 - **Alternative 5 assists UWW in achieving 40% so can WQT.**
 - Alternative 5 and 6 consider construction of 2 BMPs already with grants.
 - Pursue WDNR UNPS grant funds for any constructed BMPs.
- WDNR's upcoming credit for Improved Leaf Collection should be tracked and City's position reanalyzed at that time.
- WQT with WWTF appears to be a possibility
- Considering cost-effectiveness of WQT, WAM, and WQT with WWTF, a joint (City MS4, UWW MS4, and City WWTF) study is recommended to further investigate these options.
- Discretionary streambank restoration projects.
- Consider stormwater utility rate modifications.

Timing Considerations

Milestone	MS4 Permit	WWTF Permit	WWTF-MDV	WWTF-WQT	WWTF-WAM
Rock River Basin TMDL approved by EPA	September 28, 2011				
<i>WWTF Permit Effective Date</i>		<i>April 1, 2017</i>			
Updated WinSLAMM Modeling and TMDL Compliance Plan Complete	March 31, 2018				
Operational Evaluation Report		March 31, 2018			
Compliance Alternatives, Source Reduction, Improvements, and Modifications Status		March 31, 2019			
Preliminary Compliance Alternatives Plan		March 31, 2020			
Final Compliance Alternatives Plan (including design criteria for WWTF upgrades and/or Notice of Intent for MDV, WQT, or WAM.)		March 31, 2021			
<i>WWTF permit expiration date and reissuance</i>		<i>March 31, 2022 and April 1, 2022</i>	Initiate MDV at \$50/lb TP	Initiate WQT	Initiate WAM
WWTF final plans and Specifications for upgrades		March 31, 2023			
START WWTF upgrade to meet WQBELs (NR 217.13)		June 30, 2023			
COMPLETE WWTF upgrade to meet WQBELs (NR 217.13) unless WWTF chooses variance, water quality trading, or watershed adaptive management		February 28, 2026			
<i>WWTF permit expiration date and reissuance</i>		<i>March 31, 2027 and April 1, 2027</i>	Potentially reapply for MDV (if it is reauthorized); otherwise achieve compliance through WWTF upgrades	Achieve Compliance Through WQT	Reauthorize WAM
MS4 compliance deadline (assumed 20-year timeframe because MS4 permit does not include a deadline though WDNR will be looking for progress according to TMDL Compliance Plan)	To Be Determined (assumed March 31, 2031)				
WWTF permit expiration date and reissuance		March 31, 2032 and April 1, 2032	Potentially reapply for MDV (if it is reauthorized); otherwise achieve compliance through WWTF upgrades	Continue with WQT	Reauthorize WAM
MDV expiration (if reauthorized/reapplied) or Watershed Adaptive Management Compliance (three permit terms)-achieve in-stream 0.075 mg/l water quality criteria as proven through water quality monitoring; or begin WWTF Upgrades			March 31, 2037		March 31, 2037

2019: Joint Watershed Options Study

- WQT, WAM, WQT w/WWTF
- City MS4, UWW MS4, City WWTF

Table 6–Timeline Comparison for Various Permit Compliance Options





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BUREAU OF WATERSHED MANAGEMENT PROGRAM GUIDANCE

RUNOFF MANAGEMENT POLICY AND MANAGEMENT TEAM Storm Water Management Program

Wisconsin Department of Natural Resources
101 S. Webster Street, P.O. Box 7921
Madison, WI 53707-7921

Interim Municipal Phosphorus Reduction Credit for Leaf Management Programs

03-08-18

EGAD Number: 3800-2018-01

Notice: This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

APPROVED:

Pam Biersach, Director
Bureau of Watershed Management

March 8, 2018

Date

A. Introduction/Statement of Problem Being Addressed

Permitted Municipal Separate Storm Sewer Systems (MS4s) will be subject to an annual average reduction for the discharge of a pollutant of concern to a surface water that has an approved TMDL. Recent studies indicate that phosphorus loads in stormwater in the fall of the year may be reduced by frequent leaf collection followed by street cleaning. Many municipalities are currently developing plans to meet TMDL limits and wish to include fall leaf management efforts in their plans.

While additional research is needed on a broader range of conditions and management methods, sufficient data is available to determine a preliminary phosphorus reduction credit for the most common municipal land use type. This credit is limited to the specific conditions and methods for which data is available. No credit has been quantified for other land uses, tree canopies, or collection programs but it is the Department's intent to expand the applicability of the guidance to more conditions and programs as additional studies are completed. This expansion is dependent on availability of funding for further data collection and evaluation.

B. Objectives

This guidance identifies a percent phosphorus reduction credit which may be taken by municipalities as part of TMDL planning and the conditions required to take that credit.

C. Background and Definitions

Urban trees provide a host of benefits to the residents and workers within a community, such as energy savings, aesthetics, airborne pollutant reduction, noise reduction, and providing bird habitat. Trees are also an important part of the hydrologic cycle. However, without adequate management of leaf litter, they also contribute to the nutrient loading in urban stormwater. Each tree species contributes a different amount of phosphorus to the stormwater, but since a diverse set of tree species is beneficial to long-term maintenance of a healthy canopy this effect is not being addressed at this time.

While there are many sources of phosphorus in urban stormwater, a primary contributor is organic detritus, especially in areas with dense overhead tree canopy (Duan et al, 2014; Hobbie et al, 2014; and Kalinosky et al, 2014). Measurement of end-of-pipe phosphorus concentrations has demonstrated that phosphorus loads in urban stormwater vary seasonally in certain medium density residential areas, with higher concentrations coinciding with leaf accumulation on streets (Selbig, 2016). As phosphorus discharges in stormwater can vary from year to year depending on timing of rainfall events, seasonal phosphorus loads were modeled over a twenty-year period with WinSLAMM to determine the average proportion that is discharged in the fall. From this information, it is estimated that on average 43% of the annual phosphorus load is discharged in the fall.

A variety of public works programs are already in place to collect leaves from the streets and properties in the fall, but until recently, little was known about the phosphorus reduction potential of different leaf collection programs. Over the last four years, the United States Geological Survey (USGS) conducted a study to characterize reductions of total and dissolved forms of phosphorus in stormwater through a municipal leaf collection and street cleaning programs in Madison, Wisconsin, USA. Some credit for phosphorus reduction is warranted based on the information.

To estimate the efficiency of leaf collection, leaves were collected three to four times at the test site and collected only once at the end of the fall at the control site. A small vehicle was used to push the leaves from the terrace into the street and then the leaves were pushed into garbage trucks. Within 24 hours of leaf collection, remaining leaf litter in the street was collected using mechanical street cleaners. Eight end-of-pipe phosphorus concentration measurements were compared at the test and control sites during the fall of 2016. Water quality data collected indicate that the collection and transfer method resulted in a 40% reduction of total phosphorus discharge in the fall at the test site versus the control site.

D. Guidance Content

A municipality may assume the specified reduction from no controls phosphorus loads provided all of the conditions are met. 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.

Transfer Plus Street Cleaning Method of Leaf Collection

Municipalities may assume 17% (40% reduction due to collection efforts x 43% of annual phosphorus load occurring in fall) Total Phosphorus annual load reduction for the leaf collection effort in the Medium Density Residential No Alleys (MDRNA) land use for this option. If the credit is desired for an area containing MDRNA and other land uses, the annual load reduction must be modified by the percent of the total phosphorus load from the area that is from the MDRNA. For example, the phosphorus load from a MDRNA might represent 60% of the load from the entire area. The new annual percent reduction for the area would be 10% (17% X 60%). Municipalities may apply the leaf credit to a subset of their MDRNA area if other BMPs are providing more phosphorus reduction for the remaining area. At this time credit for leaf collection is not available for other land uses or lower-density tree canopies. The Total Phosphorus annual load reduction for this option may be assumed if 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 and light parking densities during street cleaning activities.
3. An average of one or more mature trees located between the sidewalk and the curb for every 80 linear feet of curb. Where sidewalk is not present, trees within 15 feet of the curb may be counted toward tree cover. Generally, this equates to a tree canopy over the street (pavement only) 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 fully enclosed vehicle, such as a garbage truck or covered dump truck. 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.

It is anticipated that additional scenarios will be added as research is completed.

E. References

- Duan, S., Delaney-Newcomb, K., Kaushal, S.S., Findlay, S.E.G., Belt, K.T., 2014. Potential effects of leaf litter on water quality in urban watersheds. *Biogeochemistry* 121, 61–80. <http://dx.doi.org/10.1007/s10533-014-0016-9>.
- Hobbie, S.E., Baker, L.A., Buyarski, C., Nidzgorski, D., Finlay, J.C., 2014. Decomposition of tree leaf litter on pavement: implications for urban water quality. *Urban Ecosyst.* 17 (2), 369–385. <http://dx.doi.org/10.1007/s11252-013-0329-9>.
- Kalinosky, P., Baker, L.A., Hobbie, S., Bintner, R., Buyarski, C., 2014. User support manual: estimating nutrient removal by enhanced street sweeping. Report to the Minnesota Pollution Control Agency (available at: <http://larrybakerlab.cfans.umn.edu/files/2011/07/Kalinosky-et-al.-2014.-Street-Sweeping-Guidance-Manual-final-9-24-2014.docx>, (accessed April 11th, 2016)).
- 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>

CREATED:

Amy Minser

Amy Minser, Stormwater Engineer
On behalf of the Storm Water Liaison Team

3/8/18

Date

APPROVED:

Mary Anne Lowndes

Mary Anne Lowndes, Chief
Runoff Management Section

3/9/18

Date

Runoff Management Policy Management Team approved on February 1, 2018.
Division Administrator approved March 6, 2018.

City of Whitewater TMDL Compliance Summary

TMDL Reach Number and Name: Rock River TMDL, Reach 59

MS4 Existing Controls Percent Reductions needed (no controls): 49% (TSS); 66% (TP)

MS4 Existing Controls Percent Reduction (year 2016): 47.7% (TSS); 37.1% (TP)

Modeled MS4 Annual Average Pollutant Load (no controls): 561,670 lbs/yr (TSS); 1,538.9 lbs/yr (TP)

Modeled MS4 Annual Average Pollutant Load (existing controls): 293,521 lbs/yr (TSS); 967.8 lbs/yr (TP)

Pollutant	TMDL Pollutant Reduction Gap (%)	TMDL Pollutant Reduction Gap (lbs)
TSS	1.3%	7,067
TP	28.8%	444.6

Alternative 4

Benchmark (BM)	Description of BM Measure	Apply from UNPS Construction Grant Year	UNPS Construction Grant Monies Available	Outfalls Affected by BM Control	Affected Drainage Areas (as modeled)	Implementation Date	Additional TSS Removed (lbs)	Additional TP Removed (lbs)	BM TSS% Reduction toward TMDL Reduction	BM TP% Reduction toward TMDL Reduction	BMP Construction Cost (2017 \$)	BMP Cost (20-Year NPW)	20-Year NPW Cost-Effectiveness (\$/lb TP)
N/A	Existing control measures	N/A	N/A	All	All	Ongoing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	TP Credit for Leaf Management Programs Analysis					2020	N/A	TBD		TBD	TBD	TBD	TBD
2	WQT, WAM, and WQT with WWTF joint study	N/A	N/A	All	All	2020	TBD	TBD		TBD	TBD	TBD	TBD
3	Vacuum Street Sweeping, Existing Frequencies (Include Purchase Vacuum Street Sweeper)	2020	2021	All	All	2021	284,775	30.9	50.7%	2.0%	\$284,299		
4	Ordinance Revision-Higher Redevelopment Standard (80%)	N/A	N/A	Varies	Varies	2020	7,372	16.2	1.3%	1.1%	TBD	N/A	N/A
5	Innovation Center Wet Pond Chemical Treatment	2020	2021	WC-48-2, WC-48-3	WC-48	2021	1,093	10.8	0.2%	0.7%	\$49,359	\$127,875	\$591
6	Mound Meadows Wet Detention Basin	2024	2025	GC-2.1	GC-2	2025	11,752	30.7	2.1%	2.0%	\$354,875	\$420,832	\$683
7	W. South St. Wet Detention Basin	2028	2029	SB-3.2-1, SB-3.2-2	SB-3.2, SB-4	2029	9,674	23.9	1.7%	1.6%	\$271,750	\$354,017	\$741
8	Ann St. Wet Pond Chemical Treatment	2032	2033	CL-4.3	CL-4.3	2033	14,936	79	2.7%	5.1%	\$359,384	\$931,056	\$591
9	DLK/Main St. Wet Detention Basin	2036	2037	GC-1.2	GC-1	2037	9,586	17	1.7%	1.1%	\$328,000	\$366,215	\$1,077
10	Armory Site-Business Park	2040	2041	WC-32.2, WC-40.2	WC-32.2, WC-33.1	2041	11,277	17.2	2.0%	1.1%	\$493,125	\$657,215	\$1,911
11	Carriage Drive	2044	2045	GC-6, GC-7	GC-6	2045	10,038	18	1.8%	1.2%	\$548,500	\$730,477	\$2,029
12	Starin Rd-Starin Park Underground Wet Detention Basin	2048	2049	WC-5.1	WC-5.1 CITY	2049	7,246	16.7	1.3%	1.1%	\$493,125	\$669,641	\$2,075
13	Chicago/East St. Wet Detention Basin	2052	2053	WC-30, WC-31	WC-30, WC-31	2053	2,802	5.6	0.5%	0.4%	\$218,625	\$255,651	\$2,283
14	Public Works Yard Hydrodynamic Separator	2056	2057	WC-7	WC-7	2057	165	0.4	0.03%	0.03%	\$44,875	\$89,552	\$11,194
15	Agricultural WQT (Interim Credits)	N/A	N/A	All	All	2058	TBD	178.2	TBD	11.6%	TBD	\$127,875	\$591
						Total	370,716	266.4	66.0%	28.9%			

City of Whitewater TMDL Compliance Summary

TMDL Reach Number and Name: Rock River TMDL, Reach 59

MS4 Existing Controls Percent Reductions needed (no controls): 49% (TSS); 66% (TP)

MS4 Existing Controls Percent Reduction (year 2016): 47.7% (TSS); 37.1% (TP)

Modeled MS4 Annual Average Pollutant Load (no controls): 561,670 lbs/yr (TSS); 1,538.9 lbs/yr (TP)

Modeled MS4 Annual Average Pollutant Load (existing controls): 293,521 lbs/yr (TSS); 967.8 lbs/yr (TP)

Pollutant	TMDL Pollutant Reduction Gap (%)	TMDL Pollutant Reduction Gap (lbs)
TSS	1.3%	7,067
TP	28.8%	444.6

Alternative 5

Benchmark (BM)	Description of BM Measure	Apply from UNPS Construction Grant Year	UNPS Construction Grant Monies Available	Outfalls Affected by BM Control	Affected Drainage Areas (as modeled)	Implementation Date	Additional TSS Removed (lbs)	Additional TP Removed (lbs)	BM TSS% Reduction toward TMDL	BM TP% Reduction toward TMDL	BMP Construction Cost (2017 \$)	BMP Cost (20-Year NPW)	20-Year NPW Cost-Effectiveness (\$/lb TP)
N/A	Existing control measures	N/A	N/A	All	All	Ongoing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	TP Credit for Leaf Management Programs Analysis					2020	N/A	TBD		TBD	TBD	TBD	TBD
2	WQT, WAM, and WQT with WWTF joint study	N/A	N/A	All	All	2020	TBD	TBD		TBD	TBD	TBD	TBD
3	Vacuum Street Sweeping, Existing Frequencies (Include Purchase Vacuum Street Sweeper)	2020	2021	All	All	2021	284,775	30.9	50.7%	2.0%	\$284,299		
4	Ordinance Revision-Higher Redevelopment Standard (80%)	N/A	N/A	Varies	Varies	2020	7,372	16.2	1.3%	1.1%	TBD	N/A	N/A
5	W. South St. Wet Detention Basin	2020	2021	SB-3.2-1, SB-3.2-2	SB-3.2, SB-4	2021	9,674	23.9	1.7%	1.6%	\$271,750	\$354,017	\$741
6	Armory Site-Business Park	2024	2025	WC-32.2, WC-40.2	WC-32.2, WC-33.1	2025	11,277	17.2	2.0%	1.1%	\$493,125	\$657,215	\$1,911
7	Starin Rd-Starin Park Underground Wet Detention Basin	2028	2029	WC-5.1	WC-5.1 CITY	2029	7,246	16.7	1.3%	1.1%	\$493,125	\$669,641	\$2,075
8	Agricultural WQT (Interim Credits)	N/A	N/A	All	All	2030	TBD	339.3	TBD	22.0%	TBD	\$722,980	\$110
9	Public Works Yard Hydrodynamic Separator	2032	2033	WC-7	WC-7	2033	165	0.4	0.03%	0.03%	\$44,875	\$89,552	\$11,194
						Total	320,509	444.6	57.1%	28.9%			

City of Whitewater TMDL Compliance Summary

TMDL Reach Number and Name: Rock River TMDL, Reach 59

MS4 Existing Controls Percent Reductions needed (no controls): 49% (TSS); 66% (TP)

MS4 Existing Controls Percent Reduction (year 2016): 47.7% (TSS); 37.1% (TP)

Modeled MS4 Annual Average Pollutant Load (no controls): 561,670 lbs/yr (TSS); 1,538.9 lbs/yr (TP)

Modeled MS4 Annual Average Pollutant Load (existing controls): 293,521 lbs/yr (TSS); 967.8 lbs/yr (TP)

Pollutant	TMDL Pollutant Reduction Gap (%)	TMDL Pollutant Reduction Gap (lbs)
TSS	1.3%	7,067
TP	28.8%	444.6

Alternative 6

Benchmark (BM)	Description of BM Measure	Apply from UNPS Construction Grant Year	UNPS Construction Grant Monies Available	Outfalls Affected by BM Control	Affected Drainage Areas (as modeled)	Implementation Date	Additional TSS Removed (lbs)	Additional TP Removed (lbs)	BM TSS% Reduction toward TMDL Reduction	BM TP% Reduction toward TMDL Reduction	BMP Construction Cost (2017 \$)	BMP Cost (20-Year NPW)	20-Year NPW Cost-Effectiveness (\$/lb TP)
N/A	Existing control measures	N/A	N/A	All	All	Ongoing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	TP Credit for Leaf Management Programs Analysis					2020	N/A	TBD		TBD	TBD	TBD	TBD
2	WQT, WAM, and WQT with WWTF joint study	N/A	N/A	All	All	2020	TBD	TBD		TBD	TBD	TBD	TBD
3	Ordinance Revision-Higher Redevelopment Standard (80%)	N/A	N/A	Varies	Varies	2020	7,372	16.2	1.3%	1.1%	TBD	N/A	N/A
4	W. South St. Wet Detention Basin	2020	2021	SB-3.2-1, SB-3.2-2	SB-3.2, SB-4	2021	9,674	23.9	1.7%	1.6%	\$271,750	\$354,017	\$741
5	Armory Site-Business Park	2024	2025	WC-32.2, WC-40.2	WC-32.2, WC-33.1	2025	11,277	17.2	2.0%	1.1%	\$493,125	\$657,215	\$1,911
6	Public Works Yard Hydrodynamic Separator	2028	2029	WC-7	WC-7	2029	165	0.4	0.03%	0.03%	\$44,875	\$89,552	\$11,194
7	Agricultural WQT (Interim Credits)	N/A	N/A	All	All	2030	TBD	386.9	TBD	25.1%	TBD	\$824,120	\$110
						Total	28,488	444.6	5.1%	28.9%			

City of Whitewater TMDL Compliance Summary

TMDL Reach Number and Name: Rock River TMDL, Reach 59

MS4 Existing Controls Percent Reductions needed (no controls): 49% (TSS); 66% (TP)

MS4 Existing Controls Percent Reduction (year 2016): 47.7% (TSS); 37.1% (TP)

Modeled MS4 Annual Average Pollutant Load (no controls): 561,670 lbs/yr (TSS); 1,538.9 lbs/yr (TP)

Modeled MS4 Annual Average Pollutant Load (existing controls): 293,521 lbs/yr (TSS); 967.8 lbs/yr (TP)

Pollutant	TMDL Pollutant Reduction Gap (%)	TMDL Pollutant Reduction Gap (lbs)
TSS	1.3%	7,067
TP	28.8%	444.6

Alternative 7

Benchmark (BM)	Description of BM Measure	Apply from UNPS Construction Grant Year	UNPS Construction Grant Monies Available	Outfalls Affected by BM Control	Affected Drainage Areas (as modeled)	Implementation Date	Additional TSS Removed (lbs)	Additional TP Removed (lbs)	BM TSS% Reduction toward TMDL Reduction	BM TP% Reduction toward TMDL Reduction	BMP Construction Cost (2017 \$)	BMP Cost (20-Year NPW)	20-Year NPW Cost-Effectiveness (\$/lb TP)
N/A	Existing control measures	N/A	N/A	All	All	Ongoing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	TP Credit for Leaf Management Programs Analysis					2020	N/A	TBD		TBD	TBD	TBD	TBD
2	WQT, WAM, and WQT with WWTF joint study	N/A	N/A	All	All	2020	TBD	TBD		TBD	TBD	TBD	TBD
3	Agricultural WQT (Interim Credits)	N/A	N/A	All	All	2024	TBD	444.6	TBD	28.9%	TBD	\$947,840	\$110
	Total						TBD	444.6	TBD	28.9%			

University of Wisconsin-Whitewater TMDL Compliance Summary

TMDL Reach Number and Name: Rock River TMDL, Reach 59

MS4 Existing Controls Percent Reductions needed (no controls): 49% (TSS); 66% (TP)

MS4 Existing Controls Percent Reduction (year 2016): 16.3% (TSS); 12.6% (TP)

Modeled MS4 Annual Average Pollutant Load (no controls): 70,568 lbs/yr (TSS); 179.8 lbs/yr (TP)

Modeled MS4 Annual Average Pollutant Load (existing controls): 59,097 lbs/yr (TSS); 157.2 lbs/yr (TP)

Pollutant	TMDL Pollutant Reduction Gap (%)	TMDL Pollutant Reduction Gap (lbs)
TSS	32.7%	23,108
TP	53.4%	96.1

Alternative 5

Benchmark (BM)	Description of BM Measure	Apply from UNPS Construction Grant Year	UNPS Construction Grant Monies Available	Outfalls Affected by BM Control	Affected Drainage Areas (as modeled)	Implementation Date	Additional TSS Removed (lbs)	Additional TP Removed (lbs)	BM TSS% Reduction toward TMDL	BM TP% Reduction toward TMDL	BMP Construction Cost (2017 \$)	BMP Cost (20-Year NPW)	20-Year NPW Cost-Effectiveness (\$/lb TP)
N/A	Existing control measures	N/A	N/A	All	All	Ongoing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	WQT, WAM, and WQT with WWTF joint study	N/A	N/A	All	All	2020	TBD	TBD			TBD	TBD	TBD
2	Vacuum Street Sweeping, Once Every 2 Weeks (Include Purchase of Vacuum Street Sweeper)	2020	2021	All	All	2021	2,113	3.5	3.0%	1.9%	\$10,738	\$32,860	\$336
3	Redevelopment (see Campus Master Plan) at 40% TSS Reduction	N/A	N/A	Varies	Varies	Ongoing	2,304	10.1	3.3%	5.6%	N/A	N/A	N/A
4	Starin Rd-Starin Park Underground Wet Detention Basin (Joint Project With City of Whitewater)	2028	2029	WC-5.1, and M-6	WC-5.1 CITY	2029	13,821	30.2	19.6%	16.8%	\$1,188,076	\$1,277,176	\$2,075
5	Agricultural WQT (Interim Credits)	N/A	N/A	All	All	2030	TBD	52.1	TBD	29.0%	TBD	\$110,920	\$110
						Total	18,238	95.9	25.8%	53.3%			

Agenda Item No.
5d

STAFF REPORT TO PUBLIC WORKS COMMITTEE – 4-9-2019

AGENDA ITEM

Discussion and Possible Action regarding the private road at the end of Colburn Lane.

BACKGROUND

There is a private driveway at the end of Coburn Lane that serves seven houses. The driveway cuts across about 225 feet of City owned land before it reaches the houses. The City does not plow the driveway but has in the past aided in the gravel maintenance. This spring, crews only maintained the gravel portion that crossed the City owned land. Staff would like to have a discussion with the committee on what responsibility the City has with any maintenance of this private driveway.

FISCAL IMPACT

Staff time and materials to maintain the gravel driveway.

STAFF RECOMMENDATION

Even though the private driveway crosses City property, staff does not believe it is the City's responsibility to maintain any portion of this private driveway.

Staff contact: Brad Marquardt 262-473-0139



End of Coburn Lane

WALWORTH COUNTY, WISCONSIN

0 25 50 100 150 200 250
Feet
1 inch = 83 feet

Geodetic North
 Grid North

Author:
Map Produced on: 4/3/2019
 Wisconsin State Plane Coordinate System, South Zone
 Horizontal Datum: NAD27

**Walworth County Information Technology Department
 Land Information Division**
 1800 County Trunk NN
 Elkhorn, Wisconsin 53121-1001

DISCLAIMER: THE INFORMATION PROVIDED ON THIS MAP HAS BEEN PRODUCED AND PROCESSED FROM SOURCES BELIEVED TO BE RELIABLE. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE REGARDING ACCURACY, ADEQUACY, COMPLETENESS, LEGALITY, RELIABILITY OR USEFULNESS OF THIS INFORMATION. THE INFORMATION CONTAINED HEREIN WILL NOT BE ACCEPTED AS AN OFFICIAL DOCUMENT.

A photograph showing a dirt road that branches off to the left from a gravel or paved road in the foreground. The dirt road leads into a dense forest of bare trees. A white sign with black text on a metal post stands on the right side of the dirt road. The sky is clear and blue.

PRIVATE
DRIVE

Agenda Item No.
5e

STAFF REPORT TO PUBLIC WORKS COMMITTEE – 4-9-2019

AGENDA ITEM
Review of City's MS4 Annual Report.
BACKGROUND
Each year the City is required by the DNR to submit an Annual Report for the City's Municipal Separate Storm Sewer System (MS4) Permit. Information required for the permit consists of: Public Education and Outreach; Public Involvement and Participation; Illicit Discharge Detection and Elimination; Construction Site Pollutant Control; Post-Construction Storm Water Management; Pollution Prevention; Storm Sewer Map; and Fiscal Analysis.
FISCAL IMPACT
N/A
STAFF RECOMMENDATION
Update only.
Staff contact: Brad Marquardt 262-473-0139

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

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

Reporting Information

Submittal Type: Annual Report

Project Name:

County: Walworth

Municipality: Whitewater, City

Facility Number: 31439

Reporting Year: 2018

Required Attachments and Supplemental Information

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

Annual Report

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

Municipal Contact Information- Complete

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

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

Municipality Information

Name of Municipality: Whitewater, City

Facility ID # or (FIN): 31439

Updated Information: Check to update mailing address information

Mailing Address: 312 W Main Street

Mailing Address 2:

City: Whitewater

State: Wisconsin

Zip Code: 53190 xxxxx or xxxxx-xxxx

Primary Municipal Contact Person (Authorized Representative for MS4 Permit)

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

Select to **create new** primary contact

First Name: Brad

Last Name: Marquardt

Select to **update** current contact information

Title: Public Works Director

Mailing Address: 312 West Whitewater St

Mailing Address 2:

City: Whitewater

State: WI

Zip Code: 53190 xxxxx or xxxxx-xxxx

Phone Number: 262-473-0139 Ext: xxx-xxx-xxxx

Email: bmarquardt@whitewater-wi.gov

Additional Contacts Information (Optional)

- I&E Program
- IDDE Program

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

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

First Name:

Last Name:

Title:

Mailing Address:

Mailing Address 2:

City:

State:

Zip Code:

xxxxx or xxxxx-xxxx

Phone Number:

Ext:

xxx-xxx-xxxx

Email:

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

Yes No

Public Education and

Outreach: Rock River Stormwater Group

Public Involvement and Participation:

Rock River Stormwater Group

Illicit Discharge Detection and Elimination:

Construction Site Pollutant Control:

Post-Construction Storm Water Management:

Pollution Prevention

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

Yes No

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures- Section 1 : Complete

1. Public Education and Outreach

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

Topic: Detection and elimination of illicit discharges			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Passive print media (brochures at front desk, posters, etc.)</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Active distribution of print media (mailings, newsletters, etc)</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Social media posts</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Website</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Informational booth at event</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Direct one-on-one communication</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

Topic: Management of materials that may cause storm water pollution from automobiles, pet waste, household hazardous waste and household practices			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Website</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Active distribution of print media (mailings, newsletters, etc)</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Informational booth at event</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Social media posts</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Passive print media (brochures at front desk, posters, etc.)</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Direct one-on-one communication</u>	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

Topic: Beneficial onsite reuse of leaves and grass clippings/proper use of lawn and garden fertilizers and pesticides			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Website</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Active distribution of print media (mailings, newsletters, etc)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Passive print media (brochures at front desk, posters, etc.)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

Topic: Management of stream banks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Website</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Passive print media (brochures at front desk, posters, etc.)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Direct one-on-one communication</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Social media posts</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

Topic: Infiltration of residential storm water runoff from rooftop downspouts, driveways and sidewalks			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Website</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Social media posts</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Passive print media (brochures at front desk, posters, etc.)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

<u>Active distribution of print media (mailings, newsletters)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Informational booth at event</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Direct one-on-one communication</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

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

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Website</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable audiences targeted for this topic.

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

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

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Targeted group training (contractors, consultants, etc.)</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Website</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Direct one-on-one communication</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

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

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Did not focus on this topic this reporting year</u>	<u>Select...</u>	<u>Select...</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable audiences targeted for this topic.

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

Topic: Other (describe):

Mechanism

Quantity
(optional)

Est. People Reached
(optional)

Regional Effort?
(optional)

Select...

Select...

Select...

Yes No

Select all applicable audiences targeted for this topic.

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

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

The City is a member of the Rock River Stormwater Group (RRSG) which has an education and outreach program. The 2018 report is attached.

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 2 : Complete

2. Public Involvement and Participation

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

Elected Officials

Presentation of Stormwater Quality Management Plan, Discussion on updating Erosion Control and Storm Water Management Requirements for Municipal Ordinance, Discussion during budget preparation

Municipal Officials

Presentation of Stormwater Quality Management Plan, Discussion on updating Erosion Control and Storm Water Management Requirements for Municipal Ordinance, Discussion during budget preparation

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

Presentation of Stormwater Quality Management Plan, Discussion on updating Erosion Control and Storm Water Management Requirements for Municipal Ordinance, Discussion during budget preparation

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

Topic: Storm Water Management Plan and/or updates			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Presentation of Storm Water Information</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Government Event (Public Hearing, Council Meeting, etc)</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

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

Topic: Storm water related ordinance and/or updates			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Presentation of Storm Water Information</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<u>Government Event (Public Hearing, Council Meeting, etc)</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

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

Topic: MS4 Annual Report			
Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
<u>Presentation of Storm Water Information</u>	<u>Select...</u>	<u>Select...</u>	<input type="radio"/> Yes <input checked="" type="radio"/> No

Select all applicable participants targeted for this topic.

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

Topic: Volunteer Opportunities			
---------------------------------------	--	--	--

Mechanism	Quantity (optional)	Est. People Reached (optional)	Regional Effort? (optional)
Clean-up events	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No
Stream monitoring	Select...	Select...	<input checked="" type="radio"/> Yes <input type="radio"/> No

Select all applicable participants targeted for this topic.

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

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

Select all applicable participants targeted for this topic .

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

c. Brief Public Involvement and Participation program information for inclusion in the Annual Report.

If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

Through RRSg, the City is involved with reaching out to the public for involvement in activities ...

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 3 : Complete

3. Illicit Discharge Detection and Elimination

- a. How many total outfalls does the municipality have? Unsure
- b. How many outfalls did the municipality evaluate as part of their routine ongoing field screening program? Unsure
- c. From the municipality's routine screening, how many were confirmed illicit discharges? Unsure
-
- d. How many illicit discharge complaints did the municipality receive? Unsure
- e. From the complaint received, how many were confirmed illicit discharges? Unsure
- f. How many of the identified Illicit discharges did the Unsure

municipality eliminate in the reporting year?

g. How many of the following enforcement mechanisms did the municipality Unsure use to enforce its illicit discharge ordinance? Check all that apply and enter the number of each used in the reporting year.

- | | |
|---|--------------------------------|
| <input type="checkbox"/> Verbal Warning | <input type="text"/> |
| <input type="checkbox"/> Written Warning (including email) | <input type="text"/> |
| <input type="checkbox"/> Notice of Violation | <input type="text"/> |
| <input type="checkbox"/> Civil Penalty/ Citation | <input type="text"/> |
| <input checked="" type="checkbox"/> No Enforcement Action Taken | <input type="text" value="0"/> |

Additional Information: _____

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

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 4 : Complete

4. Construction Site Pollutant Control

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

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

- | | |
|---|--------------------------------|
| <input checked="" type="checkbox"/> Verbal Warning | <input type="text" value="1"/> |
| <input checked="" type="checkbox"/> Written Warning (including email) | <input type="text" value="1"/> |
| <input checked="" type="checkbox"/> Notice of Violation | <input type="text" value="1"/> |
| <input checked="" type="checkbox"/> Civil Penalty/ Citation | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Stop Work Order | <input type="text" value="1"/> |
| <input checked="" type="checkbox"/> Forfeiture of Deposit | <input type="text" value="0"/> |

- No Authority
- Other - Describe below

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

--

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 5 : Complete

5. Post-Construction Storm Water Management

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

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

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

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

- | | |
|---|--------------------------------|
| <input checked="" type="checkbox"/> Verbal Warning | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Written Warning (including email) | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Notice of Violation | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Civil Penalty/ Citation | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Forfeiture of Deposit | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Complete Maintenance | <input type="text" value="0"/> |
| <input checked="" type="checkbox"/> Bill Responsible Party | <input type="text" value="0"/> |
| <input type="checkbox"/> No Authority | <input type="text"/> |
| <input type="checkbox"/> Other - Describe below | <input type="text"/> |

d. Brief Post-Construction Storm Water Management program information for inclusion

in the Annual Report . If your response exceeds the 200 character limit, attach supplemental information on the attachments page.

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 6 : Complete

6. Pollution Prevention

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

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

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

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

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

- i. Did the municipality conduct street sweeping/cleaning during the reporting year?
 Yes No Unsure
- j. If known, how many tons of material was removed? Unsure
- k. Does the municipality have a low hazard exemption for this material? Yes No
- l. If street cleaning is identified as a storm water best management practice in the pollutant loading analysis, was street cleaning completed at the assumed frequency?
 Yes

- No - Explain _____
- Not Applicable

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

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

Collection Services - *Leaf Collection Program* Not Applicable

- r. Does the municipality conduct curbside leaf collection?
 Yes No Unsure
- s. Does the municipality notify homeowners about pickup?
 Yes No Unsure
- t. Where are the residents directed to store the leaves for collection?
 Pile on terrace Pile in street Bags on terrace Unsure
 Other - Describe _____
- u. What is the frequency of collection?
2 weeks in fall 2 weeks in spring
- v. Is collection followed by street sweeping/cleaning?
 Yes No Unsure

Winter Road Management Not Applicable

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

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

Product	Oct	Nov	Dec	Jan	Feb	Mar
<u>Salt/sand mix</u>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="87"/>	<input type="text" value="367"/>	<input type="text" value="65"/>

Liquids (gallons) (ex. brine)

	Oct	Nov	Dec	Jan	Feb	Mar
<u>Brine</u>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="3750"/>	<input type="text" value="3700"/>	<input type="text" value="1900"/>

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

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

Minnesota Pollution Control

When: Aug 15, 2018

How many attended: 1

Internal (Staff) Education & Communication

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

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

When:

How many attended:

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

Missing Information

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

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

Form 3400-224 (09/17)

Minimum Control Measures - Section 7 : Complete

7. Storm Sewer System Map

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

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

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

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

Missing Information

Do not close your work until you SAVE.

Form 3400-224 (09/17)

Final Evaluation - Complete

Fiscal Analysis

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

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

Element: Public Education and Outreach

31000	31000	31000	<u>Storm water utility</u>
-------	-------	-------	----------------------------

Element: Public Involvement and Participation

2500	2500	2500	<u>Storm water utility</u>
------	------	------	----------------------------

Element: Illicit Discharge Detection and Elimination

2000	2000	2000	<u>Storm water utility</u>
------	------	------	----------------------------

Element: Construction Site Pollutant Control

38000	38000	38000	<u>Storm water utility</u>
-------	-------	-------	----------------------------

Element: Post-Construction Storm Water Management

835000	719000	152500	<u>Storm water utility</u>
--------	--------	--------	----------------------------

98500	98500	0	<u>Grants</u>
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Element: Pollution Prevention

114000	114000	109000	<u>Storm water utility</u>
--------	--------	--------	----------------------------

Element: Storm Water Quality Management

485700	485700	348000	<u>Storm water utility</u>
--------	--------	--------	----------------------------

Element: Storm Sewer System Map

2000	2000	2500	<u>Storm water utility</u>
------	------	------	----------------------------

Other (describe)

Select...

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

no grant money in 2019

Water Quality

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

Yes No Unsure If Yes, explain below:

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

Yes No Unsure If Yes, explain below:

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

Yes No Unsure

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

Yes No Unsure

Additional Information

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

Do not close your work until you SAVE.

Form 3400-224 (09/17)

Requests for Assistance on Understanding Permit Programs

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

Please select all that apply:

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

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

Required Attachments and Supplemental Information

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

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

*Required Item

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

Storm Sewer System Map

 File Attachment

[StormwaterUtilityMap2018.pdf](#)

Attach Documents

AR EOFIN

 File Attachment

[2018FinalReportwithupdatedsummary.pdf](#)

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

Missing Information

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

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

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

Sign and Submit Your Application

Steps to Complete the signature process

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

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

Terms and Conditions

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

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

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

Authorized Signature.

- I accept the above terms and conditions.

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

AGENDA ITEM
Update on drainage along Walworth Avenue east of Indian Mound Parkway.
BACKGROUND
At the January Public Works meeting, the committee asked staff to investigate a drainage issue involving the sidewalk along Walworth Avenue. With the snowmelt, staff was able to witness the issue and execute a plan to alleviate the flooding of the sidewalk. City crews were able to regrade a section of the area between the sidewalk and Walworth Avenue to provide positive drainage to the catch basin at the intersection of Walworth Avenue and Indian Mound Parkway.
FISCAL IMPACT
This work was done by City crews.
STAFF RECOMMENDATION
Update only.
Staff contact: Brad Marquardt 262-473-0139



