Wisconsin Pollutant Discharge Elimination System Permit for Municipal Separate Storm Sewer System, Permit No. WI- S050059-4: Fact Sheet – December 2025

Purpose

There are 7 municipally owned or operated municipal separate storm sewer systems (MS4s) in Wisconsin covered under Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI- S050059-3. This permit is also referred to as the Root River Group Permit. The WPDES permit expired on September 9, 2018. The Wisconsin Department of Natural Resources (Department) is proposing to reissue WPDES Permit No. WI- S050059-4 to continue the coverage of storm water discharges from these 7 MS4s. The proposed permit requires each MS4 Permittee (also referred to as the Permittee(s)) to develop, implement, and maintain storm water management programs to reduce the discharge of pollutants from the MS4 to waters of the state.

The 7 Root River Group Permittees affected by this proposed permit are listed below.

City of Racine
City of New Berlin
City of Franklin
Village of Greendale
Village of Hales Corners
Village of Mount Pleasant
Village of Caledonia

This fact sheet summarizes the Department's process and rationale for developing and issuing the Root River Group MS4 permit.

The Department's Authority to Issue WPDES Permits

This permit is issued under the statutory authority granted to the Department pursuant s. 283.33, Wis. Stats. (Storm water discharge permits) and implements applicable federal and state law relating to MS4s. The specific federal requirements for MS4 permits are found in 33 U.S.C. § 1342 (p)(3)(b) and 40 CFR § 122.26. The specific state requirements for MS4 permits are found in subch. I of ch. NR 216, Wis. Adm. Code.

The Department's Regulation of Storm Water from the MS4

In Wisconsin, WPDES permits are issued by the Department with federal oversight from the United States Environmental Protection Agency (USEPA). The Department is responsible for the issuance, reissuance, modification, and enforcement of all WPDES permits issued for discharges into the waters of the state, except discharges occurring in Indian Country which are regulated directly by the USEPA. No person may legally discharge to waters of the state without a WPDES permit issued under this authority.

In 1987, Congress amended the Clean Water Act (CWA), authorizing a national program of comprehensive storm water pollution control for MS4s, certain industries, and construction sites. In 1993, ch. 147, Wis. Stats., (now ch. 283, Wis. Stats.) was amended to include storm water as a "point source" discharge and to require that the Department promulgate administrative rules for permitting the discharge of storm water. As a result, the Department created ch. NR 216, Wis. Adm. Code, for permitting storm water discharges from certain municipalities that own or operate MS4s, storm water

discharges associated with industrial activity, and storm water discharges associated with land disturbing construction activity.

General Approach to Permit Development

In November 2016, the USEPA promulgated the MS4 General Permit Remand Rule (40 CFR Part 122). The USEPA amended its regulations governing how small MS4s obtain coverage under NPDES general permits. In addition to establishing two alternative approaches to obtaining permit coverage, the rule clarifies that the permitting authority must establish the necessary "clear, specific, and measurable goals" for the MS4 to "reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act." Referred to as the "MS4 permit standard," both approaches ensure that the public participation requirements of the CWA are met. The Department is applying the Comprehensive approach to issue this group permit. Under the Comprehensive approach, all requirements are contained within the permit.

Permit conditions were developed to meet the MS4 permit standard: reduce pollutants to the maximum extent practicable (MEP), protect local water quality, and meet CWA Standards. This permit requires continued implementation of the six minimum control measure programs, establishing, working towards, and evaluating measurable goals for each of the six minimum control measure programs, and, for applicable Permittees (City of New Berlin and Village of Greendale), development a storm water management plan to make progress towards the reduction goals outlined in Department and USEPA approved TMDLs. Permittees satisfy the MS4 permit standard through successful implementation of the storm water management programs and compliance with the WPDES permit.

This permit incorporates USEPA's clarification on permit requirements, specifically to address 40 CFR § 122.34 (a), that "[t]erms and conditions . . . must be expressed in clear, specific, and measurable terms." To accomplish this, permit provisions that included caveat terms such as "if feasible" or "as necessary" are revised to provide more clarity on when a specific action is required.

Additionally, in December 2015, the USEPA promulgated the NPDES Electronic Reporting Rule (40 CFR Parts 9, 122, 123, 124, 127, 403, 501, and 503). This regulation requires the electronic reporting and sharing of NPDES program information. The USEPA identifies specific NPDES information, or data elements, that NPDES permitting authorities, such as the Department, are to electronically collect, manage, and share with the USEPA. The Department's electronic reporting system was built to collect these data elements. The Permittee can locate the eReporting system here: https://dnr.wi.gov/topic/stormwater/municipal/eReporting.html.

The Department considered annual reports, storm water management plan documents, and responses to the request for information provided by the Permittees when developing the permit conditions. An initial meeting was held with all of the Permittees to discuss permit conditions. Additional correspondences with the Permittees subsequently occurred to further discuss requirements. The following document provides an explanation for major permit requirements and summarizes changes from the previous permit.

Applicability

This permit applies to the seven MS4s listed on the cover page of the permit. No new MS4s are covered by the reissued permit.

Overview and Significant Changes from the Previous Version of the Permit

The proposed permit includes the conditions required by s. NR 216.07, Wis. Adm. Code, which consist of the following six categories, or minimum control measures:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Pollutant Control
- Post-Construction Storm Water Management
- Pollution Prevention

This proposed permit follows federal and state requirements and provides flexibility for the Permittees to develop, implement, maintain, and evaluate its MS4 programs to help determine appropriate methods for meeting permit requirements. This proposed permit allows a Permittee to comply with the permit requirements either individually or in collective arrangement with other Permittees. Each Permittee is responsible for meeting all the applicable requirements for its own MS4. However, Permittees may find that collectively pooling resources will be more efficient and cost-effective to comply with certain requirements.

This proposed permit requires the Permittees to maintain its programs developed and implemented under the previous version of the Root River Group Permit, update implementation where needed to comply with permit conditions, summarize efforts toward meeting the permit requirements in an annual report, and submit materials for the follow permit reissuance. In addition, this proposed permit continues to require compliance with the developed urban area performance standard of s. NR 151.13, Wis. Adm. Code. A summary of the most significant changes from the previous version of the Root River Group Permit and additional clarity is provided below.

Permit Structure

The permit is broken down into seven sections. Section I outlines the applicability and general storm water permit requirements. Sections II and III include the storm water program requirements and Total Maximum Daily Load (TMDL) requirements for the City of New Berlin and Village of Greendale. Section IV contains a schedule of when specific permit requirements must be completed. Section V and VI are standard conditions and definitions, respectively. Lastly, Section VII contains the reduction goals for Total Suspended Solids (TSS) and Total Phosphorus (TP) from the Milwaukee River TMDL for the City of New Berlin and Village of Greendale.

I. Applicability

The proposed permit does not add additional requirements to this section. However, some conditions have been expanded or added for additional clarity. Clarification of these conditions are described below.

I.A. Permitted Area

The permit covers all areas within the jurisdictions of the Permittees. If a Permittee acquires new areas (e.g., annexation) during the term of the permit, these new areas are now considered the jurisdiction of the Permittee, and the permit conditions would apply to these areas.

I.B. Authorized Discharges

Each Permittee is required to implement best management practices in its permitted area to reduce its discharge of storm water pollution to waters of the state. Through implementing these best management practices, each Permittee is authorized to discharge storm water point source discharges from its MS4 to waters of the state.

Permit section II.C.1 requires each Permittee to have a municipal ordinance or other regulatory mechanism that prohibits illicit discharge, spilling, or dumping of non-storm water substances or material into the Permittee's MS4 or waters of the state. The municipal ordinance or other regulatory mechanism must also identify non-stormwater discharges or flows that are not considered illicit discharges (e.g., discharges from potable water sources, foundation drains, and air conditioning condensation that are not significant sources of pollutants to waters of the state).

Non-stormwater discharges to a Permittee's MS4 which are not considered illicit (e.g., discharges from potable water sources, foundation drains, and air conditioning condensation that are not significant sources of pollutants to waters of the state) and storm water discharges from regulated WPDES permittees (e.g., storm water associated with an industrial storm water permittee) are authorized to be discharged to the Permittee's MS4. [1]

Though these discharges are authorized, they may not be illicit. If a Permittee discovers an illicit discharge originating from an authorized source (e.g., from a regulated WPDES permittee), the Permittee is expected to implement its Illicit Discharge Detection and Elimination program according to Permit Section II.C.

I.C and I.D Individual and Shared Responsibility

For additional clarity, the proposed permit separated the previous permit condition (Section 1.3. Cooperation) into two conditions: Section I.C. Individual Responsibility and Section I.D. Shared Responsibility.

I.J. Impaired Waters

The previous Root River Group MS4 permit included Total Maximum Daily Load Requirements within this Impaired Waters Section. However, as this proposed permit relocates Total Maximum Daily Load Requirements to a new section (Section III), this section now only includes requirements for waters listed as impaired on the 303(d) list but are not within an approved TMDL or have established TMDL wasteload allocations (WLAs).

Similar to the previous permit, each Permittee is required to determine whether any part of its MS4 discharges to a listed impaired waterbody and where so, 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 each pollutant of concern that contributes to the impairment of the waterbody.

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[1] The Department's statewide website can assist in identifying regulated WPDES permittees that may discharge into the Permittee's MS4: https://uadnrmaps.wi.gov/H5/?viewer=SWPV. The Permittee should also identify all WPDES permittees in its jurisdiction as required by Permit Section II.H.

As communities expand, alteration of the land by development can increase the discharge of pollutants such as oil and grease, heavy metals, and nutrients. Each Permittee must meet design criteria for new and redevelopment and implement pollution prevention practices as described in their stormwater management plan to not establish a new or increased MS4 discharge of a pollutant of concern to an impaired waterbody.

II. Storm Water Management Programs

This permit requires development of written storm water management program (SWMP) documents describing how each Permittee will comply with the permit's requirements for each of the six minimum control measures, consistent with s. NR 216.07, Wis. Adm. Code. This is not a new requirement, but rather a clarification because the previous permit did not require written program documents. As explained in the USEPA Rule Remand, "the written SWMP provides [the Department] something concrete to review to understand how the MS4 will comply with permit requirements and implement its storm water management program."[2] This also provides an opportunity for the Department to assess compliance with the permit requirements. Each Permittee is expected to develop written documents if they do not already exist and submit them to the Department. Existing and new SWMP documents describing the Permittee's approach to each minimum control measure must be submitted to the Department by December 1, 2027. As written program procedures are required for each of the six stormwater management programs, written program procedures will not be discussed within each of the six stormwater program sections described later within this factsheet. Permittees should reference this section for assistance or contact its local stormwater specialist.

This permit also contains measurable goal requirements. Like written storm water management program documents measurable goals are not new requirements, but conditions surrounding measurable goals has changed.

To provide additional clarity, an explanation of measurable goals, measurable goal requirements for this permit term, and example measurable goals is provided below. Permittees should reference this section for assistance or contact its local stormwater specialist. Additional information and resources, including example written program procedures, can also be found on the Department's MS4 Best Management Practices Menu: MS4 Best Management Practices Menu | | Wisconsin DNR.

Measurable Goals

The MS4 permit lists specific conditions each Permittee must implement to better the quality of its stormwater discharge. Implementation of these specific conditions are best management practices known to reduce and/or eliminate stormwater pollutants, regardless of the municipality. For example, to reduce the discharge of sediment and construction materials from construction sites, the permit requires each Permittee to inspect construction sites and take action to address noncompliance.

However, as each MS4 Permittee is unique (i.e., municipalities face different stormwater challenges, have different resources and needs, and implement stormwater activities differently), the MS4 permit also requires each Permittee implement actions to reduce its discharge of stormwater pollutants to the maximum extent practicable (or "MEP" – part of the MS4 permit standard). This effort is accomplished in part by establishing and working towards program measurable goals.

[2] 81 Federal Register 89339, December 9, 2016.

Further explanation is provided below but, for this permit term, each Permittee is required to:

- Satisfy the specific measurable goal identified in permit Section II.A.2.
- Submit with its reapplication for permit coverage materials (permit Section II.K.3), proposed measurable goals for each of its six storm water management programs. As each Permittee has six programs, each Permittee should propose at least six measurable goals – one for each of its programs.

Permit Section II.A.2 Measurable Goal

During the initial meeting with the Permittees, potential measurable goals were discussed. Through this discussion, a common measurable goal for this permit term was created. The condition is listed below for reference.

> *At least three times during the permit term, each Permittee, or its authorized agent, shall provide education to representatives of the Permittee's community, such as its city council or village board, to inform them of storm water problems, solutions, and watershed plans within its community. Each Permittee shall develop and submit a report summarizing each education event. The summary document shall describe the provided education (i.e., topics), date of the meetings, name or title of attendees present at each meeting, and general assessment of each meeting's outcome. The report shall be submitted with the Reapplication Materials, due June 3, 2030. Changes to the authorized agent requires advanced notice to the Department.*

In summary, because community representatives, such as members of a village board or city common council, may be unfamiliar with storm water problems, solutions, and watershed plans within its community, the intent of this measurable goal condition is to inform these representatives so they can make informed decisions. While Permittees are required to inform their representatives, the permit provides flexibility in implementations.

In accordance with permit section I.D. Shared Responsibility, Permittees may collaborate with other Permittees and/or other groups or organizations provided all of the conditions listed within the Shared Responsibility section are met. At the time of permit reissuance, each Permittee contracted with Root-Pike Watershed Initiative Network (WIN). Therefore, Root-Pike WIN is an authorized agent for each Permittee. Permittee may choose to utilize Root-Pike WIN to satisfy this condition without approval from the Department. However, if the Permittee intends to change its authorized agent, the Permittee shall provide the Department advanced notice.

Lastly, while Permittees are allowed to utilize Root-Pike WIN, in accordance with permit section I.C. Individual Responsibility, each Permittee is responsible for demonstrating permit compliance. Therefore, all Permittees, regardless of the entity utilized to inform community representatives, shall implement and submit compliance documents as required by the permit.

> ***Permit Section II.K.3 (and permit sections II.A.3, II.B.2, II.C.3, II.D.3, II.F.6) Submit proposed measurable goals for each of its six storm water management programs***

As previously mentioned, each Permittee is required to submit proposed measurable goals for each of its six storm water management programs. As each Permittee has six programs, each Permittee should propose at least six measurable goals – one for each of its programs. The proposed measurable goals are due with the reapplication for permit coverage materials. The Department will consider the proposed measurable goals and other information submitted with the reapplication package to develop the next permit.[3]

To help Permittees propose measurable goals, example measurable goals, how they can be identified, actions that could be taken, and how they can be measured are provided below. As previously stated, measurable goals should drive action which encourages enhancement of the Permittee's own program and consequently, further reduce its stormwater pollutants to the MEP. Given this, each Permittee is suited to identify potential improvements and establish measurable goals for its own programs. However, Permittees may collaborate and propose common measurable goals, such as the measurable goal condition required by this permit or, collaborate and propose shared measurable goals that could be implemented together. For example, if neighboring Permittees share a common public education need, these Permittees may propose a shared measurable goal and work together towards meeting the shared goal.

Seen in the provided examples below, measurable goals may be simple or complex, based on a known or perceived need or want, or expand upon required permit conditions. It is important for the goal to be measurable so the Permittee can determine if its actions taken to reach its goal was successful. If the goal was reached, the Permittee may determine its actions were successful and continue to implement similar actions in the future. However, if the goal was not reached, the Permittee may determine alternative actions are necessary. To make a goal measurable, MS4 Permittees may set a quantitative goal (i.e., number based) or qualitative goal (i.e., narrative based). The examples below provide both quantitative and qualitative measurable goals for reference.

Example of Measurable Goals, Methods to Identify, Actions to Take, and Metrics to Measure Success

Example 1: If a Permittee identifies that noncompliance issues at construction sites are not resolved in a timely manner, it may identify this as an area for improvement and set a measurable goal that 50% or more noncompliance sites return to compliance within 24 hours. To achieve this goal, the Permittee may choose to implement a variety of actions such as providing education to construction applicants during plan review, utilizing more enforcement, conducting more inspections, etc. To measure the success of this ***quantitative*** measurable goal, the Permittee should count the number of noncompliance sites that returned to compliance within 24 hours after implementing its chosen actions. If 50% or more noncompliant sites returned to compliance within 24 hours, the Permittee may determine its actions were suitable. If less than 50% of noncompliant sites returned to compliance within 24 hours, the Permittee may determine alternative actions are necessary to achieve its goal.

Example 2: If a Permittee collecting residential leaves observes potted plants and other vegetation are placed within residential leaf piles, it may identify this as an area for improvement and set a measurable goal of reducing the amount of potted plants and other vegetation observed within residential leaf piles. To achieve this goal, the Permittee may choose to implement a variety of actions

[3] Consistent with ss. NR 216.01 and 216.07, Wis. Adm. Code.

such as providing passive education to residents via its website/newsletter/social media/door hangers, providing active education via in-person education events, sending notice of violation letters to offending residents, etc. To measure the success of this ***qualitative*** measurable goal, the Permittee could ask leaf collection staff if they observe less potted plants and other vegetation, assign someone to assess potential improvement by observing the residential leaf piles, or count the amount of potted plants/other vegetation pre- and post- actions. If the Permittee assessment indicates its actions successfully met its goal, the Permittee may determine its actions were suitable. If the Permittee assessment indicates its actions did not successfully meet its goal, the Permittee may determine alternative actions are necessary to achieve its goal.

Example 3: A Permittee recently adopted a downtown redevelopment plan which has a large focus on aesthetics. To encourage downtown visitors to keep the area clean, the Permittee plans to install educational signage and/or install waste containers. As the Permittee already intends to implement these activities, the Permittee may choose to utilize these actions for a program measurable goal.

> The Permittee may set a ***quantitative*** goal of installing a certain amount of signage or waste containers and, to measure its success, count the number of signs or waste containers installed. If the Permittee met its goal, they may choose to establish another measurable goal such as this in the future. If the Permittee did not achieve its goal, it should determine what additional steps are needed in the future to achieve the goal.
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> The Permittee may also set a ***qualitative*** goal of reducing the amount of litter observed in the downtown area. To achieve this goal, the Permittee may choose to install educational signage or waste containers. To measure its success, the Permittee could observe litter pre- and post-installation. If the Permittee assessment indicates its actions successfully met its goal, the Permittee may determine its actions were suitable. If the Permittee assessment indicates its actions did not successfully meet its goal, the Permittee may determine alternative actions are necessary to achieve its goal.

Example 4: If a Permittee cannot identify a measurable goal based on a known or perceived need (Example 1 and 2) or want (Example 3), the Permittee may choose to set a measurable goal based upon existing permit conditions. For example, the permit requires implementation of specific conditions because they are known best management practices (e.g., screening outfalls is a known best management practice to identify potential illicit discharges). Using outfall screenings as an example, the Permittee may choose to increase its outfall screening frequency or screen additional outfalls so it may identify potential illicit discharges that may otherwise been missed.

II. A. Public Education and Outreach

The previous permit required the Permittees to increase the awareness of storm water pollution impacts. Each Permittee was to address all education topics at least once during the permit term and educational activities were to be directed at target audiences that are appropriate for each topic. The Permittees participated in Root-Pike Watershed Initiative Network's (WIN) Respect Our Waters campaign to provide broad education and outreach to the entire Root-Pike watershed along with other MS4 permittees located within the watershed.

Similar to the previous permit, the reissued permit also requires educating on each topic identified in the permit at least once during the permit term and continues to allow incorporative cooperative efforts with other entities not regulated by this permit (e.g., Root-Pike WIN). However, unlike the previous permit, this permit requires addressing at least 3 topics each year and using at least two Active/Interactive Mechanisms each year. Similar to the previous permit, Permittees should also identify the targeted audience. However, for each topic addressed, Permittees are now required to identify the delivery mechanism, targeted pollutant, and the entity responsible for implementation (e.g., Permittee staff or other entity such as Root-Pike WIN). These additional requirements are consistent with other MS4 permits across the state.

As previously described, the reissued permit requires each Permittee work towards the established measurable goal condition. Permittees may satisfy this condition independently, collaborate with each other and/or utilize its authorized agent, Root-Pike WIN, to satisfy this condition. However, each Permittee is responsible for demonstrating compliance with this condition. Meaning, each Permittee shall ensure its community representatives are informed about storm water problems, solution, and watershed plans within its community at least three times during the permit term. Furthermore, each Permittee is responsible for submitting a summary document which describes the provided education (i.e., topics discussed), date of meetings, name or title of attendees present at each meeting, and general assessment of each meeting's outcome. For example, if discussing road salt reduction strategies, the general outcome could describe questions or comments provided by the community representatives and/or explain efforts taken/intended to be taken as a result from the meeting. For example, after presenting on the community's road salt reduction strategy, community representatives requested historical salt usage for its community compared to WisDOT recommended guidelines.

The permit does not require specific information be provided to community representatives nor does it require specific information for the general assessment summary. This is to provide the Permittees flexibility in implementation which also allows for relevant topics or topics unique to the community to be discussed.

Examples of Active and Passive Public Education and Outreach Delivery Mechanisms

Active/Interactive Mechanisms	Passive Mechanisms
• Educational activities (school presentations, summer camps) • Informational booth at event • Targeted group training (contractors, consultants, etc.) • Government event (public hearing, council meeting) • Workshops • Tours • Other	• Passive print media (brochures at front desk, posters, etc.) • Distribution of print media (mailings, newsletters, etc.) via mail or email • Media offerings (radio and TV ads, press release, etc.) • Social media posts • Signage • Website • Other

*This Table is also provided within the permit – See Table 2 within the permit.

II. B. Public Involvement and Participation

The previous permit required Permittees to encourage public participation and encourage target audiences to provide input and participation in activities required by the permit where appropriate. The new permit contains similar requirements but identifies the specific activities for public input and participation. Each Permittee must allow for public comment and consider comments on annual

reports, storm water management plan revisions, adoption of storm water related ordinances, and development of benchmarks for TMDL pollutant reduction for the applicable Permittees (City of New Berlin and Village of Greendale). Lastly, to satisfy the eReporting Rule, each Permittee needs to track and report the delivery mechanism and target participants for each activity.

Note: The Public Education and Outreach program and the Public Involvement and Participation Program were combined within the previous permit (permit section 3.1). As these are two separate programs, the proposed permit separated these programs (permit section II.A and II.B, respectively).

II. C. Illicit Discharge Detection and Elimination (IDDE)
All Permittees have implemented the Illicit Discharge Detection and Elimination (IDDE) program since they first obtained their MS4 permits. The reissued permit builds upon the existing program but provides more clarity to measurable goals, specific response actions, and greater emphasis to the elimination component of the IDDE program.

Both the existing and reissued permits require each Permittee to have an ordinance or regulatory provision which prohibits non-storm water discharges into the MS4 system or waters of the state. The ordinance, coupled with inspection and enforcement authority, is necessary for each Permittee to prevent illicit discharges or improper disposal. As these are existing requirements, the Department expects each Permittee to already be enforcing an ordinance or regulatory mechanism.

Dry Weather Outfall Screening
Dry weather field screening remains an effective way to identify illicit discharges or which storm water pipes may have illicit connections. Dry weather screenings should occur when flow should not be present. Typically, this is 48-72 hours after a rain event. However, based on the precipitation event and size of drainage area, the amount of time may change.

Dry Weather Outfall Screening: Visual Observations and Field Analysis
Outfall screening consists of visual observation, field analysis, documentation, and potentially lab analysis. Each Permittee should have an inspection form or similar document to record the results of visual observations and field analysis results. If flowing water is observed at the outfall, a field analysis should be conducted to determine the source of the flow and the appropriate parameter action levels followed. If general observations and screening indicate the presence of illicit discharge and the source cannot be readily identified, the Permittee should collect a water sample for lab analysis. The water sample should then be analyzed for parameters to aid in determining the source of illicit discharge. Though it may not be necessary for the Permittee to utilize a laboratory for additional analysis, the Permittee shall include the name and location of a laboratory it intends to utilize, when necessary, in its written program procedure. One reason for identifying a laboratory is to mitigate potential delays in determining the source of the illicit discharge. However, as Permittees may require a certified lab sample to pursue escalated enforcement, identifying its intended laboratory should also help mitigate delays.

Documentation of field screening activities should be kept for at least 5 years and a summary of the results should be submitted with the annual report.

As with the previous permit, each Permittee needs to identify pollutant parameter action levels used during outfall screening. Based upon the sampling result for a specific pollutant, the Permittee may

need to take additional action. For example, the concentration of phenols detected at the outfall may require the Permittee to collect a sample for lab analysis and complete a sewer shed investigation to find the source. Other times, only follow-up monitoring is needed. The Permittee has the flexibility to determine the action levels and corresponding response steps, provided the pollutants and specified parameter action levels are identified in the written IDDE field screening procedures or other similar document. The Department has developed guidance[4] to assist with developing parameter action levels, and Permittees are encouraged to adapt its IDDE programs based upon the results of screening and characteristics of the sewer sheds. The IDDE field screening procedures or other similar document shall also explain when a certified lab sample needs to be collected, as these are more accurate and hold greater weight during enforcement.

Dry Weather Outfall Screening: Location and Frequency

Prioritization of outfalls to screen is an effective practice to identify illicit discharges and eliminate the pollutant loads. As with the previous permit, this permit calls for screening MS4 outfalls. However, screening location and frequency has changed. The table below compares the previous and proposed permit outfall screening requirements.

As MS4 outfalls have not been reassessed for many years, the reissued permit does not require major or priority outfall screenings during the first outfall screening season of the permit (i.e., major and priority are not required to be screened during the 2026 outfall screening season). As the effective date of the permit is December 1, 2025, Permittees shall begin screening major and priority outfalls no later than the second year's outfall screening season (i.e., major and priority outfalls are required to be screened during the 2027, 2028, 2029, and 2030 outfall screening seasons). The permit requires screening at least 25 percent of all major and priority outfalls each year, starting no later than the second year's outfall screening season, so that by the end of the permit term all major and priority outfalls have been screened. However, outfalls which exhibited signs of an illicit discharge during the previous screening year shall be rescreened the following year. Additional explanation of this re-screening requirement is provided below.

Previous Permit (WI-S050059-3)	**Proposed Permit (WI-S050059-4)**
	Starting no later than the second year's outfall screening season (2027), 25% of all Major Outfalls each year, so that at the end of the permit term all major outfalls have been screened.
Priority Outfalls at least once each year.	Starting no later than the second year's outfall screening season (2027), 25% of all Priority Outfalls each year, so that at the end of the permit term all priority outfalls have been screened.
Outfall which exhibited signs of an illicit discharge, but the source was not located shall be added to the list of priority outfalls. Priority outfalls shall be screened each year.	Starting at the permit effective date, any MS4 outfall which exhibited signs of an illicit discharge during the previous year shall be screened the following year.

[4] The Department's IDDE Guidance can be accessed here: https://dnr.wisconsin.gov/topic/Stormwater/publications.html

Major Outfall

Consistent with s. NR 216.07(3)(i) Wis. Adm. Code, this permit requires routine screening of major outfalls. Though the previous permit did not require routine screening of major MS4 outfalls, major outfalls may have been routinely screened if they were considered a priority outfall. As previously mentioned, each Permittee is provided time to reassess its MS4 outfalls. Consequently, starting no later than the second year's outfall screening season, each Permittee is required to screen at least 25% of all of its major MS4 outfalls each year, so that by the end of the permit term all major outfalls have been screened.

For additional clarity, each Permittee shall screen at least 25% of its major outfalls during the 2027, 2028, 2029, and 2030 outfall screening seasons.

Priority Outfalls

Where the previous permit required screening of priority outfalls each year, this permit requires each Permittee to begin screening priority outfalls no later than the second year's outfall screening season. As previously mentioned, Permittees are not required to routinely screen priority outfalls during the first screening season as it is expected Permittees will take this time to reassess its MS4 outfalls. Thus, starting no later than the second year's screening season, all Permittees shall screen at least 25% of all priority outfalls so that by the end of the permit term, all priority outfalls have been screened.

For additional clarity, each Permittee shall screen at least 25% of its priority outfalls during the 2027, 2028, 2029, and 2030 outfall screening seasons.

Priority outfalls may be any municipal outfall (not just major outfalls) which the Permittee has identified as priority. Unlike major and minor outfalls, priority outfalls are not solely based on pipe size or drainage area and are determined by the Permittee. As described within the Department's IDDE Guidance[5], Permittees may consider factors such as illicit discharge potential in the contributing drainage area or past illicit discharge complaints to identify an outfall as priority. However, Permittees may identify priority outfalls based on other factors. For example, if a Permittee has not conducted routine outfall screenings in a specific drainage area, they may choose an outfall within that area to identify as priority.

Lastly, this permit requires the Permittee to include a list of its priority outfalls and rationale used to determine the priority status within its written program procedure due two years after permit reissuance.

Re-Screening Outfall with Previous Signs of Illicit Discharge

Consistent with the previous permit, any outfall which exhibits signs of an illicit discharge (i.e., based on visual and/or field analysis results), should be investigated and, if the source is identified, the Permittee must take action to eliminate the source as expeditiously as possible. However, permit requirements have changed for when the source of the illicit discharge is not located.

Rather than adding these outfalls to the Permittee's priority list, this permit requires any outfall which exhibited signs of an illicit discharge to be rescreened the following year, regardless of the initial year's investigation result. In other words, even if the Permittee was successful in identifying and eliminating the illicit discharge during the initial year, the Permittee should re-screen that outfall the following year. This rescreening requirement ensures outfalls with undetermined illicit sources are

further investigated and should confirm identified illicit sources were successfully eliminated and/or are not reoccurring. Additional details are provided below for clarity.

If the Permittee was successful in identifying and eliminating the illicit discharge during the initial year, re-screening this outfall the following year should confirm the illicit discharge was successfully eliminated and/or has not reoccurred. Conversely, if the Permittee was not successful in identifying the illicit discharge during the initial year, re-screening this outfall the following year may result in more investigation.

If the re-screening results no longer exhibit signs of an illicit discharge, the Permittee is not required to re-screen that outfall the following year. However, if the re-screening results exhibit signs of an illicit discharge, the Permittee is required to begin its investigation, and, regardless of investigation results, re-screen that outfall the following year.

MS4 Outfall Map and Priority Rationale:

Unlike the previous permit, this permit requires each Permittee to include within its written program procedure an MS4 Outfall Map and a list of its priority outfalls with the rationale used to determine the priority status. While the Permittee may provide this information as they see fit, one consideration would be to provide this information on a table that corresponds with the MS4 Outfall Map. Including additional information, such as outfall screening schedule, may also be beneficial to the Permittee. For example, a table may consist of the following information:

MS4 Outfall Number	**Major, Minor, Priority *If Priority, Determination Used**	**Screening Year Scheduled**
1	Major	2029
2	Major	2027
3	Priority: Historic illicit discharge complaints.	2028
4	Priority: Residential but contains vehicle repair shops.	2029
5	Priority: Inquiry - drainage area not been part of past routine screenings	2028

Enforcement Response

Section II.C.2.c) of the new permit requires development of an enforcement response plan that documents how the Permittee will enforce its illicit discharge ordinance once an illicit contributor is identified. The enforcement response plan is intended to provide clarity and consistency in enforcement actions the Permittee will complete once an illicit discharge is identified. The enforcement response to all identified illicit discharges may not be the same (e.g., consider illegal dumping verses cross connections), so Permittees may identify specific actions for all illicit discharges or identify actions for certain types of discharges. The enforcement response plan must also identify the person responsible for responding to illicit discharge reports.

Investigation and Elimination Procedures

Where enforcement response procedures outline how the ordinance is enforced once an illicit contributor is identified, the investigation and elimination procedures outline the actions the Permittee will take to respond when illicit discharges are suspected or identified through screening, notification, complaints, or other sources. Each Permittee should have procedures for immediately investigating portions of the MS4 suspected to contain illicit discharge based upon field screening, complaints, visual observation or other relevant information. These procedures shall identify the person responsible, the response time, investigation techniques to employ, and equipment necessary. Each Permittee must also have a plan for responding to spills which discharge into or out of the storm sewer, including prevention and containment. For public sources, this can mean beginning to take steps to stop the illicit discharge. For private sources, this can mean beginning to use the enforcement response procedures (written notice, notice of noncompliance letter (NON), etc.).

Similar to the previous permit, this permit requires the Permittees to eliminate identified illicit discharges or connections. However, this permit no longer requires the identified illicit discharge or connection to be removed within 30 days because the Department recognizes there may be situations where eliminating the illicit discharge or connection will take time. For example, if a force main is leaking into a storm sewer under a major roadway, significant resources and time may be needed to plan and complete the repair. As such, this permit includes a new requirement to notify the Department if an identified illicit discharge will take more than 30 days to eliminate. This notification is required to occur within 45 days of discovery of the illicit discharge.

The written investigation and elimination procedures should also include specific notification procedures. Though these notification procedures are not new to the permit, the requirement to describe how the Permittee implements its notification procedures within the written program is new. Each Permittee shall include in its written program procedure a requirement to immediately notify the Department within 24 hours of identifying a spill or release of hazardous substance into or from its MS4. Advance notification of dye testing is also required because dyes are often confused with illicit dumping. Finally, each Permittee should contact an adjacent MS4 if it identifies an illicit discharge which flows into an adjacent MS4 or identifies an illicit discharge originating from an adjacent MS4.

Lastly, each Permittee also needs to maintain a system for documenting illicit discharge activities, including complaints, referrals, and investigation activities. Records should be kept for at least 5 years.

II. D. Construction Site Pollutant Control

This permit continues the requirement to implement a construction site pollutant control program to reduce the discharge of sediment from construction sites. The requirements are similar to the last permit and the changes are intended to add clarity to the permit. Each Permittee is expected to have a construction site ordinance in place which requires construction plans which meet the performance standards in ch. NR 151, Wis. Adm Code, allows for inspection and enforcement to ensure compliance with performance standards, and requires site operators to properly manage waste materials on construction sites.

New requirements in this permit include written program procedures – including an enforcement response plan or similar document and specific construction site inspection frequencies. Each Permittee also needs to include in the construction program documents regarding how they will respond to information submitted from the public, including complaints.

Plan Review and Permitting

Each of the Permittee's plan review and permitting procedures should identify the steps construction site operators will follow to obtain a construction permit and the procedures the plan review staff will follow to review and issue construction site/erosion control permits. The procedures should also describe how the Permittee considers water quality impacts through its plan review process as required in s. NR 216.07 (4) (b), Wis. Adm. Code. These considerations can be in the form of a checklist or specific BMPs for certain site conditions, but must describe a consistent process or evaluation that is applied to all sites within the Permittee's jurisdiction. For example, the Permittee may require certain BMPs on high slope or large sites, or additional barriers if the site is adjacent to wetlands or other waterbodies. The Permittee may also require identification of portable toilets on constructions sites and require them to be on impervious surfaces and in locations of low traffic to limit bacteria runoff.

Erosion Control Inspections

The inspection frequencies within Table 3 in the permit are intended to provide clarity to the construction program requirements and are consistent with other MS4 permits in the state. These inspections are required for any construction site, including municipal projects, disturbing one acre or more of land, and sites of less than one acre if they are part of a larger common plan of development or sale. Permittees may require inspection of smaller sites or more frequent inspection frequencies, but at a minimum, each Permittee must complete inspections according to Table 3. All active sites must be inspected every 45 days and follow-up inspections are required until issues are resolved. Each Permittee is also required to keep record of all inspections and follow-up for 5 years.

Enforcement Response

New to the permit is the requirement for each Permittee to develop an enforcement response plan or similar document. The enforcement response plan should describe how and when the Permittee will use the enforcement provisions in its local ordinance to ensure the discharge of sediment and pollutants is controlled accordingly. For example, a Permittee may elect to issue a stop work order after an initial inspection and conduct a follow-up inspection 7 days later in the case of a site that has not installed erosion and sediment control practices but has begun mass site grading.

II. E. Post-Construction Storm Water Management

The post-construction storm water management program is intended to control the quality of storm water discharges from the MS4 after construction is complete. The discharges should be controlled for the life of the site or until redevelopment takes place. This permit continues the requirement for the Permittee to have an ordinance or regulatory mechanism that applies to sites of specific size and requires post-construction standards equal to or more restrictive than ch. NR 151, Wis. Adm. Code, and Department technical standards. The ordinance should require a storm water management plan for the site, permit application and associated fees, long-term maintenance for post-construction BMPs, and provide the MS4 with inspection and enforcement authority.

Plan Review and Permitting

Similar to the construction site pollutant control program, the permit requires written procedures the Permittee will employ for reviewing plans for sites which require post-construction BMPs. Note, as plan review and permitting procedures commonly differ between municipal/public and private developments, these differences should be made clear within the written program.

The procedures should describe the Permittee's review process and items the Permittee reviews to consider water quality impacts.[5] These may include wellhead protection barriers near drinking water sources or additional controls for developments in TMDL areas. The procedures should also describe how the Permittee reviews requests for regional storm water controls if proposed by the site developer.[6]

As the Permittee's own ordinance contains provisions for storm water management plan requirements,[7] the written procedure should also describe what its requirements are, when these requirements are satisfied, and if these requirements are different for municipal/public and private projects. For example:

- Some MS4 Permittees require a draft long-term maintenance agreement (LTMA) with the private developer prior to permit issuance and then require the draft LTMA be finalized prior to permit termination. Others may only require the final LTMA prior to permit termination.
- Though a Permittee requires LTMAs for privately owned BMPs constructed within its community, the Permittee does not require the same agreement for its own municipally owned BMPs. Rather, the Permittee requires the development of an operation and maintenance (O&M) plan or plan containing inspection and maintenance requirements.

Post-Construction BMP Inventory

New to this permit is the requirement for each Permittee to develop a BMP Inventory. An inventory of post-construction BMPs is critical for documenting current and future Total Maximum Daily Load (TMDL) requirements and can be used to help track required BMP inspections, maintenance needs, completed maintenance, or other documentation notes. The BMP Inventory must include all municipally owned or operated post-construction BMPs and all privately owned BMPs constructed on or after July 1, 2011.

- Municipally owned BMPs are structural BMPs owned by the Permittee, regardless of date of construction.
- Municipally operated BMPs are also structural BMPs, regardless of date of construction, which are not owned by the Permittee but for which the Permittee has an obligation to ensure the BMP is maintained. For example, a privately owned BMP in which the Permittee has a long-term maintenance agreement and thus, can ensure said BMP is maintained.
- As required by previous MS4 permits, each Permittee is required by its own ordinances to obtain long-term maintenance authority on privately owned BMPs constructed within its jurisdiction since at least July 1, 2011. As such, all privately owned BMPs built on or after July 1, 2011, must be included in this inventory with confirmation of the existence of long-term maintenance agreements.

For each BMP, the inventory must identify:

- The BMP name, location, BMP type, year constructed, and ownership.
- Confirmation of whether each of the following exists for each BMP:
    - Record drawing.
    - An operation and maintenance plan with inspection procedures and schedule.
    - For privately-owned BMPs, long-term maintenance agreements or written

[5] As required by s. NR 216.07 (5) (b), Wis. Adm. Code.
[6] As required by s. NR 216.07 (5) (c), Wis. Adm. Code.
[7] As required by s. NR 216.47, Wis. Adm. Code.

documentation of the Permittee's legal authority to inspect and maintain a privately owned BMP, if needed.

Note: To utilize privately owned BMPs towards pollutant reduction goals, the Permittee must have a maintenance agreement in place or have regulatory authority to maintain or require maintenance of the private BMPs.

Post-Construction BMP Inspection and Maintenance Procedures

Also new to this permit is the requirement for each Permittee to develop written program documents describing its municipally owned and municipally operated BMP inspection and maintenance procedures. The written procedure should include information such as inspection frequencies and who is responsible for conducting inspections and pursuing maintenance.

As inspection and maintenance procedures often differ between municipally owned and municipally operated BMPs, these inspection and maintenance procedures were separated into two permit conditions for additional clarity. For example, a permittee is typically responsible for inspecting and maintaining its own municipally owned BMPs. However, though a permittee must ensure municipally operated BMPs (e.g., a private BMP in which the permittee has long-term maintenance authority) are being inspected and maintained according to the long-term maintenance requirement (e.g., a long-term maintenance agreement). Typically, the BMP owner is responsible for inspecting and maintaining its own BMP.

Given each Permittee must develop a BMP Inventory, the Permittee may consider including inspection and maintenance procedure information within its BMP Inventory. An example BMP Inventory which includes inspection and maintenance procedure information is provided below. In addition to organizing the required information, the Permittee may also find its BMP Inventory useful to schedule and/or track the required inspections.

Lastly, while BMPs should be inspected per its operation and maintenance plan or long-term maintenance requirement, the permit sets a minimum expectation that each BMP be inspected at least once every 5 years. Note, if the Permittee requires the private BMP owner to inspect its municipally operated BMP (e.g., private BMP with a LTMA), the Permittee is not required to conduct its own inspection. However, the Permittee is required to ensure the municipally operated BMP is being inspected as required.

Example BMP Inventory with inspection and maintenance information.

BMP Name	BMP Location	BMP Type	BMP Year Constructed	BMP Ownership	Confirmation of: • Record Drawing • O&M Plan • Long-term maintenance authority	Required Inspection Frequency *Must be at least every five years.*	Person(s) responsible for inspection and maintenance

Enforcement of Long-Term Maintenance Requirements for Municipally Operated BMPs

Consistent with the previous permit, each Permittee is required to enforce its long-term maintenance requirements. However, this permit also requires each Permittee to describe how it will enforce long-term maintenance requirements when noncompliance is discovered. The Permitee's written procedure should describe person(s) responsible for regulatory and enforcement activities and the general procedure, with associated timeframes, to compel compliance. Below are two examples:

1. If a private BMP owner does not submit its required inspection report, the written procedure should describe the Permittee's process for obtaining the missing inspection report. For example: "If an inspection report has not been submitted within 3 months of its due date, the Director of Public Works, or assigned designee, shall send a notification letter to the private BMP owner. The letter will request the inspection report be submitted with 30 calendar days and if not submitted, the City will conduct the required inspection and charge an inspection fee."
2. If a private BMP owner is not conducting the required maintenance, the written procedure should describe the Permittee's process for ensuring maintenance will be completed in a timely manner. For example: "Through the review of submitted inspection reports, or through other means such as a complaint, it is discovered that a municipally operated BMP requires maintenance, the Director of Public Works, or assigned designee, shall send a notification letter to the private BMP owner. The letter will describe the necessary maintenance required and request the BMP owner provide, within 45 calendar days, its plan to conduct the necessary maintenance in a timely manner or provide documentation demonstrating the required maintenance has been completed. If a plan, or proof of completed maintenance is not provided within 45 calendar days or the submitted plan does not provide reasonable assurance the required maintenance will be completed in a timely manner, the Director of Public Works may pursue the following actions: [citation, the Permittee conducting the required maintenance and billing the private BMP owner for occurred cost, etc.]."

II. F. Pollution Prevention

Pollution prevention activities are employed to reduce municipal sources of pollution. This section consists of multiple sub-programs. The maintenance requirements for municipality owned or operated BMPs have been moved to the post-construction section because these requirements fit within the BMP inspection and maintenance requirements.

These sub-programs include winter road management, nutrient management, street sweeping and catch basin cleaning, management of leaves and grass clippings, and Storm Water Pollution Prevention Plans for municipal properties. Since each Permittee is required to submit written program procedures describing how it intends to implement its sub-programs, further explanation to common questions pertaining to sub-program implementation and written program expectations is described below.

> If a sub-program is not being implemented to any extent within the Permittee's community, and is therefore not applicable, a written program describing implementation is not required. However, it is recommended the Permittee submit documentation confirming the sub-program is not being implemented. For example, if a Permittee does not have any applicable properties requiring a nutrient management plan, it is recommended the Permittee provide a statement confirming this.

If a sub-program is being implemented by an entity which is not the Permittee, the Permittee is required to submit a written program describing how its sub-program is being implemented and how the Permittee is ensuring implementation is consistent with permit requirements. For example, if a neighboring community or private contractor is conducting winter road management on behalf of a Permittee, the Permittee must submit a written program procedure describing how the sub-program activities are being implemented and describe how the Permittee is ensuring permit conditions are met (e.g., describing how the Permittee is ensuring calibration is occurring at least annually).

If a sub-program is being implemented to any extent, the Permittee is required to submit a written program describing how activities of the sub-program are being implemented. For example, if a Permittee does not collect leaves but its residents may bring collected leaves to one of its municipal properties, the Permittee should describe this in its written program.

Winter Road Management

The Wisconsin Department of Transportation (WisDOT) Highway Maintenance Manual - Chapter 6, contains guidelines on winter maintenance including application of road salt and other deicers. [8] These guidelines and additional resources, such as those provided by Wisconsin Salt Wise,[9] or Minnesota Pollution Control Agency, [10] can be used to assist with evaluating and/or revising the Permittees' salt reduction strategies.

The permit requires annual calibration for salt application machinery. Each Permittee's winter road management program should describe how calibration is completed for each piece of equipment and should maintain records showing equipment was calibrated. Factory calibration is not considered acceptable for annual calibration as new machinery has been shown to significantly over apply salt based on factory settings.[11] Calibration is also key for properly using the quantity of deicers used for reporting on the annual report.

Lastly, each Permittee is required to provide training on its own salt reduction strategy at least once every other year. Training is a best management practice and should help ensure the strategy is implemented as intended. The anticipated training and its participants are determined by the Permittees, but they should be described in the written program procedure.

Although not required by a specific permit condition, each Permittee should continuously evaluate its salt reduction strategy, and all of its programs, to identify potential improvements and to reduce pollutants to the maximum extent practicable. The Department encourages the Permittees to consider utilizing its required trainings as a mechanism to identify potential improvements. For example, some MS4 permittees in the state have implemented evaluation meetings with salt application crews as part

[8] Wisconsin Department of Transportation (WisDOT) Highway maintenance manual -Chapter 6. https://wisconsindot.gov/Pages/doing-bus/local-gov/hwy-mnt/mntc-manual/chapter06.aspx The WisDOT highway salt storage requirements are contained in ch. Trans 277, Wis. Adm. Code.
[9] Resources provided by Wisconsin Salt Wise can be found at: https://www.wisaltwise.com/
[10] Minnesota Pollution Control Agency's Smart Salting for Roads Manual can be found at: https://www.pca.state.mn.us/sites/default/files/p-tr1-13.pdf
[11] This finding is based on a previous discussion between Department staff and Mary Jo Lange, former Director of Public Works for the City of Cudahy, in 2020. Testing of a new truck in 2018 was over applying salt by 92%.

of its required trainings. While some MS4 permittees conduct these meetings at the beginning and/or end of each winter season, others have conducted these meetings before and/or after each winter event. During these evaluation meetings, staff responsible for determining the application rates (e.g., DWP Director or DPW Superintendent) meet with application crews to discuss implementation outcomes and potential improvements.

Nutrient Management:
Nutrient management plans are required for fertilizer and nutrient application on any municipally controlled properties (parks, athletic fields, golf courses, lawns, etc.) with five acres or more of pervious area. Municipally controlled property means any property in which the Permittee (MS4 staff or representative) is managing. Nutrient management plans must be based on soil samples for each individual property that qualifies. For additional information, please refer to DNR Technical Standard 1100, Interim Turf Nutrient Management and additional guidance found here: https://dnr.wi.gov/topic/stormwater/standards/turf_nutrient.html

If a Permittee is applying nutrients to at least 5 acres of pervious area on a single municipally controlled property, the Permittee shall follow a site-specific nutrient management plan. However, the MS4 Permittee is not required to follow a site-specific nutrient management plan for properties in which the Permittee is not managing. For example, if the MS4 Permittee is not responsible for applying nutrients to a county-owned park within its community, the MS4 Permittee is not required to follow a site-specific nutrient management plan for said county-owned park. If nutrients are applied to an applicable county-owned park, the county is responsible for following a site-specific nutrient management plan.

Street Sweeping and Catch Basin Cleaning:
Street sweeping and catch basin activities are an effective way to remove large sediment particles that would otherwise be washed away during precipitation events. If a Permittee uses street sweeping or catch basin cleaning as part of its efforts to meet a performance standard or other permit goal, the sweeping and cleaning frequencies must be consistent with those identified in the pollutant loading analysis.

Collected street sweeping material is considered solid waste and must be disposed of in an appropriate manner. If a Permittee stages this solid waste material prior to final disposal, BMPs shall be employed to prevent contamination with storm water runoff. Dewatering and drying this solid waste material should be done in a manner that does not allow for liquid generated from this material to discharge to waters of the state (surface, ground, or wetland) as this is considered a non-storm water discharge and is not authorized by this permit. All material should be disposed of in a landfill unless the Permittee has an approved beneficial reuse exemption from the DNR Solid Waste Program.

Lastly, if a Permittee conducts street sweeping or catch basin cleanings, the Permittee is required to provide training on its own street sweeping and catch basin cleaning procedures at least once per permit term. Training is a best management practice and should help ensure the procedures are implemented as intended. The anticipated training and participants are determined by the Permittees but should be described in the written program procedure.

Management of Leaves and Grass Clippings

Collection of leaves is an effective measure for reducing nutrient input from urban storm water runoff. While many BMPs are designed to settle out solid materials, leaf matter leaches dissolved phosphorus, which is not captured by traditional settling devices. Collection of leaves before precipitation is essential for reducing dissolved phosphorus contributions from the MS4.

This permit requires each Permittee provide a description of its leaf collection program, including the methodology and equipment used for collection, the frequency and timing of collection, and instructions for residents and landowners on where to locate leaves for collection. Consistent with the previous permit, the Permittees must identify where leaves are disposed.

Lastly, if a Permittee conducts a leaf and/or grass clipping collection service, the Permittee is required to provide training on its own collection procedures at least once per permit term. Training is a best management practice and should help ensure the procedures are implemented as intended. The anticipated training and participants are determined by the Permittees but should be described in the written program procedure.

Storm Water Pollution Prevention Planning

This permit continues the requirement for municipal garages, storage areas, and other public works related facilities (e.g., composting facilities) with the potential to generate storm water pollution to have storm water pollution prevention plans (SWPPP) for each site under the Permittee's control. These sites would normally be covered by an industrial storm water permit, but to avoid the need for multiple permits, the requirements for these industrial sites have been incorporated in the MS4 permit. The requirements for each SWPPP include a map of the site, identification and description of potential sources of pollution, drainage patterns and discharge locations, and all structural and non-structural BMPs, such as good housekeeping activities and training, which are utilized to reduce the runoff of pollutants from the site. SWPPPs shall be revised as needed to be consistent with current site conditions and activities. Updated SWPPPs should be submitted to the Department upon completion or with that reporting year's MS4 Annual Report.

Each year, at least one annual facility site inspection must be conducted, and documentation of the inspection must be maintained. Any deficiencies found during the inspections should be corrected. Inspections are also necessary to determine the effectiveness of the SWPPP. For example, if multiple stains are observed during an inspection, this may indicate the SWPPP is ineffective at preventing spills. The Permittee may determine revisions to the spills training is needed, relocation or removal of the pollutant source is needed, and/or additional BMPs are needed. The SWPPP should be updated to reflect these revisions and submitted to the Department.

To further clarify that SWPPPs must be evaluated to determine effectiveness, the reissued permit requires each SWPPP be evaluated at least once per permit term. If the Permittee determines SWPPP revisions are not required, the SWPPP must still indicate the required evaluation occurred. For example, the SWPPP should contain a cover page or appendix indicating when evaluations occurred and what revisions were made.

If the Permittee operates at a site without a SWPPP, one must be developed and implemented. New SWPPPs must be submitted to the Department for review.

Clarification of Required Municipal Trainings for Third Party Pollution Prevention Sub-Programs Services:

Any Permittee that has contracted with a third party to conduct its winter road management, collection services (e.g., street sweeping), and/or SWPPP implementation shall note this within its written program procedures. Permittees that contract with third parties are still required to comply with the permit's training conditions. However, trainings intended for third party contractors may look different from those the Permittee provides when it conducts its own services. For example:

- Training may be provided to the individual(s) responsible for performing the contractor's services. This training should educate the responsible individual(s) on performing the service so they will make educated decisions, include any additional requirements they may need in their contract, and/or answer any questions the contractor has about performing the service for the Permittee.

- Permittees may provide training to municipal staff and/or elected officials to educate them on the service the contractor provides and what to do if the service appears inadequate., This training may include how to recognize common complaints that suggest street sweeping services are being performed inadequately (e.g., curb line is not swept, sweeper appears to be clogged because sediment is being left behind, etc.) along with a plan for who to contact about these observations.

- In lieu of providing a municipally conducted training, the Permittee may alternatively describe how it will ensure its contractor is adequately trained and implementing procedures as intended. While a service contract may provide expectations (e.g., the contract requires sweeping the entire community at least twice each year, once in the spring after snow melt, and once in the fall after leaf collection), the Permittee's written procedure shall explain how the Permittee verifies the contracted servicer is adequately trained and/or implementing procedures as intended. The Permittee may require the contractor to submit proof of training, require the contractor to attend a training, or the Permittee may implement a procedure to verify the contractor's services were adequate and implemented as intended.

- The Permittee may choose other methods to conduct its required trainings for third party contractors. Permittees should consult with their local storm water specialist with questions about appropriate training methods.

II. G. Storm Water Quality Management
Permittees are expected to maintain all BMPs used to achieve their existing control level in accordance with s. 281.16 (2) and (3), Wis. Stats. Maintenance and continued operation of these BMPs is necessary to prevent backsliding.

II. K. Reapplication for Permit Coverage
The permit reapplication requirements are expanded from the previous permit term and specify additional information the Permittee must submit 180 days prior to permit expiration (on June 3, 2030). The permit reapplication requires the submission of information such as proposed program

modifications, information about current and future measurable goals, etc., which the Department will consider along with any other relevant information to develop the next permit.[12]

The reapplication information must be submitted to the Department's eReporting system. This electronic system, available at: https://dnr.wi.gov/permits/water/, is the same internet-based system used to submit MS4 Annual Reports. However, unlike the MS4 Annual Report, information required for the reapplication package will not be submitted on Department forms. Permittees may provide the information in a written format of their choosing.

III. Total Maximum Daily Loads (TMDLs)

Conditions within this section apply to MS4 areas that discharge to the Milwaukee River TMDL (MRB TMDL). As the City of New Berlin and the Village of Greendale are the only Permittees which have MS4 areas discharging to the MRB TMDL, the conditions under permit section III only apply to these two Permittees. These new conditions are added because additional BMPs and controls beyond those currently employed are required to attain water quality standards.[13]

To provide the Permittees with the required time to develop plans for addressing its waste load allocations (WLA), this permit does not require the Permittees to demonstrate numeric progress on its WLAs during this permit term. However, the Permittees must complete the following conditions to understand what efforts will be required to move the Permittee towards achieving future load reduction goals.

Each TMDL Section requirement is described below in more detail:

III. A. TMDL Pollutant Load Reduction Evaluation for TSS and TP

Most MS4 permittees in Wisconsin utilize WinSLAMM software to develop load reduction estimates, but Permittees are not required to use this program. Permittees may use other computer programs or methods, provided the analysis methods are similar or equivalent to WinSLAMM and approved by the Department. The Department envisions equivalent methodology could include a well-designed monitoring strategy collecting outfall/pipe flow and concentration data which can be used for data-based decisions and analysis. In either case, the Permittees should develop its modeling or analysis to be easily updated based upon changes to the individual watershed. Rather than updating the whole analysis, it will be more cost effective to update one model or subset of models. This will be a useful approach for evaluating progress in future permit terms.

The first step in the TMDL planning process is identifying which MRB TMDL reaches, also referred to as reachsheds or sub-watersheds, the MS4 discharges to and the associated reduction goal. Section III.A.1 requires the Permittees to develop a map identifying the specific TMDL reach boundaries, structural BMPs and associated drainage areas, and excluded areas. Supplemental information, such as an explanation for any excluded areas and confirmation of maintenance agreement for private BMPs, must also be provided as required by Section III.A.2.

[12] Consistent with ss. NR 216.01 and 216.07, Wis. Adm. Code.

[13] Sawyers, A.D. and Best-Wong, A. November 26, 2014. Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs." USEPA office of Watershed Management

Once the individual TMDL reaches and drainage areas are identified, the Permittees are required to estimate the pollutant loading from each reachshed with and without controls. The difference between the "no controls load" and "with controls load" is the "existing load reduction". The calculated existing load reductions can then be compared to each reach goal to determine how much additional control is needed for each reach. This information must be complied in a Tabular Summary required by Section III.A.3.

III. B. WLA Assessment for TSS and TP

The Waste Load Allocation (WLA) Assessment requires the Permittees to evaluate how it can reduce its TSS and TP loading. This assessment shall consider structural and non-structural BMPs the Permittee could implement to continue making progress on its assigned TSS and TP WLAs, including a cost effectiveness analysis for implementation. The intent of this permit condition is for the Permittee to identify all available options to reduce its TSS and TP loading. This assessment it is not a commitment of action the Permittee must implement. The Permittee should use this assessment to better plan for future projects such as future WLA Benchmarks (Section III.C). The assessment is also intended to exemplify the resources needed to achieve WLAs utilizing current practices (i.e., necessary budget and workload, and time to achieve WLAs). If the assessment does not provide reasonable assurance the WLA will be achieved by utilizing current practices, the Permittee should consider implementing alternatives such as Water Quality Trading or adopting a more stringent development and redevelopment standard. Additional information on alternatives is described below.

Permittees are highly encouraged to evaluate multiple alternatives and resources when completing the WLA Assessment. Within the greater Milwaukee Region, many water quality planning documents already exist or are under development. These include water body specific restoration plans, Nine Key Element Plans, and the Regional Green Infrastructure Plan.[14] The Permittee can take the recommendations from these efforts and incorporate them into future development or revitalization plans or use similar methodology for identification of project location and prioritization.

Other options to consider include Water Quality Trading or municipal partnerships. These alternatives allow more flexibility in the location of where practices can be implemented for the Permittee to show a reduction in pollutant loads.

III. C. Establishment of WLA Benchmarks for TSS and TP

Where the TMDL pollutant reduction evaluation shows TMDL WLAs have not been met for TSS or TP, each Permittee must develop pollutant load reduction benchmarks for those parameters and submit them with the permit application package. The benchmarks should reflect structural controls implemented as part of the Permittee's storm water management program, as well as any additional reductions expected to result from BMPs proposed to be completed during the next permit term. Nonstructural controls can be included where effectiveness information is available.

The Department expects the TMDL benchmarks to be permit cycle (5-year basis) targets used to assess progress towards meeting the final WLA goal. The Permittees should continue to iteratively manage its storm water programs to reduce pollutants and identify the TMDL benchmarks accordingly. As discussed previously, the Permittees are encouraged to review and incorporate recommendations from

[14] Milwaukee Metropolitan Sewerage District Regional Green Infrastructure Plan. June 2013. https://www.mmsd.com/what-we-do/green-infrastructure/resources/regional-green-infrastructure-plan

other regional plans as the Department will consider these in review of measurable goals and benchmarks as allowed by s. NR 216.07, Wis. Adm. Code.[15]

III. D. Fecal Coliform Reduction Efforts

The third TMDL pollutant with WLAs from the Milwaukee River TMDL is fecal coliform, which is used as an indicator of enteric pathogens.[16] While the TMDL allocations in the Milwaukee River Basin TMDL are expressed only in terms of fecal coliform, both fecal coliform and *E. coli* are used as indicators of enteric pathogens, and both have been listed as sources of recreational use impairments – which the TMDL was completed to address.

Unlike TSS and TP, fecal coliform WLAs are based on a load reduction curve rather than a mass reduction. For Permittees, this means that the allowable loading of fecal coliforms changes depending upon the moisture conditions. However, because fecal coliform loads within the Milwaukee River Basin greatly exceed the water quality standard under all flow conditions, efforts are needed across the board.

Additional information and resources pertaining to fecal bacteria in storm water is found on the Department's MS4 Best Management Practices Menu under the Total Maximum Daily Loads (TMDLs) and Impaired Waters section: MS4 Best Management Practices Menu | | Wisconsin DNR

Fecal Bacteria Storm Water Education

To increase the awareness of fecal bacteria storm water pollution impacts on waters of the state, each Permittee shall conduct at least one public education and outreach activity within its community during the permit term. The education and outreach activity shall address fecal bacteria stormwater pollution, however, the content of the activity, mechanism used (i.e., passive or active), and targeted audience(s) is determined by the Permittee. Permittees may choose to implement its fecal bacteria stormwater pollution education activity within the MRB TMDL area however, Permittees are not limited to the MRB TMDL area.

Each Permittee is required to maintain documentation of the completed activity, including a summary of the activity and date of completion.

Fecal Bacteria Local Ordinances

Each Permittee shall adopt local ordinances to address potential sources of bacteria entering the MS4. For example, the Permittee may adopt local ordinances for proper pet waste management, restrictions on feeding urban wildlife, requirements for property owners to cooperate with identifying and eliminating illicit sanitary sewerage cross-connections with the MS4, and requirements for property owners to address other potential sources of bacteria that may enter the MS4 (e.g., refuse management, pest control).

If the Permittee has existing ordinance(s) which addresses these potential sources of bacteria entering the MS4, the Permittee shall provide said ordinance(s) by the date listed in the permit. Ordinances that

[15] Section NR 216.07, Wis. Adm. Code. Permit Requirements. The Department shall issue permits using the information provided by the applicant and other pertinent information when developing permit conditions.
[16] Final Report: Total Maximum Daily Loads for Total Phosphorus, Total Suspended Solids, and Fecal Coliform Milwaukee River Basin, Wisconsin. Approved by USEPA on March 9, 2018.

are not unique to a specific bacteria issue but can be used to address the issue may also be acceptable. For example, a Permittee may not have an ordinance specific to pest control, however, if pest control can be addressed via a different ordinance, such as an ordinance for public nuisance and littering, this could be used to demonstrate permit compliance. Permittees questioning an existing ordinance should contact their local stormwater specialist for assistance.

IV. Implementation Schedule

The implementation schedule for new and updated permit requirements which apply to all Permittees are listed in Table 4. However, this section does not list all required actions. For example, this section does not list the required erosion control inspections. Each Permittee shall comply with all permit conditions contained within the permit.

Additional Information

The proposed WPDES permit, fact sheet, and other MS4-related information are available from the Department's website as indicated below. Web links to pertinent state statutes and administrative codes are also provided.

DNR WPDES Permits on Public Notice website:
http://dnr.wi.gov/topic/Wastewater/PublicNotices.html

DNR Storm Water Runoff Permits website:
http://dnr.wi.gov/topic/stormwater/

DNR Municipal Storm Water Permits website:
http://dnr.wi.gov/topic/stormwater/municipal/

DNR Storm Water Technical Standards, Models and BMPs website:
http://dnr.wi.gov/topic/stormwater/standards/

Chapter 283, Wis. Stats.:
https://docs.legis.wisconsin.gov/statutes/statutes/283.pdf

Chapter NR 151, Wis. Adm. Code:
https://docs.legis.wisconsin.gov/code/admin_code/nr/100/151.pdf

Chapter NR 216, Wis. Adm. Code:
https://docs.legis.wisconsin.gov/code/admin_code/nr/200/216.pdf

Permit Drafter

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