



**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**GENERAL PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM
WPDES PERMIT NO. WI-B046515-6**

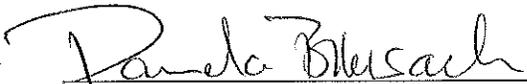
In compliance with the provisions of Chapter 283, Wis. Stats., and ch. NR 216, Wis. Adm. Code, any facility located in the State of Wisconsin, excluding initial coverage within Indian Country after September 30, 2001, engaging in

NONMETALLIC MINING OPERATIONS FOR INDUSTRIAL SAND MINING AND PROCESSING

and meeting the applicability criteria in section 1 of this permit and that receives a letter from the Wisconsin Department of Natural Resources (Department) granting coverage under this permit, is authorized to discharge storm water and wastewater to waters of the state provided that the discharge is in accordance with the conditions set forth in this permit.

This permit is issued by the Department and covers discharges from the facility as of the **Start Date** of permit coverage to the permittee. For initial permit coverage, the Department will transmit a cover letter to the permittee stating that the facility is covered under this permit. Initial coverage under this permit will become effective at a new facility beginning upon the **Start Date** specified by the Department in the cover letter. For an existing facility with permit coverage under a previously issued version of a nonmetallic mining operations general permit, coverage under this permit will become effective at the facility beginning upon the **Effective Date** below. For these facilities, the **Effective Date** is the **Start Date**.

State of Wisconsin Department of Natural Resources
For the Secretary

By 
Pamela A. Biersach, Director
Bureau of Watershed Management

July 29, 2016
Date Permit Signed

PERMIT EFFECTIVE DATE: August 1, 2016

EXPIRATION DATE: July 31, 2021

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1. APPLICABILITY CRITERIA

1.1 Activities Covered

Unless otherwise excluded from coverage under section 1.3, this permit applies to the discharge of pollutants associated with storm water and wastewater from any active and inactive nonmetallic mining operation as defined by Standard Industrial Classification (SIC) Code 1446 (Industrial Sand) to waters of the state either directly or indirectly via a storm sewer or other conveyance. For the purposes of this permit, storm water commingled with a wastewater described in sections 1.1.2 through 1.1.7 below is considered wastewater. Additionally, storm water collected and used for washing, cleaning, separating, or processing nonmetallic minerals is considered process wastewater when discharged.

Note: Nonmetallic mining operations as defined under SIC Code 1400 to 1499, except SIC Code 1446, are covered under WPDES Permit No. WI-A046515-6.

Nonmetallic mining operations covered by this permit include sites and equipment engaged in excavation, dredging, or processing of industrial sand that result in a discharge to waters of the state of one or more of the following:

1.1.1 Contaminated storm water.

1.1.2 Process wastewater associated with washing, cleaning, drying, separating, or processing nonmetallic minerals.

1.1.3 Dewatering activities.

1.1.4 Contact and noncontact cooling water, condensate or boiler water.

1.1.5 Dust suppression water.

1.1.6 Water from the outside washing of vehicles, equipment, or other objects except as provided in section 1.3.8.

1.1.7 Other similar wastewaters.

1.2 Individual Permit Coverage

In accordance with s. 283.35(3), Wis. Stats. or s. NR 216.25(3) Wis. Adm. Code, if the Department determines that discharges from a nonmetallic mining operation are more appropriately covered under an individual WPDES permit, the Department may deny coverage or revoke coverage under this permit and issue an individual WPDES Permit to that nonmetallic mining operation. The determination to cover discharges associated with a nonmetallic mining operation under an individual WPDES permit may apply to either storm water discharges or wastewater discharges, or to both.

1.3 Discharges Not Covered

The following are not authorized under this permit:

1.3.1 Storm water and wastewater discharges from nonmetallic mining operations that do not include industrial sand mining as defined under SIC Code 1446 (Industrial Sand).

1.3.2 Storm water discharges within Indian Country for which initial coverage under this permit is sought after September 30, 2001. Industrial storm water discharges within Indian Country from non-tribal lands that have state coverage under a general storm water permit prior to September 30, 2001, continue to be covered under this permit for purposes of state law.

Note: Indian Country is defined under 18 USC §1151. Contact the Department at (608) 267-7694 for non-tribal storm water discharges within Indian Country to determine if state permit coverage from the Department is required.

1.3.3 Storm water and wastewater discharges of hazardous substances that are required to be reported under ch. NR 706, Wis. Adm. Code.

1.3.4 Wastewater discharges from the following nonmetallic mining processes: Crushed stone chemical flotation, construction sand and gravel heavy liquid chemical separation, industrial sand chemical flotation, and industrial sand acid leaching extraction.

1.3.5 Wastewater discharges from the manufacturing of cement by the kiln dust process.

1.3.6 Discharges of wastewater from the washing of a precast concrete surface treated with retarder to expose aggregate after the unset surface cement is cleaned off.

1.3.7 Wastewater discharges from the regeneration of ion exchange water treatment units.

1.3.8 Wastewater discharges from the use of petroleum or halogenated hydrocarbon degreasing agents during the washing of vehicles, equipment or other objects, and wastewater discharges containing petroleum products or volatile organic solvents such as from engine degreasing, or washing off diesel or gasoline.

1.3.9 Wastewater discharges from areas subject to the remediation of environmental contamination regulations under the NR 700 Wis. Adm. Code series.

1.3.10 Wastewater discharges of noncontact cooling water treated with biocides, except that uncontaminated water from a municipal water supply may be discharged.

1.3.11 Storm water and wastewater discharges that affect wetlands, unless the Department determines that the discharges comply with the wetland water quality standards provisions in ch. NR 103, Wis. Adm. Code.

1.3.12 Storm water and wastewater discharges that affect endangered and threatened resources, 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.

1.3.13 Storm water and wastewater discharges that 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.

1.3.14 A discharge of a pollutant to surface water via wastewater directly to an outstanding resource water (ORW) as defined in s. NR 102.10, Wis. Adm. Code, or discharges of wastewater that would lower the water quality of a downstream ORW.

1.3.15 A discharge of a pollutant to surface water via wastewater directly to an exceptional resource water (ERW) as defined in s. NR 102.11, Wis. Adm. Code, or discharges of wastewater that would lower the water quality of a downstream ERW.

1.3.16 Storm water discharges to an ORW or an ERW, except as provided in section 1.4 of this permit.

1.3.17 Storm water and wastewater discharges containing pollutants in quantities that must be limited to prevent harm to animals, aquatic life, or human health, to prevent violation of the surface water quality standards in chs. NR 102, NR 105, NR 106, and NR 207, Wis. Adm. Code, or to prevent violation of the groundwater standards in ch. NR 140, Wis. Adm. Code.

1.3.18 Storm water and wastewater discharges from sanitary waste systems or remediation activities.

1.3.19 Discharges directly to surface water of dewatering water associated with sediment removed for maintenance of storm water best management practices or sludge removed for maintenance of wastewater treatment facilities.

1.3.20 Discharges directly to surface water of storm water coming into contact with sediment removed for maintenance of storm water best management practices or sludge removed for maintenance of wastewater treatment facilities.

1.3.21 Storm water and wastewater discharges in violation of the regulation of injection wells under ch. NR 815, Wis. Adm. Code.

Note: Information about the Department's injection well program may be found at:
<http://dnr.wi.gov/topic/wells/uiw.html>

1.4 Storm Water Discharges to Outstanding and Exceptional Resource Waters

Note: Under sections 1.3.14 and 1.3.15, a discharge of a pollutant to surface water via wastewater to an ORW or ERW is not authorized under this permit. This section 1.4 applies only to storm water discharges.

1.4.1 Within 12 months after the **Effective Date** of this permit, the permittee shall comply with sections 1.4.2 through 1.4.5 of this permit. Storm water discharges from nonmetallic mining operations covered under this permit 12 or more months after the **Effective Date** of this permit shall comply with sections 1.4.2 through 1.4.5 of this permit as of the **Start Date** of coverage under this permit.

1.4.2 The permittee shall determine whether any part of its facility discharges storm water to an ORW or ERW. ORWs and ERWs are listed in ss. NR 102.10 and 102.11, Wis. Adm. Code, respectively.

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

1.4.3. The permittee may not establish a new storm water discharge of pollutants directly to an ORW or an ERW unless the discharge of pollutants is equal to or less than existing levels of pollutants immediately

upstream of the discharge site. The storm water pollution prevention plan required under section 3 of this permit shall include practices designed to meet this requirement for new discharges.

1.4.3.1. “New storm water discharge” or “new discharge” means a storm water discharge that would first occur after the permittee’s **Start Date** of coverage under this permit to a surface water to which the facility did not previously discharge storm water, and does not include an increase in a storm water discharge to a surface water to which the facility discharged on or before coverage under this permit.

Note: Off-site and up-gradient storm water that is diverted from a nonmetallic mining operation is not a new storm water discharge under this section provided the diversion pathway is stabilized to prevent erosion and there is no contact with activities associated with the non-metallic mining operation.

1.4.4 The permittee may increase an existing storm water discharge directly to an ERW only if the increased discharge will not cause a significant lowering of water quality and the discharge is related to important economic or social development.

1.4.5 The permittee may increase an existing storm water discharge directly to an ORW only if the increased discharge of pollutants is equal to or less than the background levels of the pollutant upstream of the discharge and the discharge is related to important economic or social development.

2. REQUIREMENTS FOR ALL SITES

2.1 Dikes and Berms

There shall be no discharge off-site due to above ground leakage through or flow over the top of dikes or berms utilized for holding or diverting wastewater or storm water except through outfall structures, spillways, or channels designed to withstand the force of flowing water. Dikes and berms shall be structurally sound and designed and constructed utilizing sound engineering principles and practices to contain the expected volume of wastewater, storm water, and direct precipitation.

Note: Section 2.1 does not apply to berms installed and maintained solely for the purpose of safety in conformance with the U.S. Mine Safety and Health Administration regulations.

2.2 Wastewater Treatment Facilities

A wastewater treatment facility shall be managed so the treatment facility has sufficient capacity to contain without discharge to waters of the state, all wastewater and direct precipitation resulting from a 10-year, 24-hour design storm event that falls within the treatment facility.

2.3 Dewatering of Water from Sediment and Sludge

Dewatering water from sediment removed for maintenance of storm water best management practices and sludge removed for maintenance of wastewater treatment facilities shall not discharge directly to a surface water and shall meet the requirements of this permit prior to discharge. The residual water shall be recycled for process water or makeup water whenever possible.

Note: Dewatered sediment or sludge disposed of off-site may be subject to other Department regulatory requirements as specified in s. NR 205.07(3)(a), Wis. Adm. Code. Dewatered sediment or sludge stored and used on-site for nonmetallic mining reclamation may be subject to other Department regulatory requirements as specified in chs. NR 135, NR 340, and/or NR 500 to 538, Wis. Adm. Code.

2.4 Storm Water Diversion

To reduce the volume or incidence of discharges from wastewater treatment facilities to a surface water, to the maximum extent practicable the permittee shall divert storm water not used for process water or makeup water from wastewater treatment facilities. Diversion includes activities and/or structural practices to direct the flow of storm water away from wastewater treatment facilities.

2.5 Dust Suppression Control for Roads

Collected storm water and wastewater may be used for road dust suppression. The permittee shall not use excess water in roadway dust suppression practices that will result in a discharge of the dust suppression water to a surface water or result in dust suppression water running off the nonmetallic mining site. Wastewater and storm water containing pollutants other than suspended solids may not be used for dust suppression activities. Road dust suppression water used in accordance with this section 2.5 does not require monitoring under sections 4 or 5 of this permit.

Note: Further guidance is available from the *Wisconsin Transportation Bulletin No. 13, Dust Control on Unpaved Roads*, at: http://epdfiles.engr.wisc.edu/pdf_web_files/tic/bulletins/Bltn_013_DustControl.pdf

2.6 Outside Washing Activities

Wastewater from the outside washing of vehicles, equipment, or other objects shall not discharge directly to surface water and shall meet the requirements of this permit prior to discharge. Biodegradable soaps shall be used, and the washing of road deicing chemicals to infiltration areas shall be minimized.

2.7 Polyacrylamide Water Treatment Additives

If a polyacrylamide product is used as a water treatment additive, the amount of acrylamide monomer in the additive shall be no more than 0.05% by weight. Within 30 days of the effective date of this permit or prior to use of a polyacrylamide product, the permittee shall provide to the Department in writing the additive name and manufacturer, and shall certify to the Department in writing that the acrylamide monomer content does not exceed 0.05% by weight. The permittee may use a third-party or manufacturer's certification to verify the percent of acrylamide content. The maximum dose of polyacrylamide product used shall be no more than necessary to achieve effective sedimentation in the treatment process.

Note: The 0.05% acrylamide monomer content by weight in a polyacrylamide water treatment additive is consistent with the USEPA's requirement for drinking water treatment. See <http://water.epa.gov/drink/contaminants/basicinformation/acrylamide.cfm>

2.8 Impaired Water Bodies and Total Maximum Daily Load Requirements

2.8.1 "Pollutant(s) of concern" means a pollutant that is contributing to the impairment of a water body.

2.8.2 By February 15th of each calendar year, the permittee shall perform an annual check to determine whether its facility discharges a pollutant of concern to an impaired water body listed in accordance with Section 303(d)(1) of the Federal Clean Water Act, 33 USC §1313(d)(1)(C), and the implementing regulation of the U.S. Environmental Protection Agency, 40 CFR §130.7(c)(1). The results of the annual check shall be documented with the Annual Facility Site Compliance Inspection required under section 3.2 of this permit.

Note: The list of Wisconsin impaired surface water bodies may be obtained by contacting the Department or by searching for keyword "impaired waters" on the Department's Internet site. The Department updates the list approximately every two years. The updated list is effective upon approval by EPA. The current list may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/impairedwaters/>

2.8.3 A permittee that discharges a pollutant of concern via storm water to an impaired water body shall, within 180 days of the annual check that determines the facility discharges to an impaired water body, include a written section in a storm water pollution prevention plan that specifically identifies source area pollution prevention controls and storm water best management practices that will collectively be used to reduce, with the goal of eliminating, the storm water discharge of pollutant(s) of concern that contribute to the impairment of the water body and explain why these controls and practices were chosen as opposed to other alternatives. If the pollutant of concern is discharged via wastewater, the permittee shall determine whether additional wastewater pollution prevention controls or wastewater treatment facilities will be used to reduce, with the goal of eliminating, the wastewater discharge of pollutant(s) of concern that contribute to the impairment of the water body. Changes identified in the storm water pollution prevention plan or additional wastewater pollution prevention controls or wastewater treatment facilities needed to treat wastewater shall be implemented with the 180-day timeframe.

Note: For a permittee that discharges a pollutant of concern via storm water to an impaired water body, amending the storm water pollution prevention plan will be required after the initial annual check and if

subsequent annual checks indicate additional pollutants of concern have been added, additional water bodies have been designated as impaired, or other relevant changes to the designation have occurred.

2.8.4 The permittee may not establish a new storm water discharge or new discharge of wastewater of a pollutant of concern to an impaired water body or significantly increase an existing 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 discharge is consistent with a State and Federal approved total maximum daily load (TMDL) allocation for the impaired water body.

2.8.4.1. “New storm water discharge” or “new discharge” means a discharge that would first occur after the permittee’s **Start Date** of coverage under this permit to a surface water to which the facility did not previously discharge, and does not include an increase in a discharge to a surface water to which the facility discharged on or before coverage under this permit.

2.8.5 By February 15th each calendar year, the permittee shall perform an annual check to determine whether its facility discharges a storm water or wastewater pollutant of concern to a water body included in a State and Federal approved TMDL. If so, the permittee shall assess whether the TMDL wasteload allocation for the facility’s discharge is being met through the existing source area pollution prevention controls, storm water best management practices, wastewater pollution prevention controls, or wastewater treatment facilities, or whether additional controls or treatment are necessary and feasible. The assessment of the feasibility of additional controls or treatment shall focus on the ability to improve the pollution prevention and treatment system effectiveness and the adequacy of implementation and maintenance of the additional controls or treatment. The results of the annual check shall be documented with the Annual Facility Site Compliance Inspection required under section 3.2 of this permit.

Note: State and Federal approved TMDLs can be identified by contacting the Department, or by searching for keyword “TMDL” on the Department Internet site. The current State and Federal approved Final TMDLs may be found on the Department’s Internet site at: <http://dnr.wi.gov/topic/tmdls/>

2.8.6 Within 180 days of the annual check that determines the facility discharges to a TMDL allocated water body, a permittee that is included in a State and Federal approved TMDL shall submit to the Department a proposed implementation plan for the storm water and wastewater discharges that meets the requirements of the State and Federal approved TMDL wasteload allocation for the facility. The proposed TMDL implementation plan shall specify any feasible pollution prevention and treatment improvements that could be made and specify any revisions or redesigns that could be implemented to increase the effectiveness of the permittee’s storm water and wastewater pollution prevention controls and treatment practices. The TMDL implementation plan shall also specify a time schedule for implementation of the improvements, revisions, or redesigns necessary to meet the wasteload allocation for the facility. If a specific wasteload allocation has not been assigned to the facility under a TMDL, compliance with this permit shall be deemed to be in compliance with the TMDL.

2.9 Fish and Aquatic Life Waters

2.9.1 The permittee shall determine whether it will have a storm water or wastewater discharge to a fish and aquatic life water as defined in s. NR 102.13, Wis. Adm. Code.

Note: Most receiving waters of the state are classified as a fish and aquatic life waters and this classification includes all surface waters of the state except ORWs, ERWs, Great Lakes system waters and

variance waters identified within ss. NR 104.05 through 104.10, Wis. Adm. Code. The Department may be consulted if the permittee is not certain of the classification.

2.9.2 The permittee may not establish a new discharge of pollutants to a fish and aquatic life water if the discharge will result in the significant lowering of water quality of the fish and aquatic life water. Significant lowering of water quality is defined within ch. NR 207, Wis. Adm. Code.

2.9.2.1 “New discharge” means a discharge that would first occur after the permittee’s **Start Date** of coverage under this permit to a surface water to which the facility did not previously discharge, and does not include an increased discharge to a surface water to which the facility discharged on or before coverage under this permit.

2.9.3 If the permittee’s facility has an existing discharge to a fish and aquatic life water, it may not increase the discharge of pollutants if the increased discharge would result in a significant lowering of water quality.

2.9.4 Any increased or new discharge of storm water or wastewater authorized under this permit shall be related to important economic or social development.

Note: New or increased discharges of wastewater directly to ERW or ORW waters are not authorized under this general permit. See sections 1.3.14 and 1.3.15.

2.10 Toxic Pollutants

In accordance with s. NR 102.12 Wis. Adm. Code, a new discharge and increased discharge as defined in ch. NR 207, Wis. Adm. Code, of persistent, bioaccumulating toxic substances to the Great Lakes waters or their tributaries shall be avoided or limited to the maximum extent practicable. Any new or increased discharge of these substances is prohibited unless the permittee certifies that the new or increased discharge is necessary after utilization of best technology in process or control using waste minimization, pollution prevention, municipal pretreatment programs, material substitution or other means of commercially available technologies which have demonstrated capability for similar applications.

2.11 Compliance with Water Quality Standards

All discharges of storm water shall comply with water quality standards. All discharges of wastewater to waters of the state shall comply with state water quality standards and groundwater standards.

2.12 Application for Permit Coverage

2.12.1 Initial Permit Coverage

The owner or operator of a nonmetallic mining operation meeting the applicability criteria in section 1.1 and not previously covered under a general permit for nonmetallic mining operations shall submit a complete Notice of Intent (NOI) to the Department to apply for permit coverage in accordance with the timeframes in s. NR 216.22(2), Wis. Adm. Code. The storm water pollution prevention plan (SWPPP) required under section 3.3 shall be completed prior to submitting the NOI. The NOI submittal shall include the SWPPP summary required under section 3.3.1 of this permit. The SWPPP shall be submitted to the Department upon request. Within 30 calendar days of receipt of the NOI, the Department will evaluate the information submitted in the NOI to determine whether the NOI is complete, whether additional information is needed for review, whether the facility will be covered under this permit or an individual permit, or whether coverage under a permit will be denied. Based upon this evaluation, unless notified to the contrary by the Department, within 30 calendar days of receipt of the NOI the Department will transmit

a cover letter to the owner or operator indicating the **Start Date** upon which permit coverage becomes effective at the facility with instructions on where to download the permit from the Department's Internet website. In the alternative, a hard copy of the permit will be mailed to the owner or operator of the facility upon request.

Note: The NOI form for nonmetallic mining operations (Form 3400-179) and general permit are available for download from the Department's Internet website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>. If, for any reason, you are unable to access the permit over the Internet, please telephone the Department at (608) 267-7694 for assistance.

2.12.2 Existing Permit Coverage

Unless the Department makes a determination for an individual WPDES permit under section 1.2, a nonmetallic mining operation meeting the applicability criteria of section 1.1 with existing WPDES general permit coverage prior to the **Effective Date** of this permit for a discharge described in sections 1.1.1 through 1.1.7 is automatically covered under this permit as of the **Effective Date**. For these permittees, the **Effective Date** is the permittee's **Start Date**. The Department will notify the owner or operator of the nonmetallic mining operation of continued coverage under this permit with instructions on where to download the permit from the Department's Internet website. In the alternative, a hard copy of the permit will be mailed to the owner or operator of the facility upon request.

Note: The general permit is available for download from the Department's Internet website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>. If, for any reason, you are unable to access the permit over the Internet, please telephone the Department at (608) 267-7694 for assistance.

2.12.3 Permit Coverage Transfers

In accordance with s. NR 216.31, Wis. Adm. Code, a permittee who will no longer control the permitted nonmetallic mining operation may request that permit coverage be transferred to the person who will control the operation.

2.12.4 Permit Coverage Terminations

If the permittee no longer claims coverage under this permit, the permittee shall submit a signed Notice of Termination to the Department in accordance with s. NR 216.32, Wis. Adm. Code.

Note: The NOT form (Form 3400-170) is available on the Department website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>

3. STORM WATER CONTROL REQUIREMENTS

Note: This section 3 does not apply to wastewater discharges.

Nonmetallic mining operations meeting the applicability criteria in section 1.1 that have storm water contact with overburden, raw materials, intermediate products, final products, waste materials, by-products, material handling equipment or other nonmetallic mining machinery shall implement storm water best management practices and meet the requirements in this section as specified below.

3.1 Physical Controls

Nonmetallic mining operations covered under this permit shall implement the following physical controls to prevent the discharge of storm water contaminants.

3.1.1 Minimum Source Area Pollution Prevention

All permittees shall comply with the following minimum source area pollution prevention requirements. Source areas that have the potential to contaminate storm water are described in s. NR 216.27(3)(e), Wis. Adm. Code. The permittee shall install, to the maximum extent practicable, source area pollution prevention controls that are designed to prevent contaminated storm water at the site prior to discharge. Source area pollution prevention controls include:

3.1.1.1 Practices that prevent and control soil erosion and sediment movement including, but not limited to, practices to stabilize soil, structural practices to divert overland storm flow away from exposed soil and material stockpiles, and minimization of tracking on access roads. Sound engineering principles and practices shall be utilized to minimize erosion and movement of sediment by storm water. Best management practices for the control of soil erosion and sedimentation shall be designed, installed, and maintained in accordance with the construction site performance standards in s. NR 151.11(6m), Wis. Adm. Code, and in accordance with the Department's Construction Site Erosion and Sediment Control Technical Standards.

Note: The Construction Site Erosion and Sediment Control Technical Standards are available at the following Department website:
http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

3.1.1.2 Practices that manage and control residual contaminants from the outside washing of vehicles, equipment, or other objects.

3.1.1.3 Practices that prevent contaminated storm water as a result of contact with maintenance fluids, fuels, and lubricants associated with vehicles and machinery, including good house-keeping measures, appropriate storage, diversion of off-site storm water, preventative maintenance measures, proper management of waste materials and dumpsters/compactors, visual inspections, spill/leak prevention and response measures, and spill reporting described in section 6.5 of this permit.

3.1.1.4 Structures or materials that cover or otherwise enclose salt handling areas or storage piles so that neither direct precipitation nor storm water comes into contact with the salt. Any salt spillage, resulting from activities such as loading or unloading, shall be managed to minimize contact with storm water. Permittees that use brine and have salt storage piles on impervious curbed surfaces shall have a means of diverting contaminated storm water to a brine treatment system to facilitate reuse.

3.1.1.5 If applicable, use a combination of storm water contact control or containment, drainage controls, or diversions to control SARA Title III Section 313 "Water Priority Chemicals" (42 USC s. 11023 (c)) potentially discharged through the action of storm water runoff, leaching, or wind.

3.1.1.6 Protection practices for petroleum product and chemical bulk storage structures that prevent loss of the material to surface water or groundwater.

3.1.1.7 Minimize dust and off-site tracking of soil, raw materials, intermediate products, final products, or waste materials.

3.1.1.8 Minimize exposure of pollutants associated with the potential sources of storm water contamination identified in s. NR 216.27(3)(e), Wis. Adm. Code.

3.1.1.9 Maintain both structural and non-structural control measures.

3.1.1.10 Train and raise awareness of employees as appropriate on storm water pollution prevention, the requirements of this permit, and their specific responsibilities in implementing any of the requirements, practices, or activities of this permit.

3.1.2 Storm Water Best Management Practices (BMPs)

When the permittee determines that source area pollution prevention controls are not feasible, are not cost effective or are inadequate to control storm water contamination, or when the Department notifies the permittee that source area pollution prevention controls are inadequate to achieve a water quality standard, to the maximum extent practicable, contaminated storm water shall be treated to reduce pollutant levels prior to discharge to waters of the state. Areas of the nonmetallic mining operation that are exposed to direct precipitation or storm water shall implement storm water BMPs as follows:

3.1.2.1 Storm water containing sediment shall be contained on the nonmetallic mining site to the maximum extent practicable to facilitate evaporation or infiltration so the sediment is removed prior to discharge. The tracking of sediment onto local roads shall be minimized by the use of storm water BMPs such as an asphalt or concrete approach to the road or use of a vehicle tracking pad.

3.1.2.2 Storm water discharges shall be treated with appropriate storm water BMPs to reduce the amount of sediment discharged. The storm water BMPs may include settling, sedimentation, filtration, and/or modifications to retain sediment at drainage inlets (e.g., storm sewer grates or drainage pipe openings) where they occur.

Note: Technical standards developed in accordance with NR 151, Wis. Adm. Code, such as #1063 Sediment Trap, #1001 Wet Detention Pond, and #1064 Sediment Basin are available to provide guidance for sediment and pollutant control. The technical standards may be obtained by contacting the Department or by searching for keyword "storm water" on the Department's Internet site. The Storm Water Construction Technical Standards are available at the following Department website: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html. The Storm Water Post-Construction Technical Standards are available at the following Department website: http://dnr.wi.gov/topic/stormwater/standards/postconst_standards.html

3.2 Annual Facility Site Compliance Inspections

The permittee shall conduct an annual facility site compliance inspection required under s. NR 216.28(2), Wis. Adm. Code, for each calendar year of coverage under this permit and document the results by February 15 for the previous calendar reporting year. The SWPPP contact identified in section 3.3.3 shall perform and/or coordinate the inspections. The SWPPP contact shall verify that all pollution sources are correctly identified and that the site drainage pattern description remains accurate. The SWPPP contact shall also check that appropriate source area pollution prevention controls and storm water BMPs have been chosen, and the practices are being implemented, properly operated and adequately maintained. The timing of inspections shall include seasonal or cyclical activities at the facility so the inspections are representative of the full range of activities at the site. An annual facility site compliance inspection report shall be completed for each inspection and shall include the inspection date, inspection personnel, scope of the inspection, major observations, and a schedule for implementing any further actions needed to control storm water contaminants. The annual facility site compliance inspection reports shall be retained for 5 years beyond the date the record was made and shall be provided to the Department upon request.

Note: The annual facility site compliance inspection report form (Form 3400-176) is available on the Department website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>

3.3 Storm Water Pollution Prevention Plan (SWPPP)

Nonmetallic mining operations covered under this permit shall be operated in compliance with a site-specific SWPPP. Any potential source areas of storm water contamination shall be included in the SWPPP or necessitate that a SWPPP be developed. The SWPPP and any amendments thereto shall be maintained at the nonmetallic mining site or local company headquarters and shall be provided to the Department upon request. The permittee shall amend the SWPPP and notify the Department in the event of any facility operational changes that could result in additional significant storm water contamination.

3.3.1 SWPPP and SWPPP Summary Required

In accordance with ss. NR 216.27 and 216.29(1), Wis. Adm. Code, the owner or operator of a facility requiring coverage under this permit shall prepare a SWPPP and SWPPP summary. An owner or operator applying for initial permit coverage in accordance with section 2.12.1 shall prepare the SWPPP and SWPPP summary prior to applying for permit coverage under s. NR 216.22, Wis. Adm. Code. An owner or operator receiving permit coverage in accordance with section 2.12.2 shall have prepared a SWPPP as of the **Effective Date** of this permit.

Note: The SWPPP summary form (Form 3400-167) is available on the Department website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>

3.3.2 Purpose and Content of the SWPPP

The SWPPP is a written document that identifies sources of contaminated storm water; prescribes appropriate source area pollution prevention controls and storm water BMPs designed to prevent or minimize storm water contamination; prescribes storm water BMPs to reduce storm water contaminants prior to discharge; prescribes actions to identify non-storm water discharges that are either regulated under the wastewater requirements of this permit or to remove these discharges from the storm drainage system; and includes schedules, as necessary, to ensure that the storm water management actions prescribed in the SWPPP are implemented and evaluated on a regular basis.

Source area pollution prevention controls and storm water BMPs shall be utilized to minimize sediment discharge. Control of other storm water pollutants, such as salt, petroleum products, cement materials, or

other materials potentially hazardous to groundwater or a surface water shall be controlled through the use of source area pollution prevention controls and storm water BMPs.

3.3.3 SWPPP Contact

The SWPPP shall identify by job title the specific individual who has primary responsibility for coordinating all aspects of SWPPP development and implementation and identify any other individuals concerned with SWPPP development or implementation, and their respective roles. The specific individual who has primary responsibility shall develop, evaluate, maintain and revise the SWPPP; and carry out and/or coordinate the specific management actions identified in the SWPPP, including maintenance practices, monitoring activities, inspections, preparing and submitting reports and serving as facility contact for the Department.

3.3.4 Site Description and Drainage Base Map

The SWPPP shall contain a drainage base map that depicts how storm water drains on, through, and from the nonmetallic mining site to surface waters, surface water tributaries, wetlands, or infiltrates to groundwater. The drainage base map shall show the following: site property boundaries; the storm drainage collection and disposal system (including all known surface and subsurface conveyances, with the conveyances named); any secondary containment structures; roadways (paved and unpaved); groundcover features (i.e., grass, wooded areas, etc.); the location of all water discharge outfall pipes (including any outfalls permitted under another WPDES permit) numbered for reference, that discharge channelized flow to surface water, groundwater, or wetlands; the drainage area boundary for each outfall; the approximate surface area in acres draining to each outfall; the name and location of any surface water features within ¼ mile of the site; source area pollution prevention controls; and storm water BMPs that are in place at the facility.

The permittee shall also identify on the drainage base map any potential sources of pollution (materials or activities) and areas susceptible to erosion that have the potential to result in sediment-laden storm water. Such sources may include disturbed areas with no stabilizing vegetative cover; product or waste stockpiles; truck loading and washing areas, haul roads; equipment storage and maintenance areas; fuel storage areas; and rail lines and associated areas.

3.3.5 Description of Storm Water Controls

The SWPPP shall describe (including diagrams as necessary) all source area pollution prevention controls and storm water BMPs that are in place or will be implemented for the operation.

3.3.6 SWPPP and SWPPP Summary Submittal

The owner or operator of a new nonmetallic mining operation requiring coverage under this permit shall submit the SWPPP summary to the Department in accordance with section 2.12.1. The SWPPP or SWPPP summary for any permittee shall also be submitted to the Department upon request.

3.3.7 SWPPP Implementation

The SWPPP shall be implemented continually as of the **Start Date** of permit coverage until the site is reclaimed in accordance with chs. NR 135 and/or NR 340, Wis. Adm. Code, and the reclamation plan approved by the regulatory authority.

3.4 Certification of SWPPP Completion

The SWPPP and SWPPP summary shall be signed in accordance with s. NR 216.22(7), Wis. Adm. Code, and contain the following statement:

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

3.5 SWPPP Amendments

The permittee shall amend the SWPPP in accordance with this section and submit an updated SWPPP summary to the Department documenting any amendments made to the SWPPP under the circumstances described in sections 3.5.1 to 3.5.3 below. The SWPPP summary documenting the amendments shall be submitted to the Department prior to commencing any work necessitated by the SWPPP amendments. The amended SWPPP shall be provided to the Department upon request.

3.5.1 When expansion, production increases, process modifications, changes in material handling or storage or other activities are planned which will result in a significant increase in the exposure of pollutants to storm water discharged to waters of the state or to storm water BMPs. The amendment shall contain a description of the new activities that contribute to the increased pollutant loading, planned source control activities that will be used to minimize pollutant loads, an estimate of the new or increased discharge of pollutants following treatment, and a description of any treatment system modifications needed to manage the storm water contaminants. For the purposes of this section, a SWPPP amendment is not required for areas of a nonmetallic mining operation where storm water containing only sediment is entirely captured and contained within the nonmetallic mining operation or is infiltrated in a manner that traps and removes sediment from storm water within the nonmetallic mining operation.

3.5.2 When the comprehensive annual facility site compliance inspection, quarterly visual inspection of storm water quality, or other information reveals that the provisions of the SWPPP are ineffective in controlling storm water pollutants discharged to waters of the state.

3.5.3 When, upon written notice, the Department finds the storm water controls to be ineffective in achieving the conditions of this permit.

Note: The permittee is encouraged to contact the Department to discuss proposed SWPPP amendments.

3.6 Compliance with SWPPP Requirements

3.6.1 Nonmetallic mining operations with existing WPDES general permit coverage for industrial storm water discharges prior to the **Effective Date** of this permit that have previously submitted a SWPPP or SWPPP summary to the Department may be considered to be in compliance with the SWPPP requirements specified in sections 3.3 and 3.4 above if the SWPPP meets the requirements of this permit.

3.6.2 For existing nonmetallic mining operations found to be discharging without an industrial storm water WPDES permit, the Department may, through an appropriate enforcement action or stipulation, agree to cover the operation under this permit and specify a schedule for SWPPP development, implementation and certification within the shortest time practicable.

3.6.3 New nonmetallic mining operations covered under this permit shall comply with the SWPPP requirements of this permit and shall submit a SWPPP summary to the Department in accordance with section 2.12.1.

3.7 Quarterly Visual Inspections

3.7.1 The permittee shall perform and document the results of the quarterly visual inspections required under s. NR 216.28(3), Wis. Adm. Code, for all nonmetallic mining operations covered under this permit. The SWPPP contact shall perform and/or coordinate the inspections. The SWPPP contact or SWPPP contact designee shall check that site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that appropriate storm water pollution prevention controls and storm water BMPs are being implemented, properly operated and adequately maintained. Documentation of each quarterly visual inspection shall be completed and shall include the inspection date, inspection personnel, scope of the inspection, major observations, possible sources of any observed contaminated storm water, any appropriate revisions needed to the SWPPP, and a schedule for implementing any further actions needed to control storm water contaminants. Quarterly visual inspection documentation shall be included with the annual facility site compliance inspection report required in section 3.2. Quarterly visual inspection documentation shall also be provided to the Department upon request.

3.7.2 Once per quarter, the SWPPP contact or SWPPP contact designee shall perform and document quarterly visual inspections of storm water discharge quality at each outfall. Inspections shall be conducted within the first 30 minutes or as soon thereafter as practical, but not to exceed 60 minutes, after runoff begins discharging at an outfall. A visual observation record shall be created for each visual check that includes the discharge outfall location and any observations of color, odor, turbidity, floating solids, foam, oil sheen, or other obvious indicators associated with contaminated storm water. The visual observation record shall be included with the quarterly visual inspection documentation described in section 3.7.1 above. Visual observation records shall also be provided to the Department upon request.

Note: The Quarterly Visual Inspection Field Sheet (Form 3400-176A) is available on the Department website at: <http://dnr.wi.gov/topic/stormwater/industrial/forms.html>

3.7.3 A quarterly visual inspection and/or visual check is not required if any of the following apply: (1) the SWPPP contact or SWPPP contact designee could not reasonably be present at the time of a storm water event; (2) the permittee determined that attempts to complete the inspection would endanger employee safety or well-being; (3) no storm water events large enough to conduct a visual check at an outfall occurred; or (4) the permittee determined that a source of contaminated storm water was outside the site's property boundary and is not associated with the permittee's activities. Quarterly visual inspections and/or visual checks not performed for any reason listed above shall be documented and included with the annual facility site compliance inspection report required in section 3.2.

4. REQUIREMENTS FOR WASTEWATER DISCHARGES TO GROUNDWATER VIA INFILTRATION

A wastewater discharge to groundwater in violation of a groundwater standard in ch. NR 140, Wis. Adm. Code, is not authorized by this permit.

4.1 Except for maintaining monthly records of water treatment additive usage as required under section 4.2.1.4, with the written concurrence of the Department, monitoring required under section 4 may be waived for a wastewater treatment facility under the following circumstances:

4.1.1 For a proposed wastewater treatment facility, the practice shall be lined to prevent infiltration in accordance with ch. NR 213, Wis. Adm. Code. Plans and specifications for lining a wastewater treatment facility shall be approved by the Department, linings shall be installed and maintained, and lining specification records kept and provided to the Department upon request. The installation of a lining to receive a waiver under this section shall be constructed prior to operation of the practice to treat wastewater.

4.1.2 For an existing wastewater treatment facility, the permittee shall provide sufficient data to the Department to demonstrate that the entire area of wastewater contact within the practice is permanently sealed and remains at or below an exfiltration rate of 500 gallons per acre per day.

If the Department has granted a groundwater monitoring waiver for a wastewater treatment facility under this section 4.1, upon request by the Department, the permittee shall provide information to the Department that confirms the conditions for the waiver continue to be met.

4.2 Unless a Department approved waiver is granted as described in section 4.1 above, the remainder of section 4 applies to all wastewater discharges via infiltration to groundwater from wastewater treatment facilities throughout the term of this permit.

4.2.1 Discharges to groundwater from all wastewater treatment facilities shall be in compliance with the limits and requirements listed in Table 1 below. Samples collected to fulfill the monitoring requirements in Table 1 shall be taken at a point that is representative of the discharge to groundwater. Monitoring during a specified sample period is only required when wastewater is being discharged via infiltration during that period. The samples taken shall be representative of the discharge to groundwater. Sampling frequency is independent of any Department enforcement response to permit noncompliance. More frequent sampling may be specified in a Department order or stipulation resulting from enforcement of permit noncompliance.

Table 1

Limitations for Groundwater Discharges		Monitoring Requirements	
Parameter	Daily Maximum ^(a)	Sample Frequency ^(b)	Sample Type ^(c,d)
Discharge Flow (Gallons per Day)	-	Quarterly, or as specified in section 4.2.1.1	Estimate
Oil and Grease	15 mg/l	Annually, or as specified in section 4.2.1.2	Grab
pH	6.0-9.0 s.u.	Quarterly, or as specified in section 4.2.1.3	Grab
Water Treatment Additives	-	Monthly	Keep records as specified in section 4.2.1.4

(a) A daily maximum effluent limitation is to be compared with each analysis for that day. Compliance is achieved when the result of each analysis is less than the maximum daily effluent limitation. If multiple samples are collected, all the test results shall be reported on the Annual Discharge Monitoring Report form required under section 4.3.

(b) A quarterly sample frequency means performing the associated monitoring at least once during each of the four calendar quarters (Jan - March, April - June, July - Sept, Oct - Dec). If there is no discharge during a quarter, the permittee shall enter a zero flow for that quarter on the Annual Discharge Monitoring Report form.

(c) Flow estimate means a reasonable approximation of the average daily flow to groundwater based on amounts of makeup water added to a wastewater treatment facility, estimates of infiltration based on hydraulic conductivity and head, meter measurements of discharge to an infiltration area, and any other method specified in s. NR 218.05(1), Wis. Adm. Code. Infiltration flow estimates need not include storm water that falls directly on the wastewater treatment facility.

(d) A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two-minute period.

4.2.1.1 Sampling for Flow

The daily flow via infiltration shall be estimated at least once per quarter, except that the permittee shall estimate flow via infiltration each month for 12 months starting the month following a recorded daily discharge value greater than 200,000 gal/day. Facilities that estimate flow via infiltration on a monthly frequency shall also report an estimate of the monthly total flow via infiltration on the Annual Discharge Monitoring Report form required under section 4.3.

4.2.1.2 Sampling for Oil and Grease

Wastewater discharging to groundwater shall be sampled annually for oil and grease under this permit, except that the oil and grease sampling frequency shall be once each quarter for 4 calendar quarters

beginning the quarter following any sample result showing an oil and grease discharge greater than 15 mg/L. Further annual oil and grease sampling is not required if the first annual sample result is less than 7.5 mg/L.

4.2.1.3 Sampling for pH

Wastewater pH shall be sampled quarterly prior to infiltration. Sampling for pH may be reduced to annually after 4 consecutive quarterly sample results that are greater than 6.5 standard units (s.u.) and less than 8.5 s.u. Any wastewater with a pH outside the range of 6.0 to 9.0 s.u. shall either be treated to moderate the pH prior to infiltration, or shall be passed through a soil zone that moderates the pH to within the range of 6.0 to 9.0 s.u. More detailed pH sampling may be required by the Department to determine potential impacts to groundwater.

4.2.1.4 Records for Water Treatment Additives

The permittee shall maintain records of monthly water treatment additive usage for all water treatment additives including additive name, manufacturer, and maximum daily amount used. If a wastewater treatment facility discharges to groundwater via infiltration, records of water treatment additives usage in the previous calendar year shall be submitted to the Department with the Annual Discharge Monitoring Report required under section 4.3. Records of monthly water treatment additive usage shall be submitted to the Department upon request.

4.3 Annual Discharge Monitoring Reports

By February 15th of each year, the permittee shall submit to the Department an Annual Discharge Monitoring Report that summarizes the monitoring information and shows all of the monitoring and sampling results required by this section of the permit during the previous calendar year. A Department Annual Discharge Monitoring Report form may be used to submit the annual data, or an alternate report format may be used that clearly shows the monitoring and sampling results from the previous calendar year. The Annual Discharge Monitoring Report shall be submitted to The Wisconsin Department of Natural Resources, Attn: WPDES GP DMR, at the office identified on the Annual Discharge Monitoring Report form. However, monitoring information, results, and records required by section 4 of this permit shall be submitted to the Department upon request.

Note: Annual Discharge Monitoring Reports for groundwater are not required for wastewater treatment facilities granted a waiver under section 4.1 or for facilities that do not discharge wastewater to groundwater.

4.4 Groundwater Monitoring

If the Department has reason to believe that a pollutant in a wastewater discharge has a reasonable probability of entering groundwater in violation of a groundwater standard in ch. NR 140, Wis. Adm. Code, the Department may do either of the following:

4.4.1 Require the permittee to submit a groundwater monitoring plan to the Department within a specified timeframe for approval. The groundwater monitoring plan shall contain information on the groundwater conditions, proposed monitoring well locations, well construction, monitoring parameters, monitoring frequency, and a plan implementation schedule. In accordance with the implementation schedule in the approved groundwater monitoring plan, groundwater monitoring wells shall be installed in accordance with ch. NR 141, Wis. Adm. Code.

4.4.2 Revoke coverage under this permit and issue an individual WPDES permit to the owner or operator of the nonmetallic mining operation with specific groundwater monitoring requirements.

5. REQUIREMENTS FOR WASTEWATER DISCHARGES TO SURFACE WATERS

5.1 Discharges to surface waters that contain dewatering water, process wastewater, contact and/or noncontact cooling water, or other wastewaters related to production of nonmetallic mining materials, shall comply with the requirements in this section. The pumping of excess ponded water (which may include storm water and/or groundwater) is considered dewatering water. Samples collected to fulfill the monitoring requirements shall be taken at each outfall following treatment as applicable and prior to discharge to a surface water. Monitoring during a specified sample period is only required when nonmetallic mining production wastewater is being discharged to a surface water during that period. The samples taken shall be representative of the discharge to the surface water. Sampling frequency is independent of any Department enforcement response to permit noncompliance. More frequent sampling may be specified in a Department order or stipulation resulting from enforcement of permit noncompliance.

5.2 The permittee shall monitor wastewater discharges to a surface water and meet the limitations and requirements in Table 2 throughout the term of this permit. If no wastewater discharge to a surface water occurred during the previous calendar year, by February 15th of each year or upon request by the Department the permittee shall provide information to the Department that confirms that no discharges of wastewater to surface water occurred during the previous calendar year.

Table 2

Limitations for Surface Water Discharges			Monitoring Requirements	
Parameter	Daily Minimum ^(a)	Daily Maximum ^(b)	Sample Frequency ^(c)	Sample Type ^(d,e)
Discharge Flow (Gallons Per Day)	-	-	Quarterly, or as specified in section 5.2.1	Estimate
Flow – number of days of discharge	-	-	Quarterly	Record number of days with discharge flow in the quarter
Total Suspended Solids	-	40 mg/l	Quarterly, or as specified in section 5.2.2	Grab, or as specified in section 5.2.2
pH	6.0 s.u.	9.0 s.u.	Quarterly, or as specified in section 5.2.3	Grab
Oil and Grease	-	15 mg/l	Annually, or as specified in section 5.2.4	Grab
Water Treatment Additives	-	-	Monthly	Keep records as specified in section 5.2.5
Temperature	-	-	Quarterly, or as specified in section 5.2.6	Grab
Phosphorus, Total	-	-	Annually, or as specified in section 5.2.7	Grab

- (a) A daily minimum effluent limitation for pH is to be compared with each single daily analysis. Compliance is achieved when the result of each analysis is greater than the minimum daily effluent limitation.
- (b) A daily maximum effluent limitation is to be compared with each analysis for that day. Compliance is achieved when the result of each analysis is less than the maximum daily effluent limitation. If multiple samples are collected, all the test results shall be reported on the Annual Discharge Monitoring Report required under section 5.7.
- (c) A quarterly sample frequency means performing the associated monitoring once during each of the four calendar quarters (Jan - March, April - June, July - Sept, Oct - Dec). If there is no discharge during a quarter, no sampling is required, and the permittee shall enter a zero flow for that quarter on the Annual Discharge Monitoring Report required under section 5.7.
- (d) An estimate means a reasonable approximation of the average daily flow based on s. NR 218.05(1), Wis. Adm. Code, or any other method approved by the Department.
- (e) A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two-minute period.

5.2.1 Sampling for Flow

The daily discharge flow shall be estimated at least once per quarter, except that the permittee shall estimate discharge flow each month for 12 months starting the month following a recorded daily discharge value greater than 200,000 gal/day. Facilities that estimate discharge flow on a monthly frequency shall also report an estimate of the total monthly discharge flow on the Annual Discharge Monitoring Report form required under section 5.7. The number of days with discharge flow per quarter shall also be reported on the Annual Discharge Monitoring Report form.

5.2.2 Sampling for Total Suspended Solids

Total suspended solids (TSS) shall be monitored with a grab sample each quarter, except that the TSS sampling frequency shall be once per month for 12 months beginning the month following any sample result showing a discharge of TSS greater than 40 mg/L. When this monthly sampling requirement is effective, representative TSS composite samples shall be created by combining at least 3 individual grab samples of equal volume, taken at approximately equal intervals over a 3-hour period.

5.2.3 Sampling for pH

Wastewater pH shall be sampled quarterly. Sampling for pH may be reduced to annually after 4 consecutive quarterly sample results that are greater than 6.5 standard units (s.u.) and less than 8.5 s.u. More detailed pH sampling may be required by the Department to determine potential impacts to surface water.

5.2.4 Sampling for Oil and Grease

Wastewater discharging to surface water shall be sampled annually for oil and grease under this permit, except that the sampling frequency shall be once each quarter for 4 calendar quarters beginning the quarter following any sample result showing an oil and grease concentration greater than 15 mg/L. Further annual oil and grease sampling is not required if the first annual sample result is less than 7.5 mg/L.

5.2.5 Records for Water Treatment Additives

The permittee shall maintain records of monthly water treatment additive usage including additive name, manufacturer, and maximum daily amount used. Records of water treatment additives usage in the previous calendar year shall be submitted to the Department with the Annual Discharge Monitoring Report form required under section 5.7. Records of monthly water treatment additive usage shall be submitted to the Department upon request.

5.2.6 Temperature Monitoring

Temperature shall be monitored with a grab sample each quarter. Unless notified by the Department to the contrary, temperature monitoring may be discontinued after 4 consecutive quarterly results are reported on an Annual Discharge Monitoring Report form required under section 5.7.

5.2.7 Sampling for Total Phosphorus

Discharges of wastewater shall be sampled for total phosphorus annually, except that the sampling frequency shall be once each quarter for 4 calendar quarters beginning the quarter following any sample result showing a discharge greater than 0.1 mg/L. Further annual total phosphorus sampling is not required if the first two annual samples are less than 0.1 mg/L.

5.3 Suspended Solids Treatment and Solids Removal

Wastewater shall be treated to remove suspended solids prior to discharge to a surface water. Sludge shall be removed from wastewater treatment facilities as needed to maintain treatment unit hydraulic capacity and

effective removal of suspended solids. Dewatering water from sludge removed for maintenance of wastewater treatment facilities shall be managed in accordance with section 2.3.

Note: Dewatered sediment or sludge disposed of off-site may be subject to other Department regulatory requirements as specified in s. NR 205.07(3)(a), Wis. Adm. Code. Dewatered sediment or sludge stored and used on-site for nonmetallic mining reclamation may be subject to other Department regulatory requirements as specified in chs. NR 135 and/or NR 500 to 538, Wis. Adm. Code.

5.4 Floating Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts.

5.5 Effluent Monitoring

5.5.1 Recurring Discharge of Wastewater

For a recurring discharge of wastewater (as defined in section 8.12) to a surface water, the permittee shall comply with either **Option A** or **Option B** below.

Note: The permittee must select either Option A or Option B, but is not required to comply with both.

5.5.1.1 Option A

5.5.1.1.1 Develop a Monitoring Plan

Under **Option A**, within 60 days of the **Start Date** of coverage under this permit the permittee shall develop a monitoring plan for the metals and other pollutants listed in Table 3 and submit the plan to the Department for approval. The monitoring plan shall contain information on the location of surface waters, outfall locations, propose discharge monitoring locations, monitoring parameters, monitoring frequency, test methods, and a plan implementation schedule. The Department may exempt a permittee from monitoring a parameter if the permittee can demonstrate that it will not be present in the wastewater discharge.

Table 3

Aluminum	Iron
Antimony	Lead
Arsenic	Mercury
Beryllium	Nickel
Cadmium	Selenium
Chromium +3	Silver
Chromium +6	Zinc
Copper	
Hardness	
Ammonia-Nitrogen	
Chloride	
Phosphorus, Total	
Turbidity	

Note: All metals samples are total recoverable

5.5.1.1.2 Use Appropriate Analysis Methods and Procedures

Sampling and laboratory analysis methods and procedures for **Option A** shall be performed in accordance with the wastewater sampling and testing methods specified in s. NR 205.07(1)(p), Wis. Adm. Code, unless the permittee requests and the Department approves in writing the use of an alternate, equivalent test method due to factors specific to the discharge monitoring location.

5.5.1.1.3 Monitoring Frequency and Reporting

In addition to the ongoing requirement for the sampling of flow in section 5.2.1, under **Option A**, a permittee shall record the total daily volume of wastewater discharged under this permit on each day there is a discharge. Unless otherwise approved by the Department, discharges shall be tested monthly for the metals and other pollutants listed in Table 3 during the initial 6 months of discharge. The permittee shall provide the monitoring results to the Department on a monthly basis. If a parameter is not detected after the initial 6 months of discharge monitoring, the permittee may reduce monitoring of that parameter to once per year. The annual monitoring results shall be reported on the Annual Discharge Monitoring Report for required under section 5.7.

5.5.1.1.4 Allowable Usage Rates for Water Treatment Additives

A water treatment additive has the potential to be directly discharged to a surface water and may cause toxicity to fish and aquatic organisms. Under **Option A**, a recurring discharge of wastewater to a surface water containing a water treatment additive added to a wastewater treatment facility is prohibited under this general permit unless use of the entire product (all active ingredients including carriers, buffering agents, binding agents, and additional materials) of the water treatment additive receives an allowable usage rate from the Department prior to use. The permittee shall comply with section 2.7 and shall maintain records of the monthly water treatment additive usage in accordance with section 5.2.5. Records of monthly water treatment additive usage shall be provided to the Department upon request.

Note: The Department uses the guidance document, *Water Quality Review Procedures for Additives* (3400-2015-03), to determine the allowable additive usage rate. Appendix C of the guidance provides more detailed information that the Department requires in section 5.5.1.2.1 to establish an allowable usage rate. The guidance document is available from the Department's website at: <http://dnr.wi.gov/topic/wastewater/Guidance.html>

A permittee proposing to use a water treatment additive for which an allowable usage rate has not already been established by the Department shall provide the following information:

- 5.5.1.1.4.1 Product information.
- 5.5.1.1.4.2 Dosage and application information.
- 5.5.1.1.4.3 Aquatic toxicity test parameters.
- 5.5.1.1.4.4 Aquatic toxicity test results.

A specific water treatment additive for a product which the Department has already established an allowable usage rate may be used without repeating the procedures above provided the additive is used in accordance with the established allowable usage rate. The permittee shall comply with section 2.7 and the maintenance of monthly records in section 5.2.5 shall apply.

5.5.1.2 Option B

5.5.1.2.1 Whole Effluent Toxicity (WET) Testing

For a recurring discharge of wastewater to a surface water, under **Option B** the permittee shall perform both acute and chronic WET tests of the wastewater discharge. A chronic WET test is only required when the instream waste concentration is greater than one percent (> 1%). Chronic WET compliance is determined at the edge of a chronic mixing zone. The chronic mixing zone concentration, or instream waste concentration (IWC), is an estimate of the proportion of effluent to the total volume of water (effluent + receiving water), and the calculation method is set in s. NR 106.03(6), Wis. Adm. Code:

$$\text{IWC (as \%)} = (100 \times Q_e) / ((1 - f)Q_e + Q_s)$$

Where:

Q_e = effluent flow (million gallons per day (MGD) converted to cubic feet per second (cfs))

Q_s = 1/4 of the $Q_{7,10}$ (cfs)

f = fraction of the effluent flow withdrawn from the receiving water (usually zero)

The equation above is used when the discharge is to a flowing waterbody (e.g., rivers, streams). If the effluent is being discharged into a non-flowing waterbody (e.g., lakes, ponds, standing wetlands), then a default IWC is set at 9% according to s. NR 106.06, Wis. Adm. Code.

5.5.1.2.2 All WET tests shall be performed in accordance with the State of Wisconsin Aquatic life Toxicity Testing Methods Manual, 2nd Edition, PUB-WT-797. The permittee shall identify the receiving water and complete the WET Test Report Form and submit the original, complete, signed form to the Department's Biomonitoring Coordinator after each test. WET tests shall be performed quarterly during the initial year of discharge.

5.5.1.2.3 An acute WET test shall be considered a failure if the $LC_{50} < 100\%$. A chronic WET test shall be considered a failure if the $IC_{25} < IWC$. Based upon the WET test results, the Department may do one of the following:

5.5.1.2.3.1 For a facility that passes all four quarterly WET tests, reduce the permittee's frequency of testing to once per year.

5.5.1.2.3.2 For a facility that fails one quarterly WET test, require the permittee to perform additional WET testing, monitor wastewater discharges in accordance with section 5.5.1, modify or install a wastewater treatment facility to reduce the toxicity, or revoke coverage under this permit and issue an individual WPDES permit to the owner or operator of the nonmetallic mining operation with specific wastewater monitoring requirements.

Note: Information on the Department's WET Tests program and the State of Wisconsin Aquatic life Toxicity Testing Methods Manual are available from the Department's Internet website at: <http://dnr.wi.gov/topic/wastewater/WET.html>

Mail the WET Test Report Form to: Biomonitoring Coordinator, Bureau of Water Quality, Department of Natural Resources, P.O. Box 7921, Madison, WI 53707-7921.

5.5.2 Nonrecurring Discharge of Wastewater

For a nonrecurring discharge of wastewater (as defined in section 8.8) to a surface water, the permittee shall perform both acute and chronic WET tests of wastewater prior to each discharge. A chronic WET test is only required when the instream waste concentration is greater than one percent ($> 1\%$). Chronic WET compliance is determined at the edge of a chronic mixing zone. The chronic mixing zone concentration, or instream waste concentration (IWC), is an estimate of the proportion of effluent to the total volume of water (effluent + receiving water), and the calculation method is set in s. NR 106.03(6), Wis. Adm. Code:

$$IWC \text{ (as \%)} = (100 \times Q_e) / ((1 - f)Q_e + Q_s)$$

Where:

Q_e = effluent flow (million gallons per day (MGD) converted to cubic feet per second (cfs))

Q_s = 1/4 of the $Q_{7,10}$ (cfs)

f = fraction of the effluent flow withdrawn from the receiving water (usually zero)

The equation above is used when the discharge is to a flowing waterbody (e.g., rivers, streams). If the effluent is being discharged into a non-flowing waterbody (e.g., lakes, ponds, standing wetlands), then a default IWC is set at 9% according to s. NR 106.06, Wis. Adm. Code.

5.5.2.1 All WET tests shall be performed in accordance with the State of Wisconsin Aquatic life Toxicity Testing Methods Manual, 2nd Edition, PUB-WT-797. The permittee shall identify the receiving water and complete the WET Test Report Form and submit the original, complete, signed form to the Department's Biomonitoring Coordinator after each test. WET tests shall be performed quarterly during the initial year of discharge.

5.5.2.2 An acute WET test shall be considered a failure if the $LC_{50} < 100\%$. A chronic WET test shall be considered a failure if the $IC_{25} < IWC$. Based upon the WET test results, the Department may do one of the following:

5.5.2.2.1 For a facility that passes all four quarterly WET tests, reduce the permittee's frequency of testing to once per year.

5.5.2.2.2 For a facility that fails one quarterly WET test, require the permittee to perform additional WET testing, monitor wastewater discharges in accordance with section 5.5.1, modify or install a wastewater treatment facility to reduce the toxicity, or revoke coverage under this permit and issue an individual WPDES permit to the owner or operator of the nonmetallic mining operation with specific wastewater monitoring requirements.

Note: Information on the Department's WET Tests program and the State of Wisconsin Aquatic life Toxicity Testing Methods Manual are available from the Department's Internet website at:

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

Mail the WET Test Report Form to: Biomonitoring Coordinator, Bureau of Water Quality, Department of Natural Resources, P.O. Box 7921, Madison, WI 53707-7921.

5.7 Annual Discharge Monitoring Reports

By February 15th of each year, the permittee shall submit to the Department an Annual Discharge Monitoring Report that summarizes the monitoring information and shows all of the monitoring results required by this section of the permit during the previous calendar year. A Department Annual Discharge Monitoring Report form may be used to submit the annual data, or an alternate report format may be used that clearly shows the monitoring results from the previous calendar year. The Annual Discharge Monitoring Report shall be submitted to The Wisconsin Department of Natural Resources, Attn: WPDES GP DMR, at the office identified on the Annual Discharge Monitoring Report form. However, monitoring information, results, and records required by section 5 of this permit shall be submitted to the Department upon request.

Note: The permittee is not required to submit data pursuant to section 5 of this permit if there were no wastewater discharges to surface water during the calendar reporting year.

5.8 Water Quality Based Effluent Limitations

If there is a reasonable potential for a parameter in a wastewater discharge to exceed a water quality criteria as established in ch. NR 105, Wis. Adm. Code, then in accordance with section 1.2, the Department may revoke coverage under this permit and issue an individual WPDES permit to the nonmetallic mining operation with specific water quality based effluent limitations calculated under the procedures in ch. NR 106, Wis. Adm. Code.

6. GENERAL CONDITIONS

The general conditions in s. NR 205.07(1), (3), and (5), Wis. Adm. Code, are hereby incorporated by reference into this permit, except for s. NR 205.07(1)(n) and (3)(b), Wis. Adm. Code. Under s. NR 205.08(9), Wis. Adm. Code, dischargers covered under a general permit are not required to submit an application for reissuance. The requirements for spill reporting are in section 6.5 below.

Note: Chapter NR 205 is available at the following website:

http://docs.legis.wisconsin.gov/code/admin_code/nr/200

6.1 Work near Surface Waters and Wetlands

Activities performed in wetland areas, in floodplains, or near shorelands may require permits or approvals through applicable state law, state regulations, or county or local ordinances. Additionally, state permits and/or contracts required by chs. 30, 31 and 87, Wis. Stats. and s. 281.36, Wis. Stats. (or Wisconsin Administrative Code promulgated under these laws), and federal permits may be applicable.

6.2 Continuation of the Expired General Permit

As provided in s. NR 205.08(9), Wis. Adm. Code, and s. 227.51, Wis. Stat., the terms and conditions of this general permit shall continue to apply until this general permit is reissued or revoked or until an individual permit is issued for the discharge to which the general permit applied.

6.3 Liabilities under Other Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the federal Clean Water Act (33 USC s. 1321), any applicable federal, state, or local law or regulation under authority preserved by section 510 of the Clean Water Act (33 USC s. 1370).

6.4 Severability

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

6.5 Spill Reporting

The permittee shall notify the Department immediately of any release or spill of a hazardous substance to the environment in accordance with s. 292.11, Wis. Stats., and ch. NR 706, Wis. Adm. Code.

Note: The 24-hour toll free spills hotline number is (800) 943-0003. Information about hazardous substance spills is available from the Department's website at: <http://dnr.wi.gov/topic/Spills/>

6.6 Submitting Records

Unless otherwise specified, any reports submitted to the Department of Natural Resources in accordance with this permit shall be submitted to the appropriate Department regional storm water contact or to Department of Natural Resources, Storm Water Program – WT/3, Box 7921, Madison, WI 53707-7921.

6.7 Enforcement

Any violation of ss. 283.33 or 283.35, Wis. Stats., ch. NR 216, Wis. Adm. Code, or this permit is enforceable under s. 283.89, Wis. Stats.

6.8 Permit Fee

A storm water discharge permit fee shall be paid annually for each industrial facility covered under this permit. The permittee will be billed by the Department annually in May of each year and the fee is due by June 30 of each year in accordance with s. NR 216.30, Wis. Adm. Code. A permittee may be referred to the Wisconsin Department of Revenue for the collection of any unpaid storm water fee.

7. COMPLIANCE SCHEDULE

The permittee shall meet the requirements of sections 1 to 5 this permit as summarized in Table 4 below.

Note: Table 4 only provides a summary of the permit requirements in sections 1 to 5 with a defined compliance timeframe and does not list all the requirements of this permit. Refer to the specific sections of this permit for a complete representation of the requirements.

Table 4. Compliance Schedule

PERMIT SECTION	ACTIVITY	COMPLIANCE TIMEFRAME	COMMENTS
Section 1.4.1 Storm Water Discharges to Outstanding and Exceptional Resource Waters	Permittee in compliance with sections 1.4.2 to 1.4.5 for storm water discharges to ORWs and ERWs	Existing permittees and new permittees covered within 12 months after the Effective Date : By 12 months after the Effective Date of this permit.	Discharges of wastewater to an ORW or ERW are not authorized under this permit. Section 1.4 applies to storm water discharges only.
		New permittees covered after 12 months from the Effective Date : As of the Start Date of coverage under this permit.	
Section 2.8 Impaired Water Bodies and Total Maximum Daily Load Requirements	Discharges of a pollutant of concern to an impaired water, section 2.8.2	Annual check by 2/15 of each calendar year to determine if facility discharges a pollutant of concern to an impaired water body.	
	Address pollutant of concern in SWPPP, section 2.8.3	If a pollutant of concern discharges via storm water, within 180 days of the annual check the permittee shall address it in a written section of the SWPPP.	
	Discharges of a pollutant of concern to an impaired water with an approved TMDL, section 2.8.5	Annual check by 2/15 of each calendar year to determine if facility discharges a pollutant of concern to an impaired	

		water body with an approved TMDL. If so, assess whether the TMDL wasteload allocation is being met through existing controls.	
	Proposed TMDL implementation plan, section 2.8.6	If permittee included in a TMDL, within 180 days of the annual check the permittee shall submit a proposed implementation plan to the Department.	Not required if a specific wasteload allocation has not been assigned to the facility under a TMDL.
Section 2.12 Application for Permit Coverage	Initial permit coverage, 2.12.1	NOI submitted to apply for coverage at least 14 working days prior to initiating land disturbing construction activities; or at least 14 working days prior to initiating industrial operations.	
Section 3.2 Annual Facility Site Compliance Inspections	Conduct and document annual facility site compliance inspection in a report	Annually by 2/15 for the previous calendar reporting year.	
Section 3.3 Storm Water Pollution Prevention Plan and Summary	Development and implementation of site-specific SWPPP	New permittees: Develop SWPPP and SWPPP summary prior to applying for permit coverage and implement SWPPP from commencement of operations until final site reclamation.	
		Existing permittees: SWPPP as of the Effective Date of permit coverage and implemented until final site reclamation.	

Section 3.5 SWPPP Amendments	Required updating of the SWPPP due to changing factors	SWPPP summary documenting the amendments submitted to the Department prior to commencing any necessary work.	
Section 3.7 Quarterly Visual Inspections	Perform and document the results of the quarterly visual inspections and visual checks	Include with the annual facility site compliance inspection required under section 3.2.	
Section 4 Wastewater Discharges to Groundwater Via Infiltration	Limitations for groundwater discharges, section 4.2.1	See Table 1.	Monitoring not required for lined or sealed wastewater treatment facilities granted a waiver under section 4.1. Record keeping of water treatment additives shall apply (section 4.2.1.4).
	Submittal of Annual Discharge Monitoring Reports, section 4.3	By 2/15 of each year.	Annual Discharge Monitoring Reports for groundwater not required for lined or sealed wastewater treatment facilities granted a waiver under section 4.1.
Section 5 Wastewater Discharges to Surface Waters	Limitations for surface water discharges, section 5.2	See Table 2.	Only applies if wastewater discharges to surface water.

8. DEFINITIONS

Definitions for some of the terms used in this permit are provided below. A term found in s. NR 205.03, Wis. Adm. Code, may have a more specific definition for the purposes of this permit.

8.1 Best Management Practices or BMPs as used in this permit means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in storm water to waters of the state.

8.2 Contaminated storm water means storm water that comes into contact with material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts or industrial machinery in the source areas listed in s. NR 216.27(3)(e), Wis. Adm. Code.

8.3 Dewatering as used in this permit means pumping, draining, or otherwise removing any water from an area of a nonmetallic mining operation through direct action by the permittee. Dewatering also includes wet pit mining overflows caused solely by direct precipitation and ground water inflow. Wet pit mining is a method of sand and gravel extraction, whereby raw material is extracted by means of a dragline or barge-mounted dredging equipment both above and below the water table.

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

8.5 Facility as used in this permit means a nonmetallic mining operation regulated by this permit.

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

8.7 Infiltration as used in this permit means the entry and movement of storm water or wastewater into or through soil or the subsurface of the nonmetallic mining operation.

8.8 Nonrecurring discharge of wastewater as used in this permit means a discharge of wastewater to a surface water that may occur only occasionally or irregularly, but does not include bypassing as described in s. NR 205.07(1)(u), Wis. Adm. Code.

8.9 Owner or operator means any person owning or operating a point source of pollution.

8.10 Permittee as used in this permit means a person who has applied for and received coverage under this permit.

8.11 Person means an individual, owner, operator, corporation, limited liability company, partnership, association, municipality, interstate agency, state agency or federal agency.

8.12 Recurring discharge of wastewater as used in this permit means a discharge of wastewater to a surface water that occurs at a regular and repeated frequency (e.g., continuously, daily, weekly, monthly, quarterly), but does not include bypassing as described in s. NR 205.07(1)(u), Wis. Adm. Code.

8.13 Sediment as used in this permit means settleable solid material that is transported by water, suspended

within water or deposited by water away from its original location.

8.14 SIC means standard industrial classification. SIC codes cited in this chapter are from the 1987 edition of the *Standard Industrial Classification Manual*.

8.15 Sludge means the accumulated solids generated during the biological treatment, chemical treatment, coagulation or sedimentation of water or wastewater.

8.16 Stabilize, stabilized, or stabilizing as used in this permit means the process of making a site steadfast or firm, minimizing soil movement by the use of practices such as mulching and seeding, sodding, landscaping, paving, graveling or other appropriate measures.

8.17 Storm Water means runoff from precipitation including rain, snow, ice melt or similar water that moves on the land surface via sheet or channelized flow.

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

8.19 Wastewater as used in this permit means a type of water associated with an activity described in sections 1.1.2 through 1.1.7. Road dust suppression water used in accordance with section 2.5 does not require monitoring under sections 4 or 5 of this permit.

8.20 Wastewater treatment facility means all the structures, pipes, and other equipment that constitute the various treatment processes and treatment units employed to reduce pollutants in wastewater. Treatment processes include the physical, biological or chemical actions that are applied to wastewater to remove or reduce pollutants. Treatment units are the individual structures or equipment within the wastewater treatment facility that are part of a treatment process.

8.21 Water treatment additive as used in this permit means an agent or chemical formulation used to improve process efficiencies or assist with meeting discharge standards. Water treatment additives are used in a number of applications and come in a variety of chemical formulations including, but not limited to, chemical salts, polymers, acids and bases, and organic chemicals.

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

8.23 Working Day means any day except Saturday and Sunday and holidays designated in s.230.35(4)(a), Wis. Stats.