WISCONSIN
DEPT. OF NATURAL RESOURCES

WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

GENERAL PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 283, Wis. Stats., any facility discharging

CARRIAGE AND/OR INTERSTITIAL WATER FROM DREDGING OPERATIONS

located in the State of Wisconsin and meeting the applicability criteria listed in this General Permit, is permitted to discharge these wastewaters directly to surface waters of the state and/or indirectly to groundwaters of the state in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

State of Wisconsin Department of Natural Resources
For the Secretary

By Sharon L. Gayan
Sharon L. Gayan, MPA
Director, Bureau of Water Quality

06/29/2018
Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE – July 01, 2018 **EXPIRATION DATE – June 30, 2023**

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1 Applicability Criteria

1.1 Discharges Covered

This general permit is applicable to any of the following discharges to the waters of the state:

- Discharges of carriage and/or interstitial water associated with mechanical or hydraulic dredging of sediment from the beds of waterways;
- Discharges of carriage and/or interstitial water from beach nourishment disposal on the beaches or in the water landward of the ordinary high-water mark of Lake Michigan or Lake Superior for the purpose of adding, replenishing or preventing erosion of beach material;
- Discharges of carriage and/or interstitial water from the removal of contaminated sediment as part of a clean-up project;
- Discharges of carriage and/or interstitial water from dredged material removed from the beds of waterways associated with construction projects (i.e. dam maintenance and repair);
- Discharges of carriage and/or interstitial water from dredged material removed from the beds of waterways to improve navigation and recreation;
- Discharges of carriage and/or interstitial water from dewatered sediment from storm water management structures;
- Discharges of carriage and/or interstitial water from dredged material that contains concentrations of monitored contaminants less than the probable effect concentration (PEC) values contained in the "*Consensus-Based Sediment Quality Guidelines*" (CBSQG), WDNR Publication No. WT-732 2003;
- Discharges of cleaning or decontamination wastewaters from cleaning treatment equipment associated with the treatment of carriage and/or interstitial water from dredged material; and
- Discharges of vehicle and/or equipment washwater and storm water runoff associated with dredging operations at the dredging site that is collected and conveyed for treatment at the treatment facility.

Note: Permit applicants should refer to the following four guidance documents for assistance on dredging projects, which can be obtained from the department's web site.

a) "Lake or Stream Dredging Individual Permit Application Checklist"
b) "Draft Sediment Sampling and Analyses for Dredging Permit Application and Approval"
c) "Consensus-Based Sediment Quality Guidelines", WDNR Publication No. WT-732 2003
d) "Guidance for Applying the Sediment Sampling and Analysis Requirements of Chapter NR 347, Wis. Adm. Code", WDNR Publication No. WT-778 2003.

Note: The permittee shall obtain all other necessary approvals for dredging. This permit does not relieve the permittee from having to comply with applicable federal, state, and local requirements. Dredging in navigable waters requires a permit under ch. 30, Wis. Stats, and is subject to applicable requirements in s. 30.20, Wis. Stats., ch. NR 345, Wis. Adm. Code, and ch. NR 347, Wis. Adm. Code.

1.2 Discharges Not Covered

This general permit is not applicable to any of the following discharges to the waters of the state:

- Discharges from sediment that is uncontaminated in accordance with the sediment characterization under Sections 4 and are only discharged within a best management practice (BMP) that appropriately manages suspended solids within the dredging area;

- Discharges of dredging wastewater from uncontaminated sediment associated with non-metallic mining operations;
- Discharges of dredging wastewater from contaminated sediment to waters classified as public water supply in ch. NR 104, Wis. Adm. Code, except beach nourishment disposal that meets the requirements in Section 4.3.
- Discharges from the dredging of less than 2 cubic yards in a calendar year from a specific waterbody;
- Discharges from the manual removal of aquatic plants that meets the requirements of s. NR 109.06(2), Wis. Adm. Code;
- Discharges from dredging of a farm drainage ditch which was not a navigable stream before ditching that meets the requirements in s. NR 345.04(c), Wis. Adm. Code;
- Discharges from manual dredging activities that meets the requirements in s. NR 345.04(d), Wis. Adm. Code;
- Disposal of dredged material solids from mechanical or hydraulic dredging of sediment from the beds of waterways except beach nourishment disposal that meets the requirements in Section 4.3 of this permit;
- Disposal of precipitated sludges from the separation of the dredged material from carriage and/or interstitial water in a disposal, rehandling, or treatment facility;
- Disposal of accumulated sediment from storm water management structures regulated under ch. NR 528, Wis. Adm. Code.
- Discharges of dredging wastewater when the sediment contains contaminants at concentrations that exceed the PEC unless the water is treated and meets effluent limits. The department may grant coverage under this general permit when the sediment contains contaminants that exceed the PEC, but only if the applicant provides the necessary treatment of the carriage and/or interstitial water, and demonstrates through pilot studies compliance with all applicable effluent limits. Alternatively, if there is documentation of a similar project to show the proposed treatment system complies with discharge limits, this may be acceptable.
- Discharges from Superfund dredging sites that are carried out under the supervision and direction of the U.S. Environmental Protection Agency (EPA);
- Discharges associated with US Army Corps of Engineer (COE) dredging projects in and near the Mississippi River, St. Croix River, and Black River if the project is included under a memorandum of understanding between the department and the COE in accordance with s. 30.202, Wis. Stats.;
- Discharges from dredging projects that are carried out under the supervision and direction of the Wisconsin Department of Transportation (DOT) in accordance with s. 30.2022, Wis. Stats.;
- Discharges to a publicly-owned treatment works (POTW);
- Discharges containing water treatment additives where the additive use is not approved in writing by the department;
- Discharges to a wetland where the department has determined that the discharge of pollutants will not meet the wetland protection requirements of ch. NR 103, Wis. Adm. Code;
- Discharges directly to an outstanding resource water as defined in s. NR 102.10, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding resource waters;

- Discharges directly to an exceptional resource water as defined in s. NR 102.11, Wis. Adm. Code, or discharges that would lower the water quality of downstream exceptional water resources;
- Discharges that 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;
- Increased discharges to 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.
- Discharges that will adversely impact endangered and threatened species, including causing an incidental take, unless the department determined 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.
- 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., 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.;
- Discharges from and/or to properties within tribal lands. The Tribe or EPA regulates discharges from tribal lands (land owned by or held in trust for the tribes and land within recognized reservation boundaries);
- Discharges containing substances that will have a reasonable potential to exceed water quality standards pursuant to chs. NR 102, NR 104, NR 105, NR 106, NR 207, and NR 217 Wis. Adm. Code, or other applicable surface water quality standards; and
- Discharges containing substances that will have a reasonable potential to exceed groundwater quality standards in ch. NR 140, Wis. Adm. Code.

2 Obtaining Permit Coverage

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

2.1 Submittal of a Notice of Intent

The applicant must submit a complete notice of intent (NOI) under this general permit to the department at least thirty (30) business days before the expected start date of discharge. The NOI can be found at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html and Appendix B to this general permit. NOIs must be submitted electronically, if made available by the department, or mailed to the attention of "Wastewater General Permits" at the headquarters office of the region in which the project is located unless otherwise indicated on the department's webpage. A list of the department general permit reviewers for each region with contact information can be found at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html. Please scroll to the "How to Apply" section and click the department region that you are located.

Note: The department is in the process of developing and requiring electronic submissions of NOIs to discharge under this general permit. Once the NOIs are online, paper copies will be no longer accepted. The department will post this update on our general permit webpage.

2.1 Incomplete NOI

The department may require an applicant to submit additional information if the department determines a NOI is incomplete. The applicant shall submit the requested information.

2.2 Granting of Coverage

All applicants meeting the applicability requirements of this general permit must receive a letter from the department granting coverage under this general permit prior to commencing discharge to the waters of the state. If the applicant has not received a coverage letter from the department granting coverage under this general permit, an applicant may not discharge to the waters of the state until coverage under this general permit is granted by the department.

Note: 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.

3 Discharge Management Plan

The permittee shall comply with the following discharge management plan requirements.

3.1 Operate Consistent with an Approved Discharge Management Plan

Permittees shall develop a discharge management plan if their discharge(s) are determined to be contaminated under Section 4. The permittee shall operate consistent with a department approved discharge management plan. A copy of the discharge management plan shall be retained by the permittee and this plan shall be made available upon department inspection or submitted to the department upon request.

3.2 Submittal of the Discharge Management Plan

Applicants shall submit a complete discharge management plan with the submittal of the NOI. The department coverage letter will explicitly indicate approval of the discharge management plan. Additionally, applicants must submit information from the ch. 30, Wis. Stats., dredging permit application process, including sediment characterization data collected according to ch. NR 347, Wis. Adm. Code, to the department as a part of the discharge management plan. This information will assist in the department in determining the applicable monitoring parameters and limitations under this permit. Permittees shall notify the department when the discharge management plan is amended to determine if the amendment requires department approval.

3.3 Discharge Management Plan Content

The discharge management plan shall include at least the following information:

1. General information on the name of waterbody, location of project, volume of material to be dredged, anticipated discharge volume, brief description of dredging method and equipment, and anticipated starting and completion dates of the proposed project.
2. A detailed site map. The site map shall identify the discharge location, general land uses, separation distances to potable water supply wells and residences, and other pertinent information.
3. Sediment characterization data collected according to ch. NR 347, Wis. Adm. Code.
4. Final plans and specifications for the proposed wastewater treatment system for contaminated sediment removal. The plans and specifications shall include a professorial engineer stamp, detailed drawings of the proposed treatment system design, including general component arrangements, equipment layout, process flow diagrams, piping and instrumentation diagrams, cross sections, outfall structure, sampling locations and instrumentation locations. If treatment is necessary to meet limits in this permit, the applicant must demonstrate that the level of treatment shall be equivalent to Best Available Technology Economically Achievable as referenced in Section 301(b)(2) of the Clean Water Act and s. 283.13(2)(b), Wis. Stats.

   Note: Final plans and specifications for groundwater treatment systems are subject to the department's approval pursuant to s. 281.41, Wis. Stats. and ch. NR 108, Wis. Adm. Code. The plans and specifications shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921.
5. General description of planned operation and maintenance. The operation and maintenance shall include a description of the normal operation and maintenance with frequency of each task, contingency plans, routine monitoring and analysis, visual inspection procedures, record-keeping and reporting.
6. Description of erosion and sediment control practices.

7. Description of best management practices to minimize, with the goal of eliminating, incidental discharges from mechanical dredging machinery during the dredging operation, including leakage of water from clam shell buckets, backhoes, barges, and other machinery used in removing dredged material, etc. The intentional discharge from the dewatering of dredged material on a barge is not leakage. Barges shall be sealed to be water tight to prevent the discharge from dewatering, except if operated within a dredging area containment BMP.
8. A listing of all required local, state and federal permits, licenses and approvals to construct and implement the dredging project.
9. A list of contaminants for monitoring based on Section 4.
10. Applicants must demonstrate that there is no reasonable potential to exceed water quality standards listed in to chs. NR 102, NR 104, NR 105, NR 106, NR 207, and NR 217 Wis. Adm. Code, for pollutants not directly limited by this permit, or that there is no reasonable potential to exceed groundwater quality standards listed in Ch. NR 140, Wis. Adm. Code, for pollutants not directly limited by this permit.

4 Sediment Screening

Information from the ch. 30, Wis. Stats. dredging permit application process, including sediment characterization data collected according to ch. NR 347, Wis. Adm. Code, shall be used to determine the applicable monitoring parameters and limitations. The sediment characterization data shall be compared with the "*Consensus-Based Sediment Quality Guidelines*" (CBSQG) Threshold Effect Concentration (TEC) to determine if the sediment is contaminated or uncontaminated.

4.1 Contaminated Sediment

The sediment is contaminated if any of the following criteria apply:

1. The concentration of any substance in the sediment is equal to or greater than the TEC for that substance.
2. For surface water discharges, elutriate testing is conducted under the provisions of ch. NR 347, Wis. Adm. Code, and if the substance does not have a TEC in the CBSQG, and if such testing determines that the concentration of any substance in the elutriate is greater than 1/5 the effluent limit.
3. For groundwater discharges, elutriate testing is conducted under the provisions of ch. NR 347, Wis. Adm. Code, and if the substance does not have a TEC in the CBSQG, and if such testing determines that the concentration of any substance in the elutriate is greater than the groundwater preventive action limit (PAL) in ch. NR 140, Wis. Adm. Code.

4.2 Uncontaminated Sediment

The sediment is uncontaminated if any of the following criteria apply:

1. The concentration of all the substances used to characterize the sediment is less than the TEC.
2. The concentration of any substance in the sediment exceeds the TEC, but is less than the maximum probable background concentration as determined using the procedure in Appendix B of the CBSQG.
4. For surface water discharges, elutriate testing is conducted under the provisions of ch. NR 347, Wis. Adm. Code, and if the substance does not have a TEC in the CBSQG, and if such testing determines that the concentration of any substance in the elutriate is less than 1/5 the effluent limit.
5. For groundwater discharges, elutriate testing is conducted under the provisions of ch. NR 347, Wis. Adm. Code, and if the substance does not have a TEC in the CBSQG, and if such testing determines that the concentration of any substance in the elutriate is less than the groundwater preventive action limit (PAL) in ch. NR 140, Wis. Adm. Code.

Note: The elutriate test may consist of filtering (0.45-micron filter) the supernatant from a representative sediment slurry and analyzing the filtrate for the potential pollutants of concern identified in the sediment characterization data.

4.3 Beach Nourishment Disposal Sediment Screening

The disposal of dredged material on the beaches or in the water landward from the ordinary high-water mark of Lakes Michigan and Superior for the purpose of adding, replenishing or preventing erosion of beach material, or where otherwise allowed by State law, is authorized by this permit if the conditions under this section are met. Reporting requirements for uncontaminated beach nourishment disposal is listed in Section 7.

4.3.1 Particle Size

The particle size shall meet the criteria of s. NR 347.07(4)(a)1, Wis. Adm. Code. The average percentage of silt plus clay (material passing a #200 sieve or <0.074 mm diameter) in the dredged material may not exceed the average percentage of silt plus clay in the existing beach by more than 15%, and the color of the dredged material may not differ significantly from the color of the beach material.

Note: For example, if the silt plus clay content of the existing beach is 10%, suitable dredged material must have a silt plus clay content of less than 25%.

4.3.2 Contaminant Concentrations

The following shall be used to determine if the sediment is contaminated or uncontaminated:

1. If the contaminant concentrations in the sediment are less than the TEC values contained in the "*Consensus-Based Sediment Quality Guidelines*" (CBSQG), and not greater than 1,000 mg/Kg for oil and grease then the sediment is uncontaminated and monitoring is not required.
2. If the concentration of any substance in the sediment is equal to or greater than the TEC for that substance, then the sediment is contaminated and the monitoring requirements for Section 5.2.3 shall apply.
3. If the concentration of any substance in the sediment exceeds the TEC, but is less than the maximum probable background concentration as determined using the procedure in Appendix B of the CBSQG, then the sediment is uncontaminated and monitoring is not required. Background concentration shall be evaluated at the material placement site, not the dredging location.

5 Surface Water Discharge Requirements

The requirements of this section only apply to surface water discharges. Surface water 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 wastewater to surface waters within the state of Wisconsin.

5.1 Sampling Point(s)

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, WasteType/Sample Contents and Treatment Description (as applicable)**
001	Discharges of carriage and/or interstitial water from uncontaminated dredged sediment shall be sampled following treatment and prior to discharge to surface water via Outfall 001. The samples taken shall be representative of the discharge that consists solely of the treated effluent before mixing with any other water.
002	Discharges of carriage and/or interstitial water from contaminated dredged sediment shall be sampled following treatment and prior to discharge to surface water via Outfall 002. The samples taken shall be representative of the discharge that consists solely of the treated effluent before mixing with any other water.
003	Discharges of carriage and/or interstitial water from beach nourishment disposal on the beaches or in the water landward of the ordinary high-water mark of Lakes Michigan and Superior for the purpose of adding, replenishing or preventing erosion of beach material shall be sampled following treatment and prior to discharge to surface water (if applicable) via Outfall 003. The samples taken shall be representative of the discharge that consists solely of the treated effluent before mixing with any other water.

5.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations. Monitoring is only required when wastewater being discharged to surface water.

5.2.1 Sampling Point (Outfall) 001 – Uncontaminated Sediment Discharge

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Estimated	See Section 5.4
Suspended Solids, Total	Daily Max	40 mg/L	Weekly	Grab	Applies to discharges to waters classified as trout streams under ch. NR 102, Wis. Adm. Code. See Sections 5.4 – 5.6.
Suspended Solids, Total	Daily Max	80 mg/L	Weekly	Grab	Applies to discharges to all other waters not classified as trout streams under ch. NR 102, Wis. Adm. Code. See Sections 5.4 – 5.6.

5.2.2 Sampling Point (Outfall) 002 – Contaminated Sediment Discharge

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Estimated	See Section 5.5
Suspended Solids, Total	Daily Max	10 mg/L	Weekly	Grab	Applies to discharges containing PCBs. See Sections 5.4 – 5.6.
Suspended Solids, Total	Daily Max	40 mg/L	Weekly	Grab	Applies to all other discharges not containing PCBs. See Sections 5.4 – 5.6.
pH	Daily Min	6.0 su	Weekly	Grab	See Sections 5.4 and 5.5.
pH	Daily Max	9.0 su	Weekly	Grab	See Sections 5.4 and 5.5
Oil and Grease (Hexane)	Daily Max	15 mg/L	Weekly	Grab	See Sections 5.4, 5.5 and 5.7
Chorine, Total Residual	Daily Max	19 µg/L	Weekly	Grab	See Section 5.9
Other Pollutants at Concentration of Concern	TBD	TBD	Weekly	TBD	Refer to Sections 5.3 – 5.5.

5.2.3 Sampling Point (Outfall) 003 – Beach Nourishment Disposal

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Other Pollutants at Concentration of Concern	TBD	TBD	Weekly	TBD	Refer to Sections 5.3 – 5.5.

5.3 Other Pollutants at Concentration of Concern

The permittee is required to monitor for those pollutants at a concentration of concern as determined under Section 4 and submitted with the discharge management plan. The effluent limitations, limit type, and sample type for these substances are listed in Table 1.

Table 1. Effluent Limitations for Contaminated Sediment Discharges to Surface Water

Parameter	Limit Type	Limit and Units	Sample Type	Note
Arsenic, Total Recoverable*	Monthly Avg	13.3 µg/L	Grab Comp	See Section 5.3.1
Cadmium, Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Cadmium, Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1
Chromium (+3), Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Chromium (+3), Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1
Chromium (+6), Total Recoverable*	Daily Max	16 µg/L	Grab Comp	
Chromium (+6), Total Recoverable*	Weekly Avg	11 µg/L	Grab Comp	
Copper, Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Copper, Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1
Lead, Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Lead, Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1
Nickel, Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Nickel, Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1

Parameter	Limit Type	Limit and Units	Sample Type	Note
Mercury, Total Recoverable*	Monthly Avg	1.3 ng/L	Grab Comp	
Zinc, Total Recoverable*	Daily Max	See Permit Note	Grab Comp	See Section 5.3.1
Zinc, Total Recoverable*	Weekly Avg	See Permit Note	Grab Comp	See Section 5.3.1
PCBs, Total*	Monthly Avg	0.003 ng/L	Grab	
2,3,7,8 – TCDD TE*	Monthly Avg	0.003 pg/L	Grab	See Appendix D for calculation
Benzene	Monthly Avg	50 µg/L	Grab	
BETX, Total	Monthly Avg	750 µg/L	Grab	
PAHs	Monthly Avg	0.1 µg/L	Grab	See Section 5.3.2 and Appendix C for calculation
Benzo(a)pyrene	Monthly Avg	0.1 µg/L	Grab	See Section 5.3.3
Naphthalene	Monthly Avg	70 µg/L	Grab	See Section 5.3.4
Bromoform	Monthly Avg	120 µg/L	Grab	
Carbon Tetrachloride	Monthly Avg	150 µg/L	Grab	
Chloroform	Monthly Avg	120 µg/L	Grab	
Dichlorobromomethane	Monthly Avg	120 µg/L	Grab	
1,2-Dichloroethane	Monthly Avg	180 µg/L	Grab	
1,1-Dichloroethylene	Monthly Avg	50 µg/L	Grab	
Methyl Bromide	Monthly Avg	120 µg/L	Grab	
Methyl Chloride	Monthly Avg	120 µg/L	Grab	
1,1,2,2-Tetrachloroethane	Monthly Avg	50 µg/L	Grab	
Tetrachloroethylene	Monthly Avg	50 µg/L	Grab	
1,1,2-Trichloroethane	Monthly Avg	50 µg/L	Grab	
1,1,1-Trichloroethane	Monthly Avg	50 µg/L	Grab	
Trichloroethylene	Monthly Avg	50 µg/L	Grab	
Vinyl Chloride	Monthly Avg	10 µg/L	Grab	
Nitrogen, Ammonia (NH_3-N) Total*	Daily Max	1 mg/L	Grab	
Nitrogen, Ammonia (NH_3-N) Total*	Monthly Avg	1 mg/L	Grab	
Hardness, Total as $CaCO_3$	-	mg/L	Grab Comp	See Section 5.3.1
Phosphorus, Total*	Monthly Avg	0.3 mg/L	Grab	Only applies to discharges to waters designated as rivers in s. NR 102.06(3)(a), Wis. Adm. Code. See Section 5.8.
Phosphorus, Total*	Monthly Avg	0.12 mg/L	Grab	Only applies to discharges to waters designated as drainage lakes, seepage lakes or reservoirs that are not stratified (s. NR 102.06(4), Wis. Adm. Code). See Section 5.8.

Parameter	Limit Type	Limit and Units	Sample Type	Note
Phosphorus, Total*	Monthly Avg	0.09 mg/L	Grab	Only applies to discharges to waters designated as drainage lakes or reservoirs that are stratified (s. NR 102.06(4), Wis. Adm. Code). See Section 5.8.
Phosphorus, Total*	Monthly Avg	0.06 mg/L	Grab	Only applies to discharges to waters designated as stratified, seepage lakes (s. NR 102.06(4), Wis. Adm. Code). See Section 5.8.
Phosphorus, Total*	Monthly Avg	0.045 mg/L	Grab	Only applies to discharges to waters designated as stratified, two-story fishery lakes (s. NR 102.06(4), Wis. Adm. Code). See Section 5.8.
Phosphorus, Total*	Monthly Avg	0.225 mg/L	Grab	Only applies to discharges to all waterbody types not specified in s. NR 102.06(3)(a), Wis. Adm. Code. See Section 5.8.

*The permittee may request calculation of site-specific limits in lieu of complying with the limits in the above tables for ammonia nitrogen, metals, PCBs, dioxin, and total phosphorus parameters. In such cases, the water quality based effluent limits for toxic substances are determined using the procedures in chs. NR 105 and NR 106, Wis. Adm. Code; and for phosphorus using the procedures in chs. NR 102 and 217, Wis. Adm. Code. The permittee shall follow the final limits calculated by the department. Limit requests shall include information on the hours of operation and whether it is a continuous or non-continuous discharge, the pumping rate and conveyance capacity of the treatment system, and a description of the discharge location.

5.3.1 Daily Maximum and Weekly Average Metal Limits

The permittee shall determine the daily maximum and weekly average limitations for total recoverable cadmium, total recoverable chromium, total recoverable copper, total recoverable lead, total recoverable nickel, and total recoverable zinc as follows:

Daily Max Limit = e ^ (V x ln(effluent hardness in mg/L as $CaCO_3$) + ln(ACI))

Weekly Avg Limit = e ^ (V x ln(receiving water hardness in mg/L as $CaCO_3$) + ln (CCI))

The values for V and ln(ACI) for determining daily maximum limits for each metal are shown in Table 2. The values for V and ln(CCI) for determining weekly average limits for each metal are shown in Table 3. The receiving water hardness values are shown in Appendix E. ACI means acute criterion intercept and CCI means chronic criterion intercept. Monitoring for effluent hardness is only required when monitoring for the total recoverable metals listed in Table 2 and Table 3.

Table 2. Values for V and ln(ACI) for Daily Max Metal Limits

Substance	V	ln (ACI)
Total Recoverable Cadmium: Cold water Warm Water Limited Aquatic Life	1.147	 -3.8104 -2.9493 -1.9195
Total Recoverable Chromium (+3)	0.819	3.7256
Total Recoverable Copper	0.9436	-1.6036
Total Recoverable Lead	0.9662	0.2226
Total Recoverable Nickel	0.846	2.255
Total Recoverable Zinc	0.8745	0.7634

Table 3. Values for V and ln(ACI) for Weekly Avg Metal Limits

Substance	V	ln (CCI)
Total Recoverable Cadmium	0.7852	-2.7150
Total Recoverable Chromium (+3): Cold Water All Others	0.819	 0.6851 1.112
Total Recoverable Copper	0.8557	-1.6036
Total Recoverable Lead	0.9662	-1.1171
Total Recoverable Nickel: Limited Aquatic Life All Others	0.846	 0.4004 0.059
Total Recoverable Zinc	0.8745	0.7634

5.3.2 PAH Group of Ten

Permittees shall use EPA test method 610 or other EPA approved method to test for the PAH compounds. Permittees shall demonstrate compliance with the monthly average PAH group limit by reporting no detection of any of these PAH compounds, or by reporting the sum of the PAH group detected amounts equal to or less than 0.1 µg/L. See Appendix C for the calculation of the concentration of the PAH group of 10 compounds.

5.3.3 Benzo(a)pyrene

Permittees shall use EPA test method 610 or other EPA approved method to test for benzo(a)pyrene. Permittees shall demonstrate compliance with monthly average benzo(a)pyrene limit by reporting no detection of benzo(a)pyrene, or by reporting a detected amount equal to or less than 0.1 µg/L.

5.3.4 Naphthalene

Permittees shall use EPA test method 610 or other EPA approved method to test for naphthalene. Permittees shall demonstrate compliance with monthly average naphthalene limit by reporting no detection of naphthalene, or by reporting a detected amount equal to or less than 70 µg/L.

5.4 System Startup Sampling

The permittee shall collect a representative sample of the treatment system discharge at initial startup and have them analyzed for all applicable parameters and substances under this section. The permittee shall immediately notify the department of any limits exceeded and submit an amendment to the discharge management plan for approval prior to beginning full operation. The permittee shall continue to retest and amend the discharge management plan as necessary until it is demonstrated that limits can be met.

5.5 Sampling Frequency During Operation

The permittee shall record the total daily volume of wastewater discharged under this permit on each day there is a discharge. For all other parameters, in the first 4 weeks of discharge, the permittee shall sample the discharge weekly under either Outfall 001, Outfall 002 or Outfall 003. If the discharge continues after the first 4 weeks, the permittee shall sample the discharge monthly. If the discharge continues beyond one year since the start date and the monitoring results have not exceeded any permit discharge limitations the department may approve in writing a quarterly monitoring frequency.

A monthly or quarterly sampling frequency only applies if data indicates substantial compliance with effluent limits. If the sampling frequency is monthly or quarterly and an exceedance occurs, a weekly monitoring frequency must resume until substantial compliance is demonstrated for eight consecutive weeks.

5.6 Solids Removal

For wastewaters that are treated for total suspended solids prior to discharge to surface waters, the permittee shall remove captured solids from solids separation equipment or facilities as needed to maintain treatment unit hydraulic capacity and prevent carry-over of solids.

5.7 Oil & Grease Visual Inspection

The permittee shall visually inspect all wastewater discharges daily for oil sheen and film. If oil sheen and film is present additional characterization following Section 4 must be performed before continuing to dredge in the area of potentially impacted sediment. Oil and grease monitoring and limitations are only required if oil and grease is present from visual inspection or sediment characterization. Additionally, the permittee shall implement best management practices to collect and contain the oily discharge (i.e. absorbent booms, spill kits, etc.).

5.8 Total Phosphorus Monitoring

The total phosphorus monitoring and limitations are only required when phosphorus containing additives are intentionally added to the water, the suppliers of the water supply system water add phosphorus additives to the source water, or the concentration of phosphorus in the sediment is greater than 1/5 the effluent limits.

5.9 Total Residual Chlorine Monitoring

Chlorine may be used to control the growth of micro-organisms in the treatment system or used to decontaminate the treatment system after completion of the remediation project. The department recommends a chlorination system that cleans and chlorinates the treatment unit when it is out of service, and then captures the cleaning wastewater for acceptable offsite disposal, such as a sanitary sewer. The total residual chlorine monitoring and limitation are only required at sites where there is a discharge of equipment cleaning wastewaters to surface water.

5.9.1 Total Residual Chlorine Reporting and Compliance

Test methods for total residual chlorine, approved in ch. NR 219 - Table B, Wis. Adm. Code, normally achieve a limit of detection of about 20 to 50 micrograms per liter and a limit of

quantitation of about 100 micrograms per liter. When dechlorination is in use, reporting of test results and compliance with effluent limitations for chlorine residual shall be as follows:

- Sample results which show no detectable levels are in compliance with the limit. These test results shall be reported on Wastewater Discharge Monitoring Report Forms as "< 100 µg/L". (Note: 0.1 mg/L converts to 100 µg/L)
- Samples showing detectable traces of chlorine are in compliance if measured at less than 100 µg/L, unless there is a consistent pattern of detectable values in this range. These values shall also be reported on Wastewater Discharge Monitoring Report Forms as "<100 µg/L." The facility operating staff shall record actual readings on logs maintained at the plant, shall take action to determine the reliability of detected results (such as re-sampling and/or calculating dosages), and shall adjust the chemical feed system if necessary to reduce the chances of detects.
- Samples showing detectable levels greater than 100 µg/L shall be considered as exceedances, and shall be reported as measured.
- To calculate average or mass discharge values, a "0" (zero) may be substituted for any test result less than 100 µg/L. Calculated values shall then be compared directly to the average or mass limitations to determine compliance.

5.10 Impaired Waters & TMDL Requirements for Surface Water Discharges

5.10.1 Report Discharge to an Impaired Surface Water

Permittees shall report, on the annual discharge monitoring report, if the wastewater has a detectable pollutant of concern (as identified per required monitoring) that discharges to an impaired surface water or a surface water with a State and EPA approved Total Daily Maximum Load (TMDL) allocation. The section 303(d) list of Wisconsin impaired surface water bodies may be obtained by contacting the department or by searching for the section 303(d) list on the department's Internet site. The department updates the section 303(d) list approximately every two years. The updated list is effective upon approval by EPA. The current link to the section 303(d) list is: http://dnr.wi.gov/topic/impairedwaters/2016IR_IWList.html. State and Federal Approved TMDLs can be identified by contacting the department, or by searching for the State and Federal Approved TMDL list on the department Internet site. The current link to identify the list of State and Federal Approved Final TMDLs is: http://dnr.wi.gov/topic/TMDLs/index.html.

5.10.2 TMDL Compliance

Permittees that discharge a pollutant of concern that is subject to an approved TMDL shall comply with the requirements of the State and Federally approved TMDL allocation that is in effect on the effective date of this general permit. Existing pollutant discharges covered under this general permit are expected to be consistent with the baseline wasteload allocation granted to Wisconsin general permit discharges in all State and EPA approved TMDLs in effect on the effective date of this general permit.

5.10.3 New or Increased Pollutant Discharge to a 303(d) Listed Impaired Surface Water

Applicants or permittees must notify the department when they propose a new or increased discharge of a pollutant of concern to an impaired water body in accordance with Section 8.1.6. The permittee may not establish a new or increased discharge of a pollutant of concern to an impaired water body until the department has determined that the new or increased discharge does not contribute to the receiving water impairment, or the discharge is consistent with a State and Federal approved TMDL wasteload allocation for the impaired water body. Any new or

increased pollutant of concern discharge to an impaired surface water with a State and Federal approved TMDL authorized under this general permit shall be consistent with the baseline wasteload allocation for general permittees within the basin.

5.11 Water Treatment Additives for Surface Water Discharges

Permittees shall not place water treatment additives in any discharge unless the water treatment additive use is approved, in writing, by the department. An additive review is necessary for substances that may enter surface water without receiving wastewater treatment or substances that are used in a treatment process but are not expected to be removed by wastewater treatment and may contribute to effluent toxicity. If the permittee wishes to commence use of a water treatment additive, or increase the usage of the additives greater than indicated in the NOI, the permittee shall submit a request and receive written approval from the department prior to initiating such changes. The permittee shall maintain records of the monthly water treatment additive use including the additive name, manufacturer, and daily maximum amount used.

For each water treatment additive used, the permittee shall submit a copy of the Additive Review Worksheet to the department. Examples of water treatment additives are biocides such as microbicides, fungicides, molluscicides, etc. and water quality conditioners such as scale and corrosion inhibitors, pH adjustment chemicals, oxygen scavengers, conditioning agents, water softening compounds, etc. The Additive Review Worksheet is not required for additives with active ingredients consisting of chlorine, hypochlorite, sulfuric acid, hydrochloric acid or sodium hydroxide. Also, chemicals used in an industrial process generating wastewater that eventually receives treatment or chemicals added as part of wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an Additive Review Worksheet. For more information on the additive review process, see the guidance document titled Water Quality Review Procedures for Additives.

The permittee shall not discharge any water treatment additive that will have a reasonable potential to exceed water quality standards pursuant to chs. NR 102, NR 104, NR 105, NR 106, NR 207 or NR 217, Wis. Adm. Code, for surface water discharges. If the discharge contains these types of water treatment additives, the permittee shall apply for an individual permit prior to discharge to surface waters.

5.12 Surface Water Uses and Criteria

In accordance with s. NR 102.04, Wis. Adm. Code, surface water uses and criteria are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development or other activities shall be controlled so that all surface waters including the mixing zone meet the following conditions at all times and under all flow and water level conditions:

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

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

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

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

6 Groundwater Discharge Requirements

The requirements of this section only apply to groundwater discharges. Groundwater discharge means any wastewater (treated or untreated) that is allowed to infiltrate or seep into the soil from a permeable surface that may impact groundwater quality.

6.1 Sampling Point(s)

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, WasteType/Sample Contents and Treatment Description (as applicable)**
004	Discharges of carriage and/or interstitial water from uncontaminated dredged sediment shall be sampled following treatment and prior to discharge to groundwater via Outfall 004. The samples taken shall be representative of the discharge that consists solely of the treated effluent before mixing with any other water.
005	Discharges of carriage and/or interstitial water from contaminated dredged sediment shall be sampled following treatment and prior to discharge to groundwater via Outfall 005. The samples taken shall be representative of the discharge that consists solely of the treated effluent before mixing with any other water.

6.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations. Monitoring is only required when wastewater being discharged to groundwater.

6.2.1 Sampling Point (Outfall) 004 – Uncontaminated Sediment

Permittees with discharges of uncontaminated sediment to groundwater shall follow the applicable monitoring provisions stated in Sections 6.9-6.16 and reporting requirements under Section 7.

6.2.2 Sampling Point (Outfall) 005 –Contaminated Sediment Discharge

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Estimated	See Section 6.5
Oil and Grease (Hexane)	Daily Max	15 mg/L	Weekly	Grab	See Sections 6.4 – 6.6
Other Pollutants at Concentration of Concern	TBD	TBD	Weekly	Grab	Refer to Sections 6.3 – 6.5

6.3 Other Pollutants at Concentration of Concern

The permittee is required to monitor for those pollutants at a concentration of concern as determined under Section 4 and submitted with the discharge management plan. The effluent limitations, limit type, and sample type for these substances are listed in Table 4.

Table 4. Effluent Limitations for Contaminated Sediment Discharges

Parameter	Limit Type	Limit and Units	Note
Arsenic, Dissolved	Monthly Avg	1 µg/L	
Cadmium, Dissolved	Monthly Avg	0.5 µg/L	
Chromium, Dissolved	Monthly Avg	10 µg/L	

Parameter	Limit Type	Limit and Units	Note
Copper, Dissolved	Monthly Avg	130 µg/L	
Lead, Dissolved	Monthly Avg	1.5 µg/L	
Mercury, Dissolved	Monthly Avg	0.2 µg/L	
Nickel, Dissolved	Monthly Avg	20 µg/L	
Acetone, Dissolved	Monthly Avg	200 µg/L	
Benzene, Dissolved	Monthly Avg	0.5 µg/L	
PCBs, Total	Monthly Avg	0.003 µg/L	
2,3,7,8 – TCDD TE	Monthly Avg	3 pg/L	See Appendix D for calculation
Benzo(a)pryrene	Monthly Avg	0.02 µg/L	See Section 6.7
Benzo(a)anthracene	-	µg/L	
Benzo(b)fluoranthene	Monthly Avg	0.02 µg/L	
Benzo(k)fluoranthene	-	µg/L	
Benzo(g,h,i)perylene	-	µg/L	
Chrysene	Monthly Avg	0.02 µg/L	
Dibenzo(a,h)anthracene		µg/L	
Ethlybenzene	Monthly Avg	140 µg/L	
Ethylene Dibromide	Monthly Avg	0.005 µg/L	
Fluoranthene	Monthly Avg	80 µg/L	
Fluorene	Monthly Avg	80 µg/L	
Indeno(1,2,3-cd) pyrene	-	µg/L	
Methyl ethyl ketone	Monthly Avg	90 µg/L	
Methyl isobutyl ketone	Monthly Avg	50 µg/L	
Methyl tert-butyl ether	Monthly Avg	12 µg/L	
Naphthalene	Monthly Avg	10 µg/L	See Section 6.8
Phenanthrene	-	µg/L	
Pyrene	Monthly Avg	50 µg/L	
Pyridine	Monthly Avg	2 µg/L	
Styrene	Monthly Avg	10 µg/L	
Tetrahydrofuran	Monthly Avg	10 µg/L	
Toluene	Monthly Avg	160 µg/L	
Trimethylbenzenes	Monthly Avg	96 µg/L	
Xylene, Total	Monthly Avg	0.4 mg/L	
PAHs	Monthly Avg	0.1 µg/L	See Section 6.6 and Appendix C for calculation
BETX, Total	Monthly Avg	750 µg/L	
1,1-Dichloroethane	Monthly Avg	85 µg/L	
1,2-Dichloroethane	Monthly Avg	0.5 µg/L	
1,1-Dichloroethylene	Monthly Avg	0.7 µg/L	
1,2-Dichloroethylene (cis)	Monthly Avg	7 µg/L	
1,2-Dichloroethylene (trans)	Monthly Avg	20 µg/L	
1,2-Dichlorobenzene	Monthly Avg	60 µg/L	
1,3-Dichlorobenzene	Monthly Avg	125 µg/L	
1,4-Dichlorobenzene	Monthly Avg	15 µg/L	
Bromoform	Monthly Avg	0.44 µg/L	
Carbon Tetrachloride	Monthly Avg	0.5 µg/L	

Parameter	Limit Type	Limit and Units	Note
Chloroethane	Monthly Avg	80 µg/L	
Chloroform	Monthly Avg	0.6 µg/L	
Chloromethane	Monthly Avg	0.3 µg/L	
Dichlorobromomethane	Monthly Avg	6 µg/L	
Methylene Chloride	Monthly Avg	0.5 µg/L	
Pentachlorophenol	Monthly Avg	0.1 µg/L	
1,1,1,2-Tetrachloroethane	Monthly Avg	7 µg/L	
1,1,2,2-Tetrachloroethane	Monthly Avg	0.02 µg/L	
Tetrachloroethylene	Monthly Avg	0.5 µg/L	
1,1,1-Trichloroethane	Monthly Avg	40 µg/L	
1,1,2-Trichloroethane	Monthly Avg	0.5 µg/L	
Trichloroethylene	Monthly Avg	0.5 µg/L	
1,2,4-Trichlorobenzene	Monthly Avg	14 µg/L	
Vinyl Chloride	Monthly Avg	0.02 µg/L	
Nitrogen, Nitrate + Nitrate Total	Monthly Avg	2 mg/L	
Nitrogen, Ammonia (NH_3-N) Total	Monthly Avg	0.97 mg/L	

6.4 System Startup Sampling

The permittee shall collect a representative sample of the treatment system discharge at initial startup and analyzed for all applicable parameters and substances under this section. The permittee shall immediately notify the department of any limits exceeded and submit an amendment to the Discharge Management Plan for approval prior to beginning full operation. The permittee shall continue to retest and amend the discharge management plan as necessary until it is demonstrated that limits can be met.

6.5 Sampling Frequency During Operation

The permittee shall record the total daily volume of wastewater discharged under this permit on each day there is a discharge. In the first 4 weeks of discharge, the permittee shall sample the discharge weekly under Outfall 005. If the discharge continues after the first 4 weeks, the permittee shall sample the discharge monthly. If the discharge continues beyond one year since the start date and the monitoring results have not exceeded any permit discharge limitations, the department may approve in writing a quarterly monitoring frequency.

A monthly or quarterly sampling frequency only applies if data indicates substantial compliance with effluent limits. If the sampling frequency is monthly or quarterly and an exceedance occurs, a weekly monitoring frequency must resume until substantial compliance is demonstrated for eight consecutive weeks.

6.6 PAH Group of Ten

Permittees shall use EPA test method 610 or other EPA approved method to test for the PAH compounds. Permittees shall demonstrate compliance with the monthly average PAH group limit by reporting no detection of any of these PAH compounds, or by reporting the sum of the PAH group detected amounts equal to or less than 0.1 µg/L. See Appendix C for the calculation of the concentration of the PAH group of 10 compounds.

6.7 Benzo(a)pyrene

Permittees shall use EPA test method 610 or other EPA approved method to test for benzo(a)pyrene. Permittees shall demonstrate compliance with monthly average benzo(a)pyrene limit by reporting no detection of benzo(a)pyrene, or by reporting a detected amount equal to or less than 0.02 µg/L.

6.8 Naphthalene

Permittees shall use EPA test method 610 or other EPA approved method to test for naphthalene. Permittees shall demonstrate compliance with monthly average naphthalene limit by reporting no detection of naphthalene, or by reporting a detected amount equal to or less than 10 µg/L.

6.9 Oil & Grease Visual Inspection

The permittee shall visually inspect all wastewater discharges daily for oil sheen and film. If oil sheen and film is present additional characterization following Section 4 must be performed before continuing to dredge in the area of potentially impacted sediment. Oil and grease monitoring and limitations are only required if oil and grease is present from visual inspection or sediment characterization. Additionally, the permittee shall implement best management practices to collect and contain the oily discharge (i.e. absorbent booms, spill kits, etc.).

6.10 Solids Removal

The permittee shall visually inspect seepage areas during times of discharge to check that the infiltrative capacity of the soils is sustained. Any accumulated solids shall be removed from seepage areas to maintain the infiltrative capacity of the soils.

6.11 Discharge Location

The permittee shall direct the discharge to grass, soil, gravel areas, or seepage areas to the extent possible and infiltration of the discharge shall be maximized.

6.12 Discharge Rate

The permittee shall limit the discharge flow rate to a rate that can infiltrate into the soil surface.

6.13 Runoff Control

The permittee shall limit the discharge flow rate to prevent the runoff of any wastewater from the site. The wastewater may not be discharged during any rainfall events that cause runoff from the site. Uncontaminated storm water may be allowed to drain from the site.

6.14 Erosion Control

The permittee shall limit the discharge flow rate to prevent erosion when the vegetative cover has not developed sufficiently to anchor the soil and create the filter mat necessary for effective wastewater treatment.

6.15 Winter Operations

Winter operation may be allowed as long as the soil surface remains unfrozen. Since treatment efficiency and infiltration decreases in the winter, the department may require storage or additional treatment of the discharge during cold weather.

6.16 Groundwater Quality

The concentration of any wastewater parameter that may impact groundwater quality shall be limited at the point of discharge to a value that will minimize the concentration of the substance in the groundwater to the extent technically and economically feasible and prevent exceedance of the preventive action limit (PAL) in the groundwater.

6.17 Water Treatment Additives for Groundwater Discharges

Permittees shall not place water treatment additives in any discharge unless the water treatment additive use is approved, in writing, by the department. An additive review is necessary for substances that may enter groundwater or substances that are used in an industrial process but are not

expected to be removed by wastewater treatment and may impact groundwater quality. In the event that the permittee wishes to commence use of a water treatment additive, or increase the usage of the additives greater than indicated in the NOI, the permittee shall submit a request and receive written approval from the department prior to initiating such changes. The permittee shall maintain a daily log of the approved water treatment additive use including the additive name, manufacturer, and daily maximum amount used on a monthly basis.

The additive review is not required for additives with active ingredients consisting of chlorine, hypochlorite, sulfuric acid, hydrochloric acid or sodium hydroxide. Also, chemicals used in an industrial process generating wastewater that eventually receives treatment or chemicals added as part of wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an additive review.

The permittee shall provide the following information regarding water treatment additives to receive department approval:

- The commercial name of the additive and the Material Safety Data Sheet (MSDS);
- The proposed frequency of use;
- The amount or concentration to be used; and
- The anticipated discharge concentration.

The permittee shall not discharge any water treatment additive that will have a reasonable potential to exceed a groundwater quality standard pursuant to ch. NR 140, Wis. Adm. Code. If the discharge contains these types of water treatment additives, the permittee shall apply for an individual permit prior to discharging to groundwater.

7 Reporting and Record Keeping Requirements

The requirements of this section apply to uncontaminated discharges at Outfall 003 (Beach Nourishment Disposal) and Outfall 004 (Uncontaminated Sediment).

7.1 Annual Certification Statement

The permittee shall submit and certify by written letter to the department each year that:

> *The facility has operated consistent with the approved discharge management plan and followed the requirements in accordance with Permit No. WI-0046558-06-0 for each discharge event over the past year.*

The signature block shall include the following statement:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

The certification statement shall be signed by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority in accordance with Section 8.2.1.

The certification statement is due by **January 31st** each year. The certification statement shall be mailed or emailed to the department regional general permit reviewer. A listing of general permit reviewers for each region with their contact information can found at: http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.

7.2 Discharge Records

The permittee shall keep and maintain records of all certification statements, discharge activities and the results of the any visual inspections or monitoring. Records shall be made available for department inspection and submitted to the department upon request. Records shall be retained for a period of three years unless otherwise required by the department.

8 Standard Requirements

The conditions in ss. NR 205.07(1), 205.07(3), and 205.08(3), Wis. Adm. Code and 40 CFR 122 are included by reference in this permit. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirements can be found in the ss. NR 205.07(1), 205.07(3), and 205.08, Wis. Adm. Code and 40 CFR 122.

8.1 Reporting Requirements

The permittee shall comply with the following reporting requirements.

8.1.1 Submittal of Monitoring Results

This permit requires that all monitoring data be submitted on an electronic discharge monitoring report (eDMR) in accordance with s. NR 205.07(1)(r), Wis. Adm. Code. Monitoring forms are due 21 days following the end of the reporting period. For instance, if a parameter is to be sampled quarterly, the monitoring results are due 21 days following the end of each quarter. The eDMR shall be certified electronically by a responsible executive or municipal officer, manager, partner, proprietor or other duly authorized representative as specified in s. NR 205.07(1)(g), Wis. Adm. Code, with an "eReport Certify" page that certifies that the electronic report form is true, accurate and complete. The eDMR can be accessed through DNR Switchboard (http://dnr.wi.gov/topic/switchboard/index.html) using Internet Explorer. Other browsers such as Safari, Firefox, and Google Chrome may not work with the Switchboard.

Note: You must have or create a Wisconsin Web Access Management System (WAMS) ID and request access for each facility in order to access the forms. If you already have a WAMS ID, then you do not need to recreate one to access the eDMR.

Instructions and help with Switchboard/WAMS ID Registration can be found here: http://dnr.wi.gov/topic/wastewater/documents/WAMsSwitchboardHelp.pdf.

Instructions and help with filling out and submitting monitoring forms can be found here: http://dnr.wi.gov/topic/wastewater/eReporting.html.

8.1.2 Reporting Conventions

The permittee shall use the following conventions when reporting effluent monitoring results except when otherwise noted:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified unless otherwise noted.
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a value of 0 (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.

8.1.3 More Frequent Monitoring

As specified in NR 205.07(1)(r), if the permittee monitors any parameter more frequently than required by the permit, using test procedures specified in ch. NR 204 or 219, Wis. Adm. Code or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report.

8.1.4 Noncompliance Reporting

The permittee shall report the following types of noncompliance by a telephone call to the department's regional office within 24 hours after becoming aware of the noncompliance:

- any noncompliance which may endanger health or the environment;
- any violation of an effluent limitation resulting from a bypass;
- any violation of an effluent limitation resulting from an upset; and
- any violation of a maximum discharge limitation for any of the pollutants listed by the department in the permit, either for effluent or sludge.

A written report describing the noncompliance shall also be submitted to the department as directed at the end of this permit within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

A scheduled bypass approved by the department as specified in s. NR 205.07(1)(u)2, Wis. Adm. Code, shall not be subject to the reporting required under this section.

8.1.5 Spill Reporting

The permittee shall notify the department in accordance with ch. NR 706 (formerly ch. NR 158), Wis. Adm. Code, in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations established in the permit, or the spill or accidental release of the material is unregulated in the permit, unless the spill or release of pollutants has been reported to the department under this section.

Note: 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. **The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at 1-800-943-0003**.

8.1.6 Planned Changes

In accordance with ss. 283.31 (4) (b) and 283.59 (1), Wis. Stats., the permittee shall report to the department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants. The report shall either be a new general permit notice of intent or, if the new discharge will not violate the effluent limitations of the general permit, a written notice of the new, different or increased discharge. The notice shall contain a description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on

existing waste treatment facilities. Following receipt of this report, the department may modify the general permit coverage letter to specify any discharges of pollutants not previously covered by the general permit.

8.2 General Conditions for General Permits

The permittee shall comply with the following general conditions for general permits.

8.2.1 Delegation of Signature Authority

The permittee must provide a delegation of signature authority (DSA) request (Form 3400-220, Delegation of Signature Authority) or equivalent for a duly authorized representative to submit specific documents on the behalf of a responsible executive, officer, manager, partner, or proprietor of a permitted discharge. An executive, officer, manager, partner, or proprietor can only delegate signature authority to a duly authorized representative if that person has responsibility for the overall operation of the facility or activity regulated by this general. The DSA request shall specify the name of the individual and their employment position. The DSA request must be submitted to the department with the NOI or together with the submittal of any required documents. If there are any changes to this request, a new DSA request shall be submitted to the department.

8.2.2 Permit Coverage Transfers

A permit is not transferrable to any person except after notice to the department. Permittees that wish to transfer general permit coverage to a new permittee must submit a Transfer of Coverage (TOC, Form 3400-222). The TOC must be submitted at least thirty (30) days in advance of the proposed transfer date. All TOCs shall be completed by both the existing and new permittees including the "Certification & Signature" section and sent via mail or email to the department. The department will then send a letter to the existing permittee stating that their coverage is terminated under this general permit.

If the quality or quantity of the discharge has not changed at the facility, the department will send a letter of determination that grants coverage to the new permittee under this general permit. If there have been significant changes at the permitted facility, the new permittee shall submit a new NOI to the department.

8.2.3 Permit Coverage Terminations

Permittees that wish to terminate their general permit coverage must submit a Notice of Termination (NOT, Form 3400-221) to the department. All NOTs must be completed by the permittee and including the "Certification & Signature" section and sent via mail or email to the department. The department will then send a termination letter to the permittee stating that their coverage is terminated under this general permit.

8.2.4 Continuation of an Expired General Permit

If a permittee submitted a complete and timely NOI to be covered by this general permit, all conditions of an expired general permit shall continue to apply until the effective date of a new general permit.

8.3 General Conditions for WPDES Permits

8.3.1 Duty to Comply

The permittee shall comply with all conditions of the permit. Any permit noncompliance is a violation of the permit and is grounds for enforcement action; permit coverage termination; or denial of reapplying for permit coverage. If a permittee violates any terms of the permit, the permittee is subject to the penalties established in ch. 283, Wis. Stats.

8.3.2 Property Rights

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

8.3.3 Inspection and Entry

The permittee shall allow an authorized representative of the department, upon the presentation of credentials, to:

- Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are required under the conditions of the permit;
- Have access to and copy, at reasonable times, any records that are required under the conditions of the permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and
- Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

8.3.4 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

8.3.5 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application. All pertinent sludge information, including notice of intent information and other documents specified in the permit or ch. NR 204, Wis. Adm. Code, shall be retained for a minimum of 5 years.

8.3.6 Signatory Requirement

All permit notice of intents, reports and other information requested by the department shall be signed by a responsible executive officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager partner or proprietor that has been delegated signature authority pursuant to NR 205.07(1)(g)2, Wis. Adm. Code.

8.3.7 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. The wastewater treatment facility shall be under the direct supervision of a state certified operator as required in s. NR 108.06 (2), Wis. Adm. Code. Proper operation

and maintenance includes effective performance, adequate funding, adequate operator staffing and training as required in ch. NR 114, Wis. Adm. Code, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

8.3.8 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent the likelihood of any adverse impacts to public health, the waters of the state, or the environment resulting from noncompliance with the permit.

8.3.9 Duty to Provide Information

The permittee shall furnish the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, terminating, suspending, revoking or reissuing the permit or to determine compliance with the permit. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall also furnish the department, upon request, copies of records required to be kept by the permittee.

8.3.10 Need to Halt or Reduce Activity Not a Defense

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

8.3.11 Sampling Procedures

The permittee shall take samples and measurements that are representative of the volume and nature of the monitored discharge at points specified in the permit using sample types specified in the permit. The permittee shall also follow the effluent flow measurement and sample collection procedures in ch. NR 218, Wis. Adm. Code.

8.3.12 Testing Procedures

Samples collected under this permit shall be tested for the parameters listed in this permit and follow approved test methods and procedures specified in ch. NR 219, Wis. Adm. Code. If the required level cannot be met by any of the methods available in ch. NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in the permit.

8.3.13 Laboratory Certification or Registration

Samples collected under this permit shall be tested and analyzed by a laboratory certified or registered under ch. NR 149, Wis. Adm. Code. A list of Wisconsin DNR accredited laboratories can be found here: https://dnr.wi.gov/regulations/labCert/LabLists.html. The following tests are excluded from this requirement:

- Temperature;
- Turbidity;
- Bacteria tests in wastewater effluent and sludges;
- pH;
- Chlorine residual;
- Specific conductance;
- Physical properties of soils and sludges;
- Nutrient tests of soils and sludges; and

- Flow measurements.

8.3.14 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a notice of intent or submitted incorrect information in a notice of intent or in any report to the department, it shall promptly submit such facts or correct information to the department.

8.3.15 Bypassing

Except for a controlled diversion as specified in s. NR 205.07(1)(v), Wis. Adm. Code, any bypass is prohibited. The department may approve a bypass if the permittee demonstrates all the following conditions apply:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance. When evaluating feasibility of alternatives, the department may consider factors such as technical achievability, costs and affordability of implementation and risks to public health, the environment and, where the permittee is a municipality, the welfare of the community served; and
- The bypass was reported in accordance with the 'Noncompliance Reporting' section of this permit.

8.3.16 Permit as Enforcement Shield

Compliance with a permit during its term constitutes compliance for purposes of enforcement with 33 USC 1311, 1312, 1316, 1317, 1328, and 1345 (a) and (b), except for any toxic effluent standard or prohibition, and standards for sewage sludge use or disposal. If a new or revised toxic effluent standard or toxic prohibition becomes effective during the term of the permit, the permittee may be subject to enforcement action if the discharge exceeds the new or revised effluent standard for the toxic pollutant even though the discharge is in compliance with the existing permit. The permittee may also be subject to enforcement action standards for sewage sludge use or disposal. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code.

8.3.17 Severability

The provisions of this permit are severable, and if any provisions of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

8.3.18 Removed Substances

Solids, sludges, filter backwash or other pollutants removed from or resulting from treatment or control of wastewaters or intake waters shall be stored and disposed of in a manner to prevent any pollutant from the materials from entering the waters of the state. Land disposal or application of treatment plant solids and sludges shall be at a site or operation licensed by the department under chs. NR 500 to 538, Wis. Adm. Code or chs. NR 660 to 670, Wis. Adm. Code or in accordance with ch. NR 204 or 214, Wis. Adm. Code.

8.3.19 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall, to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

9 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Notice of Intent	30 business days before the expected start date of discharge	4
Discharge Management Plan	Submitted with the NOI	5
Annual Certification Statement	January 31, following each year	22
Wastewater Discharge Monitoring Report	21 days following the end of the reporting period	23
Delegation of Signature Authority (Form 3400-220)	Submitted with the NOI or together with the submittal of any required documents.	25
Notice of Termination (Form 3400-221)	After discontinuing permitted discharge.	25
Transfer of Coverage (Form 3400-222)	30 days in advance of the proposed transfer date.	25

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications of industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to the department regional general permit reviewer. A listing of the general permit reviewers for each region with mailing addresses and phone numbers can be found at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.

Appendices

A. Definitions

B. Notice of Intent Form

C. PAH Calculation

D. Dioxin Calculation

E. Receiving Water Hardness Values

Appendix 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 and chs. NR 200, NR 205, NR 211, NR 218, and NR 347, 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.

Annual Sampling Frequency

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

Best Management Practices

Best management practices or BMPs means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of wasters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. *(40 CFR 122.2)*

Business Days

Business days means each day except Saturday; Sunday; January 1; the third Monday in January, which shall be the day of celebration for January 15; the last Monday in May, which shall be the day of celebration for May 30; July 4; the first Monday in September; the 4th Thursday in November; December 24; December 25; December 31; and the day following if January 1, July 4 or December 25 falls on Sunday. *(s. NR 200.02(1), Wis. Adm. Code)*

Carriage Water

Carriage water means the water portion of a slurry of water and dredged material. *(s. NR 347.03(6), 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.

Dredging

Dredging means any part of the process of the removal of material from the beds of waterways; transport of the material to a disposal, rehandling or treatment facility; treatment of the material; discharge of carriage or interstitial water; and disposal of the material. *(s. NR 347.03(14), Wis. Adm. Code)*

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 Composite Sample

A grab composite sample means a combination of individual samples of equal volume taken at approximately equal intervals (not exceeding one hour) over a three-hour time period of normal operation of the facility. *(s. NR 218.04(11), 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)*

Groundwater

Groundwater means the portion of subsurface water which is within the zone of saturation and includes but is not limited to perched water tables, shallow regional groundwater tables, and aquifers or zones that are seasonally, periodically or permanently saturated. *(s. NR 205.03(17), Wis. Adm. Code)*

Interstitial Water

Interstitial water means water contained in the interstices or voids of soil or rock in the dredged material. *(s. NR 347.03(17), 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)*

PAHs

The polycyclic aromatic hydrocarbons (PAHs) includes the summation of the following ten individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. EPA method 610 or other EPA approved method shall be used to test for the PAH compounds. *(PAH Group of 10 Calculation of Concentration Using Toxicity Equivalent Factors" (3400-2015-01))*

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)*

Total BETX

Total BETX (benzene, ethylbenzene, toluene, and xylenes) includes the summation of the following individual compounds: benzene, ethylbenzene, toluene and total xylenes (including ortho-, meta-, and para-xylene). EPA method 1624C or other EPA approved method shall be used to measure benzene, ethlybenzene, toluene, and total xylenes (including ortho-, meta-, and para-xylene).

Treatment Facility

Treatment facility means a natural or artificial confinement facility used for the separation of dredged material solids from the interstitial or carriage water. *(s. NR 347.03(24), 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)*

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.

Appendix B – Notice of Intent Form

State of Wisconsin
Department of Natural Resources
Bureau of Water Quality
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

NOTICE OF INTENT (NOI)
Carriage and/or Interstitial Water from Dredging Operations
WPDES Permit No. WI-0046558-06-0
Rev. 09/2018

Notice: Pursuant to chs. NR 200 and 205, Wis. Adm. Code, this notice of intent (NOI) is required to request coverage under the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-0046558-06-0 for discharges of carriage and/or interstitial water from dredging operations to waters of the state of Wisconsin. Failure to complete this form in its entirety may result in a returned NOI or a denied NOI. Personal information collected will be used for administrative purposes and may be provided to requestors to the extent required by Wisconsin Open Records law [ss. 19.31-19.39, Wis. Stats.].

SECTION I: FACILITY/PROJECT LOCATION INFORMATION			
Facility/Project Name		Facility/Project Name	
Facility/Project Physical Address (i.e. Street or Route)		City, State, Zip Code	
County	Facility Phone No.	Facility Fax No.	Facility Email Address
SECTION II: FACILITY CONTACT INFORMATION			
Facility Operator/Plant Manager		Title	
Company		Contact Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code		Contact Phone No.	Alternative Phone No.
Contact Fax No.		Contact Email Address	
Discharge Monitoring Contact Name		Title	
Company		Contact Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code		Contact Phone No.	Alternative Phone No.
Contact Fax No.		Contact Email Address	
Authorized Representative (AR) Name		Title	
Company		AR Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code		AR Phone No.	Alternative Phone No.
AR Fax No.		AR Email Address	

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SECTION III: FACILITY OWNER MAILING ADDRESS (if different from Authorized Representative)		
Facility Owner Name	Title	
Parent Company	Owner Mailing Address (i.e. PO Box, Street, or Route)	
City, State, Zip Code	Owner Phone No.	Alternative Phone No.
Contact Fax No.	Contact Email Address	

SECTION IV: DISCHARGE CHARACTERIZATION

Type of Wastewater (check all that apply):	**Discharge Frequency** (e.g. Annual, Monthly, Daily)	**Average Daily Flow** (gallons of water discharged per day)	**Type of Wastewater** (check all that apply):	**Discharge Frequency** (e.g. Annual, Monthly, Daily)	**Average Daily Flow** (gallons of water discharged per day)
☐ Carriage Water (water portion of a slurry of water and dredged material)			☐ Other (describe type)		
☐ Interstitial Water (pore water)			☐ Other (describe type)		
☐ Cleaning or decontamination wastewaters			☐ Other (describe type)		
☐ Vehicle and/or equipment washwater and storm water runoff			☐ Other (describe type)		

1. The wastewater is generated from:

☐ Mechanical or hydraulic dredging of sediment from the beds of waterways to improve navigation or recreation

☐ Dredging associated with construction projects

☐ Dredging of contaminated sediment as part of a clean-up or remediation project

☐ Dredging of storm water management structures

☐ Beach nourishment disposal on Lake Michigan or Lake Superior

☐ Other similar operations as listed above:

Proceed to question 2.

2. Has the sediment been analyzed or elutriate test performed in accordance with ch. NR 347, Wis. Adm. Code and a copy of the results of the analysis is attached to this NOI?

As part of the ch. 30, Wis. Stats. dredging permit, sediment analysis and elutriate testing must be conducted in accordance with ch. NR 347, Wis. Adm. Code. This data is used in determining permit eligibility and the monitoring requirements under this permit. The sediment must be characterized according to ch. NR 347, Wis. Adm. Code.

☐ Yes. **Proceed to question 2A.**

☐ No. **This form will be considered incomplete and returned to you.**

☐ N/A. **I am exempt from sediment analysis under the ch. 30, Wis. Stats. application process and have attached the exemption to this NOI.**

A. Is the sediment considered contaminated or uncontaminated based screening procedures in Sections 4 of the permit?

☐ Uncontaminated. **Proceed to question 3.**

☐ Contaminated. **Proceed to question 2B.**

B. If the sediment is considered contaminated, please list the contaminants of concern:

☐ N/A. **Sediment is uncontaminated.**

Proceed to question 3.

3. For beach nourishment disposal on Lake Michigan or Lake Superior, does the sediment quality pass the criteria provided in 4.3.1 of the permit?

☐ Yes. **Proceed to Section V.**

☐ No. **Your discharge is not eligible for this General Permit.** *The disposal of dredged material on the beaches or in the water landward from the ordinary high-water mark of Lakes Michigan and Superior for the purpose of adding, replenishing or preventing erosion of beach material, or where otherwise allowed by State law, is authorized by this permit if the conditions under this Section 4.3 of the permit are met. Skip the rest of the NOI and complete the certification on last page. Contact the Department for further instruction.*

☐ N/A. **I will not conduct beach nourishment disposal on Lake Michigan or Lake Superior.**

SECTION V: ELIGIBILITY CHECKLIST

1. Is the wastewater discharged from and/or to properties within tribal lands (i.e. land owned by or held in trust for the tribes and land within recognized reservation boundaries)?

☐ Yes. **Your discharge is not eligible for this General Permit.** *If all discharges from your facility go to or come from properties in tribal lands, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. The Tribe or United States Environmental Protection Agency (EPA) regulates discharges within tribal lands.*

☐ No. **Proceed to question 2.**

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WPDES Permit No. WI-0046558-06-0
Rev. 09/2018

2. Is the wastewater discharged to a Publicly Owned Treatment Works (i.e. sanitary sewer)? A septic system is not considered a sanitary sewer.

☐ Yes. **Your discharge is not eligible for this General Permit.** *If all discharges from your facility go to a sanitary sewer, you do not require regulation under a WPDES discharge permit. Therefore, skip the rest of the NOI and sign the last page. We will remove you from our tracking system. If at some point in the future operations at your facility result in a discharge, you will need to inform the Department. If only some or no discharges from your facility go to the sanitary sewer, please proceed to question 3.*

☐ No. **Proceed to question 3.**

3. Are any of the following wastewaters discharged or mixed with the above wastewaters to surface water or groundwater: Contact or noncontact cooling water, water from boiler cleaning operations, air compressor condensate contaminated with oil and grease, softener regeneration backwash, municipal wastewater, domestic wastewater, or process wastewaters from the production of any material or product, or other wastewater not otherwise cover by this general permit?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☐ No. **Proceed to question 4.**

4. What is the receiving water for your discharge? If your facility has more than one outfall, indicate in the space provided which outfalls go to groundwater and which go to surface waters. *(check all that apply)*

☐ **Groundwater Discharge** (*any wastewater that is allowed to infiltrate or seep into the soil from a permeable surface including but not limited to any drain field, agricultural field, ditch, swale, depression, trench or pit, adsorption pond, infiltration pond, rain garden, prairie, or vegetative area that may impact groundwater quality*). **If you will only be discharging to groundwater, please proceed to question 5.**

Outfall #(s):

☐ **Wetland Discharge** (*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 wastewater to a wetland. Wetlands mean an area where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions*). **If you will only be discharging to wetlands, please proceed to question 5.**

Outfall #(s):

Note: *The Department will need to determine if your discharge would cause significant adverse impacts to wetlands*

☐ **Surface Water Discharge** *(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 wastewater to a creek, stream, pond, marsh, bay, reservoir, river, lake, or other surface water within the state of Wisconsin*). **Proceed to question 4A.**

Outfall #(s):

A. What is the name(s) of the surface water your discharge enters?

Proceed to question 4B.

B. What is the Water Body Identification Code (WBIC) of the surface water your discharge enters?

Proceed to question 4C.

Note: The WBIC for a specific surface water can be found at: http://dnr.wi.gov/water/waterSearch.aspx.

C. Is the discharge directly to a surface water classified as an outstanding or exceptional resource waters as defined in ch. NR 102, Wis. Adm. Code.?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☐ No. **Proceed to question 4D.**

D. If the discharge is from contaminated sediment, is the discharge directly to a surface water classified as a public water supply (i.e. Lake Superior, Lake Michigan and Lake Winnebago) in ch. NR 104, Wis. Adm. Code?

☐ Yes. **Your discharge is not eligible for this General Permit.** *Skip the rest of the NOI and complete the certification on last page. Contact the Department to obtain application for an individual WPDES discharge permit.*

☐ No. **Proceed to question 5.**

☐ N/A. **The discharge is from uncontaminated sediment. Proceed to question 5.**

5. Does the discharge contain water treatment additives (i.e. biocides such as microbicides, fungicides, molluscicdes, chlorine, etc.) or water quality conditioners (i.e. scale and corrosion inhibitors, pH adjustment chemicals, oxygen scavengers, conditioning agents, water softening compounds, etc.) that may enter surface water or groundwater without receiving wastewater treatment or that are used in a treatment process but are not expected to be removed by wastewater treatment?

☐ Yes. **For each additive used, please fill out and attach an Additive Review Worksheet (Form 3400-213).** *Additive Review Worksheets must be completed to receive coverage under this general permit. The Additive Review Worksheet is not required for additives with active ingredients consisting of chlorine, hypochlorite, sulfuric acid, hydrochloric acid or sodium hydroxide. Also, chemicals used in an industrial process generating wastewater that eventually receives treatment or chemicals added as part of wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an additive review.* **Proceed to question 6.**

☐ No. **Proceed to question 6.**

6. Will chlorine-based compounds be used to control the growth of micro-organisms in the treatment system or used to decontaminate the treatment system after completion of the remediation project?

☐ Yes. **Proceed to question 6A.**

☐ No. **Proceed to question 7.**

☐ N/A. **Proceed to question 7.**

A. Will chemicals be used to dechlorinate the wastewater prior to discharge to surface water?

☐ Yes. **The wastewater will be dechlorinated with chemicals. Proceed to question 7.**

☐ No. **The wastewater will not be dechlorinated with chemicals. Proceed to question 7.**

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7. For discharges from contaminated sediment, is a discharge management plan attached to this NOI that includes all the information necessary from Section 3 of the permit?

☐ Yes. **Proceed to question 8.**

☐ No. **This form will be considered incomplete and returned to you.**

☐ N/A. **The discharge is from uncontaminated sediment. Proceed to question 8.**

8. If a dredged material treatment facility is required for the treatment of carriage and/or interstitial water, have the plans and specifications been submitted to or approved by the department under s. 281.41, Wis. Stats., and ch. NR 108, Wis. Adm. Code?

☐ Yes. **Proceed to Section VI.**

☐ No. **Please contact wastewater plan review staff to find out how to get the plans approved. Proceed to Section VI.**

☐ N/A. **The discharge is from uncontaminated sediment. Proceed to Section VI.**

Note: Department wastewater plan review staff can be found here: http://dnr.wi.gov/topic/wastewater/planreviewers.html.

Additionally, department plan submittal requirements can be found here: http://dnr.wi.gov/topic/wastewater/AdequateSubmittal.html.

SECTION VI: CERTIFICATION

This form must be signed by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2., Wis. Adm. Code. To delegate signatory authority to a duly authorized representative, please submit a Delegation of Signature Authority (DSA) form (Form 3400-220).

I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative Name	Title
Authorized Representative Signature	Date Signed
Submitter Name (If different from Authorized Representative)	Title
Submitter Signature	Date Signed

State of Wisconsin
Department of Natural Resources
Bureau of Water Quality
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

NOTICE OF INTENT (NOI)
Carriage and/or Interstitial Water from Dredging Operations
WPDES Permit No. WI-0046558-06-0
Rev. 09/2018

Please print and sign this certification page. Scan and email the completed form, certification page and any other supporting information to the department regional general permit reviewer at least thirty (30) business days before the expected start date of discharge. A listing of the general permit reviewers for each region with mailing addresses and phone numbers can be found at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html. Please scroll to the "How to Apply" section and click the department region that the discharge is located in.

Appendix C – PAH Calculation

The polycyclic aromatic hydrocarbons (PAHs) shall include a summation of the following ten individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. In determining compliance with the PAH limit of 0.1 µg/L, the permittee shall use the toxicity equivalent factor shown in Table 5. For calculating the concentration for the PAH group of 10, multiply the concentration of each PAH compound by the corresponding TEF value and the sum the results. For results < LOD, a zero may be used for the concentration. Refer to Section 8.1.2 of the permit for reporting conventions.

Table 5. Toxicity Equivalent Factors for PAH Compounds

PAH Compounds	TEF – Toxicity Equivalent Factor
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(g,h,i)perylene	0.01
Benzo(k)fluorathene	0.01
Chrysene	0.001
Dibenzo(a,h)anthracene	1
Fluoranthene	0.001
Indeno(1,2,3-cd)pyrene	0.1
Phenanthrene	0.001
Pyrene	0.001

Appendix D – Dioxin Calculation

The permittee can demonstrate compliance with the monthly average effluent limit for 2,3,7,8-TCDD TE by using the 2,3,7,8-TCDD toxicity equivalence concentration and the effluent flow rate. The permittee can use the following equation to calculate the 2,3,7,8-TCDD toxicity equivalence concentration:

$(TEC)_{tcdd} = \sum(C)_x\ (TEF)_x\ (BEF)_x$

where:

$(TEC)_{tcdd}$ = 2,3,7,8-TCDD toxicity equivalence concentration in the effluent;

$(C)_x$ = concentration of congener "x" in the effluent;

$(TEF)_x$ = toxicity equivalency factor for congener "x"; and

$(BEF)_x$ = bioaccumulation equivalency factor for congener "x."

When a congener is not detected, a zero may be used in the above equation for the concentration of the congener. The toxicity and bioaccumulation equivalency factors are provided in Table 6.

Table 6. Toxicity and Bioaccumulation Equivalency Factors

Congener	TEF	BEF
2,3,7,8-TCDD	1.0	1.0
1,2,3,7,8-PeCDD	0.5	0.9
1,2,3,4,7,8-HxCDD	0.1	0.3
1,2,3,6,7,8-HxCDD	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.05
OCDD	0.001	0.01
2,3,7,8-TCDF	0.1	0.8
1,2,3,7,8-PeCDF	0.05	0.2
2,3,4,7,8-PeCDF	0.5	1.6
1,2,3,4,7,8-HxCDF	0.1	0.08
1,2,3,6,7,8-HxCDF	0.1	0.2
1,2,3,7,8,9-HxCDF	0.1	0.6
2,3,4,6,7,8-HxCDF	0.1	0.7
1,2,3,4,6,7,8-HpCDF	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.4
OCDF	0.001	0.02

Appendix E – Receiving Water Hardness Values

Period of Record (1/1/1988 – 6/30/2015)

County	Sub-Basin Name and Site Location	# of Results	Mean Hardness (ppm)
Adams	Roche-a-Cri River	5	134
Ashland	Bad River near Odanah (USH 2)	61	58
Ashland	Ballou Creek above Devils Creek	5	48
Ashland	Devils Creek above mouth of Ballou Cr	10	40
Ashland	Lake Superior (Chequamegon Bay) near Ashland	26	49
Barron	Hay River	5	67
Barron	Red Cedar Lake near Mikana	5	64
Barron	Red Cedar River (Rice Lake, Cameron)	41	76
Brown	Apple Creek	4	384
Brown	Ashwaubenon Creek	4	384
Brown	Dutchman Creek	4	373
Brown	Fox River at De Pere	139	182
Brown	Fox River at Little Rapids	17	185
Brown	Fox River at mouth, Green Bay	97	189
Brown	Plum Creek at highway D	4	413
Buffalo	Buffalo River at Highway H (Mondovi)	12	89
Buffalo	Buffalo River near mouth of Hutchinson Creek (Town of Alma)	25	172
Buffalo	Buffalo River near mouth (Alma)	53	172
Buffalo	Mississippi River at Lock/Dam #4 near Alma	21	137
Buffalo	Trempealeau River at Highway P (Dodge)	46	134
Burnett	St. Croix River at Danbury	8	62
Burnett	Wood River	15	65
Calumet	Mud Creek near Stockbridge	8	408
Chippewa	Axe Handle Lake	6	9
Chippewa	Cornell Lake	4	56
Chippewa	Duncan Creek	18	38
Chippewa	Long Lake	24	56
Chippewa	Round Lake	21	7
Chippewa	Yellow River near Cadott	15	61
Chippewa	Wolf River near Stanley	19	116
Chippewa	Chippewa River, Holcombe Flowage to Chippewa Falls	174	44
Clark	North Fork Eau Claire River near Thorp	10	117
Clark	Black River, Withee to Neillsville	110	71
Clark	Popple River near Owen	18	96
Clark	Arnold Creek near Lake Arbutus	12	8
Columbia	Crawfish River near Columbus	11	339
Crawford	South Branch Copper Creek	6	283
County	**Sub-Basin Name and Site Location**	**# of**	**Mean**

		Results	Hardness (ppm)
Crawford	Kickapoo River	22	261
Crawford	Sugar Creek	6	293
Dane	Starkweather Creek, Madison	61	337
Dane	Sugar River at Belleville	31	313
Dane	Garfoot Creek near Cross Plains	4	292
Dodge	Rubicon River below Hartford	7	403
Door	Ahnapee River at Forestville	5	381
Door	Keyes Creek	4	324
Door	Renard Creek	4	400
Door	Clark Lake	12	222
Douglas	Bois Brule River at highway 13	27	61
Douglas	Nemadji River near South Superior	11	121
Douglas	St. Croix Lake to St. Croix Flowage	6	47
Douglas	Leo Creek near Solon Springs	7	53
Dunn	Chippewa River near Caryville	13	50
Dunn	Eau Galle River near mouth	12	233
Dunn	Wilson Creek near Menomonie	12	286
Dunn	Gilbert Creek near Menomonie	12	282
Dunn	Tainter Lake (Red Cedar River)	10	95
Dunn	Red Cedar River at Menomonie	109	102
Eau Claire	Black Creek near Fairchild	12	20
Eau Claire	Bridge Creek near Augusta	9	30
Eau Claire	Beaver Creek near Brackett	12	24
Eau Claire	Otter Creek near Brackett	20	85
Eau Claire	Chippewa River at Eau Claire	11	50
Eau Claire	Coon Fork Lake	6	16
Eau Claire	Eau Claire River (incl. North & South Forks) Near Fall Creek/Eau Claire	18	41
Florence	Keyes Lake	12	71
Florence	Lost Lake	12	6
Florence	Patten Lake	14	89
Florence	Popple River at Forest Road 2159 (Town of Fence)	70	98
Fond du Lac	Fond du Lac River in Fond du Lac	4	263
Fond du Lac	Silver Creek at Ripon	7	356
Fond du Lac	Forest Lake	5	125
Fond du Lac	Parnell Creek near Dundee	30	224
Grant	Rattlesnake Creek near Beetown	17	379

County	Sub-Basin Name and Site Location	# of Results	Mean Hardness (ppm)
Green	Sugar River at Brodhead	52	303
Green	Pecatonica River at state line	20	341

Green Lake	Fox River at Berlin	27	203
Green Lake	Grand River near Kingston	6	285
Green Lake	Green Lake (Big)	5	226
Green Lake	Little Green Lake near Markesan	7	159
Iowa	Livingston Branch	11	395
Iowa	Brewery Creek near Mineral Point	70	394
Iowa	Rock Branch	13	402
Iron	Montreal River near mouth	13	48
Iron	Bull Gus Creek at Forest Rd 703	5	34
Iron	Javorsky Creek at highway 77	5	44
Iron	Norman Creek at Forest Rd 701	6	25
Iron	Potato River near highway 77	10	30
Iron	Sixteen Creek near highway 77	4	51
Iron	Tyler Forks near highway 77	29	32
Jackson	North Branch Trempealeau River near Hixton	5	41
Jackson	Wazee Lake	7	111
Jackson	Black River, Lake Arbutus to Melrose (near Black River Falls)	125	41
Jackson	East Fork Black River	13	17
Jackson	Hay Creek	14	9
Jefferson	Crawfish River at Milford	9	340
Jefferson	Rock Lake near Lake Mills	5	219
Jefferson	Blue Spring Lake near Palmyra	6	276
Jefferson	Bark River, Rome to Fort Atkinson	12	311
Jefferson	Lake Ripley near Cambridge	5	244
Juneau	Wisconsin River at Petenwell Dam (Hwy 21)	44	68
Kenosha	Fox River near New Munster	40	333
Kenosha	Kilbourn Road Ditch at highway K	8	318
Kenosha	Powers Lake	8	221
Kenosha	Barnes Creek	4	464
Kenosha	Pike Creek	5	339
Kenosha	Pike River (including North and South Br.)	21	207
Kewaunee	Stoney Creek near mouth	4	325
Kewaunee	Kewaunee River near Kewaunee	52	329
Kewaunee	Neshota River near county line	5	385
La Crosse	Halfway creek at highway ZN near Holmen	8	260
County	**Sub-Basin Name and Site Location**	**# of Results**	**Mean Hardness (ppm)**
Langlade	Pickerel Creek	12	41
Langlade	Wolf River near highway 64	60	99
Lincoln	Wisconsin River at Merrill	87	41
Manitowoc	East Twin River	39	325
Manitowoc	West Twin River	41	329

Manitowoc	Long Lake	6	151
Manitowoc	Manitowoc River at highway JJ, Manitowoc	13	329
Manitowoc	Silver Lake	6	233
Manitowoc	Pigeon Lake	12	217
Manitowoc	Pigeon River	11	326
Marathon	Wisconsin River at Wausau	71	43
Marathon	Pike Lake	4	136
Marinette	Menominee River near Niagara	12	85
Marinette	Menominee River near McAllister	16	105
Marinette	Menominee River at Marinette	87	123
Marinette	Little Peshtigo River	4	262
Marinette	Peshtigo River at Peshtigo	90	137
Marquette	White River near Neshkoro	4	177
Milwaukee	Lincoln Creek	34	199
Milwaukee	Milwaukee River at Estabrook Park	53	313
Milwaukee	Milwaukee River, North Avenue Dam	9	308
Milwaukee	Noyes Creek	10	86
Milwaukee	Underwood Creek	11	114
Milwaukee	Menomonee River	55	211
Milwaukee	Kinnickinnic River	22	300
Milwaukee	Wilson Park Creek	52	391
Milwaukee	Oak Creek and north branch	13	330
Milwaukee	Root River	10	276
Milwaukee	Milwaukee River at mouth, harbor	29	200
Monroe	LaCrosse River at Sparta	16	77
Monroe	Little Lacrosse River	4	242
Monroe	Brush Creek	9	280
Monroe	Lemonweir River near Tomah	16	96
Monroe	Allen Creek at Grover Rd	4	110
Oconto	Pensaukee River	43	263
Oconto	Bear Paw Lake	6	35
Oconto	Oconto River, Gillett to mouth	93	150
County	**Sub-Basin Name and Site Location**	**# of Results**	**Mean Hardness (ppm)**
Outagamie	Bear Creek at Stephensville	4	355
Outagamie	Black Creek at Seymour	4	366
Outagamie	Shioc Creek	5	288
Outagamie	Fox River at Appleton	61	182
Outagamie	Fox River at Kaukauna	18	184
Outagamie	Kankapot Creek	4	421
Ozaukee	Sauk Creek	13	414
Ozaukee	Spring Lake	4	257

Pepin	Chippewa River at Durand	130	63
Pepin	Bear Creek	4	250
Pierce	Eau Galle River at Spring Valley	12	186
Pierce	Plum Creek	17	132
Pierce	Mississippi River at Lock/Dam #3 near Red Wing, MN	27	183
Pierce	Trimbelle River	19	283
Pierce	Isabelle Creek near Ellsworth	20	313
Pierce	Rush River	31	240
Pierce	Kinnickinnic River near River Falls	40	214
Polk	Cedar Lake	26	118
Polk	Horse Creek	9	100
Polk	Rice Lake near Milltown	33	121
Polk	St. Croix River near St. Croix Falls	15	81
Polk	Wood River near headwaters	5	68
Portage	Collins Lake	4	88
Portage	Wisconsin River at Lake Dubay	41	51
Portage	Wisconsin River at Stevens Point	65	49
Portage	Mill Creek	28	201
Price	Flambeau River, Park Falls	35	43
Price	South Fork Jump River	10	93
Racine	Wind Lake	9	242
Racine	Root River Canal, incl. West and East Branches	28	379
Racine	Raymond Creek	5	318
Racine	Husher Creek	5	448
Racine	Hoods Creek	5	347
Racine	Root River at Johnson Park, Racine	103	353
Richland	Pine River at Richland Center	8	234
Richland	Camp Creek	12	264
Rock	Yahara River at Fulton	9	272
County	**Sub-Basin Name and Site Location**	**# of Results**	**Mean Hardness (ppm)**
Rock	Rock River, Indianford to Afton	66	308
Rock	Turtle Creek at Beloit	9	346
Rusk	Deer Tail Creek near Glen Flora	9	93
Rusk	Flambeau River near Ladysmith	11	38
Rusk	Sand Lake	18	62
Sauk	Wisconsin River at Wisconsin Dells	24	72
Sauk	Dutch Hollow Lake	4	117
Sauk	Baraboo River at Reedsburg	14	172
Sauk	Redstone Lake	4	115
Sawyer	Sissabagama Lake	4	36
Shawano	Bealieu Lake	18	15

Shawano	Red River (incl. branches)	110	136
Shawano	Embarrass River (incl. branches)	29	183
Shawano	Island Lake	20	90
Shawano	Koonz Lake	20	17
Shawano	Malone Lake	21	162
Shawano	Mill Creek	19	105
Shawano	Miller Creek	38	108
Shawano	Silver Creek	16	138
Shawano	Smith Creek tributary	15	111
Shawano	White Clay Lake	6	238
Shawano	Wolf River at Shawano	4	145
Sheboygan	Crooked Lake	4	230
Sheboygan	Mullet River	64	317
Sheboygan	Crystal Lake	14	178
Sheboygan	Onion River	16	332
Sheboygan	Fisherman Creek	6	236
Sheboygan	Sheboygan River, Kohler to Sheboygan	159	309
Sheboygan	Pigeon River at Howards Grove	4	357
Sheboygan	Barr Creek near Cedar Grove	18	352
Sheboygan	Black River near Sheboygan	5	401
St. Croix	Tiffany Creek	12	231
St. Croix	Beaver Creek	22	165
St. Croix	Black Brook	4	117
St. Croix	Hutton Creek	4	202
St. Croix	Willow River, New Richmond to Hudson	115	182
St. Croix	Bass Lake	26	138
County	**Sub-Basin Name and Site Location**	**# of Results**	**Mean Hardness (ppm)**
St. Croix	Squaw Lake	21	19
St. Croix	South Fork Willow River	4	190
Taylor	Rib Lake	12	34
Trempealeau	Buffalo River at Strum	14	50
Trempealeau	Trempealeau River at Whitehall	19	69
Trempealeau	Beaver Creek near Galesville	16	169
Trempealeau	Black River at Galesville	116	53
Vernon	Coon Creek	7	277
Vernon	Bad Axe River, North and South Forks	17	267
Vernon	Billings Creek	11	256
Vernon	Cheyenne Valley Creek	4	295
Vernon	Timber Coulee Creek	7	263
Vernon	Warner Creek	4	272
Vernon	West Fork Kickapoo River	21	241

Vilas	Annabelle Lake	4	10
Vilas	Black Oak Lake	6	22
Vilas	North Twin Lake	4	44
Vilas	South Twin Lake	4	42
Walworth	Booth Lake	4	151
Walworth	Potter Lake	11	177
Walworth	Lake Geneva	6	225
Walworth	Ore Creek	8	386
Walworth	White River	17	294
Walworth	Nippersink Creek, including branches	32	383
Walworth	Whitewater Lake	6	172
Washburn	Namekagon River at Minong	15	76
Washburn	Yellow River	6	93
Washington	Little Cedar Lake	7	218
Washington	Big Cedar Lake	30	232
Washington	East Branch Rock River near Allenton	15	364
Washington	Rubicon River near Hartford	18	380
Washington	Pike Lake	5	270
Washington	Friess Lake	6	346
Waukesha	Poplar Creek	8	339
Waukesha	Pewaukee Lake	6	256
Waukesha	Fox River at Waukesha	88	362
Waukesha	Eagle Spring Lake	6	228
County	**Sub-Basin Name and Site Location**	**# of Results**	**Mean Hardness (ppm)**
Waukesha	Mukwonago River	8	263
Waukesha	Okauchee Lake	9	264
Waukesha	Lake Nagawicka	7	304
Waukesha	Middle Genesee Lake	8	188
Waukesha	Lac La Belle	6	260
Waukesha	Pretty Lake	4	187
Waukesha	Oconomowoc River near Oconomowoc	16	279
Waupaca	Little Wolf River	4	250
Waupaca	Pigeon River at Clintonville	5	255
Waupaca	School Section Lake	4	236
Waupaca	Waupaca River at Weyauwega	5	211
Waupaca	Wolf River at New London	96	173
Waushara	Johns Lake	5	178
Waushara	Long Lake	4	147
Waushara	Pine River near Poy Sippi	4	190
Waushara	Silver Lake	7	134
Waushara	Willow Creek at Redgranite	4	190

Winnebago	Arrowhead Creek near Winneconne	6	395
Winnebago	Fox River at Oshkosh	22	187
Winnebago	Fox River at Lake Winnebago outlet	66	181
Winnebago	Lake Winnebago near Oshkosh	6	181
Wood	Wisconsin River at Biron	60	59
Wood	Wisconsin River at Nekoosa	41	68