

PERMIT FACT SHEET

General Information

Permit Number:	WI-0046558-06-0
Permit Name:	Carriage and/or Interstitial Water from Dredging Operations
Permittee:	Point source dischargers in the state of Wisconsin
Discharge Location:	Land surface or surface waters in the state of Wisconsin
Receiving Water:	Surface waters or groundwater in the state of Wisconsin

WPDES Permit Program Background

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

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

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

General Permit Objective

This general permit was created to properly manage discharges of carriage and/or interstitial water from dredging operations to waters of the state to protect public health and water quality of groundwater and surface water within the state of Wisconsin.

General Permit Description

This general permit is applicable to point source discharges of carriage and/or interstitial water to waters of the state from mechanical or hydraulic dredging operations which includes the removal of material in the beds of waterways for navigation, the removal of sediment or bed material for a construction project such as laying a pipeline, removal of accumulated sediment in a storm water management structure, or the removal of contaminated sediment as part of a clean-up project. The following is a description of operations and discharges covered under this permit:

Dredging Operations

The WPDES permit program does not regulate the actual dredging nor does it address the suitability of the disposal site for long term disposal of the material. The sediment characterization and issuance of the permit to dredge is regulated under ch. 30, Wis. Stats., ch. NR 345, Wis. Adm. Code, and ch. NR 347, Wis. Adm. Code. The ch. 30, Wis. Stats., permit may impose limitations in the water body for total suspended solids allowed in suspension, and the need for a silt curtain. The characterization data required under ch. NR 347, Wis. Adm. Code, is used to determine the applicable monitoring requirements, and must be completed prior to requesting coverage under the WPDES general permit.

Hydraulic Dredging: Hydraulic dredging is the process of removing sediment by using pumps to draw in a slurry of water and sediment from the bottom of the bed of a waterway and transferring the mixture through a conveyance system to another location for further processing. This type of dredging process acts like a vacuum removing sediment. Common hydraulic dredge types are pipeline or hopper.

Mechanical Dredging: Mechanical dredging is the process of removing sediment by mechanically digging or scooping sediment from the bed of a waterway. Mechanical dredging, generally, takes place along the shore or off a barge. Common mechanical dredge types are backhoe or clamshell dredges.

Dredging Wastewaters

Carriage Water: Carriage water is defined as the water portion of a slurry of water and dredged material as specified in s. NR 347.03(6), Wis. Adm. Code. Carriage water is commonly separated from the dredged material by settling basins, geotextile tubes, or mechanical dewatering processes (e.g. belt filter presses, screw press, or centrifuges).

Interstitial Water: Interstitial water is defined as water contained in the interstices or voids of soil or rock in the dredged material as specified in s. NR 347.03(17), Wis. Adm. Code. Another name for interstitial water is pore water. Interstitial water is commonly squeezed from the pores of dredged material by geotextile tubes and mechanical dewatering processes (e.g. belt filter presses, screw press, or centrifuges).

Cleaning or Decontamination Water: Occasionally, air-stripping towers or activated carbon treatment units may become clogged from the growth of micro-organisms. This is especially true when there are nitrogen and phosphorus nutrients in the water. The oxygen rich, warm and wet environment in the treatment unit provides favorable conditions for bacteria or fungi to grow. As the treatment unit becomes clogged, the treatment capacity decreases until low amounts of water will flow through the unit. Then it must be cleaned to restore treatment efficiency. Additionally, after the completion of a clean-up project, treatment units will need to be cleaned or decontaminated prior to being reused for another project. Typically, acids, bases or biocides, such as chlorine, are used to clean out of the treatment system. The recommended cleaning system would be to clean the treatment unit when it is out of service, and then capture the cleaning wastewater for acceptable off-site disposal, such as a sanitary sewer. However, the cleaning wastewater may be discharged under this permit.

Filter Backwash: Granular media filters remove suspended solids by adsorption and straining. Single media beds or multi-media beds may be used. The flow pattern through the bed may be upflow or downflow. Backwash cleaning of the media bed is always upflow. The most common filtration media is

silica sand. For dual media filters the most common combination is ground anthracite and silica sand. A three-media filter may also include very fine grain size garnet.

During the backwash operation, the filter media will classify according to size, the smallest particles at the top. The dual and triple media filters provide extended filtration capacity by using larger grain size material with lower specific gravity and very small grain size material with higher specific gravity. This causes the larger material to be deposited on the top and the very small material to be deposited on the bottom.

The solids released during backwash will require removal prior to discharge. Usually, given sufficient detention time, these solids can be removed by simple settling equipment.

Membrane filtration uses semipermeable membranes to separate particulates, ions, salts or other substances from water. Water is forced across the membrane by a driving force (water pressure) leaving particulates behind on the membrane or in solution as a concentrate. The type of substances removed will be dependent on the membrane type, pore size, pressure, and quality of the raw water. The waste concentrate is regularly discharged and the membrane is flushed off with air and water. Periodically, the membrane is chemically washed with caustic soda and/or citric acid. Discharges of the concentrate and cleaning wastes that meet the requirements of this permit may be discharged after treatment. Examples of membrane filtration are reverse osmosis (RO) units and microfiltration. The discharge from RO concentrate is often called RO reject water.

Vehicle and/or Equipment Washwater and Storm Water Runoff: The washing of vehicles and/or equipment associated with dredging operations at the dredging site that is collect in a common sump to be treated at the treatment facility. Additionally, storm water and snowmelt runoff may be collect in this sump as well and be treated.

Beach Nourishment Disposal: Beach nourishment disposal is defined as 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 as specified in s. NR 347.03(3), Wis. Adm. Code.

Environmental Dredging

Dredging is preformed to remove contaminated sediment from the bed of waterways. This contamination is typically the result of historical point sources from industrial or municipal discharges, sanitary sewer overflows and spills. Additionally, this contamination may be introduced from nonpoint sources such as agricultural or urban storm water runoff and atmospheric deposition.

Construction Projects

Numerous construction projects require dredging to remove sediment from the beds of waterways. Examples of projects include:

- The installation of infrastructure (i.e. culverts or bridge footings) into the bed of a water way;
- Construction of marinas, ports, or beaches;
- Repairs or improvements of shorelines; and
- Dam maintenance and repair.

Navigation and Recreation

Many lakes and rivers will be dredged to help improve the navigation and recreation of the waterway. This dredging helps prevent the waterways from becoming too narrow or shallow for boats or vessels. Additionally, some lakes or rivers will be dredged to remove invasive aquatic plants or animals to help improve recreation.

Storm Water Pond Maintenance

As stated in s. NR 528.03(16), Wis. Adm. Code, a storm water management structure is defined as a device that detains, retains and treats storm water runoff resulting in the accumulation of sediment, and pollutants carried in the runoff. Such structures are characterized by having an outlet that discharges to waters of the state but only in response to storm events and includes wet and dry detention ponds and infiltration basins but not landscape ponds on private property with no designed inlet or outlet.

Maintenance is necessary for a storm water pond to operate as designed on a long-term basis. Periodic dredging is a necessary part of pond maintenance. Storm water pond dredging occurs approximately once every ten years. Dredging is conducted to remove any built-up sediment and increase the storage capacity of the pond. For dredging to occur, the pond is generally drained to improve access and sediment removal. Disposal of sediment from storm water ponds are regulated by the Solid Waste Management Program under ch. NR 528, Wis. Adm. Code.

Typical Treatment of Dredging Wastewaters

If the sediment is contaminated, a wastewater treatment system to remove contaminants of concern may be necessary. Prior to the granting of general permit coverage, the need for treatment of the carriage or interstitial water must be evaluated. A treatment pilot study is recommended to demonstrate if the wastewater discharged would comply 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. An elutriate test may also be conducted on the sediment to demonstrate contaminants will not be present in the effluent at a concentration of concern, or that wastewater treatment is unnecessary. In the instance when a wastewater treatment system is necessary, department review of the proposed plans is required, in accordance with s. 281.41, Wis. Stats., and ch. NR 108, Wis. Adm. Code.

The necessary treatment processes depend upon the type of contamination in the sediment. Normally, treatment systems come as package plants. Common treatment process units of the package plant systems include portable clarifiers or settling basins, equalization tanks, air strippers, dissolved air floatation, granular activated carbon vessels, multi-media filters, bag filters, oil/water separators, and chemical addition.

General Permit Summary

This general permit establishes applicability criteria, obtaining permit coverage requirements, discharge management plan requirements, monitoring and reporting requirements, and standard requirements for discharges of carriage and/or interstitial water from dredging operations. The permit requirements are provided to protect human health and protect and maintain the physical, chemical and biological integrity of the waters of the state by eliminating or minimizing the discharge of pollutants.

Fact Sheet Organization

This fact sheet highlights changes in permit conditions that the department proposes to make when reissuing the Carriage Water and/or Interstitial Water from Dredging Operations WPDES permit. This fact sheet compares conditions in the previous general permit to those in the reissued permit. The previous permit remains in effect until the permit is reissued. The tables that follow were taken from the permit and are numbered in this fact sheet as they are numbered in the permit. Shaded text and cells within tables indicate permit conditions that are new or different from those found in the previous permit.

1 Applicability Criteria

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

Changes from Previous Permit

- The discharges covered in Section 1.1 has been expanded to clearly define all applicable discharges under this permit. The following discharges were added to the discharges covered under Section 1.1:
 - 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;
 - 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.
- Section 2.1 of the previous permit was moved to Section 1.1.
- The discharges not covered in Section 1.2 has been expanded to clearly define all discharges not applicable under this permit. The following discharges were added to the discharges not covered under Section 1.2:
 - 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.
 - 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 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 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 determines that the discharges comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code.
 - 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 containing substances that will exceed the surface water quality standards and effluent limitations determined according 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;
 - Discharges containing substances that will exceed the groundwater quality standards in ch. NR 140, Wis. Adm. Code
- The granting of coverage section was moved and is now explained under Section 2.

1.1 Discharges Covered

This permit is applicable to discharges of carriage and/or interstitial water associated with mechanical or hydraulic dredging of sediment from the beds of waterways or other similar wastewaters that are discharged directly to surface waters or indirectly to groundwaters via seepage.

This general permit is primarily intended for dredging operations involving uncontaminated or moderately contaminated sediments that are unlikely to have environmental concerns. In many cases, the removed sediment is essentially innocuous, or may have low potential risk to aquatic life.

Consequently, any return of water and small amounts of the dredged material from the disposal site to waters of the state is also innocuous. The department's guidance document, "Consensus-Based Sediment Quality Guidelines" (CBSQG), will be used in a qualitative fashion to determine the relative degree of risk that a sediment possesses, and we will extrapolate this to evaluate the probability of affecting the quality of the dredging wastewater. The CBSQG is used as a screening tool to determine the applicability of the general permit, defining what is "uncontaminated" or "contaminated" sediment, and the monitoring parameters.

The general permit may be used for contaminated sediment that exceeds the probable effect concentration (PEC) for sediment toxicity listed in the CBSQG, but additional information must be provided to the department. When requesting coverage under the general permit, the applicant must demonstrate that contaminated sediment carriage and/or interstitial water can be treated to comply with effluent limits. This would usually require that a pilot treatability study be completed. Alternatively, if there is documentation of a similar project to show the proposed treatment system complies with discharge limits, this may be acceptable.

1.2 Discharges Not Covered

According to 40 CFR 122.28(4)(ii), general permits may exclude specified sources from coverage. Below is an explanation for all discharges not covered under the permit.

Discharges from Uncontaminated Sediment: The WPDES general permit is not required when the following two criteria are met:

1. The sediment is uncontaminated in accordance with the sediment characterization under sections 4.2 or 5.2 of the WPDES general permit. A determination of uncontaminated sediment may be met in two ways:
 - a. The concentration of all the contaminants of concern tested under the ch. NR 347, Wis. Adm. Code, characterization must be less than the threshold effect concentration (TEC). The optional elutriate testing may not be used to change this determination, because the concern is whether the sediment is contaminated and not whether the contaminant partitions into the water fraction.
 - b. If the sediment is believed to be uncontaminated, but no sediment characterization data are available to confirm this, other documentation must be provided to support a determination the sediment is uncontaminated. Only in special situations will the department accept a determination of uncontaminated sediment without any actual sediment analysis data. For example, the absence of activities that could contaminate the sediment, recent sediment data from a nearby location, or the sediment consists of coarse material.
2. The carriage and/or interstitial water and residual dredged material are only discharged within a best management practice (BMP) that appropriately manages suspended solids within the dredging area. Any requirements for use of BMPs would be included in the ch. 30, Wis. Stats., dredging permit. The dredging area means that area of the water body bed that is disturbed by dredging operations, and is surrounded by a BMP within the water body to prevent the movement of suspended solids or turbidity plume outside the BMP. The discharge from the barge must meet one of these scenarios:
 - a. The barge is operated within the dredging area containment BMP. An unsealed barge may be used and the dewatering discharge from the barge is allowable within the BMP.

- b. The barge is located outside the dredging area containment BMP, the barge is sealed, and the wastewater collected from dewatering is discharged back into the dredging area containment BMP.

The department believes under this situation any discharge from the barge does not constitute a discharge of pollutants because:

- The ch. 30, Wis. Stats., permit authorizing the dredging contains a condition for a BMP (usually a turbidity barrier) to adequately prevent environmental pollution.
- The discharge of suspended solids is contained in the same area disturbed by dredging.
- The discharge consists of native uncontaminated suspended solids.
- Suspended solids are returned back to the bed of the water body by settling within the dredging area.
- The characteristics of the discharge from dewatering on the barge are similar to the suspended solids plume created within the containment area by the dredging operation.
- There is no net addition of a pollutant.

Dredging Associated with Non-Metallic Mining: This permit does not cover dredging wastewater discharges from uncontaminated sediment associated with non-metallic mining operations. These discharge activities are covered under the Non-Metallic Mining Operations for Non-Industrial Sand and Other Aggregates (WI-A046515) or Non-Metallic Mining Operations for Industrial Sand Mining and Processing (WI-B046515). Dredging wastewater discharges from contaminated sediment associated with non-metallic mining operations will be evaluated on a case-by-case basis for coverage under this permit.

Waters Classified as a Public Water Supply: Discharges of dredging wastewater from contaminated sediment to public water supply sources listed in ch. NR 104, Wis. Adm. Code, such as Lake Superior, Lake Michigan and Lake Winnebago, are not authorized under this general permit except for beach nourishment disposal that meets the requirement of the permit. These waters have more restrictive water quality criteria. Regulation of discharges to water supply sources requires an individual permit which provides the oversight and discharge limitations necessary to protect these drinking water sources

Dredging Less than 2 Cubic Yards: This permit does not cover discharges from the dredging of less than 2 cubic yards in a calendar year from a specific waterbody. According to s. NR 345.03(2), Wis. Adm. Code, this dredging is considered a “De minimus” activity and for the purpose of ch. 30, Wis. Stats, the definition of dredging does not include “de minimus” activities.

Manual Removal of Aquatic Plants: This permit does not cover discharges from manual removal of aquatic plants that meets the requirements of s. NR 109.06(2), Wis. Adm. Code. According to s. NR 345.03(2), Wis. Adm. Code, this manual removal of aquatic plants is considered a “De minimus” activity and for the purpose of ch. 30, Wis. Stats, the definition of manual dredging does not include “de minimus” activities. As specified in s. NR 109.03(6), Wis. Adm. Code, “manual removal” means the control of aquatic plants by hand or hand-held devices without the use or aid of external or auxiliary power.

Farm Drainage Ditches: This permit does not cover 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. This dredging activity is exempt from permitting under ch. 30, Wis. Stats. and ch. NR 345, Wis. Adm. Code. The exemption requirements and limitations in s. NR 345.04(c), Wis. Adm. Code, are protective of water quality and groundwater quality.

Manual Dredging Activities: This permit does not cover discharges from manual dredging activities that meet the requirements in s. NR 345.04(d), Wis. Adm. Code. This dredging activity is exempt from permitting under ch. 30, Wis. Stats., and ch. NR 345, Wis. Adm. Code. The exemption requirements and limitations in s. NR 345.04(d), Wis. Adm. Code, are protective of water quality and groundwater quality. According to s. NR 345.03(8), Wis. Adm. Code, “manual dredging” means removal or disturbance of bottom material by hand or using a hand-held device without the aid of external or auxiliary power. Manual dredging is often associated with the collection of aquatic insects for bait, removal of nuisance vegetation or debris and the panning for gold or other material.

Disposal of Dredged Material Solids: This permit does not authorize the disposal or landspreading of the dredged materials solids except beach nourishment disposal that meets the requirements of this permit. The disposal or landspreading of the dredged materials solids are regulated by the solid waste management program under ch. 289, Wis. Stats., and chs. NR 500 to 520, Wis. Adm. Code. Sites and facilities for the disposal of dredged material containing hazardous waste and PCBs require review under subch. IV of ch. 291, Wis. Stats., and s. 299.45, Wis. Stats., and chs. NR 500 to 520 and 660 to 670, Wis. Adm. Code.

Disposal of Precipitated Sludge: This permit does not authorize the disposal or landspreading of the precipitated sludges or solids from the separation of dredged material from carriage and/or interstitial water in a disposal, rehandling, or treatment facility. The disposal or landspreading of the precipitated sludges or solids are regulated by the solid waste management program under ch. 289, Wis. Stats., and chs. NR 500 to 520, Wis. Adm. Code. Sites and facilities for the disposal of precipitated sludges or solids containing hazardous waste and PCBs require review under subch. IV of ch. 291, Wis. Stats., and s. 299.45, Wis. Stats., and chs. NR 500 to 520 and 660 to 670, Wis. Adm. Code.

Disposal of Accumulated Sediment from Storm Water Management Structures: This permit does not authorize the disposal or landspreading of accumulated sediment from storm water management structures. The disposal or landspreading of the accumulated sediment from storm water management structures are regulated by the solid waste management program under ch. 289, Wis. Stats., and ch. NR 528, Wis. Adm. Code.

Sediment Concentrations that Exceed the PEC: This permit does not cover the discharges of dredging wastewater when the sediment contains contaminants at concentrations that exceed the probable effect concentration (PEC) for sediment toxicity listed in the CBSQG. Such discharges require an individual permit unless the applicant provides the necessary treatment of the wastewater, 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.

Superfund Sites: This permit does not apply to discharges from Superfund dredging sites that are carried out under the supervision and direction of the U.S. Environmental Protection Agency (EPA). Superfund response actions under the supervision and direction of the EPA are exempt by law from the requirement to obtain Federal, State, or local permits related to any activities conducted completely on-site in accordance with CERCLA section 121(3)(1). However, the project still must comply with applicable or relevant appropriate requirements (ARARs). ARARs include meeting the substantive requirements of the WPDES program. These substantive requirements include discharge limitations (both technology and water quality based), certain monitoring requirements, and best management practices. Therefore, EPA may elect that a permit equivalency be issued by the department under this permit for the Superfund project.

COE Dredging Projects: This permit does not apply to 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. Dredge spoil disposal activities are exempt from any prohibition, restriction, requirement,

permit, license, approval, authorization, fee, notice, hearing, procedure or penalty specified under s. 29.601, 30.01 to 30.20, 30.21 to 30.99, 59.692 or 87.30, or chs. 281 to 285 or 289 to 299, Wis. Stats., or specified in any rule promulgated, order issued or ordinance adopted under those sections or chapters in accordance with s. 30.202(3), Wis. Stats.

DOT Dredging Projects: This permit does not apply to 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(1p), Wis. Stats, transportation activities affecting waters of the state, as defined in s. 281.01 (18), Wis. Stats., are not subject to the prohibitions or permit or approval requirements specified under s. 29.601, 30.11, 30.12, 30.123, 30.19, 30.195, 30.20, 59.692, 61.351, 61.353, 62.231, 62.233, or 87.30; or under chs. 281 and 283, except s. 283.33; or under chs. 285 or 289 to 299, Wis. Stats.

Publicly-Owned Treatment Works: Any portion of wastewater directed to a public-owned treatment works (POTW) is not covered under this general permit. Rather, this general permit applies only to direct discharges to waters of the State (i.e. discharges to storm sewers or other conveyances to a surface water, or seepage to the groundwater).

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

Wetlands: Discharges covered under this permit shall meet the wetland protection requirements of ch. NR 103, Wis. Adm. Code, and shall not adversely impact wetlands in accordance with s. NR 106.61(1)(b), Wis. Adm. Code. For discharges that impact wetlands, a facility will need to submit information under s. NR 103.08, Wis. Adm. Code, which will allow the department to determine if the discharge will meet code requirements.

Outstanding and Exceptional Resource Waters: Discharges to outstanding and exceptional resource waters in ch. NR 102, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding and exceptional water resources are not authorized by this permit as specified in s. NR 106.61(1)(c), Wis. Adm. Code. Regulation of discharges to outstanding and exceptional resource waters requires an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect these types of receiving waters. The permittee can use the surface water data viewer (<http://dnrm.wi.gov/sl/?Viewer=SWDV>) to identify the outstanding and exceptional resource waters in the county that the discharge will occur.

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

Increased Discharges: According to s. NR 207.02(6)(a), Wis. Adm. Code, an “Increased discharge” means any change in concentration, level or loading of a substance which would exceed an effluent limitation specified in a current WPDES permit. If a facility proposes an increased discharge 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, the discharge is not authorized under this permit. An evaluation of the proposed increased discharge would need to be conducted in accordance with the antidegradation requirements of ch. NR 207, Wis. Adm. Code. Regulation of increased discharges require the oversight, monitoring and discharge limitations of an individual permit as effluent limitations in a general permit cannot be modified for an individual discharger.

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

Historical Properties: Discharges that will adversely affect any historic property that is listed property, or on the inventory or on the list of locally designated historic places under s. 44.45, Wis. Stats., are not eligible for this permit, unless the department determines that the discharges will not have an adverse effect on any historic property pursuant to s. 44.40(3), Wis. Stats. The department is required by law to review the project for historic preservation compliance. Please contact the [DNR Archaeologist](#) with any questions.

Discharges within Tribal Lands: The department lacks the authority to issue WPDES permits within Tribal lands due to the state delegation agreement with U.S. EPA. In such instances, the Tribe or U.S. EPA regulates the discharge and would issue a discharge permit.

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

2 Obtaining Permit Coverage

Changes from Previous Permit

None as this is a new section.

2.1 Submittal of a Notice of Intent

In accordance with s. NR 205.08(3), Wis. Adm. Code, on a case-by-case basis the department may by letter require a discharger to submit a notice of intent (NOI) to be covered by a general permit. Additionally, general permits shall specify the deadlines for submitting NOI to be covered under the permit as specified by 40 CFR 122.28(b)(2)(iii). Therefore, the applicant must submit a complete NOI under the general permit to the department at least thirty (30) business days before the expected start date of discharge.

Note: As of December 21, 2020, all NOIs submitted in compliance with this section must be submitted electronically by the discharger in compliance with 40 CFR 122.28(b)(2)(i) and 40 CFR 127. 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

In accordance with s. 283.37(6), Wis. Stats., the department may require the owner or operator to submit information regarding any discharge. Therefore, the department may require an applicant to submit data necessary to complete any deficient NOI, any additional data other than that requested in the NOI or a new complete NOI where the deficiencies are extensive or the appropriate form has not been used.

2.2 Granting of Coverage

In accordance with s. NR 205.08(3), Wis. Adm. Code, following receipt of a complete NOI, the department shall issue a determination on whether a discharger is covered by a general permit. Additionally, general permits shall specify whether a discharger that has submitted a complete and timely notice of intent to be covered in accordance with the general permit and that is eligible for coverage under the permit, is authorized to discharge in accordance with the permit upon receipt of notification of inclusion by the department pursuant to 40 CFR 122.28(b)(2)(iv). Therefore, the permit requires that the applicant receive a coverage letter from the department prior to commencing discharge to the waters of the state. Upon receipt of the coverage letter, the applicant is hereby granted coverage and authorized to discharge to the waters of the state under the general permit. If the applicant has not received a coverage letter from the department, they are not permitted to discharge.

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

<http://dnr.wi.gov/topic/wastewater/PermitApplications.html>.

3 Discharge Management Plan

Changes from Previous Permit

None as this is a new section

3.1 Operate Consistent with an Approved Discharge Management Plan

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 in accordance with s. NR 205.07(1)(j), Wis. Adm. Code. Therefore, to evaluate this condition for contaminated sediment discharges, the department requires the permittee to properly operate and manage all discharge activities consistent with and in compliance with a department approved discharge management plan. The discharge management plan shall be consistent with the requirements of the permit.

3.2 Submittal of the Discharge Management Plan

According to s. 283.37(6), Wis. Stats., the department may require the owner or operator to submit information regarding any discharge. Therefore, the department requires the permittee to submit a discharge management plan to the department for approval at the time the NOI is submitted. The department coverage letter will explicitly indicate approval of the BMP plan. Permittees shall notify the department when the BMP plan is amended to determine if the amendment requires department approval.

3.3 Discharge Management Plan Content

The discharge management plan shall, at a minimum, describe the information provided in the permit under this section. The information provided in the discharge management plan will help the department determine and track compliance with the requirements in the permit. Additionally, the information will help the permittee properly operate and manage all discharge activities.

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. When the sediment is characterized as “contaminated”, additional monitoring may be required depending on the contaminants found in the sediment or elutriate test, and if they’re at a concentration of concern. The initial determination is any contaminant parameter that exceeds the TEC is monitored and limited in the permit.

Changes from Previous Permit

None as this is a new section

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. The conditions to be met for coverage under the permit are based criteria in s. NR 347.07(4), Wis. Adm. Code, and sediment screening processes for other dredging projects.

5 Surface Water Discharge Requirements

The requirements of this section apply only 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 creeks, streams, ponds, marshes, bays, reservoirs, rivers, lakes, or other surface water within the state of Wisconsin.

5.1 Sampling Point(s)

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

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, 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

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

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	
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.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
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.

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	
Suspended Solids, Total	Daily Max	10 mg/L	Weekly	Grab	
Suspended Solids, Total	Daily Max	40 mg/L	Weekly	Grab	
pH	Daily Min	6.0 su	Weekly	Grab	
pH	Daily Max	9.0 su	Weekly	Grab	
Oil and Grease (Hexane)	Daily Max	15 mg/L	Weekly	Grab	
Chorine, Total Residual	Daily Max	19 µg/L	Weekly	Grab	
Other Pollutants at Concentration of Concern	TBD	TBD	Weekly	TBD	

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	

Changes from Previous Permit

- The permit includes a definition for surface water discharge under Section 5.
- Section 5 was created for surface water discharges only and all applicable requirements.
- Sampling Point descriptions have been updated to include the sampling point location under Section 5.1.
- Effluent limitations and monitoring for TSS to trout streams has been added to Section 5.2.1.
- Effluent limitations and monitoring for TSS applicable to PCB discharges has been added to Section 5.2.2.
- Effluent limitations and monitoring for pH has been added to the permit for Section 5.2.2.
- Sampling Point 5.2.3 has been added for beach nourishment disposal. Applicability conditions for beach nourishment disposal have been moved under Section 4.

- The requirement to get a water-quality based effluent limit memo has been removed. Instead limits are now included under Section 5.3 as a part of the discharge management plan. The limits are based on surface water quality criteria in ch. NR 105, Wis. Adm. Code. The permittee may request site-limits as an alternative.
- Sections on PAH Group of Ten, benzo(a)pyrene, and naphthalene have been added from the previous permit in Sections 5.3.2-5.3.4.
- Section 5.4 has been added to the permit to define system startup sampling to ensure proper process control and operation of the treatment system.
- Section 5.5 has been added to the permit to define the sampling frequency for dredging projects.
- Sections for flow volume and grab sample have been moved to the standard definitions under Appendix A.
- Section for visible foam and floating solids has been removed from the permit as this is covered under the surface water narrative criteria in Section 5.12.
- Effluent limits and monitoring for total phosphorus and total residual chlorine have been added to the permit based on certain operations conducted at dredging sites.
- Requirements for the discharges to impaired surface waters & surface waters with total maximum daily load allocations have been revised and moved to Section 5.10.
- The section on water treatment additives has been moved to Section 5.11 and revised to current information on the policy and regulations on water treatment additives for surface water discharges.
- Section 5.12 has been added to the permit with regard to surface water quality narrative standards.

Explanation of Monitoring Requirements and Effluent Limitations

Flow Rate: In accordance with 40 CFR 122.44(i)(1), to assure compliance with permit limitations, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee is required to estimate the flow rate each day there is a discharge. The definition of “estimated” is provided in Appendix A of the permit.

Total Suspended Solids: For uncontaminated sediment, discharges are subject to the total suspended solids effluent limits of 40 mg/L and 80 mg/L as a daily maximum. These limits were added to be consistent with ch. 30, Wis. Stats., general permit standards for dredging in s. NR 345.04(2)(c)6., Wis. Adm. Code. The 40 mg/L limit applies only to discharges to classified trout streams and the 80 mg/L applies to discharge to all other waters not classified as trout streams in ch. NR 102, Wis. Adm. Code.

For contaminated sediment, all discharges are subject to a 40 mg/L total suspended solids limit. The limit for TSS of 40 mg/L daily maximum is achievable by application of best practicable control technology currently available for these types of discharges. This established effluent limitation is based on the average of the best performance of the treatment technologies used for these similar types of discharges. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code. Greater sediment removal is needed to prevent contaminants from being discharged.

For wastewaters that need to be treated for suspended solids removal prior to discharge to surface waters, permit effluent limits for suspended solids are achievable through the use of the following treatment options:

- Simple gravity separation (settling) treatment technology. Examples include baffled clarifiers, temporary settling basins like sandbags or straw bales, ditch checks, and settling tanks or ponds. Over time, the settling equipment will fill up with settled solids, resulting in decreased volume and residence time for wastewater and ultimately, ineffective solids treatment. Therefore,

captured solids shall be removed from solids separation equipment or facilities as needed to maintain treatment unit hydraulic capacity and prevent carry-over of solids.

- Simple filtration treatment technology. Examples include filter socks, dewatering bags, silt fences, and portable filtration units like multi-bag filters. Over time, filtration equipment will accumulate with solids resulting in decreased solids holding capacity and decreased discharge through the equipment. Therefore, captured solids shall be removed from filtration equipment or filtration equipment should be replaced as needed to maintain solids treatment and prevent failure.

Oil & Grease Monitoring: Discharges covered by this permit are expected to contain significant concentrations of oil and grease requiring treatment. Based on observations of field staff and literature indicates that depending on the level of contamination of water to be treated, other types of oily wastewater treatment besides an oil water separator may be acceptable to meet permit limits. Another type of treatment may also be needed to supplement an oil water separator to meet permit limits, such as oil absorbent filtration systems.

The limit for oil & grease of 15 mg/L daily maximum is achievable by application of best practicable control technology currently available for these types of discharges. This established effluent limitation is based on the ability of simple oil/water separator equipment to easily remove oil and grease from the discharge to concentrations below 15 mg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code. Chapter NR 219, Wis. Adm. Code, specifies that the Freon Oil & Grease test method is no longer approved and shall not be used. Permittees shall either use the hexane extractable material (HEM) or silica gel treated HEM test methods as provided in ch. NR 219, Wis. Adm. Code. The sample frequency for oil & grease shall follow the monitoring frequencies stated for each discharge type.

Total Residual Chlorine: The total residual chlorine limitations provided in the permit are based on acute toxicity criteria in Table 1 of s. NR 105.06, Wis. Adm. Code. Since many discharges are short in duration, chronic toxicity criteria for total residual chlorine was not considered in the permit.

Chlorine is highly unstable and rapidly dissipates. Chlorine has shown to be highly sensitive to sunlight, air, and other contacting surfaces. Furthermore, chlorine has shown to react with organic and inorganic impurities in soil, paved surfaces and water. All such properties may accelerate the natural dissipation of chlorine. Additionally, chlorine is very reactive with many chemicals that reduce chlorine to less harmful forms. Many solid, liquid, and gaseous dechlorination chemicals are commercially available. The choice of particular dechlorination chemical is depend upon site specific issues. When dechlorination chemicals are used, the aeration of the effluent may be necessary to meet DO limits. Methods of chlorine treatment could include but not be limited to the following:

- Induced Dissipation - Dissipation with a spray chamber, diffuser, duck bill, packed tower, aerator, or other similar device.
- Natural Dissipation - Allowing the water to sit in a holding structure in direct sunlight prior to discharge to surface waters to allow chlorine to dissipate to acceptable levels. The actual amount of retention time necessary will need to be verified by analysis.
- Chemical Reduction - A treatment system consisting of a holding tank and chemical addition. Sulfur compounds (e.g. dechlorination compounds include sulfur dioxide, sodium metabisulfite, sodium bisulfite, sodium sulfite, and sodium thiosulfate) can be used to reduce chlorine levels. Other treatment may include dechlorination mats or bags.
- Seepage Discharge - If the chlorine concentration is too high to dissipate in a reasonable time for portions of the discharge, these portions may be segregated out and discharged to groundwater

via seepage. Proper erosion control methods should be followed. All water should percolate before reaching another body of water.

pH Monitoring: The pH is limited to the range of 6.0 to 9.0 standard units, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. This is consistent with the water quality standards pH range for waters classified for fish and aquatic life as defined in ch. NR 102.04(c), Wis. Adm. Code. Any wastewater with a pH outside the range of 6.0 to 9.0 s.u. shall not be discharged directly to surface waters. The pH of the water can be treated through the uses of the following treatment options:

- For high or low pH water can be mixed with other water to bring the mixed water pH to within the 6.0 to 9.0 acceptable range.
- For low pH, the water can be treated with soda ash (sodium carbonate) or any other department approved chemical. The permittee should follow the instructions provided with the chemicals for the optimum dosage rates.
- For high pH, the water can be treated with hydrochloric acid, sodium bisulfate or any other department approved chemical. The permittee should follow the instructions provided with the chemicals for the optimum dosage rates.

Total BETX: Total BETX (benzene, ethylbenzene, toluene, and xylenes) shall include a summation of the following individual compounds: benzene, ethylbenzene, toluene and total xylenes. The sample frequency for Total BETX shall follow the monitoring frequencies stated for each discharge type. The limit for Total BETX of 750 µg/L as a monthly average is achievable by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple carbon adsorption treatment or air strippers to easily remove of these volatile organic compounds from the discharge to concentrations below 750 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

PAHs: 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. The sample frequency for PAHs shall follow the monitoring frequencies stated for each discharge type. The regulation of PAHs in WPDES permits are based on department released guidance entitled “PAH Group of 10 Calculation of Concentration Using Toxicity Equivalent Factors” (3400-2015-01), which is available at <http://dnr.wi.gov/water/egadSearch.aspx>.

The limit for PAHs of 0.1 µg/L as a monthly average is achievable by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple oil/water separators equipment and carbon adsorption treatment to easily remove PAHs from the discharge to concentrations below 0.1 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

Benzo(a)pyrene: The PAH compound benzo(a)pyrene is regulated separately as it has the most toxicological data. Compliance with monthly average benzo(a)pyrene limit can be demonstrated by using EPA method 610 or other approved method and reporting no detect, or by reporting a detected amount equal to or less than 0.1 µg/L. The limit for benzo(a)pyrene of 0.1 µg/L as a monthly average is achievable by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple carbon adsorption treatment to easily remove benzo(a)pyrene from the discharge to concentrations below 0.1 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

Naphthalene: The PAH compound naphthalene is regulated separately with a 70 µg/L as a monthly average by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple air stripping technology to easily remove naphthalene from the discharge to concentrations below 70 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

Total Phosphorus: The total phosphorus limitations provided in the permit are based on water quality criteria in s. NR 102.06, Wis. Adm. Code.

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. The effluent limitations, limit type, and sample type for substances are listed in Table 1 of the permit. The effluent limits provided in Table 1 of the permit are based on surface water quality criteria in ch. NR 105, Wis. Adm. Code. The parameters listed may be of potential concern in contaminated dredged sediment.

5.3.1 Daily Maximum and Weekly Average Metal Limits

The calculation for 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 are based on Table 2 and Table 6 in s. NR 105.06, Wis. Adm. Code. The permittee shall determine the daily maximum metal limits using the effluent hardness and the weekly average metals limit using receiving water hardness. The department had to make this permit applicable to all discharges, therefore, the department assumed no dilution or mixing in the receiving water. Thus, the effluent limit would equal the water quality criterion determined from the equation.

5.3.2 PAH Group of Ten

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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 of the permit for the calculation of the concentration of the PAH group of 10 compounds.

5.3.3 Benzo(a)pyrene

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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 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

In accordance with s. NR 205.066, Wis. Adm. Code, the department shall determine on a case-by-case basis the monitoring frequency to be required for each effluent limitation in a permit. Since many discharges are of short duration or limited frequency, the monitoring frequency provided in the permit would allow for the most representative sampling of the discharge events.

5.6 Solids Removal

In accordance with s. NR 205.07(1)(j), 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. Therefore, 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

In accordance with s. NR 205.07(1)(j), 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. Therefore, 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

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. Therefore, total phosphorus monitoring is 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

In accordance with 40 CFR 122.28(a)(4), general permits must clearly identify the applicable conditions for each category or subcategory of dischargers covered by the permit. Therefore, total residual chlorine monitoring is 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

In accordance with s. NR 106.07(6)(c), Wis. Adm. Code, for water quality based effluent limitations that are less than the limit of detection, any effluent result greater than the limit of detection, but less than the limit of quantitation is in compliance with the effluent limitation. Additionally, the department may specify analyte-specific instructions in a WPDES permits for reporting monitoring results greater than the limit of detection pursuant to s. NR 106.14(3), Wis. Adm. Code. Therefore, total residual chlorine requirements were added in effort to alleviate laboratory and level of detection concerns that may be expressed by permittees. These procedures

apply to facilities that will be de-chlorinating their effluent or have outfall structures that will allow for natural dissipation of chlorine.

5.10 Impaired Waters & TMDL Requirements for Surface Water Discharges

5.10.1 Report Discharge to an Impaired Surface Water

Permittees are required to report, on the discharge monitoring report, if the permittee has a detectable pollutant of concern discharge to an impaired surface water or a surface water with a State and EPA approved Total Daily Maximum Load (TMDL) allocation. The permittee does not need to report all pollutants of concern only those pollutants for which the receiving water of the discharge is impaired for or has an approved TMDL. If a facility discharges a pollutant of concern to a 303(d)-listed impaired water body, the goal is to minimize the pollutant discharge as much as possible as part of an overall state effort to reduce the pollutant loading to the water body. The department updates the section 303(d) list approximately every two years. The updated list is effective upon approval by EPA.

5.10.2 TMDL Compliance

Permittees discharging a pollutant of concern that is subject to an approved TMDL under this general shall meet the requirements of a State and Federally approved TMDL wasteload allocation for their discharge location that is in effect on the effective date of this permit. Existing pollutant discharges covered under this 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 permit.

For this general permit, the most common pollutants of concern may be total suspended solids (TSS) discharges to sediment impaired water bodies. The permittee can use the impaired water search tool (<http://dnr.wi.gov/water/impairedSearch.aspx>) or the surface water data viewer (SWDV) (<http://dnrmaps.wi.gov/sl/?Viewer=SWDV>) to identify waters impaired in the county that the discharge will occur.

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

Pursuant to 40 CFR 122.4, the department prohibits the issuance of a WPDES permit to a new source or new discharger that will contribute to a violation of a water quality standard in a 303(d)-listed water. Also, an increased discharge of a pollutant of concern that would cause or contribute to a violation of a water quality standard in a 303(d)-listed water is not to be allowed. Therefore, this general permit specifies that a permittee may not establish a new pollutant of concern discharge to a 303(d)-listed impaired water body or significantly increase the discharge of a pollutant of concern to an impaired water body unless the new or increased discharge does not contribute to the receiving water impairment, or the new discharge is consistent with a department finalized TMDL wasteload allocation for the impaired water body as determined by the department. The general permit cannot be used if this requirement is not met for a new discharge.

In response to a NOI, the department will evaluate the proposed pollutant discharge amount and receiving water to determine if the above requirement can be met. A variety of options are available to the applicant to reduce the discharge of the pollutant of concern, with the goal of eliminating the pollutant discharge, such as on-site capture or an alternate discharge location.

5.11 Water Treatment Additives for Surface Water Discharges

On April 23rd, 2015, the department released guidance entitled “Water Quality Review Procedures for Additives” (3400-2015-03), which is available at <http://dnr.wi.gov/topic/wastewater/Guidance.html>. This guidance document establishes procedures to calculate secondary acute and chronic values for water-applied additives pursuant to s. NR 105.05, Wis. Adm. Code. Secondary acute values are the concentrations of a pollutant in surface water that protect aquatic life from adverse short-term effects. Therefore, facilities shall submit information regarding the toxicity of a water treatment additive as specified in the permit, so the department can determine if it is allowable and won't negatively impact aquatic life. The department shall also be informed of significant changes in additive usage that would raise the potential for negative impacts on aquatic life or human health. Facilities are required to maintain records of additive use for department inspection. Recording additive use will provide documentation for the facility and the department to verify that the wastewater additive is being used and discharged in accordance with the permit requirements.

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. 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 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. Water treatment additives can vary from innocuous to highly toxic.

5.12 Surface Water Uses and Criteria

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

6 Groundwater Discharge Requirements

The requirements of this section only apply to groundwater discharges. Groundwater discharge means any wastewater that is allowed to infiltration or seepage into the soil from a permeable surface including but not limiting 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.

6.1 Sampling Point(s)

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

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, 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

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

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	
Oil and Grease (Hexane)	Daily Max	15 mg/L	Weekly	Grab	
Other Pollutants at Concentration of Concern	TBD	TBD	Weekly	Grab	

Changes from Previous Permit

- Section 6 was created for groundwater discharges only and all applicable requirements.
- The permit includes a definition for groundwater discharge under Section 6.
- Sampling Point descriptions have been updated to include the sampling point location under Section 6.1.
- Sections 6.2.1 and 6.2.2 were added to the permit to define monitoring frequencies for uncontaminated and contaminated sediment discharges.
- The requirement to get a groundwater evaluation has been removed. Instead limits are now included under Section 6.3 as a part of the discharge management plan. The limits are based on preventative action limits in ch. NR 140, Wis. Adm. Code.
- Section 6.4 has been added to the permit to define system startup sampling to ensure proper process control and operation of the treatment system.
- Section 6.5 has been added to the permit to define the sampling frequency for dredging projects.
- Sections on PAH Group of Ten, benzo(a)pyrene, and naphthalene have been added from the previous permit in Sections 6.6-6.8.
- Oil & grease visual inspection requirements have been added to the permit under Section 6.9.
- Best management practices for groundwater discharges has been added to the permit under Sections 6.10-6.16. Section NR 205.10, Wis. Adm. Code, allows the department to include best management practices to control or abate the discharge of pollutants in WPDES permits if the practices are reasonably necessary to carry out the purposes and intent of ch. 283, Wis. Stats., and the Clean Water Act (CWA). The BMPs are based on similar land treatment activities provided in ch. NR 214, Wis. Adm. Code. These BMPs will help prevent the runoff of the discharge into surface waters and exceedance of any groundwater standards.
- Sections for flow volume and grab sample have been moved to the standard definitions under Appendix A.
- A section on water treatment additives has been added to the permit under Section 6.17 to explain information on the policy and regulations on water treatment additives for groundwater discharges.
- Reporting and recordkeeping requirements for uncontaminated sediment discharges to groundwater under Section 7 has been added to the permit to track compliance.

Explanation of Monitoring Requirements and Effluent Limitations

Flow Rate: In accordance with 40 CFR 122.44(i)(1), to assure compliance with permit limitations, monitoring is required for the volume of effluent discharged from each outfall. Therefore, the permittee is required to estimate the flow rate each day there is a discharge. The definition of “estimated” is provided in Appendix A of the permit.

Oil & Grease Monitoring: Some discharges covered by this permit are expected to contain significant concentrations of oil and grease requiring treatment. Based on observations of field staff and literature indicates that depending on the level of contamination of water to be treated, other types of oily wastewater treatment besides an oil water separator may be acceptable to meet permit limits. Another type of treatment may also be needed to supplement an oil water separator to meet permit limits, such as oil absorbent filtration systems.

The limit for oil & grease of 15 mg/L daily maximum is achievable by application of best practicable control technology currently available for these types of discharges. This established effluent limitation is

based on the ability of simple oil/water separator equipment to easily remove oil and grease from the discharge to concentrations below 15 mg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code. Chapter NR 219, Wis. Adm. Code, specifies that the Freon Oil & Grease test method is no longer approved and shall not be used. Permittees shall either use the hexane extractable material (HEM) or silica gel treated HEM test methods as provided in ch. NR 219, Wis. Adm. Code. The sample frequency for oil & grease shall follow the monitoring frequencies stated for each discharge type.

Total BETX: Total BETX (benzene, ethylbenzene, toluene, and xylenes) shall include a summation of the following individual compounds: benzene, ethylbenzene, toluene and total xylenes. The sample frequency for Total BETX shall follow the monitoring frequencies stated for each discharge type. The limit for Total BETX of 750 µg/L monthly average is achievable by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple carbon adsorption treatment or air strippers to easily remove of these volatile organic compounds from the discharge to concentrations below 750 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

PAHs: 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. The sample frequency for PAHs shall follow the monitoring frequencies stated for each discharge type. The PAH compounds regulated under the permit are separated into three components. The regulation of PAHs in WPDES permits are based on department released guidance entitled “PAH Group of 10 Calculation of Concentration Using Toxicity Equivalent Factors” (3400-2015-01), which is available at <http://dnr.wi.gov/water/egadSearch.aspx>.

The limit for PAHs of 0.1 µg/L as a monthly average is achievable by application of best available control technology economically achievable for these types of discharges. This established effluent limitation is based on the ability of simple oil/water separators equipment and carbon adsorption treatment to easily remove PAHs from the discharge to concentrations below 0.1 µg/l. This determination was based on best professional judgment in accordance with s. NR 220.21, Wis. Adm. Code.

The limits for 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 reflect the PALs in ch. NR 140, Wis. Adm. Code, which are designed to ensure groundwater standards are not exceeded. Some of these parameters do not have PALs, therefore, monitoring is only required.

Benzo(a)pyrene: The limit for benzo(a)pyrene reflects the PAL in ch. NR 140, Wis. Adm. Code, which are designed to ensure groundwater standards are not exceeded.

Naphthalene: The limit for naphthalene reflects the PAL in ch. NR 140, Wis. Adm. Code, which are designed to ensure groundwater standards are not exceeded.

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. The effluent limitations, limit type, and sample type for these substances are listed in Table 6 of the permit. The groundwater preventive action limits (PALs) in ch. NR 140, Wis. Adm. Code, were used for effluent limits for those parameters listed in Table 4 of the permit.

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

In accordance with s. NR 205.066, Wis. Adm. Code, the department shall determine on a case-by-case basis the monitoring frequency to be required for each effluent limitation in a permit. Since many discharges are of short duration or limited frequency, the monitoring frequency provided in the permit would allow for the most representative sampling of the discharge events.

6.6 PAH Group of Ten

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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

In accordance with s. NR 205.07(1)(p)3., Wis. Adm. Code, additional test procedures may be specified in the permit on a case-by-case basis. Therefore, 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

In accordance with s. NR 205.07(1)(j), 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. Therefore, 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

In accordance with s. NR 205.07(1)(j), 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. Therefore, 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. This condition is based on spray irrigation systems under s. NR 214.14(2)(a), Wis. Adm. Code.

6.12 Discharge Rate

The permittee shall limit the discharge flow rate to a rate that can infiltrate into the soil surface. This condition is based on spray irrigation systems under s. NR 214.14(2)(a), Wis. Adm. Code.

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. This condition is based on spray irrigation systems under s. NR 214.14(3)(f), Wis. Adm. Code.

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. This condition is based on overland flow systems under s. NR 214.15(3)(d), Wis. Adm. Code.

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. This condition is based on overland flow systems under s. NR 214.15(3)(e), Wis. Adm. Code.

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. This loading limit is based on landspreading systems for liquid wastes and by-product solids in s. NR 214.17(4)(b), Wis. Adm. Code.

6.17 Water Treatment Additives for Groundwater Discharges

Permittees shall not place water treatment additives in any discharge that is not a part of a water supply system unless the water treatment additive use is approved, in writing, by the department. An additive review is necessary for substances that may enter groundwater 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 impact groundwater quality. In 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 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 (1) the commercial name of the additive and the Material Safety Data Sheet (MSDS), (2) the proposed frequency of use, (3) the amount or concentration to be used and (4) the anticipated discharge concentration. 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. An 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 a wastewater treatment process (such as ferric chloride, alum or pickle liquor) are not considered water treatment additives and need not require an additive review. Water treatment additives can vary from innocuous to highly toxic.

The language from section 5.11 has been modified to be more appropriate for groundwater discharges. The permittee shall submit the above information regarding the water treatment additive as specified in the permit, so the department can determine if it is allowable and won't negatively impact groundwater standards in ch. NR 140, Wis. Adm. Code. The department's determination may include consulting with other agencies as appropriate if groundwater standards have not been developed for compounds of concern.

7 Reporting and Record Keeping Requirements

7.1 Annual Certification Statement

In accordance with s. NR 205.08(2), general permits may contain reporting requirements. Therefore, the permittee is required to submit a certified letter to the department each year by January 31st. This annual certification statement will allow the department to determine if the requirements of the permit are being followed each year by the permittee for uncontaminated discharges from Outfall 003 (Beach Nourishment Disposal) and Outfall 004 (Uncontaminated Sediment to groundwater).

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 and shall be retained for a period of three years pursuant to s. NR 205.07(1)(f), Wis. Adm. Code. Records shall be made available for department inspection and submitted to the department upon request pursuant to ss. NR 205.07(1)(d) and (L), Wis. Adm. Code.

8 Standard Requirements

Both the current permit and new permit provide a Standard Requirements (SR) section that contains conditions and requirements that are, for the most part, applicable to all industrial permittees.

Changes from Previous Permit

Changes to the standard requirements section include:

- SR Section 8.1.1: The permit now requires that monitoring results be submitted on an electronic discharge monitoring report (eDMR) instead of a paper annual report. The monitoring forms are due 21 days after the end of the reporting permit. Sections on monthly, and final reporting have been deleted.
- SR Section 8.2.1: The permit now explains requirements on how to delegate signature authority for a duly authorized representative.
- SR Section 8.2.2: The permit now explains requirements on how to transfer permit coverage to a new permittee.
- SR Section 8.2.3: The permit now explains requirements on how to terminate permit coverage.
- SR Sections 8.3.1-8.3.2, 8.3.7-8.3.10, 8.3.16, and 8.3.18: These sections are required to be included all WPDES permit issued by the department.
- SR Sections 8.3.11-8.2.13: The permit now explains sampling and testing procedures as well as the requirement for testing performed by a certified or registered laboratory with exclusions.

8.1 Reporting Requirements

According to s. NR 205.08(2), Wis. Adm. Code, the department may include reporting requirements in general permits. The reporting requirements are included by reference from chs. NR 106.07(6)(e), NR 106.14(3), and NR 205.07(1) and (3), Wis. Adm. Code.

8.2 General Conditions for General Permits

According to s. NR 205.08(2), Wis. Adm. Code, the department may include general conditions in general permits. The general conditions for general permits are included by reference from 40 CFR Parts 122.28(b)(2)(i), 122.61(b) and 122.64(c), and s. NR 205.07(1)(i), Wis. Adm. Code.

8.3 General Conditions for WPDES Permits

The general conditions for WPDES permits are included by reference from ss. NR 205.07(1) and (3), NR 219.037, Wis. Adm. Code, and 33 USC 1251.

9 Summary of Reports Due

A summary of reports due has been added for informational purposes for permittee and to be consistent with individual WPDES permits.

Appendix A - Definitions

The standard definition section is provided to permittees to help clearly define terms used throughout the 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 defined in the permit are found to be inconsistent with the definition in code, permittees shall refer to the code definition.

Appendix B – Notice of Intent Form

The contents of the notice of intent (NOI) shall be specified in the general permit and shall require the submission of information necessary for adequate program implementation pursuant to 40 CFR 122.28(b)(2)(ii). The NOI, at a minimum, shall include the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, the receiving stream(s), and other required data elements as identified in 40 CFR Appendix A to Part 127. Authorized state programs may require regulated entities to submit more data than what is listed in Appendix A. All NOI must be signed and certified in accordance with s. NR 205.07(1)(g), Wis. Adm. Code.

Appendix C – PAH Calculation

The calculation of the concentration for the PAH group of ten compounds in WPDES permits is based on department released guidance entitled “PAH Group of 10 Calculation of Concentration Using Toxicity Equivalent Factors” (3400-2015-01), which is available at <http://dnr.wi.gov/water/egadSearch.aspx>.

Appendix D – Dioxin Calculation

The equation for calculating the 2,3,7,8-TCDD toxicity equivalence concentration and the Toxicity Equivalency Factors (TEF) and Bioaccumulation Equivalency Factors (BEF) are based on s. NR 106.115(2), Wis. Adm. Code.

Appendix E – Receiving Water Hardness Values

The mean receiving water hardness values were collected by the department from the period of January 1988 through June 2015 for various surface water throughout the state of Wisconsin. These values can be used to determine the metal limits for surface water discharges. If the hardness is not listed for a certain surface water, the permittee will have to take a representative sample of the receiving water.

Other Changes from Previous Permit

- Section 2 “Requirements for all Discharges” has been removed. This includes sections on settling, filtration, and wastewater treatment systems. The department does not want to limit permittee to certain types of treatment and the requirements are inconsistent with department plan approval rules in ch. NR 108, Wis. Adm. Code.

- Section on granting of coverage has been revised and moved to Section 2.
- The section on other permits and requirements has been moved to under Section 1.1.

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Date:06/29/18