

**State of Wisconsin, Department of Natural Resources**

**Response to Comments on Wisconsin Pollutant Discharge Elimination System (WPDES) General Industrial Storm Water Discharge Permits – July 2016**

**General Permit to Discharge Storm Water Associated with Nonmetallic Mining Operations (Non-Industrial Sand and Other Aggregates), Permit No. WI-A046515-6**

**General Permit to Discharge Storm Water Associated with Nonmetallic Mining Operations for Industrial Sand Mining and Processing, Permit No. WI-B046515-6**

On March 16, 2016, the Wisconsin Department of Natural Resources (Department) public noticed the WPDES general industrial storm water discharge permits listed above. In addition, the Department held four public hearings on the general permits: March 30, 2016, Black River Falls; March 31, 2016, Chippewa Falls; April 6, 2016, Madison; and April 7, 2016, Oshkosh.

In addition to oral comments made at the public hearings, the Department received several written comments on the proposed general permits. The Department received written and oral comments from the organizations or individuals listed below. The oral comments made at a hearing on behalf of an organization or individual who also submitted the same written comments are consolidated. In this document, the Department may have paraphrased a comment to capture the main point or may not have included comments repetitive to those made by others. Any minor changes made to the general permits to correct typographical errors or formatting, updating page numbers and headers/footers, etc., are not included in this document. The name or acronym listed in the left-hand column below has the meaning indicated:

Adams	Glory Adams
CW	Clean Wisconsin
FMSA	Fairmount Santrol
Foth	Foth Infrastructure & Environment, LLC
Gebben/Olson	Willem Gebben and Hjordis Olson
Lockington	Kathy Lockington
Kraus	Ceclia Kraus
MEA	Midwest Environmental Advocates
O'Connor	Ryan O'Connor
PD Inc.	Payne and Dolan, Inc.
Popple	Patricia Popple
Roesch	Cari Fay Roesch
Rosenow	Mark Rosenow
Smalley	Johnne Smalley
Stahl	Katherine Stahl
USEPA	United States Environmental Protection Agency
WISA	Wisconsin Industrial Sand Association
WMC	Wisconsin Manufacturers & Commerce
Ward	Melissa Ward

This Response to Comments document first addresses comments from USEPA, followed by responses to public comments on specific sections of the general permit. While a particular commenter may have directed a comment to one of the general permits or the other, if the comment is relevant to the same language in both general permits, the Department generally has not made a distinction in this document. Other comments that are more general in nature and do not correspond to a specific section in one of the general permits are addressed in *Responses to General Comments* starting on page 16. This document was prepared by Jim Bertolacini and Suzan Limberg, Runoff Management Section, Wisconsin Department of Natural Resources.

## **Responses to Comments from USEPA**

By letter dated June 30, 2016, the USEPA stated it would not object to reissuance of the general permits but recommends that the Department consider and address the comments identified in Enclosure A of USEPA's letter.

**USEPA Comment 1:** The USEPA's June 30 letter itemized several revisions to the general permits that reflect discussions between the USEPA and the Department for agreed upon changes. In response, the Department has made the following changes to the general permits to capture the concepts discussed by the USEPA and the Department:

- In sections 1.3.19 and 1.3.20 of both general permits, the word "directly" has been added in response to a public comment.
- In section 2.3 and 2.6 of both general permits, clarifying language has been added in response to a public comment (see responses to FMSA comments on sections 2.3 and 2.6).
- Language has been added to section 3.1.1 of both general permits to identify the specific storm water discharge requirements.
- In response to a public comment, the certification statement in section 3.4 of both general permits has been changed to match the language in s. NR 205.07(1)(g)3., Wis. Adm. Code.
- Section 3.7.2 of both general permits has been changed to match the language in s. NR 216.28(3), Wis. Adm. Code.
- In section 4.2.1.4 of both general permits, an unnecessary note has been removed.
- In section 4.3 of both general permits, clarification has been added to the note in response to a public comment (see response to PD Inc. comment on section 4.3).
- A typographical error in section 5.2.7 of both general permits has been corrected.
- In section 5.5 of General Permit No. WI-A046515-6 and section 5.7 of General Permit No. WI-B046515-6, the word "wastewater" has been added to the note.
- In sections 5.5.1.2 and 5.5.2 of General Permit No. WI-B046515-6 only, language has been added to better explain WET testing.

**USEPA Comment 2:** To be consistent with the federal effluent limitations guidelines under 40 CFR Part 436, Subparts C and D, the definition of dewatering in section 8.3 of both general permits has been amended to include wet pit mining overflows caused solely by direct precipitation and ground water inflow and describes the wet pit mining method.

**USEPA Comment 3:** Sector-specific benchmarks should be added to the general permits to provide information on the efficacy of the storm water controls used by the discharger.

Response: Monitoring of storm water is consistent with the requirements in subch. II of NR 216, Wis. Adm. Code., *Industrial Storm Water Permits*. Additionally, the Department believes that the monitoring requirements for dewatering water and process wastewater discharges, which often

includes storm water captured and used as process water, strikes an appropriate balance for monitoring discharges that represent the highest risk for impacting receiving waters.

**USEPA Comment 4:** Section 1.3.17 of the general permits implies that an evaluation of water quality and discharge characteristics will be conducted. The Department could describe the process for evaluating water quality and discharge characteristics in the fact sheet.

Response: The exclusion articulated in section 1.3.17 gives a standard notice that discharges in violation of an applicable water quality standard are not covered by the general permits. However, the Department believes that describing the detail suggested is beyond the scope of reissuing the general permits.

**USEPA Comment 5:** In regard to section 1.4 in both general permits, the Department could provide guidance on determining if an operation will cause a significant lowering of water quality in relationship to an exceptional resource water.

Response: The development of detailed guidance as suggested is beyond the scope of reissuing the general permits.

**USEPA Comment 6:** In section 5.5.1.1.1 of general permit No. WI-B046515-6, consider including the following additional parameters in Table 3: TDS, surfactants, thallium, barium, boron, cobalt, magnesium, manganese, molybdenum, tin, and titanium. Also, the method detection limit for selenium should be specified as 2 ug/L or lower.

Response: The list of parameters is not intended to be exhaustive but are those that, at this time, the Department believes are most representative and/or potentially present for monitoring under a general permit. Section 5.5.1.1.2 of the general permit requires that sampling and laboratory analysis methods and procedures be performed in accordance with s. NR 205.07(1)(p), Wis. Adm. Code, which cross-references ch. NR 219, Wis. Adm. Code, *Analytical Test Methods and Procedures*.

**Responses to Public Comments Relevant to Both General Permits, Permit No. WI-A046515-6 and Permit No. WI-B046515-6**

**Section 1. Applicability Criteria**

**Section 1.1.5 Comment:** Please include scrubber water as dust suppression water. (FMSA)

Response: If scrubber water meets the criteria of section 2.5, it may be used for dust suppression water.

**Section 1. 2 Comment:** We suggest a time period of 360 days for implementation of an individual permit, if the Department determines that an operation is more appropriate covered by an individual permit. (WISA)

Response: If the Department determines that discharges from the nonmetallic mining operation are more appropriately covered under an individual WPDES permit, the Department will consider site-specific factors to inform permit terms and implementation timeframes in the context of developing the individual WPDES permit.

**Section 1.3.19 & 1.3.20 Comment:** Please remove text from both items. This is because discharges from sediment or sludge removed from storm water best management practices is not harmful to the environment if such discharge demonstrate compliance with Section 2 and 5 of the permit. (FMSA)

Response: The word “directly” has been added to both section 1.3.19 and 1.3.20 to read as follows: “Discharges directly to surface water...”. This provides for a discharge that is in compliance with sections 2 and 5.

**Section 1.4.4 Comment:** Suggest removing or rephrasing to prohibit discharges to ERWs since ERWs represent the highest quality of streams and rivers in the state. (O’Connor)

Response: A discharge of a pollutant to surface water via wastewater directly to an ORW or an ERW is not authorized by the general permits (see sections 1.3.14 and 1.3.15). Storm water discharges to an ORW or an ERW must conform with the requirements in section 1.4 of the general permits. Among those requirements, a permittee must implement measures that are designed to prevent the discharge of sediment and other pollutants to any ORW or ERW in excess of the background level within the water body. The permittee is also required to develop a storm water pollution prevention plan to meet this requirement. The permit language reflects the Department’s codified ORW/ERW protections which are patterned after the federal storm water permit program. Under s. NR 207.02(6), 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. That definition is triggered by an effluent limit. For storm water, that means the permittee is required to prevent a discharge in excess of background levels.

**Section 2. Requirements for All Sites**

**Section 2.2 Comment:** Several commenters stated that the storm event design standards are inadequate. (Gebben/Olson, O’Connor, Poppo, Smalley, Stahl)

Response: The general permits are authorized and issued under the laws governing the WPDES permit program. The WPDES permit program regulates discharges of pollutants that impact water

quality and is not intended to address volume or flooding. The design storm event used in section 2.2 of the general permits is consistent with current administrative code.

**Section 2.2 Comment:** Please modify text to reflect the ability for wastewater treatment facilities to discharge water from said treatment facilities during precipitation events, up to and including a 10-year/24-hour precipitation event, if such discharge complies with Sections 2, 3 and 5 of the permit. (FMSA)

Response: The permit as a whole authorizes discharges, and sets forth the conditions under which a permittee may discharge. As set forth in applicable code requirements, permit section 2.2 requires that wastewater treatment facilities be designed, constructed and operated to treat to the applicable limitations the precipitation and runoff from a 10-year 24-hour precipitation event as a condition of that discharge. Since the purpose of a permit is to set forth conditions under which the permittee may discharge, the Department does not believe that this particular permit term needs any unique clarifying language to that effect.

**Section 2.3 Comment:** The draft notes that “[d]ewatered 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.” This note creates regulatory uncertainty and confusion for industrial sand operations. These materials are not waste, and can be necessary for reclamation. This provision should be removed or made clearer. (WMC)

Response: Notes in the general permits are informational only and do not create any legally enforceable requirements. The purpose of the note is to make permittees aware of related regulations to which an operator may need to comply.

**Section 2.3 Comment:** Please modify text to allow for surface water discharges from sediment and sludge removal from storm water best management practices as long as such discharge complies with Section 2, 3, 4, and 5 of the permit. (FMSA)

Response: A phrase has been added to section 2.3 stating that dewatering water shall meet the requirements of this permit prior to discharge.

**Section 2.3 Comment:** What is dewatering sediment and what is the concern associated with containing all decanting water on site for either infiltration or recycling in a process water cycle? Also, this section refers to both dewatered sediment and sludge. Are these terms used interchangeably or are there measurable differences between the two? (WISA)

Response: This section of the general permits makes a distinction between the terms “sediment” and “sludge” to be consistent with the conventional descriptions of the material collected in storm water best management practices and wastewater treatment facilities, respectively. Sediment is the most significant pollutant associated with storm water runoff from land disturbing activities such as those that occur at a nonmetallic mining operation, and a storm water best management practice like a pond serving the operation is primarily designed for removal of sediment from storm water runoff. For sludge, s. NR 205.03(36), Wis. Adm. Code, specifically defines the term as the accumulated solids generated during the treatment of wastewater.

The intent of this section of the general permits is to ensure that sediment and sludge removed from storm water best management practices and wastewater treatment facilities are managed in a way to prevent residual water from draining directly to a surface water. Note that the word “directly” has been added to section 2.3, along with a phrase stating that dewatering water shall

meet the requirements of the general permit prior to discharge. The Department believes that these clarifications provide a permittee with flexibility to manage this water.

**Section 2.5 Comment:** Would “wastewater and storm water containing pollutants other than suspended solids may not be used for dust suppression activities” include wastewater that has been treated with a flocculant, such as an applied rate of less than 0.05% acrylamide monomer (section 2.7)? If this is the case, some facilities would not be allowed to use wastewater for fugitive dust abatement practices. Due to this, high capacity well water would have to be utilized versus recycled process water. (WISA)

Response: This section of the general permits is substantively unchanged from the previous version of the general permit and is intended to specify the conditions under which the Department would have little to no concern about the use of wastewater or storm water for dust suppression. However, a discharge of a water treatment additive to a surface water is permissible if the additive receives an allowable usage rate from the Department. Additive review requests can be made by contacting Jan Kucher, DNR Water Resources Engineer, (608) 266-9260, [jan.kucher@wisconsin.gov](mailto:jan.kucher@wisconsin.gov).

**Section 2.6 Comment:** Please modify text to indicate that wastewater from outside washing of vehicles, equipment or other objects shall not be directly discharged to surface water and shall be contained on-site as well as to discharge if appropriately treated or managed prior to discharge. (FMSA)

Response: The word “directly” has been added to section 2.6, along with a phrase stating that dewatering water shall meet the requirements of the general permit prior to discharge.

**Section 2.7 Comment:** This general permit allows mines to continue to use additives (usually acrylamide) with little restriction. Minnesota is studying it as a potential toxin while Wisconsin maintains it is very safe. (Adams)

Response: The Department recently completed the development of the guidance document *Water Quality Review Procedures for Additives* (3400-2015-03), which provides the procedures for the establishment of allowable usage rates for water treatment additives. Dischargers of wastewater to surface water are required to obtain an allowable usage rate for an additive prior to use, and this is a requirement in the general permits that was not in the previous version. In addition, any polyacrylamide product used may not contain more than 0.05% by weight of acrylamide monomer. 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.

**Section 2.8 Comment:** This general permit allows the permittee to discharge a pollutant of concern via storm water into an impaired water body for 180 days from their annual check before preventative control measures must be implemented. The permittee could have more than a year to correct polluted discharge to an already impaired water system depending on when the discharge occurred relative to the annual check. Why is pollution to the already compromised waters allowed an extension of time? Checks should be made quarterly and compliance should be required within 30 days. (Popple, Smalley, Stahl)

Response: The impaired waters list is only updated every 2 years. Therefore, the Department believes that an annual check is appropriate on average for both new and existing permittees to determine if the receiving water is on the list and/or to check if the list has been updated. Additionally, this section is intended to give a permittee a certain timeframe to update the plan where no specific standards exist in the absence of a developed and approved TMDL. If a

particular facility is a significant source of a pollutant of concern, it is incumbent upon the Department to develop a TMDL that assigns a specific wasteload allocation to that facility.

**Section 2.8 Comment:** The time frame currently drafted will be particularly challenging for a number of affected facilities. Consider providing a more flexible time frame to evaluate sources and update plans. Should they be warranted, implementation of new controls and treatment facilities also needs a more flexible time frame. We recommend providing a full year for both processes and the ability to negotiate longer time frames if requested. (Foth)

Response: The language in this section is consistent with other industrial storm water general permits issued by the Department. The Department believes that the timeframes provided are reasonable.

**Section 2.8 Comment:** In the proposed permit, total maximum daily load (TMDL) requirements will have a two-step process which prescribe monitoring and discharge assessment within 180 days of the effective permit date. If a discharged waterway has a TMDL, then development and implementation of a site-specific plan is required within 360 days. This operational adjustment under the proposed timeframe is aggressive, and it would prove difficult for sites to make this deadline. (WISA)

Response: The language in this section is consistent with other industrial storm water general permits issued by the Department. The Department believes that the timeframes provided are reasonable.

**Section 2.8.4 Comment:** A permittee is allowed to establish a new or increased discharge to an impaired water body as long as the discharge does not contribute to the receiving water impairment. It does not take into consideration the discharge impacts further downstream. (Popple, Smalley, Stahl)

Response: This section specifically addresses a discharge of a pollutant of concern to an identified and listed impaired water. Other sections of the general permit address discharges to waters of the state that are not impaired.

**Section 2.10 Comment:** The permit allows the permittee to discharge a new or increased toxic substance if the permittee has utilized the best available technology. If there is a chance the sand mine is going to release persistent, bioaccumulating toxic substances, they should not get a permit or their operations should be stopped until a corrective measure can be implemented. (Smalley, Stahl)

Response: The language in section 2.10 is from s. NR 102.12, Wis. Adm. Code, and is consistent with that section of the code.

**Section 2.12.1 Comment:** An operator is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and an SWPPP summary. Requiring an SWPPP at the time of application imposes substantial costs on an operator who may not ultimately receive the permit. Instead, we suggest requiring only the SWPPP summary at the time of application. (Note: this comment would also apply to section 3.3.1). (WMC)

Response: Section NR 216.27(1), Wis. Adm. Code, specifically requires that any person who owns or operates a storm water discharge covered by a general or individual storm water discharge permit shall prepare and implement a SWPPP. Furthermore, s. NR 216.29(1), Wis. Adm. Code, specifies the timeframes by which a SWPPP is to be developed. Section 2.12.1 of the

general permit is consistent with these sections of ch. NR 216 for the timeframe to develop a SWPPP.

**Section 2.12.1 Comment:** This section provides that within 30 calendar days, the DNR will review the Notice of Intent (NOI) submitted by the industrial sand operation and goes on to say “[b]ased upon this evaluation, unless notified by the Department, within 30 calendar days of receipt of the NOI the Department will transmit a cover letter to the owner or operator indicate the Start Date upon which permit coverage becomes effective at the facility...” It is unclear what happens in the event that no communication from the DNR is made and no cover letter received. Please clarify by stating, “The NOI is deemed approved if no communication is received within the time frame.” (WMC)

Response: Subchapter II of ch. NR 216 does not provide for presumptive general permit coverage for industrial facilities if there is no communication from the Department within a certain timeframe. The language referenced in this comment was added to the general permit to provide applicants some assurance that the Department would respond within a certain timeframe. However, the general permit is a regulatory document that applies to the applicant/permittee and does not set requirements for actions by the Department.

**Section 2.12.3 Comment:** The permit coverage transfers section could be improved by requiring the DNR to provide notice to both parties, preferably by issuing a new permit to the transferee so that the transferor has clear confirmation of the completed transfer. (WMC)

Response: This section of the general permits is consistent with s. NR 216.31, Wis. Adm. Code. However, outside of the general permits, the Department is considering creating a form to help facilitate the transfer of coverage.

### Section 3. Storm Water Control Requirements

**Section 3.1.1 Comment:** Please modify text to indicate the installation of source area pollution prevention controls that are designed to prevent or appropriately manage contaminated stormwater at the site prior to discharge. (FMSA)

Response: The phrase “prior to discharge” has been added to the third sentence in section 3.1.1.

**Section 3.1.2 Comment:** Please modify text in Section 3.1.2.1 to include settling, infiltration and sedimentation as additional methods to remove sediment from stormwater flows. Additionally, the text in this section must also allow a discharge to surface water as well as groundwater. (FMSA)

Response: Settling, sedimentation, and filtration are already included in section 3.1.2.2. The phrase “to groundwater” has been deleted from the first sentence in section 3.1.2.1 so that the requirement applies to any discharge, whether to groundwater or surface water.

**Section 3.4 Comment:** Certification language did not match that on the SWPPP Summary Form 3400-167. (PD Inc.)

Response: The certification language in section 3.4 has been changed to be consistent with the general condition under s. NR 205.07(1)(g)3., Wis. Adm. Code. The language in the SWPPP Summary Form will also be changed.

#### **Section 4. Requirements for Wastewater Discharges to Groundwater Via Infiltration**

**Section 4.3 Comment:** Requested to have the following language added to the end of the Note: “or if there were no wastewater discharges to groundwater during the calendar reporting year”. The same language was used in Section 5.5 for wastewater discharges to surface water and there is similar language in the existing permit. (PD Inc.)

Response: This clarification has been added to the note in section 4.3.

**Responses to Public Comments Specifically Directed to the Industrial Sand Mining and Processing General Permit, Permit No. WI-B046515-6**

**Section 3. Storm Water Control Requirements**

**Section 3 Comment:** The permittee is allowed to develop, implement, and inspect their own Storm Water Pollution Prevention Plan and is not required to submit the actual plan or any inspection reports to the DNR unless the DNR requests them. The DNR should maintain the right to hire an independent expert to review plans and complete the tests with the charges going back to the permittee. (Smalley, Stahl)

Response: The procedures utilized by the Department for inspections or compliance checks are outside the scope of the general permit.

**Section 3 Comment:** Section 3 of the draft permit deals with storm water control. The current (expired) WPDES general permit for nonmetallic mining operations included a line stating: “[f]acilities are exempted from parts 3.3 through 3.7 of the storm water control requirements listed below when they obtain Department concurrence that their storm water contaminants are limited to only earthen materials from the nonmetallic mining operation, the contaminated storm water is captured and seeped into the ground within the mining site (not including runoff from greater than a 10 year, 24 hour frequency storm), and the storm water contaminants are discharged to a previously non-wetland area or a wetland exempted under s. NR 103.06, Wis. Adm. Code.” Similar “internally draining” exemption language from the previous permit should be included in this draft as well. This incentivizes mine sites to keep water on-site. (WMC)

Response: Regardless of removing the internal drainage exemption, containing storm water within the mining site is still a highly effective technique for managing storm water and greatly simplifies the SWPPP for addressing storm water discharges to surface waters.

**Section 3.7.3 Comment:** A quarterly visual inspection is not required if the SWPPP contact or designee could not be reasonably present at the time of the event if the attempt would endanger the employee. If the storm event is that dangerous, then it is probably even more imperative to have a visual check of what is happening with the storm water discharge. It is the facility’s responsibility to pay attention to potential damaging storms that can impact their facilities and nearby waters and land. (Stahl)

Response: The exceptions in this section of the general permit are consistent with s. NR 216.28(5), Wis. Adm. Code. The Department does not expect a permittee to put an employee in harm’s way during hazardous weather conditions. However, this exception does not relieve a permittee from the responsibility of making needed repairs after a damaging storm event.

**Section 3.7.3 Comment:** Regarding quarterly visual inspections, this paragraph should also include off-site and up-gradient storm water diverted from mining operations. Further, internally draining sites (discussed *supra*) should also fall under these provisions. (WMC)

Response: The permittee is not responsible for the quality of off-site and up-gradient storm water that is not impacted by the permittees activities, so implicitly they are already excluded from the visual inspection requirements. Section NR 216.28(5), Wis. Adm. Code, does not provide for an exception for internally draining sites.

#### **Section 4. Requirements for Wastewater Discharges to Groundwater Via Infiltration**

**Section 4 Comment:** The current (expired) WPDES general permit for nonmetallic mining operations very clearly stated that “[t]he discharge of storm water to seepage areas within the mining site does not require monitoring under this section.” This language provided clarity and certainty to permittees, but is not included in this most recent draft general permit. Given that DNR has begun the process of conducting an extensive groundwater study, it would be appropriate to wait for the results of that study before making any such regulatory changes. It would also be beneficial for the permit to explicitly state that residual moisture in top soils, overburden and other reclamation materials does not constitute a discharge. (WMC)

Response: Section 4 applies to wastewater, which is defined in section 8.19. Section 4 does not apply to storm water. “Discharge” is defined in s. 281.01(4), Wis. Stats. The Department prefers to not qualify the definition further in the general permit.

**Section 4 & 5 Sampling Comment:** All of the sampling is completed by the permittee. This assumes integrity of the permittee, which in many/some cases may be a safe assumption. However, for those permittees who possess less integrity about their sampling methods, DNR should maintain the right to hire an independent sampling company to complete the tests on a random basis with the charges going back to the facility. This random check could replace the quarterly check required of the company. (Pople, Stahl)

Response: How the Department verifies compliance is outside the scope of the general permit.

**Section 4 & 5 Sampling Comment:** The two proposed permits have considerably different sampling requirements. All geologic formations throughout the state contain naturally-occurring metals. Nonmetallic mining processes are very similar, whether it is aggregate or industrial sand. If there is a scientific concern, it should be applied to both permits, not isolating industrial sand, or removed from both. (WISA)

Response: The Department has made the policy decision to regulate industrial sand operations separately from other types of aggregate mining due to the rapid growth in recent years of industrial sand mining and processing for use in the hydro-fracking industry, the areal extent of these operations, and the level of potential wastewater volume and associated treatment.

**Section 4 & 5 Sampling Comment:** The review of the Fact Sheet issued for the proposed general permits as well as the text of both permits shows a profound difference on how surface water discharges from these two types of facilities are regulated. Draft Permit No. WI-B046515-6 has significantly more monitoring parameters contained within Section 5 (Requirements for Wastewater Discharges to Surface Waters) than the same section in draft Permit No. WI-A046515-6. The additional monitoring requirements contained in Section 5 of draft Permit No. WI-B046515-6 has not been justified by WDNR and must be removed due to the burdensome nature of the additional monitoring when compared to what is required for non-industrial sand nonmetallic mining sites in draft Permit No. WI-A046515-6. It would appear that the WDNR has the intent to regulate industrial sand mining sites very differently from the remainder of the nonmetallic mining. (FMSA)

Response: The Department has made the policy decision to regulate industrial sand operations separately from other types of aggregate mining due to the rapid growth in recent years of industrial sand mining and processing for use in the hydro-fracking industry, the areal extent of these operations, and the level of potential wastewater volume and associated treatment.

**Section 4.1.2 Comment:** Section 4.1.2 contains an exception to the monitoring required under section 4. Specifically, section 4.1.2 requires a permittee to “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 day” in order to obtain such a monitoring waiver. It is unclear what “sufficient data” would be acceptable to the DNR. (WMC)

Response: In response to a suggestion by the industry that some ponds seal, section 4.1.2 was previously added to the general permit to provide a permittee an option to avoid groundwater monitoring. Therefore, the Department believes that the language in this section provides the industry/permittee the flexibility to make a technical justification based upon the design of a pond and site-specific conditions.

**Section 4.2.1 Comment:** Please consider inserting the following text at the end of this section: “In the event that it is technically difficult to complete and/or cost prohibitive to collect these samples (such as the impossibility of installing equipment to collect samples of water slowly seeping through the bottom of an infiltration basin prior to the water discharging into groundwater) the operator may select an alternative method to collect a sample of water sent to such treatment facilities that is deemed to be representative of the discharge. If the operator selects an alternative method for sample collection, details of such methodology shall be included in regulatory reporting.” (FMSA)

Response: The Department believes that the language in section 4.2.1 already provides flexibility for a permittee to determine what is representative of the discharge if the permittee adequately documents the rationale used.

**Section 4.2.1 Comment:** The general permit states that the sampling location must be representative of the discharge to groundwater, however it does not mention how this will be determined. Is it the intention to have these outfalls listed in the Department approved SWPPP to ensure that the locations are appropriate or will this be the responsibility of the operator? (WISA)

Response: As in the previous version of the general permit, the permittee is responsible for determining that samples taken are representative of the discharge to groundwater.

**Section 4.2.1.1 Comment:** Permit conditions state that the daily flow to infiltration shall be estimated quarterly (except when value exceeds 200,000 gallons per day). Does the Department have a methodology for estimating this flow, or do they anticipate that each operator will create a unique water balance equation? If this is the case, will a coefficient for evaporation be provided by the Department? (WISA)

Response: The flow estimate is determined as described in footnote (c) of Table 1.

**Section 4.2.1.3 Comment:** The permit should clarify that treatment of storm water is not required under Section 4.2.1.3 where pH, moderated by a soil zone, is still outside of 6.0-9.0 due to background conditions. (WMC)

Response: The purpose of section 4.2.1.3 is not to emulate background conditions but to assess whether the pH of wastewater discharged by the permittee may mobilize pollutants within the soil zone.

## Section 5. Requirements for Wastewater Discharges to Surface Waters

**Section 5.1 Comment:** Section 5.1 notes that “[t]he pumping of excess ponded water (which may include storm water and/or groundwater) is considered dewatering water.” As dewatering water is treated as wastewater, this is problematic because not all storm water comes in contact with mining operations and is wastewater. If an industrial sand operation collects storm water up gradient from mining activities, they should be able to release that without it being considered wastewater. (WMC)

Response: Section 5.1 is consistent with federal and state policy that dewatering through the process of pumping is wastewater. Storm water discharges are limited to runoff from gravity flow as a result of precipitation including rain, snow, and ice melt.

**Section 5.5 Comment:** Section 5.5 contains some extensive effluent testing requirements for facilities with “recurring discharges of wastewater,” which is defined as occurring “at a regular and repeated frequency.” Such dischargers are able to select from two options. The first, option A, would require testing for a list of 15 metals. The second, option B, would require Whole Effluent Toxicity (WET) testing. These two options are both new requirements that were not a part of the previous WPDES general permit for industrial sand operations. This additional testing is also not included in water discharge general permits for surrounding states. These testing requirements will add significant cost to industrial sand mining operations in our state, and make Wisconsin a regulatory outlier vis-à-vis neighboring states. Alternatively, it should be made clearer on how samples will be evaluated where there is no applicable standard. The Table 3 parameter list is broader than what is in surface water standards. Lastly, regarding WET testing: under option B if a permittee fails a single WET test, they will either be forced into option A or an individual permit. WET test failures can be very common. It would be appropriate to provide permittees with the option of following up a failed WET test with additional tests to confirm the failure before being forced into option A or an individual permit. (WMC)

Response: The Department has made the policy decision to regulate industrial sand operations separately from other types of aggregate mining due to the rapid growth in recent years of industrial sand mining and processing for use in the hydro-fracking industry, the areal extent of these operations, and the level of potential wastewater volume and associated treatment. The surface water monitoring parameters were selected from the metals and nonconventional pollutants listed in ch. NR 215, Wis. Adm. Code, *List of Toxic, Conventional, and Nonconventional Pollutants*, and represent the parameters that the Department believes have the greatest potential to be present. Sections 5.5.1.2 and 5.5.2 have been modified to better explain WET testing and provided additional options to address WET test failures.

**Section 5.5 Comment:** Please eliminate the entire section associated with Effluent Monitoring. WDNR appears to be singling out industrial sand mining from all other nonmetallic mining occurring in Wisconsin and unfairly bringing unwarranted and burdensome monitoring requirements to this industry. Significantly more non-industrial sand nonmetallic mining operations have washing operations but do not have such sampling burden under their draft WPDES Permit scenario. Section 5.5.1.1.4 indicates a concern with the toxicity of water treatment additives being toxic to aquatic life if directly discharged to a surface water. Thus the need for exhaustive and expensive effluent monitoring at industrial sand sites. This same potential exists with other nonmetallic mining. However, the WDNR has decided to not require such burdensome effluent monitoring requirements for nonmetallic mining operations that do not process industrial sand. (FMSA)

Response: The Department has made the policy decision to regulate industrial sand operations separately from other types of aggregate mining due to the rapid growth in recent years of industrial sand mining and processing for use in the hydro-fracking industry, the areal extent of these operations, and the level of potential wastewater volume and associated treatment.

**Section 5.5 Comment:** WDNR should consider completing the potential groundwater impact study prior to having the regulated community collect site specific data. The new data collection requirements being placed on the regulated community appears to lack compelling supporting data at this time. That combined with a lack of comparative baseline data makes evaluating specific data potentially problematic. (Foth)

Response: The monitoring in section 5.5 is for surface water discharges and is not related to the groundwater study. The Department prefers to regulate as many facilities as possible under a general permit and believes that the data collection requirements are necessary to support this policy.

**Section 5.5 Comment:** Regarding the effluent monitoring analytes and plan submittal time frame, the 60-day time frame to prepare and submit a monitoring plan is a very aggressive schedule. Similar to our comments above, this opinion is based on our firm's experience in preparing these plans. Consider allowing a first time total chromium analysis for monitoring and for those facilities that results indicate exceedance with the surrogate standard, follow the speciation requirement in subsequent sampling events. (Foth)

Response: If a permittee feels the timeframe in section 5.5.1.1.1 is too ambitious, the permittee should consider Option B. The Department believes that section 5.5.1.1.1 provides a permittee sufficient flexibility to design and propose a monitoring plan that is appropriate for the specific characteristics and conditions at the facility.

**Section 5.5 Comment:** Regarding Section 5.5.1.1 Effluent Monitoring Option A, Table 3 listed the proposed metals to be tested. What is the intention of testing for these metals, and more specifically, what is the scientific basis for analyzing total recoverable metals? If the Department is more concerned about water quality, it would be more scientifically accurate to analyze the dissolved metal constituents. Total metal constitutes does not display any meaningful data about water quality, just of clay geochemistry. (WISA)

Response: In section 6 of the general permit, s. NR 205.07(1), (3), and (5), Wis. Adm. Code, are incorporated by reference. Section NR 205.07(1)(p)3. states that monitoring shall be conducted according to the test procedures specified in ch. NR 219, Wis. Adm. Code. The approved test procedures in Table B of NR 219 specify that metals are to be expressed as total, which are equivalent to total recoverable (see footnote 4 to Table B). Under s. NR 106.06(7), Wis. Adm. Code, the Department may establish effluent limitations expressed as dissolved concentrations as determined using the procedures specified in ss. NR 105.05(5) and 105.06(8), Wis. Adm. Code, which use a conversion factor to convert total recoverable to dissolved.

## Section 7. Compliance Schedule

**Section 7 Comment:** Why are evaluations requested of the mine operator every quarter? It makes no sense because many of the mines shut down in the dead of winter. Evaluations were suggested by a commenter to be made once a month during operational months. Another commenter suggested requiring weekly or daily reporting. (Adams, Popple)

Response: Section NR 216.28(3), Wis. Adm. Code, specifies that the visual inspections are to occur quarterly.

## **Section 8. Definitions**

**Section 8 Comments:** Suggested to define “minimized”, “necessary”, “maximum extent”, “appropriate BMPs”. (Adams)

“Significant storm event” used in section 3.7.2 is not defined and that definition may vary from one person to another. One commenter suggested that objective numeric standards need to be used instead of subjective ones. Example: Storm water events of .5 inches or greater instead of significant storm water events. (Smalley, Stahl)

Suggested defining “important economic or social development”. (Adams, Popple, Smalley)

Response: Narrative type requirements in regulatory documents often use descriptive or qualifying terms that are understood to have the common dictionary meaning without being specifically defined in the document. In section 3.7.2, the phrase “of a significant storm water event” has been changed to “after runoff begins discharging at an outfall”, which is consistent with the requirement in s. NR 216.28(3), Wis. Adm. Code. The concept of “important economic or social development” as used in the general permits is addressed in s. NR 207.04(1)(c), Wis. Adm. Code.

## Responses to General Comments

**Comment:** The DNR must require facilities seeking coverage under the general permit to submit the SWPPP to the DNR along with the NOI. The Department's failure to require dischargers applying for coverage under a storm water permit to submit a full SWPPP is a deficiency identified in MEA's October 20, 2015, Petition for Corrective Action to the USEPA. (MEA)

Response: The USEPA is in the process of evaluating the allegations in the MEA petition and has made no final decisions or recommendations in response to this allegation. In the meantime, the Department will continue to administer the storm water program in accordance with existing statutes and administrative codes.

**Comment:** The draft general permit violates state and federal antidegradation policies and implementing procedures. The failure of Wisconsin's antidegradation regulations to comply with the CWA requirements is a deficiency identified in MEA's October 20, 2015, Petition for Corrective Action to the USEPA. (MEA)

Response: The USEPA is in the process of evaluating the allegations in the MEA petition and has made no final decisions or recommendations in response to this allegation. In the meantime, the Department will continue to administer the storm water program in accordance with existing statutes and administrative codes.

**Comment:** The draft general permit does not ensure that the authorized discharges comply with phosphorus water quality standards. (MEA)

Response: The general permit does not preclude the Department from making a determination under s. NR 217.12(1)(a), Wis. Adm. Code, to include a water quality based effluent limitation for phosphorus in a WPDES permit.

**Comment:** The draft general permit does not adequately address the potential for discharges of metals to contaminate surface water or groundwater. The water quality sampling conducted by the Department at several industrial sand mining and processing sites revealed elevated levels of metals in wash ponds. (MEA)

Response: The sampling referred to in this comment was performed on water within the ponds, not on discharges to surface waters. However, the Department has not ignored this information. Indeed, for surface waters, section 5 of the general permit contains requirements for significant effluent monitoring of surface water discharges that were not present in the previous version of the general permit. For groundwater, section 4.4 is also a new addition to the general permit. 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, the Department may invoke this provision in the general permit. The sampling by the Department, while informative, was not performed for this purpose. To gain a better understanding, the Department intends to carry out a study outside of the general permit to determine whether sand mining operations could potentially impact groundwater.

**Comment:** The SWPPPs do not provide adequate notice, transparency or public participation. (CW)

Response: The Department administers the storm water program in accordance with existing statutes and administrative codes regarding the regulation of storm water and wastewater discharges, public notices, public participation, and access to public records.

**Comment:** The permit impermissibly authorizes discharges to impaired waterways and unauthorized discharges under a TMDL. (CW)

Response: The Department does not agree with this comment. The federal memorandum cited in support of this comment ([\*Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load \(TMDL\) Wasteload Allocations \(WLAs\) for Storm Water Sources and NPDES Permit Requirements Based on LAs"\*](#)) specifically states that it is guidance and does not impose legally binding requirements on USEPA or states. The USEPA has reviewed and not objected to this impaired waters language in the proposed general permit and other general permits reissued by the Department.

**Comment:** The permit impermissibly authorizes new and increased discharges to fish and aquatic life waters without conducting an antidegradation review as required by the Clean Water Act and Wis. Admin. Code ch. NR 207. (CW)

Response: Nothing in the general permit precludes the Department from making a determination that coverage under an individual permit is more appropriate based on ch. NR 207, Wis. Adm. Code.

**Comment:** Some commenters expressed concerns regarding noise regulations, hours of operation, blasting, and removing local authority at these mining facilities. (Lockington, Rosenow)

Response: Concerns not related to the regulation of storm water and wastewater discharges are beyond the scope of the general permits.

**Comment:** How are ponds being watched during heavy rain events when the mines are shut down? What evaluations are being done during shutdowns? Storm water is not stationary. Does the person evaluating the waters simply say he was not available so no updated information was collected? (Adams)

Response: All permittees are at all times required to 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 (s. NR 205.07(1)(j), Wis. Adm. Code, as referenced under the general conditions in section 6 of the general permits).

**Comment:** The issue of cumulative effects on waterways is missing from the general permit. (Adams, Popple)

Response: This issue is beyond the scope of the general permits.

**Comment:** This permit is designed to allow operators of industrial frac sand mines to write their own permits and do their own evaluations to determine if they are following the permit. (Adams)

Response: General permits by their nature require permittees to ensure that they are in compliance with oversight provided by the Department.

**Comment:** There needs to be an enforcement scheme with effective punishments in the permit. (Smalley)

Response: The general permit is enforceable under existing state law in s. 283.89, Wis. Stats.

**Comment:** No listing of citations or fee structure requirements for violations are within the proposed document. (Popple)

Response: Section 283.91, Wis. Stats., provides for penalties for violations of the general permit.

**Comment:** There needs to be a way for public citizen input for granting permits, enforcement of regulations, and punishments. (Smalley)

Response: The Department administers the storm water program in accordance with existing statutes and administrative codes regarding the regulation of storm water and wastewater discharges, public notices, public participation, and access to public records.

**Comment:** The permit process does not include a public hearing. (Stahl)

Response: The Department administers the storm water program in accordance with existing statutes and administrative codes regarding the regulation of storm water and wastewater discharges, public notices, public participation, and access to public records.

**Comment:** Public hearings must be allowed for each and every storm water/wastewater permit that is issued. It is important that all required applications, implementation plans, and inspection reports asked of permittees be submitted to the DNR and subsequently reported out to the public on a consistent basis and via transparent methods. (Popple)

Response: The Department administers the storm water program in accordance with existing statutes and administrative codes regarding the regulation of storm water and wastewater discharges, public notices, public participation, and access to public records.

**Comment:** Members of Ho-Chunk wanted to remind the Department of future generations who will be impacted by DNR's actions. There are numerous concerns about health issues, contaminated aquifers, and other longer term effects. (Kraus, Roesch)

Response: This is not a specific comment on the language or content of the general permit. However, the Department appreciates your comments.

**Comment:** Water quality is very important and should not be over-looked. Please stand firm against any mining that may cause issues with the water table and/or water quality. (Ward)

Response: This is not a specific comment on the language or content of the general permit. However, the Department appreciates your comments.

**Comment:** Several commenters encourage DNR to have increased supervision and oversight of these sites. (Popple, Roesch)

Response: This is not a specific comment on the language or content of the general permit. However, the Department has oversight and enforcement authority under state law.

**Comment:** The Department has not complied with its mandatory duties under the Wisconsin Environmental Policy Act (WEPA) to evaluate the environmental impacts of the permitted activity. The commenter requests that the Department prepare an environmental impact statement to investigate critical environmental and public interest issues related to the proposed permit action. (CW)

Response: Section. 283.93, Wis. Stats., provides that regulatory actions taken by the Department to eliminate or control environmental pollution shall be exempt from s. 1.11, Wis. Stats., the WEPA law, with certain exceptions. None of the exceptions to the exemption apply to this general permit. Nonetheless, in accordance with ch. NR 150, Wis. Adm. Code, the administrative

rule that implements the WEPA law, the Department is preparing a strategic analysis to assess the scientific, natural resource, and socioeconomic information relating to industrial sand mining in Wisconsin. Therefore, the Department does not agree that the strategic analysis is insufficient to evaluate the industry. More information is available on the Department's [industrial sand mining strategic analysis](#) website.

**Comment:** The DNR has not complied with the WEPA because new sources of environmental pollution will be covered under the general permit. (MEA)

Response: The reissuance of the NMM GP does not cover “new sources” of pollution. Section 283.01(8), Wis. Stats., defines a “new source” as any point source the construction of which commenced after the effective date of applicable effluent limitations or standards of performance. A similar definition appears in the Clean Water Act, see 33 U.S.C. § 1316(2). In both state and federal law, a prerequisite to a discharge having “new source” status is that new source performance standards must be promulgated by rule that are applicable to discharges to surface water. Neither federal nor Wisconsin law contains new source performance standards that apply to mineral mining and processing discharges covered by the general permit.

The reissuance of the proposed permit constitutes a regulatory action taken by the Department to eliminate or control environmental pollution that is exempt from s. 1.11, Wis. Stats. Absent the applicability of any new source performance standards, none of the three exceptions in s. 283.93(1) through (3), Wis. Stats., apply to the general permit. Even if WEPA were to apply to this permit reissuance, the Department still complied with its obligation under s. NR 150.20(3)(a)9., Wis. Adm. Code, as the reissuance or modification of any general permit is listed as a prior compliance action.

**Comment:** The WDNR has classified resource waters of the state into “outstanding and exceptional resource waters” or “impaired water resources.” With this classification begin a significant issue for many facilities, the classification accuracy is of utmost importance. Some watersheds may be misclassified and function as Fish and Aquatic Life Waters or Impaired Waters due to lowered water tables and significant agricultural impacts. These watershed classifications need to be confirmed or modified to avoid being ineligible to receive a general permit. Review and confirm the watershed classifications, prioritizing the water bodies affecting the regulated community. (Foth)

Response: The classifications of the waters of the state do not effect whether an industry will be ineligible to receive an industrial storm water general permit. The general permits specify the conditions under which industrial storm water can be discharged so that the quality of waters is protected. Waterbody classifications are not determined within the scope of the general permits.