

# PERMIT FACT SHEET

## General Information

Permit Number:	WI-B057681-05-0
Permit Name:	Operation and Maintenance of Municipal Water Systems
Permittee:	Point source dischargers in the state of Wisconsin
Discharge Location:	Land surface or surface waters in the state of Wisconsin
Receiving Water:	Surface waters or groundwater in the state of Wisconsin

## WPDES Permit Program Background

Chapter 283 of Wisconsin Statutes requires a Wisconsin Pollutant Discharge Elimination System (WPDES) permit for the discharge of any pollutant through a point source into any waters of the state which includes surface waters and groundwater. WPDES permits are issued by the Wisconsin Department of Natural Resources (department) consistent with applicable federal requirements. These permits contain requirements that include pollutant discharge limitations, monitoring and reporting or record keeping requirements, best management practices and other provisions to reduce, eliminate, or minimize the risk of pollutants impacting human health and water quality.

A WPDES permit is an allowance for a facility to discharge a specified amount of a pollutant into the waters of the state under specific conditions. There are two basic types of WPDES permits:

- Individual permit. An individual permit is a permit specifically tailored to an individual facility. Once a facility submits a complete application(s), the department develops a draft permit for that particular facility based on the information contained in the permit application (e.g., type of activity, nature of discharge, receiving water quality). After a public participation process, the department may issue the permit to the facility for a specific time period (not to exceed five years) with a requirement that the facility reapply 180 days prior to the expiration date. Public notices are posted for each individual permit application and proposed individual permit permittee.
- General Permit. A general permit covers a group or category of dischargers with similar qualities within a designated area of the state under one WPDES permit. A general permit provides coverage to several dischargers. To obtain coverage under a general permit for a discharge of pollutants, an owner or operator must submit a notice of intent (NOI) requesting general permit coverage. General permits have an effective term of 5 years from the date of issuance. If a permittee submitted a complete and timely NOI to be covered by the general permit and the department grants coverage under the general permit, the discharge of pollutants is then subject to all conditions of the general permit and these terms or conditions shall continue to apply until the effective date of the reissued general permit. Public notices are issued for the general permit and not for the permittee covered under the general permit. A person may apply for general permit coverage at the time a general permit is issued, or a person may apply during the term of the permit.

## **General Permit Objective**

This general permit was created to properly manage temporary operational and maintenance discharges from municipal water systems to waters of the state to protect public health and water quality of groundwater and surface waters within the state of Wisconsin.

## **General Permit Description**

Section NR 205.08, Wis. Adm. Code, authorizes the department to issue a general permit applicable to a designated area of the state authorizing discharges from specified categories or classes of point sources located within that area if they (1) Perform the same or substantially similar operations; (2) Produce the same types of wastewater streams; (3) Employ the same or substantially similar wastewater treatment operations to control specific pollutants; (4) Are subject to the same effluent limitations and monitoring requirements; and (5) In the opinion of the department, are more appropriately controlled under a general permit than under individual permits. The department recognized that many facilities perform the same operation and maintenance of municipal water systems, produce the same waste streams, and that the specific effluent limitations and monitoring are very similar. As a result, the department developed this general permit. This permit is applicable to temporary operational and maintenance discharges from municipal water systems and other similar waters to surface water or groundwater via seepage. Discharges of wastewater from a water system include a wide variety of discharges associated with maintaining a water system.

## **General Permit Summary**

This general permit establishes applicability criteria, application requirements, surface water discharge requirements, groundwater discharge requirements, reporting requirements, discharge management plan requirements, water treatment additives requirements, water treatment additives requirements, antidegradation, impaired waters, TMDL, and wetland requirements, schedules, and standard requirements for operational and maintenance discharges from public water systems. The permit requirements are provided to protect human health and protect and maintain the physical, chemical and biological integrity of the waters of the state by eliminating or minimizing the discharge of pollutants.

## **Fact Sheet Organization**

This fact sheet serves to explain the rationale and assumptions used in deriving the conditions and requirements set forth in the general permit. Additionally, this fact sheet highlights changes in permit conditions that the department proposes to make when reissuing the Operation and Maintenance of Municipal Water Systems WPDES permit. This fact sheet compares conditions in the previous general permit to those in the reissued permit. The previous permit remains in effect until the permit is reissued. The sections that follow are taken from the permit and are numbered in this fact sheet as they are numbered in the permit.

# 1 Applicability Criteria

According to s. NR 205.08(2), Wis. Adm. Code, the department may include applicability criteria in general permits.

## 1.1 Discharge Activities Covered

This general permit is applicable to short-term point source discharges of pollutants to a water of the state from the following operational and maintenance activities of municipal water systems except those discharge activities excluded from coverage under this permit listed under Section 1.2 and Section 1.3:

**Flushing Operations:** Flushing portions of a water system may be necessary to replace stagnant water when demand is low, or to remove poor quality drinking water containing silt, rust, or debris. Flushing may also be needed to test the hydrants for adequate fire hydrant flow and pressure. Flushing may be part of routine operations, and can occur daily, weekly, monthly, or annually based on seasonal water use or known water quality trends. Occasionally, water mains, water storage tanks or towers, and water supply wells will be drained and be taken out of service for maintenance, such as for inspections, rehabilitation, disinfection, repairs, upgrades, or hydrostatic testing. Planned discharges may occur as often as once per year or as infrequently as once every 20 years.

Water systems are generally disinfected with a chlorine solution (e.g. sodium or calcium hypochlorite) to prevent contamination from harmful bacteria, viruses, other organisms after construction, repair or routine maintenance. However, water systems may also need disinfection after damage, deterioration, flooding, or cross connections. All the disinfection water in the water systems is then flushed or drained before these systems are activated or reactivated. These waters have a net addition of chlorine and require treatment for chlorine prior to discharge to surface waters. A relatively low number of planned discharge events for disinfection water are expected in a year (if any) for maintaining a water system. Maintenance on water storage tanks or towers resulting in a disinfection event is typically every 5 years or as needed. New wells and existing wells are chemically conditioned or reconditioned infrequently (i.e. every 1 to 15 years or as needed). For reference, the department's Bureau of Drinking Water and Groundwater has approved less than 90 new or reconditioned public water supply wells and less than 75 new high capacity potable private wells per year. The number of breaks in water distribution system lines varies but not all such events require disinfection of the affected segment of water line. Department approvals issued under s. NR 811.12, Wis. Adm. Code, for new public water supply wells or rehabilitation of existing wells with additives of concern include requirements to neutralize all additives and ensure all discharges are appropriately located.

**Hydrostatic Test Water:** Hydrostatic test water includes water (e.g. water supply system water, surface water, groundwater, etc.) that is used to hydrostatically pressure test watermains, water storage tanks or other water pressure vessels for strength and leaks immediately following construction or being placed into service. Hydrostatic testing or leakage testing of watermains, storage tanks, or vessels is a standard practice after the installation of new or replacement watermain or storage tanks, or other pressure vessels for strength and leaks. Hydrostatic testing may also be done during the operating life of the watermain, storage tank, or pressure vessel.

**Well Development Water:** Discharges of well development water include pumping or draining of water supply wells after development, installation, or purging occurs. Well development occurs after completion of well drilling and it is meant to restore the well after alterations occurred from drilling. Well development will remove fine-grained materials from the borehole, which helps repair the formation of the well to maximum production of water and reduce turbidity of the pumped water. Redevelopment of existing wells may occur following similar procedures. Well development involves several methods and techniques include backwashing, overpumping, surging, jetting, air surging,

hydro-fracturing or any other methods of well development. Normally, the well development water will be pumped or drained during or after the technique or method is completed. Water supply wells are developed and installed regularly each year. Additionally, many wells are purged to remove stagnant water from the well prior to sampling. Raw well sampling is required for community public water systems once every 3 months. department approvals issued under s. NR 811.12, Wis. Adm. Code, for new public water supply wells or rehabilitation of existing wells with additives of concern include requirements to neutralize all additives and to ensure all discharges are appropriately located.

**Pigging Operations:** Pigging operations involve mechanically scouring segments of water mains for cleaning and inspections. Generally, the “pig” is inserted into the line and then the line is closed. The pressure from the water pushes the “pig” down the pipe until it reaches a receiving point. Pigging operations have not been reported to occur on a frequent basis. Pigging of water distribution systems generates water with high levels of suspended solids (i.e. inert solids). Whenever possible, these discharges shall be directed to groundwater. If groundwater discharge is not a viable option, then the waters shall be treated for suspended solids removal to meet the permit effluent limits for surface water discharges. All removed solids should be disposed of in accordance with any solid or hazardous waste regulations.

**Municipal Coverage Area:** In accordance with s. NR 205.08(2), Wis. Adm. Code, a general permit may cover more than one class or category of discharge, or more than one area of the state, provided the permit clearly identifies the conditions applicable to each included class or category, or each specific area of the state. Therefore, this general permit may cover recurring hydrant flushing discharges of the entire water distribution system for a municipality under one blanket municipal-wide coverage. For other water system discharges, municipalities (municipal water system owners) may choose to have those discharges covered under their general permit coverage or allow other non-municipal entities working on behalf of municipal water system owners to apply for coverage under this general permit separately. So, a contractor may apply for this general permit separately if they are performing a one-time discharge and plan on discharging to a water of state. The department recommends that municipalities include the contract or specifications that the non-municipal entities apply for coverage under this general permit for the discharge activity. However, this general permit no longer covers discharges under one blanket/statewide coverage to a single permittee.

## 1.2 Discharges Not Covered

According to 40 CFR 122.289(a)(4)(ii), general permits may exclude specified sources from coverage. Below is an explanation for all discharges not covered under the permit.

**Debris and Solids:** This general permit is not applicable to the disposal of debris and solids removed when flushing a water distribution or storage system. Disposal of any removed debris and solids when flushing a water distribution or storage system may be subject to applicable Solid and Hazardous Waste Regulations in chs. NR 500 to NR 590 and NR 600 to NR 690, Wis. Adm. Code.

**Continuous Discharges:** This general permit is not applicable to continuous discharges from the operation and maintenance of water distribution and storage systems. This general permit does not provide the necessary effluent limits to be protective of water quality standards. Regulation of continuous discharges require the oversight, monitoring and discharge limitations of an individual permit. Continuous discharge means a facility that discharges 24 hours per day on a year-round basis except for temporary shutdowns for maintenance or other similar activities.

**Pigging/Swabbing Water to Surface Water:** The general permit is not applicable to the discharge of pigging/swabbing water from the pigging/swabbing water distribution systems to surface water. Such discharges would require an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect surface water quality.

**Industrial Potable and Non-Potable Water Systems:** This general permit is not applicable to discharges from operational and maintenance activities of industrial potable and non-potable water systems. Rather this permit is only applicable to discharges from municipal water systems.

**Hydrostatic Testing:** Discharges from the hydrostatic testing of industrial potable and non-potable water distribution and storage systems and hydrostatic testing petroleum distribution or storage systems are not applicable to this permit. These hydrostatic testing discharges may be covered under the Operation and Maintenance of Industrial Potable and Non-Potable Water Systems and Hydrostatic Testing of Petroleum Distribution and Storage Systems General Permit WI-A057681-05-0.

**Water Treatment and Conditioning:** Discharges of backwash, regeneration, and rinse water from iron filters, alum coagulation, granular media filters, and reverse osmosis facilities for the treatment and conditioning of water are not covered under this general permit. Discharges from water treatment operations may be covered under the Water Treatment and Conditioning General Permit WI-0046540.

**Dewatering Operations:** Discharges from dewatering operations including pumping or draining water from construction pits and dewatering well systems are not covered under this general permit. All dewatering operations may be covered under the Dewatering Operations General Permit WI-0049344.

**Washing of Vehicles and/or Equipment:** This permit does not cover the washing of vehicles and/or equipment at the construction site. This permit does not contain the conditions and limitations necessary for adequate regulation of washing discharges from vehicles and/or equipment (e.g. concrete mixer trucks or dump trucks).

**Municipal or Domestic Wastewater:** Any discharge containing municipal or domestic wastewaters as described in ch. NR 210, Wis. Adm. Code, are not authorized under this permit. These discharges will contain pathogens or significant amounts of pollutants that will require an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect surface water or groundwater.

**Process Wastewater:** Any discharge containing process wastewaters as described chs. NR 221 to NR 297, Wis. Adm. Code, are not authorized under this general permit. These discharges will contain significant amounts of pollutants that will require an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect surface water or groundwater.

**Accidental or Uncontrolled Discharges:** Any discharge from any accidental or uncontrolled release, spill, leak, or overflow to a water of state is prohibited under State and Federal Law and not authorized by this general permit. However, this general permit does provide the necessary reporting procedures in case an accidental or uncontrolled discharge does occur to a water of the state.

**Unapproved Water Treatment Additives:** The discharge shall not contain a water treatment additive where the additive use is not approved in writing by department. Many additives are toxic at certain rates to fish and aquatic life and require approval by the department prior to initiating use. Facilities discharging water with unapproved additive will be in violation of this permit.

**Wetlands:** Discharges covered under this permit shall meet the wetland protection requirements of ch. NR 103, Wis. Adm. Code, and shall not adversely impact wetlands in accordance with s. NR 106.61(1)(b), Wis. Adm. Code. For discharges that impact wetlands, a facility will need to submit information that allows the department to determine if a discharge meets code requirements.

**Outstanding and Exceptional Resource Waters:** Discharges to outstanding and exceptional resource waters in ch. NR 102, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding and exceptional water resources are not authorized by this permit as specified in s. NR 106.61(1)(c), Wis. Adm. Code. Regulation of discharges to outstanding and

exceptional resource waters requires an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect these types of receiving waters. The permittee can use the surface water data viewer (<http://dnrm.wi.gov/sl/?Viewer=SWDV>) to identify the outstanding and exceptional resource waters in the county that the discharge will occur.

**Capability to Meet Limits:** Any new or increased discharge of water where the permittee is found to not have the treatment capability to treat any proposed new or increased discharge and maintain treatment levels sufficient to meet the effluent limitations in this general permit is not authorized under this general permit. The department requires that the applicant apply for coverage under an individual permit. The discharge will then be evaluated by the department under the antidegradation requirements of ch. NR 207, Wis. Adm. Code. The department may suggest that applicants evaluate a variety of options to ensure no significant lowering of water quality occurs in the receiving water. Options include improved wastewater treatment effectiveness, wastewater reuse, directing the discharge to a seepage area, an alternate discharge location, process changes to reduce the pollutant discharge level, pollutant prevention activities, etc.

**Significant Lowering of Water Quality:** In a case where a proposed discharge would result in the significant lowering of water quality in fish and aquatic life waters identified in s. NR 102.13, Wis. Adm. Code, Great Lakes system waters, and variance waters identified within ss. NR 104.05 through 104.10, Wis. Adm. Code, the discharge would not be authorized under this permit. The department requires that the applicant apply for coverage under an individual permit. The discharge will then be evaluated by the department under the antidegradation requirements of ch. NR 207, Wis. Adm. Code. The department may suggest that applicants evaluate a variety of options to ensure no significant lowering of water quality occurs in the receiving water. Options include improved wastewater treatment effectiveness, wastewater reuse, directing the discharge to a seepage area, an alternate discharge location, process changes to reduce the pollutant discharge level, pollutant prevention activities, etc.

**Hazardous Substances:** Discharges of hazardous substances that are required to be reported under ch. NR 706, Wis. Adm. Code are not authorized by this permit. Exemptions for discharge of these substances require an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect receiving waters. Section 292.11(2)(a), Wis. Stats., requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the department **immediately** of any discharge not authorized by the permit.

**Endangered and Threatened Resources:** Discharges that affect endangered and threatened resources are not eligible for this permit, unless the department determines that the discharges comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code. Facilities with discharges that require more oversight to ensure that they do not violate these protection requirements may need to be covered by an individual permit. If the permittee has reason to believe that endangered and threatened resources will be impacted, then further Wisconsin Natural Heritage Inventory (NHI) screening should be conducted by the permittee. Please contact the [ER Review Program](#) if you need information about whether a proposed project may impact rare species or other sensitive resources.

**Historical Properties:** Discharges that will adversely 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., are not eligible for this permit, unless the department determines that the discharges will not have an adverse effect on any historic property pursuant to s. 44.40(3), Wis. Stats. The department is required by law to review the project for historic preservation compliance. Please contact the [DNR Archaeologist](#) with any questions.

**Indian Country:** The department lacks the authority to issue WPDES permits within Indian Country due to the state delegation agreement with EPA. In such instances, EPA regulates the discharge and would issue a discharge permit.

**Surface Water Standards and Groundwater Standards:** The discharges from facilities eligible for this permit shall not have a reasonable potential to exceed any applicable surface water or groundwater standards. This also includes any other applicable surface water quality standards downstream of the discharge (i.e. tribal or other states). Facilities with discharges that have a reasonable potential (as specified in ch. NR 106, Wis. Adm. Code) to violate any applicable surface water quality standards or ch. NR 140, Wis. Adm. Code, groundwater quality standards would normally require the increased oversight, monitoring and water quality limitations found in a site-specific individual permit.

### **1.3 Permit Exclusions**

Below is an explanation for all discharges excluded from requiring coverage under a WPDES permit.

**Holding Tanks:** Any portion of the water directed to a holding tank then pumped and hauled to publicly owned wastewater treatment works (POTW) is excluded under this general permit as the POTW already has a WPDES general permit. Rather, this general permit applies only to direct discharges to a water of the state.

**Publicly Owned Wastewater Treatment Works:** Any portion of the water directed to a publicly owned wastewater treatment works (POTW) is excluded under this general permit as the POTW already has a WPDES general permit. Rather, this general permit applies only to direct discharges to a water of the state.

## 2 Application for Permit Coverage

An applicant shall comply with the following requirements to obtain coverage and authorization to discharge to a water of the state under this general permit.

### 2.1 New Permittees

#### 2.1.1 Submittal of a Notice of Intent

Any new permittee meeting the applicability criteria in Section 1 of this general permit and proposes a new or existing discharge that was not previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit shall submit a complete electronic Notice of Intent (eNOI) for coverage under this general permit at least 30 calendar days prior to discharging to a water of state in accordance s. NR 205.08(3), Wis. Adm. Code.

New permittees must submit an eNOI to obtain coverage under this general permit using the online ePermitting System pursuant to 40 CFR Part 127.

#### 2.1.2 NOI Review Time Period

The department will evaluate the information submitted in the eNOI to determine whether the eNOI is true, accurate, complete, and whether the facility is eligible for coverage under the general permit within 30 calendar days of receipt of the complete NOI and associated attachments pursuant to s. NR 205.08(3), Wis. Adm. Code.

In accordance with s. NR 205.08(5), Wis. Adm. Code, if the department notifies an applicant that a discharge is ineligible for coverage under this general permit but still requires WPDES permit coverage, the applicant shall apply for and obtain coverage under an individual WPDES permit (or alternative general permit, if available) prior to discharging to the waters of the state. The necessary steps to apply for coverage under an individual permit can be found at the department website: <http://dnr.wi.gov/topic/wastewater/PermitApplications.html>.

#### 2.1.3 Content of the NOI

The contents of the notice of intent shall be specified in the general permit and shall require the submission of information necessary for adequate program implementation, including at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, the receiving stream(s), and other required data elements as identified in appendix A to part 127 pursuant to 40 CFR Part 122.28(b)(2)(ii).

#### 2.1.4 NOI Attachments

Attachments to NOI are considered a part of the NOI and must be submitted pursuant to s. NR 205.08(3), Wis. Adm. Code.

#### 2.1.5 Incomplete NOI

The department may require more information than what is provided in the notice of intent in order to determine if coverage under a general permit is appropriate pursuant to ss. NR 205.07(1)(L), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

#### 2.1.6 Granting of Permit Coverage to New Permittees

The department will transmit a coverage letter via mail addressed to the permittee stating that the discharge from the facility is granted coverage under this general permit within 30 calendar days of receipt of the eNOI. The applicant may not discharge to a water of the state until a coverage letter has been received from the department. Initial coverage under this permit will become effective at a new facility beginning upon the **Start Date** specified by the department in the



coverage letter in accordance with s. NR 205.08(3), Wis. Adm. Code and 40 CFR 122.28(b)(2)(iv).

## **2.2 Existing Permittees**

### **2.2.1 Granting of Permit Coverage to Existing Permittees**

Any existing permittee that still meets the applicability criteria in Section 1 of this general permit and has an existing discharge that was previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit, the permittee is automatically granted coverage under this general permit upon the **Effective Date** in accordance s. NR 205.08(3), Wis. Adm. Code and 40 CFR 122.28(b)(2)(iv). For existing permittees, coverage under this permit will become effective at an existing facility beginning upon the **Effective Date** as the **Start Date** in accordance with 40 CFR 122.28(b)(2)(iii).

The department will transmit a reissuance letter via mail addressed to the existing permittee stating that the discharge from the facility is granted continued coverage under this general permit in accordance with s. NR 205.08(3), Wis. Adm. Code and 40 CFR 122.28(b)(2)(iv).

## **2.3 Groundwater Discharge Certification**

The department may require the owner or operator to submit information regarding any discharge pursuant to s. 283.37(6), Wis. Stats. For the discharge to be regulated under Section 4 as a groundwater discharge, the permittee shall certify on the NOI that the discharge will be completely infiltrate into the ground via a seepage system with no accumulation of standing water or runoff to surface water via any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer. If the permittee cannot certify that the discharge will completely infiltrate into the ground via a seepage system with no accumulation of standing water or runoff to surface water, the discharge will be regulated as a surface water discharge under Section 3.

### 3 Surface Water Discharge Requirements

The requirements of this section only apply to point source discharges to surface waters. Surface water point source discharges means any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry water to surface waters within the state of Wisconsin. Discharges of water to a storm water pond that is hydraulically connected to a surface water or to a wetland are considered surface water point source discharges consistent with s. NR 102.245(1), Wis. Adm. Code.

#### 3.1 Sampling Point(s)

In accordance with s. NR 218.07, Wis. Adm. Code, the location of sampling points shall be as specified in an applicable permit. The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

<b>Sampling Point Designation</b>	
<b>Sampling Point Number</b>	<b>Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)</b>
001	The permittee shall sample the flushing water from fire hydrant flushing of water distribution systems following treatment (if applicable) at the end of pipe or prior to entering any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will discharge to surface water or wetlands via Outfall 001. The permittee shall take representative samples of the discharge that consists solely of the water before mixing with any other water. The permittee is only required to collect samples when there is a discharge to surface water or wetlands, including discharges to surface water or wetlands via storm sewers; if there are no discharges within the reporting frequency the permittee shall report no discharge consistent with Sections 5.1 and 5.2.
002	The permittee shall sample the flushing water from cleaning, disinfecting, and/or flushing of water storage systems; flushing water following the disinfection of water distribution systems or water supply wells; well development water from the development, installation, and/or purging water supply wells; and/or hydrostatic test water from hydrostatic testing of water distribution and storage systems following treatment (if applicable) at the end of pipe or prior to entering any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will discharge to surface water or wetlands via Outfall 002. The permittee shall take representative samples of the discharge that consists solely of the water before mixing with any other water. The permittee is only required to collect samples when there is a discharge to surface water or wetlands, including discharges to surface water or wetlands via storm sewers; if there are no discharges within the reporting frequency the permittee shall report no discharge consistent with Sections 5.1 and 5.2.

### 3.2 Monitoring Requirements and Effluent Limitations for Fire Hydrant Flushing

According to s. NR 205.08(2), Wis. Adm. Code, the department may include monitoring requirements and effluent limitations in general permits. Additionally, samples shall be taken at the frequencies specified in the WPDES permit authorizing discharge pursuant to s. NR 218.10, Wis. Adm. Code. The permittee shall comply with the following monitoring requirements and limitations for all fire hydrants within the municipal water system.

#### 3.2.1 Sampling Point (Outfall) 001 –Fire Hydrant Flushing

Monitoring Requirements and Effluent Limitations						
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Reporting Frequency	Notes
Volume		gpd	Annual	Total Annual	Annual	

#### Explanation of Monitoring Requirements and Effluent Limitations

**Volume:** In accordance with 40 CFR Part 122.44(i)(1), to assure compliance with permit limitations and ensure all discharge events are reported, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee shall estimate the total annual discharge volume of all hydrants flushed each year. This estimate includes scheduled and unscheduled hydrant flushing that may occur in a year

##### 3.2.1.1 Volume

In accordance with 40 CFR Part 122.44(i)(1), to assure compliance with permit limitations, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee shall estimate the total annual discharge volume of all hydrants flushed each year. This estimate includes scheduled and unscheduled hydrant flushing that may occur in a year. The methods for measuring or estimating flow are based on ss. NR 218.04(15), and NR 218.05, Wis. Adm. Code.

##### 3.2.1.1.1 Flow Rate Control

The permittee shall control the hydrant flow rate to minimize the stream bank erosion, resuspension of sediment, downstream flooding, or property damage consistent with s. NR 102.04(1), Wis. Adm. Code.

### 3.2.2 Additional Monitoring Requirements to Outfall 001

According to s. NR 205.08(2), Wis. Adm. Code, the department may include monitoring requirements and effluent limitations in general permits. Additionally, samples shall be taken at the frequencies specified in the WPDES permit authorizing discharge pursuant to s. NR 218.10, Wis. Adm. Code. The permittee shall comply with the following monitoring requirements and limitations for all fire hydrants within the municipal water system.

Monitoring Requirements and Effluent Limitations						
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Reporting Frequency	Notes
Chlorine, Total Residual	Daily Max	19 µg/L	Annual	Grab	Annual	
Phosphorus, Total	-	mg/L	Annual	Grab or Calculated	Annual	
	-	lbs/yr		Calculated		

### Explanation of Monitoring Requirements and Effluent Limitations

**Total Residual Chlorine (TRC):** The TRC limit in this permit is based on acute toxicity criteria in Table 1 of s. NR 105.06, Wis. Adm. Code.

**Total Phosphorus:** Total phosphorus monitoring was added to permit to assess the levels of phosphorus if permittee adds phosphorus containing additives to the water prior to discharge or the water already contains phosphorus or phosphorus compounds to determine if there is reasonable potential to exceed phosphorus water quality standards in chs. NR 102 and NR 217, Wis. Adm. Code.

#### 3.2.2.1 Total Residual Chlorine (TRC) Monitoring

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. The permittee shall monitor the discharge for TRC and limit the TRC concentration to a daily maximum of 19 µg/L or less if the department determines that the permittee adds chlorine-based additives to the water prior to discharge or the water already contains chlorine or chlorine compounds except if the department approves a higher TRC limit based on Section 3.2.2.1.1 or the permittee follows best management practices in lieu of monitoring for TRC in Section 3.2.2.1.3.

Chlorine is very toxic to fish and aquatic organisms at low levels. Many chlorine-based additive products and water utilities disinfect their water supplies with chlorine or chloramines to ensure protection of human health from microbial or algal contamination. Normally, the concentration of total residual chlorine in water supplies is about 0.01 mg/L to 1.9 mg/L. These levels exceed the acute water quality criterion in Table 1 of s. NR 105.06, Wis. Adm. Code. Therefore, the permittee shall monitor the discharge for TRC and limit the TRC concentration chlorine-based additives to the water prior to discharge or the water used already contains chlorine or chlorine compounds.

Total residual chlorine is the sum of free available chlorine residual and combined available chlorine residual. Combined available chlorine residual is the residual consisting of chlorine that is combined with ammonia, nitrogen, or nitrogenous compounds (chloramines). Free available chlorine residual is the residual consisting of hypochlorite ions (OCI<sup>-</sup>),

hypochlorous acid (HOCl) or a combination of the two. Typical chlorine-based water treatment additives used in water treatment disinfection include chlorine gas, sodium hypochlorite, or calcium hypochlorite.

#### **3.2.2.1.1 TRC Limitations to High Flow Streams**

The department may determine or the permittee may request, upon the effective date of this general permit or at the time of the submittal of the Notice of Intent (NOI), a daily maximum limit of 38 µg/L if the receiving waters of the flushing water have stream flows (7-day average flow that occurs once in 10 years) to average volume discharged greater than or equal to 2:1 or the discharge is to a lake or impoundment that does not exhibit unidirectional flow. This calculation for TRC limits to high flow streams is consistent with s. NR 106.06, Wis. Adm. Code. Those facilities that fail have enough mixing and dilution will have to meet a daily maximum limit of 19 µg/L at the end of the pipe.

#### **3.2.2.1.2 Compliance with TRC Limits when Limit is Less than LOD**

Conditions for compliance with TRC limits when limit is less than LOD is based on the requirements from s. NR 106.07(6), Wis. Adm. Code.

#### **3.2.2.1.3 Best Management Practices for Hydrant Flushing in Lieu of Monitoring for Total Residual Chlorine**

Section NR 205.10, Wis. Adm. Code, allows the department to include best management practices to control or abate the discharge of pollutants in WPDES permits if the practices are reasonably necessary to carry out the purposes and intent of ch. 283, Wis. Stats., and the Clean Water Act (CWA). For permittees, obtaining a sample may be hard that is representative of the chlorine levels from all hydrant flushed in a municipality discharged to surface water as many are not straight to a surface water. For example, the discharge occurs on the ground surface prior to reaching surface water or storm water pond system before reaching an outfall into the surface water. Therefore, the department believes that fire hydrant discharges will not pose a reasonable potential to exceed any chlorine surface water quality standards if the permittee chooses to implement the BMPs in the permit in lieu of monitoring for total residual chlorine. By implementing the BMPs in the permit, permittees will help ensure proper disposal of the hydrant flushing water into surface waters while meeting the goals of the CWA and protecting surface water quality.

#### **3.2.2.2 Total Phosphorus Monitoring**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. The permittee is only required to monitor TP if the department determines that the permittee adds phosphorus containing additives to the water prior to discharge or the water already contains phosphorus or phosphorus compounds. The permittee shall either collect a sample of the discharge for total phosphorus or calculate concentration estimated in the discharge based on the dosage rate of phosphate chemicals added to the finished water supply system water. The department believes that the phosphorus levels dosed in the finished water supply system water will be very similar to what will be flushed from each hydrant.

Many public water utilities will dose orthophosphates to the water distribution for corrosion control. Many water treatment facilities will also add polyphosphate additives as sequestering agents for treatment of groundwaters with low to moderate levels of iron and/or manganese. Therefore, the department has added total phosphorus monitoring to the permit to assess if the levels of phosphorus warrant limitation to protect water quality in future permit reissuances.

Total phosphorus is the sum of all orthophosphates and condensed phosphates, soluble and particulate, as well as organic and inorganic fractions. Typical orthophosphates,

polyphosphates, condensed phosphates, and other phosphate additives used in water treatment include: phosphoric acids, monosodium phosphate, disodium phosphate, trisodium phosphate, monopotassium phosphate, dipotassium phosphate, tricalcium phosphate, sodium acid pyrophosphate, sodium trimetaphosphate, tetrasodium pyrophosphate, sodium tripolyphosphate, tetrapotassium pyrophosphate, tetrapotassium pyrophosphate, and sodium hexametaphosphate

### **3.2.3 Sampling Protocol for Fire Hydrant Flushing Discharges**

The sampling procedures for hydrant flushing of water distribution systems will minimize the number of sampling events for permittees while still allowing for a representative sample of the flushing events occurring across the municipality or facility. The department assumes that many of the discharge events will be similar in nature and volume so one sample collected from one event will be representative of all of the events for that year. However, the permittee must perform the same standard flushing operating procedures at each hydrant.

### 3.3 Monitoring Requirements and Effluent Limitations for Other Water System Maintenance Discharges

According to s. NR 205.08(2), Wis. Adm. Code, the department may include monitoring requirements and effluent limitations in general permits. Additionally, samples shall be taken at the frequencies specified in the WPDES permit authorizing discharge pursuant to s. NR 218.10, Wis. Adm. Code. The permittee shall comply with the following monitoring requirements and limitations for each applicable outfall.

#### 3.3.1 Sampling Points (Outfall) 002 – Hydrostatic Test Water, Water Tower/Storage Tank Flushing, Well Development Water, or Other Water System Discharge

Parameter	Monitoring Requirements and Effluent Limitations					Notes
	Limit Type	Limit and Units	Sample Frequency	Sample Type	Reporting Frequency	
Flow Rate		gpd	Daily	Total Daily	Monthly	
Suspended Solids, Total	Daily Max	40 mg/L	Weekly	Grab	Monthly	
	-	lbs/day				
pH Field	Daily Min	6.0 s.u.	Weekly	Grab	Monthly	
	Daily Max	9.0 s.u.				

#### Explanation of Monitoring Requirements and Effluent Limitations

**Flow Rate:** In accordance with 40 CFR Part 122.44(i)(1), to assure compliance with permit limitations and ensure all discharge events are reported, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee is required to estimate the total daily flow rate of the discharge.

**Total Suspended Solids (TSS):** The limit for TSS of 40 mg/L as a daily maximum is achievable by applying best practicable control technology currently available for these types of discharges. This established effluent limitation is based on the average of the best performance of the treatment technologies used for these similar types of discharges. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

**pH Monitoring:** The pH is limited to the range of 6.0 to 9.0 standard units. This is consistent with the water quality standards pH range for waters classified for fish and aquatic life as defined in ch. NR 102.04(c), Wis. Adm. Code. Any water with a pH outside the range of 6.0 to 9.0 s.u. shall not be discharged directly to surface waters.

##### 3.3.1.1 Flow Rate

In accordance with 40 CFR Part 122.44(i)(1), to assure compliance with permit limitations, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee is required to estimate the flow rate being discharged through each outfall. The methods for measuring or estimating flow are based on ss. NR 218.04(15), and NR 218.05, Wis. Adm. Code.

### **3.3.1.2 Total Suspended Solids (TSS) Monitoring**

Other operational discharges from water systems may introduce suspended solids from chemicals to sediments. Therefore, the permittee shall monitor the discharge for TSS and limit the TSS concentration.

### **3.3.1.3 pH Monitoring for Lime Softening**

For municipalities with finished water supply water from lime softening treatment processes, the pH is limited to within the range of 6.0 to 11.0 s.u. The expanded pH range is intended to accommodate the higher operating pH for municipalities that use lime softening processes and it may be difficult to meet maximum pH water quality standards at the discharge point. Prior to issuing coverage under the permit to lime softening operations, the discharge and receiving water will be examined by the department to assure the receiving water will have sufficient assimilative capacity to accept the higher pH wastewater and still meet water quality standards after mixing. The receiving water shall have stream flow to discharge flow ratio greater than or equal to 2:1. Those facilities that fail have sufficient mixing and dilution will have to meet a pH of 9.0 s.u. at the end of the pipe. The stream flow to discharge ratio is based on the amount of receiving water flow to achieve pH water quality standards of 9.0 s.u. if the effluent pH concentration is assumed to be 11.0 s.u. and the background concentration is 7.0 s.u.



### 3.3.2 Additional Monitoring Requirements to Outfall 002

According to s. NR 205.08(2), Wis. Adm. Code, the department may include monitoring requirements and effluent limitations in general permits. Additionally, samples shall be taken at the frequencies specified in the WPDES permit authorizing discharge pursuant to s. NR 218.10, Wis. Adm. Code. The permittee shall comply with the following monitoring requirements and limitations for each applicable outfall.

Parameter	Monitoring Requirements and Effluent Limitations					
	Limit Type	Limit and Units	Sample Frequency	Sample Type	Reporting Frequency	Notes
Oil & Grease (Hexane)	Daily Max	15 mg/L	Weekly	Grab	Monthly	
Chlorine, Total Residual	Daily Max	19 µg/L	Weekly	Grab	Monthly	
Dissolved Oxygen	Daily Min	See Permit Note	Weekly	Grab	Monthly	
Phosphorus, Total	-	mg/L	Weekly	Grab	Monthly	
	-	lbs/day		Calculated		
Water Treatment Additives - Specify	TBD	TBD	Weekly	Grab	Monthly	

#### Explanation of Monitoring Requirements and Effluent Limitations

**Oil & Grease:** The limit for oil & grease of 15 mg/L as a daily maximum is achievable by applying best practicable control technology currently available for these types of discharges. This established effluent level is based on the ability of simple oil/water separator equipment to easily remove oil and grease from the discharge to concentrations below 15 mg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

**Total Residual Chlorine (TRC):** The TRC limit in this permit is based on acute toxicity criteria in Table 1 of s. NR 105.06, Wis. Adm. Code.

**Dissolved Oxygen (DO):** The DO limits in this permit are based on water quality standards from surface waters classified as fish and aquatic life as specified in s. NR 102.04(4)(a) and (b), Wis. Adm. Code.

**Total Phosphorus:** Total phosphorus monitoring was added to permit to assess the levels of phosphorus if permittee adds phosphorus containing additives to the water prior to discharge or the water already contains phosphorus or phosphorus compounds to determine if there is reasonable potential to exceed phosphorus water quality standards in chs. NR 102 and NR 217, Wis. Adm. Code. Also total phosphorus has been added to track loadings to impaired waters and/or TMDL watersheds.

**Water Treatment Additives:** The permittee is required to monitor and limit the discharge for those water treatment additives determined by the department as needing effluent limits under Section 7. The effluent limitations, limit type, and sample type for substances will be stated in the additive use approval letter. The calculation of the effluent limits for water treatment additives are based on procedures for calculating water quality-based effluent limitations for point source discharges to surface waters in ch.

NR 106, Wis. Adm. Code. Water treatment additives already present in the water supply system do not need to be reviewed and approved.

### **3.3.2.1 Oil & Grease Monitoring**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. Water system infrastructure may contain residual oil and grease if the oil and grease chemicals are used during construction, installation, assembly of the infrastructure. Therefore, the permittee shall monitor the discharge for residual oil and grease and limit the oil and grease concentration to a daily maximum of 15 mg/L or less if the determines that the permittee discharges from water system infrastructure where oil and grease chemicals were used during construction, installation, assembly of the infrastructure.

### **3.3.2.2 Total Residual Chlorine (TRC) Monitoring**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. The permittee shall monitor the discharge for TRC and limit the TRC concentration to a daily maximum of 19 µg/L or less if the permittee adds chlorine-based additives to the water prior to discharge or the water already contains chlorine or chlorine compounds except if the department approves a higher TRC limit based on Section 3.3.2.2.1 or a monitoring waiver in Section 3.3.2.2.3.

Chlorine is very toxic to fish and aquatic organisms at low levels. Many chlorine-based additive products and water utilities disinfect their water supplies with chlorine or chloramines to ensure protection of human health from microbial or algal contamination. Normally, the concentration of total residual chlorine in water supplies is about 0.01 mg/L to 1.9 mg/L. These levels exceed the acute water quality criterion in Table 1 of s. NR 105.06, Wis. Adm. Code. Therefore, the permittee shall monitor the discharge for TRC and limit the TRC concentration chlorine-based additives to the water prior to discharge or the water used already contains chlorine or chlorine compounds.

Total residual chlorine is the sum of free available chlorine residual and combined available chlorine residual. Combined available chlorine residual is the residual consisting of chlorine that is combined with ammonia, nitrogen, or nitrogenous compounds (chloramines). Free available chlorine residual is the residual consisting of hypochlorite ions (OCl<sup>-</sup>), hypochlorous acid (HOCl) or a combination of the two. Typical chlorine-based water treatment additives used in water treatment disinfection include chlorine gas, sodium hypochlorite, or calcium hypochlorite.

The National Environmental Methods Index (NEMI) <[www.nemi.gov](http://www.nemi.gov)>. NEMI is a Web-based, searchable clearinghouse of methods supported by the U.S. Geological Survey and EPA's Office of Water. NEMI contains summaries of more than 1,100 methods and describes them by their performance characteristics and their regulatory status, relative cost, detection level, detection level type, accuracy, precision, spiking level, instrumentation, lab equipment, and the *greenness* of analytic methods.

#### **3.3.2.2.1 TRC Limitations to High Flow Streams**

The department may determine upon the effective date of this general permit or at the time of the submittal of the Notice of Intent (NOI), a daily maximum limit of 38 µg/L if the receiving water has a stream flow (7-day average flow that occurs once in 10 years) to average effluent flow greater than or equal to 2:1 or the discharge is to a lake or impoundment that does not exhibit unidirectional flow. This calculation for TRC limits to high flow streams is consistent with s. NR 106.06, Wis. Adm. Code. Those facilities that

fail have enough mixing and dilution will have to meet a daily maximum limit of 19 µg/L at the end of the pipe.

#### **3.3.2.2.2 Compliance with TRC Limits when Limit is Less than LOD**

Conditions for compliance with TRC limits when limit is less than LOD is based on the requirements from s. NR 106.07(6), Wis. Adm. Code.

#### **3.3.2.2.3 TRC Monitoring Waiver**

A unique property of chlorine is that chlorine is highly reactive and rapidly dissipates in the environment. This dissipation will only occur in situations where the effluent is exposed to the atmosphere. For instance, the chlorine concentration entering a surface water may be significantly lower if the effluent first enters a storm sewer system, storm water or treatment pond system, or a combination of both prior to entering the surface water in question. Therefore, the department may approve in writing a monitoring waiver for TRC considering the above situations. This is based similar practices used for noncontact cooling water discharges consistent with s. NR 106.10(1), Wis. Adm. Code using best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code. The permittee must provide reasonable hydraulic calculations or sampling data to the department showing that the residual chlorine in the discharge will be dissipated below the chlorine limits prior to entering the surface water, certify that there is no reasonable potential that TRC limits will be exceeded in the discharge when entering the surface water; and submit a monitoring waiver request to the department at the time of the submittal of the NOI.

#### **3.3.2.3 Dissolved Oxygen (DO) Monitoring**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. Commonly used chemicals in the installation of new water system infrastructure include biocides, corrosion inhibitors and oxygen scavengers. These chemical agents may consume oxygen in the process. Also, some dechlorination chemicals may consume oxygen. However, the department believes that facilities that do not added chemicals and facilities discharging the water to a vegetative swale system, storm water pond system or combination of storm water conveyance system and storm water pond system where natural aeration occurs are expected to meet DO limits. Therefore, this permit requires DO monitoring and limits only if chemicals are added prior to discharge and the chemicals are known to scavenge or remove oxygen and does not discharge to a vegetative swale system, storm water pond system or combination of storm water conveyance system and storm water pond system that will convey the water to a surface water or wetland. The permittee shall have DO samples tested and analyzed within 15 minutes of sample collection consistent with the holding times for wastewater listed in Table F of ch. NR 219, Wis. Adm. Code.

The permittee shall maintain a DO content of 5 mg/L or greater in the discharge to all surface waters except if the discharge is to a classified trout stream then DO content in the discharge must be 6 mg/L or greater. If the permittee discharges to a trout stream, the permittee must maintain a DO content of 7 mg/L or greater in the discharge during the spawning season. Trout species are very sensitive to changes in DO levels in the stream especially during spawning so extra protection is provided in this permit during spawning season. Trout spawning season runs September 15th through May 15th for all trout streams, the Root River (Racine County), the Kewaunee River (Kewaunee County) and Strawberry Creek (Door County). Permittees may request a waiver or modification to this time period in writing if they believe this is not representative of the trout spawning season in the receiving water.

#### **3.3.2.4 Total Phosphorus (TP) Monitoring**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. The permittee is only required to monitor TP if the department determines that the permittee adds phosphorus containing additives to the water prior to discharge or the water already contains phosphorus or phosphorus compounds. The permittee shall either collect a sample of the discharge for total phosphorus or calculate concentration estimated in the discharge based on source water concentrations and the dosage rate of phosphate chemicals added to the finished water supply system water. Many utilities have data on concentrations of phosphorus in the raw water and the dosage rate of the phosphate chemicals added to the finished water supply system water. The department is assuming that concentration of total phosphorus will not change in the water distribution system when fire hydrants are being flushed.

Many public water utilities will dose orthophosphates to the water distribution for corrosion control. Many water treatment facilities will also add polyphosphate additives as sequestering agents for treatment of groundwaters with low to moderate levels of iron and/or manganese. Therefore, the department has added total phosphorus monitoring to the permit to assess if the levels of phosphorus warrant limitation to protect water quality in future permit reissuances and to track loadings to impaired waters and/or TMDL watersheds.

Total phosphorus is the sum of all orthophosphates and condensed phosphates, soluble and particulate, as well as organic and inorganic fractions. Typical orthophosphates, polyphosphates, condensed phosphates, and other phosphate additives used in water treatment include: phosphoric acids, monosodium phosphate, disodium phosphate, trisodium phosphate, monopotassium phosphate, dipotassium phosphate, tricalcium phosphate, sodium acid pyrophosphate, sodium trimetaphosphate, tetrasodium pyrophosphate, sodium tripolyphosphate, tetrapotassium pyrophosphate, tetrapotassium pyrophosphate, and sodium hexametaphosphate.

#### **3.3.3 Sampling Frequency and Reporting Reduction for Recurring Other Water System Discharges**

In accordance with s. NR 205.066, Wis. Adm. Code, the department shall determine on a case-by-case basis the monitoring frequency to be required for each effluent limitation in a permit. The selected sampling frequency and reporting reductions will allow for a permittee to establish a sampling and reporting frequency that works with their standard maintenance schedule for recurring other water system discharges at single site and still allow for the collection of a representative sample of the discharge. Also, this will reduce the number of blank reports that will need to be submitted when there is no discharge.

### **3.4 Surface Water Narrative Requirements**

Surface water narrative water quality criteria pursuant to s. NR 102.04(1), Wis. Adm. Code, are included in the permit. These criteria shall be followed at all times and under all flow and water level conditions.

### **3.5 Wetland Narrative Requirements**

Wetland narrative water quality criteria pursuant to s. NR 103.03(2), Wis. Adm. Code, are included in the permit. These criteria shall be followed at all times so that wetland water quality related functional values or uses of wetlands as stated in s. NR 103.03(1), Wis. Adm. Code are protected.

## 4 Groundwater Discharge Requirements

The requirements of this section only apply to point source discharges to groundwater. Groundwater point source discharge means any discernible, confined and discrete conveyance system including but not limited to any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will carry water to a permeable surface, absorption pond, or seepage cell system that infiltrates or seeps the water into the soil that may impact groundwater quality. Discharge of water to a storm water pond that is not hydraulically connected to a surface water and is completely confined on the property of the permittee is considered a groundwater point source discharge.

### 4.1 Sampling Point(s)

In accordance with s. NR 218.07, Wis. Adm. Code, the location of sampling points shall be as specified in an applicable permit. The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
003	The permittee shall sample the flushing water from cleaning, disinfecting, and/or flushing of water distribution systems, water storage systems, or water supply wells; well development water from the development, installation, and/or purging water supply wells; and/or hydrostatic test water from hydrostatic testing of water distribution and storage systems following treatment (if applicable) at the end of pipe or prior to entering any pipe, ditch, channel, tunnel, conduit, swale, or storm sewer that will discharge to any seepage system via Outfall 003. The permittee shall take representative samples of the discharge that consists solely of the water before mixing with any other water. The permittee is only required to collect samples when there is a discharge to groundwater; if there are no discharges within the sampling frequency the permittee shall report no discharge consistent with Sections 5.1 and 5.2.

### 4.2 Monitoring Requirements and Effluent Limitations for All Groundwater Discharges

According to s. NR 205.08(2), Wis. Adm. Code, the department may include monitoring requirements and effluent limitations in general permits. Additionally, samples shall be taken at the frequencies specified in the WPDES permit authorizing discharge pursuant to s. NR 218.10, Wis. Adm. Code. The permittee shall comply with the following monitoring requirements and limitations.

#### 4.2.1 Sampling Point (Outfall) 003 – All Groundwater Discharges

Monitoring Requirements and Effluent Limitations						
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Reporting Frequency	Notes
Flow Rate	-	gpd	Daily	Total Daily	Monthly	

### Explanation of Monitoring Requirements and Effluent Limitations

**Flow Rate:** The discharge to each seepage system shall be monitored for total daily discharge volume consistent with s. NR 214.12(4)(a), Wis. Adm. Code. Therefore, the permittee is required to measure the flow rate of the applicable discharges to groundwater.

#### **4.2.1.1 Flow Rate**

The discharge to each seepage system shall be monitored for total daily discharge volume consistent with s. NR 214.12(4)(a), Wis. Adm. Code. The methods for measuring or estimating flow are based on ss. NR 218.04(15), and NR 218.05, Wis. Adm. Code.

#### **4.2.1.2 Pigging and Swabbing Operations**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. The permittee shall not discharge any pigging/swabbing water from the pigging/swabbing water distribution systems to surface water. The permittee shall dispose of any removed debris and solids properly in accordance any applicable Solid and Hazardous Waste Regulations in chs. NR 500 to NR 590 and NR 600 to NR 690, Wis. Adm. Code.

## **5 Reporting Requirements for Surface Water and Groundwater Discharges**

According to s. NR 205.08(2), Wis. Adm. Code, the department may include reporting requirements in general permits. The permittee shall comply with the following reporting requirements.

### **5.1 Reporting of Monitoring Results**

The permit now requires that monitoring results be submitted on an electronic discharge monitoring report (eDMR) instead of a paper annual report in accordance with s. NR 205.07(1)(r), Wis. Adm. Code and 40 CFR Part 127. The eDMRs are due 21 days after the end of the reporting frequency. The eDMR shall be submitted regardless if there is a discharge or not during any reporting frequency. This permit requires that all monitoring data be submitted on an electronic discharge monitoring report (eDMR) form.

### **5.2 Reporting Conventions**

The permittee shall use the conventions specified in the permit when reporting effluent monitoring results except when noted otherwise in the permit. These conventions are in accordance with ss. NR 106.07(6)(e) and 106.14(3), Wis. Adm. Code.

## 6 Water Treatment Additives

### 6.1 Use of Water Treatment Additives

The permittee shall not add any substance or water treatment additive to the discharge to a surface water unless the use of the water treatment additive is reviewed and approved, in writing, by the department pursuant to s. 283.31(3)(d)1., Wis. Stats. and ss. NR 105.02(3), NR 105.05, NR 106.05(1)(b), and NR 106.10, Wis. Adm. Code, to protect Wisconsin's surface water resources from such products. A water treatment additive review by the department is only necessary for water treatment additives that may enter surface water without receiving treatment. Water treatment additives already present in the water supply system do not need to be reviewed and approved.

Examples of water treatment additives added at the point of discharge include biocides (i.e. algaecides, microbicides, fungicides, molluscicides, etc.), water quality conditioners (i.e. scale and corrosion inhibitors, pH adjustment chemicals, oxygen scavengers, conditioning agents, and water softening compounds, etc.), dechlorination chemicals, erosion control products, and clarifying agents.

### 6.2 Approval of Water Treatment Additives Usage

On April 23<sup>rd</sup>, 2015, the department released guidance entitled "Water Quality Review Procedures for Additives" (3400-2015-03), which is available at <https://dnr.wisconsin.gov/topic/Wastewater/Additives.html>. This guidance supports the authority of s. 283.31(3)(d)1., Wis. Stats. and ss. NR 105.02(3), NR 105.05, NR 106.05(1)(b), and NR 106.10, Wis. Adm. Code, to protect Wisconsin's surface water resources from such products. This guidance document establishes procedures to calculate secondary acute and chronic values for water treatment additives pursuant to ss. NR 105.05 and NR 105.06, Wis. Adm. Code. Secondary acute values are the concentrations of a pollutant in surface water that protect aquatic life from adverse short-term effects. Therefore, facilities shall submit information regarding the toxicity of any added substances or additives to the discharge as specified in the permit, so the department can determine if it is allowable and will not negatively impact aquatic life or human health. The department shall also be informed of significant changes in additive usage or new additives that would raise the potential for negative impacts on aquatic life or human health.

#### 6.2.1 New Discharge

Any permittee that proposes a new discharge to a surface water during the permit term that has not been covered under this general permit and wishes to commence use of a water treatment additive, the permittee shall submit a copy of the Additive Review Worksheet and SDS to the department for each water treatment additive used which requires department approval with the NOI. The department will transmit the additive use approval on the coverage letter to the permittee. The permittee shall comply with the conditions specified in the coverage letter.

These requirements are based on ss. NR 106.10(2), NR 205.07(1)(L), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

#### 6.2.2 Existing Discharge

Any permittee with an existing discharge that has been granted coverage under this general permit during the permit term and wishes to commence use of a new water treatment additive or increase the usage of an approved water treatment additive, the permittee shall submit a written request with a copy of the Additive Review Worksheet and SDS to the department for each water treatment additive used which requires department approval. The permittee must receive written approval from the department prior to initiating such changes. The department will transmit an additive use approval letter to the permittee. The permittee shall comply with the conditions specified in the approval letter.



These requirements are based on ss. NR 106.10(2), NR 205.07(1)(L), NR 205.07(3)(c), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

### **6.3 Water Treatment Additive Usage Record**

Facilities are required to maintain records of additive use for department inspection. Recording additive use will provide documentation for the facility and the department to verify that the additive is being used and discharged in accordance with the permit requirements.

### **6.4 Public Notice of Additive Use Restrictions**

If the department determines that a water treatment additive requires a usage restriction and effluent limits, the department is required to public notice those proposed limits prior to the limits becoming effective and implemented through this general permit. The public notice period is to last 30-days and be issued in a newspaper of general circulation in the area affected by the discharge and the department's public notice webpage. The public notice procedures are based on s. NR 203.02, Wis. Adm. Code.

## 7 Antidegradation, Impaired Waters & TMDLs, and Wetland Requirements

### 7.1 Antidegradation Policy Statement

Any proposed new or increased discharge to surface water of the state that meets the applicability criteria in Section 1 and the application requirements in Section 2 and that the department has determined via letter that the discharge is authorized for coverage under this general permit is in compliance with the antidegradation policy in s. NR 102.05(1)(a), Wis. Adm. Code, and antidegradation evaluation procedures in ch. NR 207, Wis. Adm. Code for the following reasons:

- Any permittee that proposes new or increased discharge to surface water of the state applying for coverage under this general permit shall establish the treatment capability to treat the proposed new or increased discharge and maintain treatment levels sufficient to meet the effluent limitations in this permit. Those permittees that do not have treatment capability to treat any proposed new or increased discharge and maintain treatment levels sufficient to meet the effluent limitations are not authorized under this general permit and must either apply for an individual permit or find an alternative discharge location.
- Effluent limitations in this general permit are based on applicable procedures and criteria in chs. NR 102, NR 103, NR 105 and NR 106, Wis. Adm. Code and on categorical effluent limitation procedures pursuant to chs. NR 200 to NR 297, Wis. Adm. Code as appropriate.
- Any proposed new or increased discharge that is found to result in a significant lowering of water quality by containing pollutants not regulated by this general permit at levels that exceed water quality standards in n chs. NR 102, NR 104, NR 105, NR 106, NR 207, and NR 217 Wis. Adm. Code are not authorized under this general permit and must either apply for an individual permit or find an alternative discharge location.
- Any proposed new or increased discharge to outstanding and exceptional resource waters in ch. NR 102, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding and exceptional water resources are not authorized by this permit and must either apply for an individual permit or find an alternative discharge location.
- Any discharge that will contain a pollutant of concern that will contribute to the impairment of a 303(d) listed impaired water or be in noncompliance with an approved Total Daily Maximum Load (TMDL) are not authorized by this permit and must either apply for an individual permit or find an alternative discharge location.

### 7.2 Impaired Waters & TMDL Requirements

#### 7.2.1 Report Discharge to an Impaired Surface Water or TMDL

##### 7.2.1.1 New Permittee

Any new permittee or existing permittee that proposes a new discharge during the permit term that was not previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit, shall report on the NOI if the water discharge has a detectable pollutant of concern (i.e. total suspended solids and total phosphorus) that discharges to an impaired surface water or a surface water with a State and EPA approved Total Daily Maximum Load (TMDL).

These requirements are based on ss. NR 205.07(1)(L), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

### **7.2.1.2 Existing Permittee**

Any existing permittee that had an existing water discharge to an impaired surface water or a surface water with a State and EPA approved TMDL that was previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit, shall notify the department if the existing water discharge has a detectable pollutant of concern (i.e. total suspended solids and total phosphorus) that discharges to an impaired surface water or a surface water with a State and EPA approved TMDL.

These requirements are based on ss. NR 106.10(2), NR 205.07(1)(L), NR 205.07(3)(c), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

## **7.2.2 Department Determinations**

The department may not issue a permit for a new or increased discharge to any new or increased discharge of a pollutant of concern to an impaired water or a surface water with an approved TMDL until the department has determined that the new or increased discharge meets the antidegradation requirements provided ch. NR 207, Wis. Adm. Code and the discharge does not contribute to the receiving water impairment or the discharge is consistent with the State and Federal approved TMDL pursuant to s. 283.31(3), Wis. Stats and 40 CFR Part 122.4. If the department determines that the new or increased discharge does not meet the antidegradation requirements provided in ch. NR 207, Wis. Adm. Code or the discharge does contribute to the receiving water impairment or the discharge is consistent with the State and Federal approved TMDL, the permittee must apply for coverage under for an individual permit or find an alternative discharge location such as discharging to groundwater to potentially remain eligible for this general permit.

## **7.2.3 Impaired Water and TMDL Compliance**

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. If the permittee will have a water discharge with a detectable pollutant of concern to an impaired water or a surface water with an approved TMDL, the permittee is required to calculate the mass loading of the pollutant of concern discharged if that pollutant is required to be monitored in this general permit. The permittee must comply with the pollutant wasteload allocation granted to general permit discharges in any State and EPA approved TMDLs pursuant to s. 283.31(3), Wis. Stats. General permit discharges located inside of a permitted Municipal Separate Storm Sewer Systems (MS4s) may be included in the wasteload allocation for MS4s. If department determines that sufficient allocation has not been set aside for general permit facilities, facilities may be switched to individual permits with discharge requirements placed in the permit sufficient to meet the TMDL allocations and/or reserve capacity may be used to increase the WLA for general permits, where necessary.

## **7.3 Wetland Requirements**

### **7.3.1 Report Discharge to Wetland**

#### **7.3.1.1 New Permittee**

Any new permittee or existing permittee that proposes a new discharge to a wetland during the permit term that that was not previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit, shall report on the NOI if the water will be a to wetland. Any water discharge to wetland is considered a surface water discharge and must comply with the surface water discharge requirements in Section 3. Additionally, the permittee shall provide no practical alternatives analysis documentation as an attachment to the NOI per Section 7.3.2.

These requirements are based on ss. NR 205.07(1)(L), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

### **7.3.1.2 Existing Permittee**

Any existing permittee that had an existing water discharge to a wetland that was previously covered under WPDES Permit No. WI-0057681-04-0 prior to the **Effective Date** of this general permit, shall notify the department if the existing water discharge will be to a wetland. If existing discharge will be to a wetland, the permittee must comply with the surface water discharge requirements in Section 3.

These requirements are based on ss. NR 106.10(2), NR 205.07(1)(L), NR 205.07(3)(c), NR 205.08(3), Wis. Adm. Code and s. 283.37(6), Wis. Stats.

### **7.3.2 No Practical Alternatives Analysis**

The permittee is required to submit no practical alternatives analysis to the department based on s. NR 103.08(4), Wis. Adm. Code if the discharge activities are in conformance the wetland protection requirements in ch. NR 103, Wis. Adm. Code.

### **7.3.3 Department Determinations**

The permittee may not establish a new or increased discharge to a wetland until the department has determined that the proposed discharge meets the wetland requirements in Section 7.3.1 and Section 7.3.2 and in ch. NR 103, Wis. Adm. Code and the proposed discharge will not result in significant adverse impacts to wetland functional values, significant adverse impacts to water quality or other significant adverse environmental consequences pursuant to s. NR 103.08(4)(a), Wis. Adm. Code. If the department determines that the proposed discharge will not meet the wetland requirements in Section 7.3.1 and Section 7.3.2 and in ch. NR 103, Wis. Adm. Code and the proposed discharge will result in significant adverse impacts to wetland functional values, significant adverse impacts to water quality or other significant adverse environmental consequences, the permittee must apply for coverage under for an individual permit or find an alternative discharge location such as discharging to groundwater to potentially remain eligible for this general permit.

## **8 Standard Requirements**

According to s. NR 205.08(2), Wis. Adm. Code, the department may include general conditions (standard requirements) in general permits.

### **8.1 General Conditions for General Permits**

#### **8.1.1 Delegation of Signature Authority**

The delegation of signature authority requirements for general permit are based on s. NR 205.07(1)(g), Wis. Adm. Code.

#### **8.1.2 Permit Coverage Transfers**

The transfer of permit coverage requirements for general permits are based on s. NR 203.136(1)(p), Wis. Adm. Code, s. 283.53(2d)(d), Wis. Stats, and 40 CFR Part 122.61(b).

#### **8.1.3 Permit Coverage Terminations**

The termination of permit coverage requirements for general permits are based on s. NR 203.136(3), Wis. Adm. Code, s. 283.53(2h), Wis. Stats, and 40 CFR Part 122.64(c).

#### **8.1.4 Continuation of an Expired General Permit**

The continuation of an expired general permit is based on s. NR 205.07(1)(n), Wis. Adm. Code and 40 CFR Part 122.28(b)(2)(i).

### **8.2 General Conditions for WPDES Permits**

The general conditions or standard requirements are included from s. NR 205.07(1), Wis. Adm. Code and are required to be included in all WPDES permits issued by the department. Conditions not from s. NR 205.07(1), Wis. Adm. Code, will be cited below.

#### **8.2.1 Duty to Comply**

This condition is included by reference from s. NR 205.07(1)(a), Wis. Adm. Code.

#### **8.2.2 Property Rights**

This condition is included by reference from s. NR 205.07(1)(c), Wis. Adm. Code.

#### **8.2.3 Inspection and Entry**

This condition is included by reference from s. NR 205.07(1)(d), Wis. Adm. Code.

#### **8.2.4 Recording of Results**

This condition is included by reference from s. NR 205.07(1)(e), Wis. Adm. Code.

#### **8.2.5 Records Retention**

This condition is included by reference from s. NR 205.07(1)(f), Wis. Adm. Code.

#### **8.2.6 Signatory Requirement**

This condition is included by reference from s. NR 205.07(1)(g), Wis. Adm. Code.

#### **8.2.7 Proper Operation and Maintenance**

This condition is included by reference from s. NR 205.07(1)(j), Wis. Adm. Code.

#### **8.2.8 Duty to Mitigate**

This condition is included by reference from s. NR 205.07(1)(k), Wis. Adm. Code.

### **8.2.9 Duty to Provide Information**

This condition is included by reference from s. NR 205.07(1)(L), Wis. Adm. Code.

### **8.2.10 Need to Halt or Reduce Activity Not a Defense**

This condition is included by reference from s. NR 205.07(1)(o), Wis. Adm. Code.

### **8.2.11 Sampling Procedures**

This condition is included by reference from s. NR 205.07(1)(p), Wis. Adm. Code.

### **8.2.12 Testing Procedures**

This condition is included by reference from s. NR 205.07(1)(p), Wis. Adm. Code.

### **8.2.13 Laboratory Certification or Registration**

This condition is included by reference from s. NR 219.037, Wis. Adm. Code.

### **8.2.14 Effluent Limits Less than LOD or LOQ**

This condition is included by reference from s. NR 106.07(6), Wis. Adm. Code.

### **8.2.15 More Frequent Monitoring**

This condition is included by reference from s. NR 205.07(1)(r), Wis. Adm. Code.

### **8.2.16 Noncompliance and Other Reporting**

This condition is included by reference from s. NR 205.07(1)(s), Wis. Adm. Code.

### **8.2.17 Other Information**

This condition is included by reference from s. NR 205.07(1)(t), Wis. Adm. Code.

### **8.2.18 Bypassing**

This condition is included by reference from s. NR 205.07(1)(u), Wis. Adm. Code.

### **8.2.19 Permit as Enforcement Shield**

This condition is included by reference from s. NR 205.07(1)(x), Wis. Adm. Code.

### **8.2.20 Severability**

This condition is included by reference from 33 USC 1251.

## **8.3 General Conditions for non-POTW Permits**

These general conditions are applicable to non-POTWs with general permits and are included from s. NR 205.07(3), Wis. Adm. Code.

### **8.3.1 Removed Substances**

This condition is included by reference from s. NR 205.07(3)(a), Wis. Adm. Code.

### **8.3.2 Spill Reporting**

This condition is included by reference from s. NR 205.07(3)(b), Wis. Adm. Code.

### **8.3.3 Planned Changes**

This condition is included by reference from s. NR 205.07(3)(c), Wis. Adm. Code.

### **8.3.4 Duty to Halt or Reduce Activity**

This condition is included by reference from s. NR 205.07(3)(e), Wis. Adm. Code.

## 9 Summary of Reports Due

The summary of reports due has been updated for informational purposes for permittees or applicants to keep track of the due dates of required reports. require and to be consistent with individual WPDES permits.

### Major Changes from Previous Permit

- The general permit name has changed from “Hydrostatic Test Water or Water Supply System Water” to “Operation and Maintenance of Municipal Water Systems”. This name change was made as this permit is now applicable to discharges from municipal water systems.
- Application for Permit Coverage requirements have been added to the permit under Section 2 to provide instruction and guidance to applicants on how to apply for coverage under this general permit.
- Effluent limitations and monitoring for total residual chlorine have been added to the permit under Section 3. Monitoring for total residual chlorine is depending upon if the permittee adds chlorine-based additives to the water prior to discharge or the water supply system already contains chlorine or chlorine compounds for disinfection.
- Monitoring for total phosphorus have been added to the permit under Section 3. Monitoring for total phosphorus is depending upon if the permittee adds phosphorus containing additives to the water prior to discharge or the water already contains phosphorus or phosphorus compounds for corrosion control or sequestering.
- A sampling protocol has been added to the permit for fire hydrant flushing discharges under Section 3.2.3.
- A sampling frequency and reporting reduction requirements has been added to the permit for recurring other water system discharges under Section 3.3.3.
- The permit now requires that monitoring results be submitted on an electronic discharge monitoring report (eDMR) instead of a paper annual report under Section 5 or being exempt from reporting as stated in the previous permit. The monitoring forms are due 21 days after the end of the reporting permit. The eDMR shall be submitted regardless if there is a discharge or not during any reporting period.
- Information on the policy and regulations on water treatment additives has been added to the permit in Section 6.
- Information and policy on antidegradation, impaired waters, total maximum daily loads, and wetlands have been added to the permit under Section 7.

### Attachments

A. Definitions

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**Date: 06/22/2021**

## Attachment A – Definitions

The definitions of terms used in this general permit are based on their applicability to the type of operations and activity covered under this general permit. The definitions of these terms are included by reference from department guidance, 40 CFR 122.2 ch. 283, Wis. Stats. and chs. NR 200, NR 205, NR 206, NR 211, NR 218, and NR 811, Wis. Adm. Code. Definitions not specifically outlined in this section can be found in Wisconsin Administrative Code, Wisconsin Statutes, or 40 CFR. Each term is provided with its code reference. If the terms below are found to be inconsistent with the definition in code, permittees shall refer to the code definition.

### Annual Sampling Frequency

Annual sampling frequency means sampling the discharge once per calendar year (January 1<sup>st</sup> – December 31<sup>st</sup>). If there is no discharge during a calendar year, the permittee shall state this on the discharge monitoring report form.

### Continuous Discharge

Continuous discharge means a facility that discharges 24 hours per day on a year-round basis except for temporary shutdowns for maintenance or other similar activities. (*s. NR 205.03(9g), Wis. Adm. Code*)

### Daily Maximum Discharge Limitation

Daily maximum discharge limitation means the highest allowable daily discharge concentration or loading for a certain pollutant. (*40 CFR 122.2*)

### Daily Sampling Frequency

Daily sampling frequency means sampling the discharge once in a 24-hour day. If there is no discharge during a daily, the permittee shall state this on the discharge monitoring report form.

### Domestic Wastewater

Domestic wastewater means the type of wastewater normally discharged from plumbing facilities in private dwellings or commercial domestic establishments and includes, but is not limited to, sanitary, bath, laundry, dishwashing, garbage disposal and cleaning wastewaters. (*s. NR 205.03(14), Wis. Adm. Code*)

### Estimated

Estimated used to specify the type of sample for flow measurement, means a reasonable approximation of the average daily flow based on water balance, an uncalibrated weir, or any of the methods included in s. NR 218.05(3)(b), Wis. Adm. Code, disregarding requirements for continuously recording flow. (*s. NR 218.04(15), Wis. Adm. Code*)

### Grab Sample

Grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a 2-minute period. Where the term is used in connection with monitoring temperature or pH it means a single measurement. (*s. NR 218.04(10), Wis. Adm. Code*)

### Monthly Average Discharge Limitation

Monthly average discharge limitation means the highest allowable average of daily discharge concentrations or loadings for a certain pollutant over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. (*40 CFR 122.2*)



## **Monthly Sampling Frequency**

Monthly sampling frequency means sampling the discharge once per calendar month (Jan., Feb. March, April, May, June, July, Aug., Sept., Oct., Nov. and Dec.). If there is no discharge during a calendar month, the permittee shall state this on the discharge monitoring report form.

## **Municipal Wastewater**

Municipal wastewater means the mixture of domestic, process and other wastewater tributary to any given municipal sanitary sewage or treatment system. (*s. NR 205.03(19), Wis. Adm. Code*)

## **Municipal Water System**

Municipal water system means a community water system owned by a city, village, county, town, town sanitary district, utility district, public inland lake and rehabilitation district, municipal water district or a federal, state, county or municipal owned institution for congregate care or correction, or a privately owned water utility serving the foregoing. (*s. NR 811.02(41), Wis. Adm. Code*)

## **Point Source**

Point source means a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants may be discharged either into the waters of the state or into a publicly owned treatment works except for a conveyance that conveys only storm water. This term does not include agricultural storm water discharges and return flows from irrigated agriculture. (*s. 283.01(12)(a), Wis. Stats.*)

## **Practicable Alternatives**

Practicable alternatives means available and capable of being implemented after taking into consideration cost, available technology and logistics in light of overall project purposes. (*s. NR 103.07(2), Wis. Adm. Code*)

## **Privately Owned Treatment Works**

Privately owned domestic sewage treatment works means those facilities which treat domestic wastewater and are owned and operated by nonmunicipal entities or enterprises such as mobile home parks, restaurants, hotels, motels, country clubs, resorts, etc., which are permitted under ch. 283, Wis. Stats. (*s. NR 206.03(18), Wis. Adm. Code*)

## **Process Wastewater**

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product, and is likely to contain in solution or suspension various components of such raw materials or products. (*s. NR 205.03(30), Wis. Adm. Code*)

## **Publicly Owned Treatment Works**

Publicly owned treatment works or POTW means a treatment works which is owned by a municipality and any sewers that convey wastewater to such a treatment works. This definition includes any devices or systems used by a municipality in the storage, treatment, recycling, and reclamation of municipal sewage or liquid industrial wastes. The term also means the municipality or local unit of government which has jurisdiction over the indirect discharges to, and the discharges from, such a treatment works. (*s. NR 211.03(30), Wis. Adm. Code*)

## **Quarterly Sampling Frequency**

Quarterly sample frequency means monitoring four times per year; once anytime during each of the four annual quarters (Jan.-Feb.-March, April-May-June, July-Aug.-Sept., Oct.-Nov.-Dec.). If there is no discharge during a quarter, the permittee shall state this on the discharge monitoring report form.

## **Surface Waters**

Surface waters means waters of the state except wells and other groundwater. Cooling lakes, farm ponds and facilities constructed for the treatment of wastewaters are also excluded from this definition. (*s. NR 200.03(18), Wis. Adm. Code*)

## **Waters of the State**

Waters of the state means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface or groundwater, natural or artificial, public or private within the state or under its jurisdiction, except those waters which are entirely confined and retained completely upon the property of a person. (*s. NR 205.03(44), Wis. Adm. Code*)

## **Water System**

Water system means all facilities, structures, pipes, conduits and appurtenances by means of which water is delivered to consumers except piping and fixtures inside buildings served, water services and private water mains as defined in ch. SPS 381, Wis. Adm. Code. (*s. NR 811.02(74), Wis. Adm. Code*)

## **Weekly Average Discharge Limitation**

Weekly Average discharge limitation means the highest allowable average of daily discharge concentrations or loadings for a certain pollutant over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. (*40 CFR 122.2*)

## **Weekly Sampling Frequency**

Weekly sampling frequency means sampling the discharge once per calendar week which begins on Sunday and ends on Saturday. If there is no discharge during a calendar week, the permittee shall state this on the discharge monitoring report form.