

Sand and Other Non-Metallic Mining: Issues and Regulations

Land Use and Environmental Regulations Affecting Non-Metallic Mining

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Mining in Wisconsin is as old as the state itself. One of the two figures on the Wisconsin State flag is a miner and, in fact, Bucky Badger has its roots in the nickname given lead miners mining tradition of miners who burrowed into the ground for the winter. Consequently, the current remarkable increase in interest in a specific form of non-metallic mining, i.e., high quality sand for “fracking,” follows a long tradition of non-metallic mining (think sand and gravel) in Wisconsin. Even the brownstone for the elegant homes in New York and Chicago was initially quarried in Northern Wisconsin.

Hydraulic fracturing (“fracking”) is a very common practice used in natural gas extraction. The process involves drilling first vertically, then horizontally through rock beds and pumping a pressurized mixture of sand, water and chemicals which create artificial rock fractures. The sand component of this mixture props open these fissures, allowing gas to be more easily extracted through a collection system for distribution.

Although fracking is not performed in Wisconsin, our state has substantial quantities of easily accessible and high quality industrial sand. Sand in the western and central part of Wisconsin has an ideal texture, size, shape and strength for fracking. See, attached Figure 2 (map of sand deposits and currently operated/proposed sand mine operations). These sand deposits are also located near the surface allowing for easy mining. With the recent increase in fracking, demand for Wisconsin sand has surged leading to a boom in industrial sand mining operations.

In 2012, the Wisconsin Industrial Sand Association (“WISA”) was created to represent the interests of the industrial sand operators within the State of Wisconsin. As a qualified tax exempt trade association, it has been instrumental in forging relationships with local units of government as well as with the Wisconsin Department of Natural Resources on behalf of the industry. Its website at www.wisconsinsand.org contains the Code of Conduct, application forms and related materials for membership in WISA. Significantly, membership in WISA is limited to those operators who have either applied for or received Green Tier certification from the Wisconsin Department of Natural Resources for commitments to exceed the minimum environmental standards.

This outline will touch the bases of various types of governmental authority which regulate non-metallic mining through land use and environmental regulation

I. Land Use Regulations.

A Zoning Authority. Zoning is the exercise of police power by a municipal government to regulate land uses. All counties in Wisconsin (except one) have zoning authority under § 59.69, Stats. to regulate land uses in unincorporated areas. Municipalities have the ability to exercise zoning authority under § 62.23, Stats. The section governing village zoning authority is § 61.35 Stats. In addition, and with the permission of the County, townships may exercise zoning authority under § 60.61. However, when county zoning was first introduced, townships were allowed to opt out of county zoning, without the requirement that they exercise their own zoning authority. Consequently, approximately one-third of all townships have no local zoning whatever and, consequently, are unable to regulate land use within their jurisdiction through zoning.

1 Comprehensive Planning was introduced in 2000. Beginning on January 1, 2010, a municipality had to have a Comprehensive Plan in place when a municipality exercised its zoning authority. This is because under § 66.1001(3) Stats., zoning authority can only be exercised in a manner which is “consistent” with the Comprehensive Plan.

2 Non-metallic sand mining is generally viewed as a use which is consistent with agricultural uses. This is because of the large number of acres which must be used in mining and, consequently, the fact that mining is generally located in rural areas. While within an agricultural zoning district, mining itself usually requires a Conditional Use Permit (“CUP”). A CUP is issued for a use which is otherwise allowable within the zoning district but which contains restrictions on the use to mitigate and minimize anticipated adverse impacts. In the case of non-metallic sand mining, such impacts and conditions could include, but are not limited to, hours of operation, lighting, dust, noise, traffic on public roads, environmental impacts, and property value impacts.

3 Some applicants have offered payments to the host municipalities to offset some of the negative impacts from non-metallic mining. These impacts could come in the form of road wear and tear. Such payments cannot be required by the municipality (which would be called a tax), but can be offered by the applicant.

4 For townships where no zoning exists, or if the town believes it is not adequately protected by County zoning, townships have attempted to enact ordinances which restrict mining. In February 2012, the Wisconsin Supreme Court released its decision in Zwiefelhofer v. Town of Cooks Valley, 2012 WI 7, 338 Wis. 2d 488, 809 N.W. 2d 362, holding that the nonmetallic mining ordinance adopted by the town was not a zoning ordinance and therefore did not require county approval. Rather, the Court found that the town was exercising its general police power in regulating this particular use of land.

a In Cooks Valley, the distinction between zoning and non-zoning ordinances is important because the enactment of zoning ordinances are subject to special procedural requirements that other ordinances generally are not.

b In ruling that the Cooks Valley ordinance was an exercise of the town’s general police power, the Supreme Court declined to establish a clear test for future cases involving similar issues (“we do not create or apply a bright-line rule governing what constitutes a zoning ordinance and do not establish or apply an all-encompassing definition of a zoning ordinance”).

c Instead, the Court employed what it called a “functional approach” to determine whether the Cooks Valley ordinance should be classified as a zoning ordinance, comparing the characteristics and purposes of the Cooks Valley ordinance against the characteristics and purposes of traditional zoning ordinances.

- d The Court looked at six factors:
- i. The division of a geographic area into “zones” or districts;
 - ii. The designation of permitted land uses within those zones;
 - iii. The distinction in the regulation between *how* the use takes place, as opposed to *where* the use takes place;
 - iv. A focus on all possible land uses within a given geographic area;
 - v. Whether the regulation is forward-looking and broadly applicable or whether it responds to individual proposals on a case-by-case basis; and
 - vi. Provisions for the continuation of preexisting uses.

e Despite finding that the Cooks Valley ordinance had “some similarities” to a zoning ordinance, those similarities were not enough for the Court to find that the ordinance was a zoning ordinance.

f In explaining its rationale, the Court expressed concern that an overly-broad interpretation would “bring within the classification of zoning many ordinances that have been considered non-zoning exercises of the police power.”

g In a footnote, the Court noted that this local use of police power could be pre-empted by a state-wide regulatory scheme.

5 An unanswered question is the role of Comprehensive Planning in regulating non-metallic mining. Mining cannot occur in a zone as a matter of municipal declaration because minerals are in the ground only in certain locations. Consequently, the ability to mine is regulated by the exercise of the police power but can only occur where the minerals themselves are located. Many, if not most Comprehensive Plans are silent as to how non-metallic mining should be treated. The “Agricultural, natural and natural resources element” of the Comprehensive Planning Statute is required to address non-metallic mining under § 66.1001(2)(e), Stats. and is a compilation of objectives, policies, goals, maps and programs for wide variety of natural resources including non-metallic mineral resources “consistent with zoning limitations under § 295.20(2)”. However, not all Plans spell out how to predict where minerals will be located and how they will be mined.

6 Section 295.20, Stats., allows a property owner to register the existence of minerals on a site. The municipality may then not allow a land use which is inconsistent with the registration of minerals unless: (a) mining has not begun on any portion of the registered land and (b) the zoning change is “necessary to implement a Master Plan Comprehensive Plan

or Land Use Plan adopted at least one year before the rezoning.” Consequently, registered mineral deposits create additional barriers for a municipality seeking to regulate land use.

B Reclamation Plans. Non-metallic mining is also regulated by a Reclamation Plan under Ch. 295, Stats. Section 295.13 Stats. requires each county to enact and administer a non-metallic mining reclamation ordinance and applies to all areas within the County except for cities, villages and towns that enact and administer their own reclamation ordinance.

1 Wis. Admin. Code Ch. NR135 implements the statutory provisions regarding non-metallic mining reclamation. It is not a zoning ordinance but requires all newly developed non-metallic sites which also have a Reclamation Plan as part of its permitting process. However, as a matter of necessity, reclamation will impact operations which is what the CUP otherwise seeks to regulate. A Reclamation Plan is required whether or not the host municipality has a zoning ordinance. Reclamation Plans must address restoration of the site to a condition where soils are stabilized, surface water and ground water flows are restored, environmental pollution is prevented and generally attempts to restore the site to its pre-mining condition if at all possible.

2 An application for a Reclamation Permit may be denied under Section NR 135.22 but only under limited circumstances where a site cannot be reclaimed.

3 The municipality may require payment from the applicant to have the Reclamation Permit Application reviewed by an outside engineering firm for compliance with both regulatory standards and also sound engineering principles. This partially removes the Reclamation Plan from the political process.

4 Reclamation Plans must be supplied before the mining permit is issued. The financial assurance for the Reclamation Plan under NR 135.40 approximates “the costs to the regulatory authority of hiring a contractor to complete either final reclamation or progressive reclamation according to the approved Reclamation Plan”. In addition, annual fees need be paid to the regulatory authorities, including WDNR, on a per acre basis to offset the administrative costs of maintaining the Reclamation Plan by the regulatory authorities.

C Control of Roadways. Under § 349.16, Stats., a town, city, village or county may regulate the amount of weight on a road, if, absent the restriction, the weight from the vehicle would “likely” seriously damage or destroy the road. These restrictions can be permanent or seasonal. In addition, a condition within a CUP could require the repair, maintenance and upkeep of a highway or roadway from damage attributable to hauling sand from the site.

D Regulation of Blasting. While non-metallic mining for limestone or granite will typically involving blasting, sand mining often does not require blasting except to locate and retrieve the sand deposits. Blasting itself is regulated by the federal government through the Mining Safety and Health Administration and by the newly created Department of Safety and Professional Services through the Wis. Admin. Code, Ch. Comm 7. Sec. Comm 7.41 requires pre-blasting notification. Sec. Comm. 7.44 places limits on flyrock, airblasts, ground vibrations and generally prohibits injury to persons and property and unreasonable annoyance to persons.

II. Environmental Regulations.

This section outlines the environmental regulation of industrial sand mining operations in Wisconsin. It begins with a general overview of the environmental regulations affecting industrial sand mines, followed by a discussion of the permits potentially required for these operations (e.g., air emissions permits, storm water discharge permits, wetland permits).

A Federal, State, and Local Authority

Environmental regulation of industrial sand mines involves a complex series of interrelated federal, state, and local regulation. Nearly every environmental regulatory program is an example of “cooperative federalism” whereby Congress enacts a federal environmental statute that defines the minimal level of regulation to be followed by states. States, in turn, use these federal statutes as a template for developing and implementing their own environmental programs that fit each state’s unique circumstances. State’s will sometimes rely upon local governments to implement these laws.

State environmental regulations are then submitted to the federal Environmental Protection Agency (EPA) for review and approval. If approved, the EPA may delegate authority to the state to implement that particular environmental law. Despite this delegation, the federal government (i.e., EPA) reserves its authority to oversee the program and bring its own enforcement actions against sand mine operations that violate approved state environmental regulations. Several environmental laws also authorize citizens to directly enforce these laws in federal court.

In Wisconsin, most environmental regulatory programs are administered by the Wisconsin Department of Natural Resources (DNR). The DNR is divided into six program divisions, each of which has its own bureaus and sections. The DNR is also divided into five geographic regions with the West Central Region¹ having jurisdiction over the vast majority of industrial sand mines:

Figure 1- WDNR Regions Highlighting West Central Region



In addition to the federal and state governments, Wisconsin’s local units of government also regulate environmental issues in several areas. Counties, villages, cities, and towns each enjoy some form of either direct or indirect environmental regulatory authority. Often this takes the form of simple zoning power.

¹ The WDNR West Central Region includes the following Wisconsin counties: (Minnesota), Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, La Crosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, and Wood.

In 2000, Wisconsin finalized a comprehensive program for the siting and reclamation of “non-metallic mining”² operations in the state, including industrial sand mining. This program, set forth in Wis. Admin Code ch. NR 135, establishes a uniform set of non-metallic mining reclamation requirements to be implemented through county and, in some cases, local ordinances.³ Importantly, NR 135 regulates only the reclamation of industrial sand mines.

III. Air Pollution Control Regulations

Industrial sand mining operations in Wisconsin are subject to air emission control standards and construction/operation permitting requirements. This section discusses the general framework of the Wisconsin air program, the emission limits that often imposed on industrial sand mine operations and the air permits that are required to construct and operate mines.

A General Regulatory Framework

At its most basic level, the Clean Air Act (CAA) establishes National Ambient Air Quality Standards (NAAQS) that must be met throughout the United States. NAAQSs are created for so-called criteria pollutants - those pollutants that have been found to adversely affect public health, welfare, or the environment. For each criteria pollutant, the EPA establishes both a primary NAAQS (protective of public health) and a less stringent secondary NAAQS (protective of public welfare).

There are federal NAAQSs for seven criteria pollutants: (1) particulate matter with an aerodynamic diameter less than 10 microns (PM10); (2) particulate matter with an aerodynamic diameter less than 2.5 microns (PM2.5); (3) sulfur dioxide (SO₂); (4) carbon monoxide (CO); (5) nitrogen oxides (NO_x); (6) ozone (O₃); and (7) lead (Pb). By far, the most significant NAAQS affecting industrial sand mines are PM10 and PM2.5. The NO_x and SO₂ NAAQS may also present issues for mines that operate any type of combustion device (e.g., a portable generators).

To facilitate attainment with NAAQSs, emission activities in Wisconsin, including industrial sand mines, must obtain air permits from the DNR.⁴ The mine air permit will

²Wis. Stat. § 295.11 defines non-metallic mining as:

²(a) Operations or activities for the extraction from the earth for sale or use by the operator of mineral aggregates or nonmetallic minerals such as stone, sand, gravel, asbestos, beryl, clay, feldspar, peat, talc and topsoil, including such operations or activities as excavation, grading and dredging.

² (b) On-site processes that are related to the extraction of mineral aggregates or nonmetallic minerals, such as stockpiling of materials, blending mineral aggregates or nonmetallic minerals with other mineral aggregates or nonmetallic minerals, crushing, screening, scalping and dewatering

³ WDNR has created a website devoted to non-metallic mining reclamation regulation. <http://dnr.wi.gov/org/aw/wm/mining/nonmetallic/>.

⁴ As part of the permitting process, the mine must demonstrate that emissions from its operation will not cause or exacerbate an exceedance of an NAAQS in the area surrounding the mine. This demonstration is typically performed using air dispersion modeling. WDNR has

memorializes all of the emission limitations and other requirements that govern operation of the mine. As discussed in the next sections, these emissions limits may be created by DNR to ensure that emissions from a particular mine will not result in an exceedance of a NAAQS downwind of the facility. Other limits are created to ensure that mines use modern pollution control techniques.

B Air Emission Limitations for Sand Mines

1 In General

Industrial sand mines must meet one or more air types of emission limitations: limitations specific to a pollutant being emitted (e.g., a limitation developed to control PM10 emissions); limitations specific to the type of industrial activity at issue (e.g., new source performance standard for non-metallic mining processing operations; and/or limitations created by WDNR to avoid the mine from causing an downwind exceedance of an NAAQS. All three are discussed below in more detail.

2 Limitations by Type of Pollutant

Wisconsin has general emission limitations that apply to any source that emits one or more of the following pollutants: particulate matter, sulfur or sulfur compounds, organic compounds, carbon monoxide, lead, hazardous air pollutants, and nitrogen compounds. For carbon monoxide and lead, the limitations are simply a general prohibition on emitting the substances in such concentrations as to contribute to an exceedance of an NAAQS or cause air pollution. For the remaining pollutants, Wisconsin's administrative code imposes specific numeric limitations defined in the following chapters of the Wisconsin Administrative Code:

- NR 415—Control of particulate emissions
- NR 417 and 418—Control of sulfur emissions
- NR 419–425—Control of organic compound emissions
- NR 428—Control of nitrogen compound emissions
- NR 429—Malodorous emissions and open burning
- NR 431—Control of visible emissions
- NR 445 and 460—Control of hazardous pollutants

Non-metallic mining operations are most often subject to the general limits for PM and visible emissions. If a mine also performs sand processing, drying or has backup electric generation capabilities, other general limits may be triggered for the NOx, SO2 and organic compounds that are emitted by these activities.

Most sand mines do not emit hazardous air pollutants in significant quantities. Those that do may be required to meet federal or state limitations that regulate such air emissions. On the federal level, the EPA has not yet developed emission limitations for non-metallic mining operations, per se. However, if a mining operation hosts a backup generation system, the facility may be required to meet EPA regulations that limit the hazardous air emissions from any reciprocating internal combustion engines that might be used in that system.

On the state level, the DNR implements a comprehensive hazardous air pollutant regulatory program regulating the emission of over 500 different hazardous air pollutants. These pollutants are listed in Tables A, B, and C of Wisconsin Administrative Code chapter NR 445. Mine operators must review these lists of pollutants to determine whether its activities are subject to the Wisconsin hazardous air pollutant program. The activities performed at a typical non-metallic mining operation do not result in the emission of these NR 445 hazardous air pollutants.

If a mine is subject to the program, NR 445 generally imposes limits on emissions to ensure that ambient concentrations of these hazardous air pollutants in the air surrounding the facility are kept below defined acceptable levels. For some pollutants, however, NR 445 mandates the use of certain types of emission control techniques.

The potential for sand mines to emit silica has been a source of controversy in Wisconsin. In December 2010, DNR released a draft report on silica emissions for public comment. In August 2011, DNR issued a final report⁵ to the Wisconsin Natural Resources Board which concluded that Wisconsin will continue relying on its existing regulatory program for PM emissions and not develop specific rules that would regulate silica emissions as a hazardous air pollutant.⁶ On this point the final report concluded, in relevant part:

“A recurring theme from the literature review and survey is that very little conclusive information exists regarding sources, controls or levels of silica present in ambient air. This lack of data means it is not currently possible to determine conclusively whether or to what extent the quantity, duration or types of silica emissions in the state may be a public health concern. It would take significant additional efforts to fill in these data gaps. That said, Wisconsin has regulated PM for 40 years. The controls for PM are the same controls for crystalline silica. This means that for those crystalline silica sources where PM is controlled, crystalline silica emissions are also reduced.”

3 Limitations by Type of Activity

EPA has created so called “New Source Performance Standards” (NSPS) that apply to non-metallic mineral processing plants. WDNR has in turn promulgated this federal NSPS as a Wisconsin rule (NR 440.688). These NSPS regulations limit the PM emissions from crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed trucks and railcar loading stations. These NSPS regulations impose monitoring, recordkeeping and reporting obligations on sand mine facilities.

EPA and DNR have also created an NSPS for calciners and dryers located at “mineral processing plants.” See, Wis. Admin Code § NR 440.73. Mineral processing plant is defined to include any facility that processes or produces industrial sand, as well as many other types of non-metallic aggregate materials. Generally speaking, this NSPS imposes emission limitations on particulate matter emissions.

⁵ The final report can be found here: <http://dnr.wi.gov/air/pdf/finalsilicareport.pdf>.

⁶ Five states surveyed by DNR do address crystalline silica emissions with health benchmarks or reference exposure levels (a sixth state, Michigan, regulates crystalline silica emissions but does not use a specific health benchmark).

4 Wisconsin Limitations Created Specifically for Sand Mine Operations

In Wisconsin, industrial sand mines with actual production of more than 2,000 tons per month (based on a rolling 12 month average) have special emission control requirements. Such facilities cannot cause, allow or permit the use of any parking lot, road or other area by haul trucks or any drilling or blasting without taking precautions to prevent particulate matter from becoming airborne. These precautions shall be taken to the extent necessary so that any applicable requirements are met and shall include one or more of the following:

- Application of asphalt, water or suitable chemicals on unpaved roads or other areas used by haul trucks which can create airborne dust, provided the application does not create a hydrocarbon, odor or water pollution problem.
- Posting and maintenance of a 10 MPH speed limit on paved or unpaved roads or other areas used by haul trucks inside the facility's property line.
- Covering, treatment or securing of materials likely to become airborne from haul trucks during transport, prior to any transportation off site from the quarry or mine.
- Use of wet drilling or other means of control approved by DNR.
- The use of blast hole stemming materials that have been approved by either DNR or the state department of industry, labor and human relations.
- Any precautions proposed by the mine owner or operator and accepted by DNR in a permit or fugitive dust control plan.
- Use of no precautions where control measures are unnecessary due to site or meteorological conditions.

In addition to meeting these requirements, the sand mine operation shall control fugitive emissions from roads or other areas used by haul trucks and from drilling so that visible emissions do not exceed 20% opacity at the source. The facility must submit a fugitive dust control plan to DNR that documents how it will meet this requirement.

Wisconsin also requires industrial sand mine operations with actual production of more than 2,000 tons per month (based on a rolling 12 month average) to operate a "particulate matter" ambient air monitoring system unless granted a variance. See, Wis. Admin Code § NR 415.075 (4). The operator must submit a plan to DNR that describes its proposed ambient air monitoring program within 30 days of the date of issuance of an air permit. DNR must review the plan to determine whether it will provide accurate and reliable monitoring at the mine site. DNR approval, conditional approval or disapproval of the proposed ambient air monitoring plan shall be completed within 60 days of receipt of the plan.

The owner or operator of a sand mine may apply for, and the department may grant, a variance from these ambient air monitoring requirements if the applicant demonstrates that the general public will not be exposed to significant levels of particulate matter from the source, and that the source's emissions units and processes are controlled to a level which meets all applicable requirements. The department may review any variance granted under this paragraph on a biennial basis.

C Construction Air Permits for Sand Mines

Unless otherwise exempted by rule, no air emission source, including sand mines, may be constructed or modified in Wisconsin without first obtaining a construction permit from the DNR. As a general matter, no work of a permanent nature can commence on a mine until the mine operator receives a construction air permit from DNR. There are numerous exceptions to this requirement (discussed below) that must be evaluated by the mine operators. See, Wis. Admin. Code § NR 406.04. Generally speaking, five types of activities may potentially require construction air permits at sand mines in Wisconsin:

Commencing Construction on an Emission Unit—Engaging in “a program of on-site construction, including site clearance, grading, dredging or landfilling specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source.” Wis. Admin. Code § NR 400.02(44).

Replacing an Emission Unit—Dismantling a source and substituting with a source similar in operating capacity and function. Wis. Admin. Code § NR 400.02(134).

Reconstructing an Emission Unit—Removing and substituting components of an air emission source to such an extent that the “fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new stationary source”. Wis. Admin. Code § NR 400.02(130).

Relocating an Emission Unit—Removing a stationary source from one location and siting it at a different location. Wis. Admin. Code § NR 400.02(132). A relocated source is exempt from additional permit requirements if certain conditions are met. See Wis. Admin. Code § NR 406.04(5).

Modifying an Emission Unit—“Any physical change in, or change in the method of operation of, a stationary source that increases the amount of emissions of an air contaminant or that results in the emission of an air contaminant not previously emitted.” Wis. Admin. Code § NR 400.02(99).

Conducting any of these five activities on a mine requires a construction air permit, unless the mine can find an exemption in the Wisconsin Administrative Code that relieves the facility of the obligation. In this regard, the DNR has established industry-specific and generic permitting exemptions that are available to sand mine operations in Wisconsin. These are divided into three categories: (1) specific categorical exemptions; (2) general emission rate exemptions; and (3) exempt modifications, relocations, and replacements.

If an activity is not subject to a permitting exemption, the source performing the activity must apply to WDNR for a construction air permit. DNR requires the use of approved forms for construction permit applications. Within 20 days of receiving the application, DNR must indicate whether the application is complete or whether it requires further information. Depending on the nature of the application, DNR has between 30 and 120 days to review and analyze the effect of the proposed construction on ambient air quality. After completing its review, DNR must issue a preliminary determination. DNR must give public notice of its preliminary determination, and the public has 30 days to comment. Members of the public, any affected state or tribe, and the EPA

may request a public hearing on the construction permit. Although discretionary, DNR will invariably hold a public hearing on the proposed permit if requested to do so or if there is significant public interest in the permit.

DNR must issue its final decision within 60 days of the close of the public comment period or public hearing, whichever is later, unless compliance with WEPA (discussed below) requires a longer period of time.

D Operation Air Permits

In addition to construction permits, sand mines in Wisconsin must obtain operation permits unless specifically exempt. An operation permit describes all significant air emission activities at the mine site, along with all associated emission-related requirements. Compliance with the emission limitations included in an operation permit is considered to be compliance with all emission limitations established under the Wisconsin and federal CAA.

Mines that receive operation permits are required to file annual certifications documenting their compliance with all permit terms. In addition, sources must file emission monitoring reports at least once every six months. Both reports must be certified by a “responsible official” of the organization. For corporations, the responsible official can be a president, secretary, treasurer, or vice president in charge of principal business functions. Alternatively, any other person who performs similar policy or decision making functions can sign the document.

IV. Water Law and Regulation

Sand mining operations can impact surface and groundwater resources. In addition, wetlands can also be impacted, requiring advance authorization from DNR and other agencies. This section discussed the universe of regulatory requirements that might be related to the surface water impacts of a sand mine.

A Surface Waters

1 Definition, Public Rights and Reasonable Use

Sand mine operations can affect the flow of surface water across its property which can invoke legal duties owed to adjacent property owners. The terms diffuse *surface waters* or storm water describe those waters that accumulate from natural sources and that have not yet evaporated, been absorbed into the earth, or found their way into a stream or lake.⁷

⁷ “Surface waters” means all natural and artificial named and unnamed lakes and all naturally flowing streams within the boundaries of the state, but not including cooling lakes, farm ponds and facilities constructed for the treatment of wastewaters (the term waters as used in this chapter means surface waters). NR 102.01(7). The term is also defined as those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, marshes, water courses, drainage systems and other surface water, natural or artificial, public or private within the state or under its

Article IX, Section 1 of the Wisconsin Constitution provides that “[T]he river Mississippi and the navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways and forever free, as well to the inhabitants of the state as to the citizens of the United States. . . .” This section is the basis for the public trust doctrine in Wisconsin, which provides that the natural navigable waters of Wisconsin are held by the state in trust for the use and enjoyment of all its citizens. See *Lake Beulah Management District v. Dep’t of Natural Res.*, 2011 WI 54 (July 6, 2011). Citizens may bring violations of the public trust doctrine to court and seek remedies.

The flow of surface-water discharges can also be subject to common-law duties owed to adjacent property owners. Wisconsin has adopted the *reasonable use rule*, which states that a land owner may alter the flow of surface waters from his property without incurring liability so long as the flow of surface water is reasonable. *Hocking v. City of Dodgeville*, 2009 WI 70, 318 Wis. 2d 681, 768 N.W.2d 552. These duties can be implicated by sand mining operations that alter surface water flow off of their property and onto neighboring land.

2 Private Rights—Riparian Rights

Sand mine operation located adjacent to navigable waterways also raise issues of riparian ownership and rights. The doctrine of *riparian rights* governs the private use of natural waterways. Common uses protected by these rights include consuming water for domestic, agricultural, or industrial purposes, *Munninghoff v. Wisconsin Conservation Comm’n*, 255 Wis. 252, 38 N.W.2d 712 (1949), access to the water for boating, swimming, and recreation, *Doemel v. Jantz*, 180 Wis. 225, 193 N.W. 393 (1923), trapping and obtaining “fruits” of the streambed, *Munninghoff v. Wisconsin Conservation Comm’n*, 255 Wis. 252, 38 N.W.2d 712 (1949), construction of piers, *Doemel v. Jantz*, 180 Wis. 225, 193 N.W. 393 (1923), and rights to natural additions to the shoreline (accretions).

Riparian rights exist by virtue of ownership of the bank or shore adjoining a waterway, *ABKA Ltd. P’ship v. DNR*, 2002 WI 106, ¶ 57, 255 Wis. 2d 486, 648 N.W.2d 854, and provide the riparian landowner with certain exclusive privileges of access to the land and water:

[The] privileges are valuable privileges incident to his title to the land, of which he cannot be deprived for any private use, and which the public can only acquire from him by purchase, prescription or by the exercise of the right of eminent domain.

. . . [S]uch rights include the right of using the shore for the purposes of building piers, wharves, harbors, or booms in aid of navigation, and of building walls or other protection so as to prevent loss of soil by the process of erosion.

Doemel v. Jantz, 180 Wis. 225, 193 N.W. 393, 397 (1923).

This exclusive use extends as far as the line of navigability. *Nosek v. Stryker*, 103 Wis. 2d 633, 309 N.W.2d 868 (Ct. App. 1981). It is subject, however, to the common law restriction of reasonable use, and the paramount interests of the public as protected by the public trust doctrine. See *Munninghoff v. Wisconsin Conservation Comm’n*, 255 Wis. 252, 38 N.W.2d 712 (1949). Whether a use is reasonable is determined on a case-by-case basis, and usually turns

jurisdiction, except those waters which are entirely confined and completely retained upon the property of a facility. NR 101.03(12).

on the extent of the impact the use has on other riparian owners and on the public. *Sterlingworth Condo. Ass'n v. DNR*, 205 Wis. 2d 710, 556 N.W.2d 791 (Ct. App. 1996). The public trust doctrine, as well as state and federal regulations, may condition, restrict, or entirely prohibit the riparian use, depending on what activity is contemplated.

B Regulatory Jurisdiction

1 In General

Various levels of government have authority to impose regulations and restrict private rights to secure the public's interest in water.

2 Federal

The federal government's power to regulate waters within the state comes from the U.S. Constitution, beginning with the commerce clause: "The Congress shall have the power . . . to regulate commerce with foreign nations, and among the several states, and with Indian tribes." U.S. Const. art. I, § 8.

The U.S. Supreme Court held early on that "commerce" includes navigation. *Gibbons v. Ogden*, 22 U.S. (9 Wheat) 1 (1824); *Gilman v. City of Philadelphia*, 70 U.S. (3 Wall.) 713 (1865). Thus, federal jurisdiction extends to waters that might have any impact on interstate commerce, regardless of navigability. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985); *United States v. Eidson*, 108 F.3d 1336 (11th Cir. 1997).

The federal government also regulates waters pursuant to the general welfare clause: "The Congress shall have Power to lay and collect taxes, duties, imports and excises, to pay the debts and provide for the common defence [sic] and general welfare of the United States." U.S. Const. art. I, § 8.

The EPA is primarily responsible for protecting water quality and, in doing so, regulates water discharges to surface waters and establishes drinking water standards for public water supplies. *Id.*; Federal Water Pollution Control Act, Pub. L. 92-500, *codified as amended at* 33 U.S.C. §§ 1251–1274; Safe Drinking Water Act, Pub. L. 93-523 *codified as amended at* 42 U.S.C. §§ 300f–300j-26. The Army Corps of Engineers (Corps) regulates the placement of fill and structures into navigable waterways, subject to EPA review, pursuant to both the Clean Water Act (CWA) and the Rivers and Harbors Appropriation Act. 33 U.S.C. § 1344; Rivers and Harbors Appropriation Act of 1899, 30 Stat. 1151 (*codified as amended at* 33 U.S.C. § 403). The Corps also issues permits for the discharge of materials into navigable waters pursuant to section 404 of the CWA. 33 U.S.C. § 1344.

The CWA defines navigable waters broadly, to include "all waters of the United States" (including most wetlands). 33 C.F.R. § 328.3. This definition encompasses ditches and canals, *Rapanos v. United States*, 547 U.S. 715, 742 (2006), wetlands adjacent to navigable waters, *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985), and artificially created wetlands. *Swanson v. United States*, 789 F.2d 1368 (9th Cir. 1986). For a discussion of wetlands regulation, see sections 2.1.81–.84, *infra*. The Rivers and Harbors Act definition of navigable waters is narrower than that in the CWA, and only applies to those waters that are, have been in the past, or are susceptible to being, used to transport interstate or foreign commerce. 33 C.F.R. § 329.4.

Other federal agencies, including the Bureau of Land Management, the Natural Resources Conservation Service and the U.S. Fish and Wildlife Service, also help regulate surface water quality in conjunction with the EPA and the Corps. *Swanson v. United States*, 789 F.2d 1368 (9th Cir. 1986). Additionally, the federal government may acquire land by eminent domain, subject to the Fifth Amendment protection that property cannot be taken without just compensation. Kent & Dudiak, *supra*, at 27.

3 State

The basis for state regulation of water derives not only from the public trust doctrine, but also from the state's general police powers, which promote the public health, safety, and welfare. *State v. Interstate Blood Bank, Inc.*, 65 Wis. 2d 482, 222 N.W.2d 912 (1974). The broad reach of the police power has been used to regulate the use of property and the conduct of businesses. *Id.* The state's exercise of its police power must have a reasonable and rational relationship to a proper legislative purpose. *Noranda Exploration, Inc. v. Ostrom*, 113 Wis. 2d 612, 335 N.W.2d 596 (1983). The state's regulation of pollution, for example, has been held to be a valid exercise of police power. See *Wisconsin's Env'tl. Decade, Inc. v. DNR*, 85 Wis. 2d 518, 271 N.W.2d 69 (1978). In addition to the state's police power, the state may also acquire private property by eminent domain, so long as just compensation is paid to the owner. Wis. Const. art. I, § 13 ("the property of no person shall be taken for public use without just compensation thereof").

In Wisconsin, the DNR serves as the central unit of state government charged with protecting, maintaining, and improving the quality and management of the waters of the state, ground and surface, public and private. Wis. Stat. § 281.11. The DNR is also the state agency designated by the EPA to administer the provisions of the federal CWA. Kent & Dudiak, *supra*, at 24.

In addition to the DNR, other agencies have jurisdiction over state waters. For example, the Department of Agriculture, Trade and Consumer Protection regulates surface water drainage in rural areas, drainage districts, and pollutants from agricultural runoff. *Id.* The Department of Health and Family Services helps set groundwater standards. *Id.*

4 Local

A local government's ability to regulate water comes directly from the legislature, and may be general or specific in nature. General powers include police powers and the authority to regulate planning and zoning. Specific powers include the authority to regulate boating activities, manage stormwater, and enact ordinances regarding surface waters as part of the government's shoreland zoning authority. Wis. Stat. §§ 281.31(1), 62.234, 61.354, 60.627, 59.693.

Counties, cities, villages, and towns may regulate waters through zoning powers, see Wis. Stat. §§ 59.69, 60.10(2)(c), 60.22(3), and through general police powers (villages and cities). Wis. Stat. §§ 61.35, 62.23(7). Additionally, several special purpose districts have jurisdiction over specific water issues in a specific local area, including:

- Inland lake protection and rehabilitation districts, organized pursuant to chapter 33, designed to receive funds and implement programs to improve local lake watersheds;

- Sewerage districts, under chapter 66, and town sanitary districts, under chapter 60, that provide sewer-related services;
- Municipal water utilities, created under chapter 66, that provide local public water supplies; and
- Farm drainage districts, organized pursuant to chapter 88, that allow for construction, operation, and maintenance of drainage ditches and related structures in rural areas.

Kent & Dudiak, *supra*, at 25.

C State Regulation of Sand Mine Impacts to Navigable Waters

1 Permitting

a Permitting Process

Chapter 30 of the Wisconsin Statutes requires permits for certain activities performed by sand mines on or near navigable waterways unless the activity is exempt under the chapter. State jurisdiction over these activities generally extends up to the *ordinary high water mark* of the navigable body of water, i.e., “the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognizable characteristic.” *State v. Trudeau*, 139 Wis. 2d 91, 408 N.W.2d 337 (1987) (quoting *Lawrence v. American W.P. Co.*, 144 Wis. 556, 562, 128 N.W. 440 (1910)). This determination as to the ordinary high water mark must be based on natural flowage patterns. *State v. Trudeau*, 139 Wis. 2d 91, 408 N.W.2d 337 (1987).

2003 Wisconsin Act 118 (the “Act”) made significant changes to the chapter 30 system of reviewing and issuing permits. These changes are implemented by 12 administrative rules:

- NR 1 (Natural Resources Board policy and waters designation);
- NR 300 (fees and timelines);
- NR 310 (procedures);
- NR 320 (bridges and culverts);
- NR 323 (fish and wildlife habitat structures);
- NR 325 (boathouses);
- NR 326 (piers);
- NR 328 (shore erosion control structures);
- NR 329 (miscellaneous structures);
- NR 341 (grading);
- NR 343 (ponds and other artificial waters);
- NR 345 (dredging).

The Act provides for a three-tier system for permitting in waters of the state.

Tier one provides for exemptions from the DNR permit and review procedure for limited activities with minimal impacts unless the activities are located near areas of special natural resource interest (ASNRI), and in some cases near a public rights feature (PRF) area. Wis. Stat. § 30.01; Wis. Admin. Code §§ NR 1.05(2), .06(2), (5), 310.04. Exemptions only apply to activities specifically defined under the statute. Exempt activities do not require notification to the DNR. A person may notify the DNR, however, and seek to establish and confirm an exemption through an Exemption Determination Request (EDR), Form 3500-107. Wis. Admin. Code § NR 310.05. A person who chooses to request a determination from DNR must submit the EDR to the DNR at least 20 days before commencing the activity. Wis. Admin. Code § NR 310.05(3). The DNR has 15 days to review the EDR and may either approve of the exemption or “recapture” the activity and require a general or individual permit. Wis. Admin. Code § NR 310.07(4). If the DNR does not act on the EDR within the 15 day time frame, then the project may go forward without requiring a permit in the future. If no EDR is submitted, the DNR may later require a permit and impose additional conditions.

Tier two addresses general permits. See Wis. Admin Code § NR 310.09. The general permit is a specific set of predetermined standard conditions for certain routine activities. Wis. Admin. Code § NR 310.03(3). Most activities in navigable waters are intended to fall into this category. If the applicant meets the specific activity, location, and construction standards, the applicant is eligible for the general permit. Wis. Admin. Code § NR 310.09. General permit standards vary depending on the proposed project and may be found in several rules, including administrative code chapters NR 320, 323, 326, 328, 329, 341, 343, and 345. *Id.* General permits are not always available in ASNRI or PRF. See Wis. Admin. Code §§ NR 1.05(2), 1.06(2). Preactivity application to the DNR and consent to access the property for which the project is proposed is mandatory. Wis. Stat. § 32.206(3)(a). The DNR has 30 days to review the request for a general permit and notify the applicant in writing if the application is incomplete and, if so, describe what information is necessary to complete the application. Wis. Admin. Code § NR 310.11(4). The DNR may dismiss a general permit application if the information needed to complete the application is not received within 30 days after DNR notifies an applicant that its application is incomplete. Wis. Admin. Code § NR 310.11(7). If the DNR determines that the project requires individual conditions, it may require an individual permit. Wis. Admin. Code § NR 310.11(8). If an individual permit is not required, and the activity is eligible for a general permit, the applicant may proceed with the activity upon notification from DNR. Also, if the DNR doesn't act within 30 days the activity may go forward. See Wis. Stat. ch. 30; Wis. Admin. Code ch. NR 310. Within 5 days of completing the activity, the applicant must certify to the DNR that it met the terms and conditions of the general permit and must submit photographic evidence of the completed project within one week of completion. Wis. Admin. Code § NR 310.12(1)(b), (f).

Tier three addresses more complex or potentially harmful activities and requires that the applicant obtain a detailed individual permit. See Wis. Admin Code §§ NR 310.03(4), .13. Individual permits are available in all water-type areas. Applicants must submit an application to the DNR. Wis. Admin. Code § NR 310.14(1)(b). The DNR has 30 days to notify the applicant of the completeness of the application and if not complete to request additional information. Wis. Admin. Code § NR 310.14(4)(a). Upon notice that the application is complete, the DNR will identify certain interested or potentially interested parties to whom the applicant must provide notice of the proposed project, including adjacent riparian owners, local lake or river organizations, municipalities, and any interested members of the public identified by the DNR. Wis. Stat. § 30.208(3); Wis. Admin. Code § NR 310.14 (2)(a). The interested parties then have

30 days from when the DNR provides notice of a complete application to comment or request an informational hearing. Wis. Admin. Code § NR 310.15. If a public hearing is required, the applicant must publish notice of the hearing. Wis. Admin. Code § NR 310.15(3)(d). After notice is given, a 30-day comment period begins. Wis. Admin. Code § NR 310.15(2). The DNR must issue a decision on the permit within 30 days after the public hearing is held or, if no hearing is held, within 30 days after the end of the public comment period. Wis. Admin. Code § NR 310.17. The decision is subject to challenge by any interested person by means of an appeal to the courts or an administrative contested case hearing. Wis. Stat. § 30.209(1m); Wis. Admin. Code § NR 310.18(1)(a).

b Activities Needing Permits Unless Exempted

Unless the particular activity is exempt, chapter 30 requires mine operators to obtain a permit before conducting many activities in or near navigable waters. Examples of activities for which permits are required include: placement of structures such as bridges and culverts in the bed; dredging; water diversion; changing the course of a stream; grading on the banks; and creating, dredging, or enlarging any artificial body of water that connects to or is within 500 feet of a navigable waterway. These are discussed in order.

(1) Placing Structures on Bed of Navigable Waters

Riparian mine owners may be required to apply for permits to place structures in the bank or bed of navigable waters. Wis. Stat. § 30.12. Structures that require a permit include: piers and wharves; pilings; habitat improvement structures; fords; bridges; and culverts.

(2) Work in Artificial Waterways and on Banks of Navigable Waterways

Unless the activity qualifies under certain limited exemptions, the construction, dredging, or enlarging of an artificial water body that connects to a navigable waterway requires a permit under chapter 30. Wis. Stat. § 30.19(1g)(a); *see also State v. Dwyer*, 91 Wis. 2d 440, 283 N.W.2d 448 (Ct. App. 1979). Constructing, dredging, or enlarging any part of an artificial water body located within 500 feet of the ordinary high water mark of an existing navigable waterway, including certain stormwater ponds, requires a permit. Wis. Stat. § 30.19(1g)(am). Grading or removal of topsoil from the bank of a navigable waterway if the area exposed will exceed 10,000 square feet also requires a permit under chapter 30. Wis. Stat. § 30.19(1g)(c).

With respect to grading, there are no exceptions beyond the statutory exemptions for construction or repair of public highways, agricultural uses of land, activities in Milwaukee County, and maintenance of existing permitted activities. Wis. Stat. § 30.19(1m). The permit requirement is triggered by proposed grading of a bank area in excess of 10,000 square feet. Wis. Stat. § 30.19(1g)(c).

Depending on the slope, the bank of a non-priority navigable waterway is defined as a minimum distance of 75 feet landward from the ordinary high water mark. Wis. Admin. Code § NR 341.035(1)(a). If the slope of the bank is more than 12% within those first 75 feet, then the bank area extends further landward. *Id.* For “priority navigable waterways,” however, the bank is defined as 300 feet landward from the ordinary high water mark. Wis. Admin. Code §§ NR 1.07, 341.035(1)(b). If the slope of the bank is more than 10% within those first 300 feet, then the bank area extends further landward. Wis. Admin. Code § NR 341.035(1)(b). The bank does not include areas where there is “complete interruption” of the slope, that is, where a

topographic break stops runoff from reaching navigable waters. Wis. Admin. Code § NR 341.035(1)(c).

The application for a general grading permit must present a grading proposal complete with ownership information, photographs, maps, a narrative description of the project, and grading plan drawing sheets. Wis. Admin. Code § NR 341.04. The grading project must have site-specific plans for erosion control and stormwater management, and must comply with construction site inspection, maintenance and post-construction requirements. Wis. Admin. Code §§ NR 341.05–.07, 216.46–.48, ch. NR 151. The grading project must also comply with the stormwater performance standards and buffer requirements contained in NR 151.11 and 151.12. Wis. Admin. Code § NR 341.08(3). A grading project not authorized under general permit provisions requires authorization under an individual permit. Wis. Admin. Code § NR 341.09(2). The individual permit process is set forth in subchapter IV of chapter NR 310. Wis. Admin. Code §§ NR 341.09(1)(a), 310.13–.18. Because many of the grading permit requirements require specific written control plans and notice, applicants should prepare for these measures well in advance of their project.

(3) Dredging

For dredging in navigable waterways, a general or an individual dredging permit is required. Wis. Stat. § 30.20; Wis. Admin. Code § NR 345.01. Alternatively, dredging may be conducted pursuant to contract with DNR if the contract is consistent with public rights. Wis. Stat. § 30.20(2). A contract for the removal of material from a lakebed or outlying water body, Wis. Stat. §§ 30.01(4r), 29.001(63), is similar to a permit but may require that the permittee pay the state for the material extracted, because the state owns the lakebed. There are limited exemptions for dredging. These include *de minimis* activities (removal or disturbing of less than two cubic yards during any calendar year), Wis. Admin. Code § NR 345.03(2), (5). dredging of a farm drainage ditch that was not a navigable stream prior to ditching, Wis. Admin. Code § NR 345.04(1)(b), and certain dredging by hand-held device. *Id.* Even these limited exemptions for dredging must comply with specific standards included in NR 345. Wis. Admin. Code § NR 345.04. NR 345 also establishes standards for four categories of general dredging permits: installation of utility crossing; maintenance dredging within an established drainage district; nonexempt manual dredging; and maintenance dredging in a previously dredged area. Wis. Admin. Code § NR 345.04(2)(d)–(g).

(4) Withdrawals

On May 27, 2008, Governor Doyle signed 2007 Wisconsin Act 227, the Great Lakes Compact (GLC). Among other things, the GLC amended section 30.18, replacing the term “diversion” with “withdrawal.”

Pursuant to the GLC, all new or increased diversions in the Great Lakes watershed are prohibited, except for certain diversions to neighboring (“straddling”) communities or counties and certain intrabasin transfers. Wis. Admin. Code § NR 281.343(4m), (4n).

The GLC also established, under section 281.343(4), a regional review and approval process for water withdrawals from the Great Lakes basin that would result in a water loss averaging more than five million gallons per day in any 90-day period. The GLC also created statewide water conservation and efficiency requirements for larger sized water usages, registration and reporting requirements, and a fee schedule for certain withdrawals. These

requirements have been further articulated in new administrative rule provisions, codified at NR 852, 856, and 850, respectively.

The Wisconsin Legislature has approved a proposed final rule that would require, as of December 8, 2011, coverage under a general permit or an individual permit for all persons who withdraw water from the Great Lakes basin in an amount that averages 100,000 gallons per day or more in any 30-day period. See Wis. Admin. Code § NR 860. However, as of the drafting date, this proposed final rule had not yet been signed by the Governor or published in the Wisconsin Administrative Register – therefore, it is currently not in effect (and may never become effective). The permitting process, if approved, would establish the amount of water the user can withdraw, the requirements for water conservation, and the requirements for monitoring and reporting that water use.

Chapter 30 requires permits for the diversion of water from a stream for purposes of maintaining or restoring the normal level of a navigable lake or normal flow of a navigable stream. Chapter 30 also requires diversion of water from a stream for agriculture or irrigation purposes. Diversions from streams require a permit whether the stream is navigable or not. *Omernik v. State*, 64 Wis. 2d 6, 218 N.W.2d 734 (1974). However, a statutory exception for cranberry bogs allows the land owner to divert water for agricultural purposes, subject to the reasonable use doctrine. Wis. Stat. § 94.26; *State v. Zawistowski*, 95 Wis. 2d 250, 261, 290 N.W.2d 303 (1980).

Permit applications, submitted to the DNR, must identify: (1) the location of the diversion; (2) the riparian status of the land being diverted to; (3) the means by which the water will be diverted; (4) the amount to be diverted; and (5) when the diversion will occur. The application must include plans, maps, and other critical information related to the diversion. Wis. Stat. § 30.18(3)(a)1. For agricultural and irrigation diversions, permit applications must also include the consent of all riparian owners making beneficial use of the water to be diverted. Wis. Stat. § 30.18(3)(a)3. Notices are also sent to individuals upon whose land diversion structures will be located and to villages, towns, and cities downstream. Wis. Stat. § 30.18(4).

If the DNR determines that the proposed diversion will not injure public rights in navigable waters and that the diverted water is either surplus water or that all affected riparians have consented, it will issue a permit. Wis. Stat. § 30.18(5). If the proposed diversion results in the average water loss of two million gallons per day in a 30-day period, it is considered a large scale diversion that requires a permit under section 30.18(2)(b). Large scale diversions must meet the requirements of section 281.35 and chapter NR 142 of the Wisconsin Administrative Code.

The DNR also regulates and requires permits for high-capacity groundwater wells. There are three general well categories, each with its own environmental review criteria: (1) wells with a capacity of less than or equal to 100,000 gallons per day (gpd); (2) wells with a capacity of between 100,000 and 2,000,000 gpd; and (3) wells with a capacity greater than 2,000,000 gpd. See Wis. Stat. §§ 285.34(1)(b), 281.35(4)(b). Based on both the public trust doctrine, which protects navigable waters, and the statutory provisions regarding permitting of high capacity wells, which protect a broader universe of “waters of the state,” the Wisconsin Supreme Court has held that DNR “has the authority and a general duty to consider whether a proposed high capacity well may harm waters of the state.” *Lake Beulah Management District v. Dep’t of Natural Res.*, 2011 WI 54, at 3 (July 6, 2011).

To comply with its duty, the Court held that DNR “is required to consider the environmental impact of a proposed high capacity well when presented with sufficient concrete, scientific evidence of potential harm to waters of the state.” *Id.* at 29. The Court advised that DNR should use “both its expertise in water resources management and its discretion to determine whether its duty as trustee of public trust resources is implicated by a proposed high capacity well permit application.” *Id.* at 30.

The DNR’s “general duty” to consider the impact of a proposed high capacity well is limited to the information submitted by the well owner in the permit application and any other information submitted to the WDNR decision makers while they are reviewing the permit application. *Id.* at 29-30. The Court warned that because a legal challenge to a DNR decision is limited to the record on review, citizens must present any concrete, scientific evidence of potential harm to the DNR decision makers before a permit issuance decision is made or risk losing the ability to challenge DNR’s decision. *Id.* at 30.

In a companion case, the Wisconsin Supreme Court held that a Water District’s ordinance purporting to regulate and require permits for certain wells that withdraw water from the area around Lake Beulah was invalid as preempted by the legislature’s grant of authority to DNR to regulate high capacity wells. *Lake Beulah Management District v. Village of East Troy*, 2011 WI 55 (July 6, 2011).

(5) Bridges, Culverts, and Dams

The construction of bridges and culverts is regulated by section 30.123. Unless covered by limited exemptions, a general or individual permit is required for the construction, placement, or maintenance of a bridge or culvert in, on, or over navigable waters. An individual permit will be issued by the DNR upon a demonstration that the bridge or culvert will not create an obstruction to navigation, adversely affect the flow capacity of the waterway, or be detrimental to the public interest. See Wis. Stat. § 30.123; Wis. Admin. Code ch. NR 320; Kent & Dudiak, *supra*, at 66. Depending on the navigational history of the waterway, most bridges and culverts spanning waterways will be required to have a clearance of no less than five feet. Wis. Admin. Code § NR 320.04.

Usually, the DNR will require the permit applicant to follow chapter 30’s public notice and hearing requirements. Bridges that span navigable waterways of less than 35 feet, however, require no notice or hearing.

Municipalities constructing bridges must follow the standards set forth in section 84.01(23). For Department of Transportation projects, there is a qualified exemption that establishes a liaison procedure to resolve environmental issues and floodplain zoning. *Id.*

Dams are regulated by chapter 31 of the Wisconsin Statutes. Chapter 31 allows the DNR, in the interest of preserving public rights in navigable waters of the state, to control the permitting, construction, safety, operation and maintenance, alteration or repair, transfer and removal, and water level and flow control of dams. *Id.*; see also Wis. Admin. Code chs. NR 333, 335. Additionally, the DNR is responsible for inspecting large dams for safety issues. Wis. Stat. § 31.19. A large dam is defined as having a structural height of more than six feet and impounding 50 acre—feet or more, or having a structural height of 25 feet or more and impounding 15 acre—feet. Wis. Stat. § 31.19(1).

V. Discharge of Pollutants to Surface Waters

A In General

The discharge of pollutants into surface waters by sand mine operations is regulated by state and federal law. Discharges may come from discernable points, known as *point sources*. A point source is any discernable, confined, and discrete conveyance of water pollutants, such as a ditch, channel, container, or vessel. 33 U.S.C. § 1362(14); Wis. Stat. § 283.01(12). Common examples are factories or municipal wastewater treatment facilities. Discharges may also come from less discernable points, known as *nonpoint sources*. Nonpoint sources are typically surface water runoff, and are more difficult to regulate.

The CWA prohibits any discharge without a permit. The EPA is charged with administering the CWA, and has delegated implementation and enforcement to the state. Wis. Stat. ch. 283; Memorandum of Agreement between the U.S. EPA and the Wisconsin DNR (Feb. 4, 1974). The EPA retains the ability, however, to review and prohibit permits issued by the state if it determines that the permit does not comply with the CWA. 33 U.S.C. § 1342(d). The EPA even has the authority to revoke or suspend its delegation to the state if it determines that the state is not administering its program consistent with the CWA. 33 U.S.C. § 1342(c).

B Direct Discharge Permits

Discharge permits are required for the discharge of any pollutant from a sand mine to waters of the state. A *discharge* is defined as any addition of any pollutant to the waters of this state from any point source. Wis. Stat. § 283.01(5). A *pollutant* is defined broadly to include not only sewage, chemicals, and biological wastes, but also dirt, heat, and discarded equipment. 33 U.S.C. § 1362(6); Wis. Stat. § 283.01(13).

Permits issued by the DNR are known as *pollution discharge elimination system* (WPDES) permits. The permits set categorical limits and water-quality-based limits on discharges of pollutants to waters of the state. Categorical limits are set based on the industry requesting the permit, and are limited generally to what available technology can achieve in the way of reducing pollution. 40 C.F.R. pts. 400–471; Wis. Admin. Code chs. NR 220–297. Water-quality-based limits are set based on what the waters of the state can sustain. Limits are established for discharge of specific chemical compounds. Wis. Admin. Code chs. NR 105–06. Limits also are established to ensure that the discharge as a whole is not toxic.

In 2010, WDNR promulgated new numeric water quality standards that Wisconsin waterways must meet for phosphorus, and a rule designed to implement the new standards and new total maximum daily loads (TMDLs) as they are developed and implemented in Wisconsin. See Wis. Admin. Code chs. NR 102 and 217. Point source discharge limits designed to meet these new water quality standards will start appearing in new and existing WPDES permits when they issued or reissued. The extent of phosphorus discharge limits in any WPDES permit will depend on the quality of the effluent discharge, the flow rate and the degree to which the receiving water is impaired with phosphorus. The Department has not yet promulgated numeric standards for nitrogen, but these standards are reportedly in progress.

TMDLs are developed pursuant to the Clean Water Act to reduce discharges to impaired waters of the constituent for which they are impaired. TMDLs identify sources of pollutant discharges, then assign each source or category of sources a “load allocation” – the amount of

pollutant load they are allowed to discharge to the watershed. The TMDL load allocation represents a fraction of the total allowable load, and is designed with the goal to reduce discharges and improve water quality in impaired waterways.

Additional limitations may apply when there is a new or increased discharge of a pollutant into waters of the state. These limitations, known as *antidegradation rules*, apply to five categories of waters:

- Outstanding resource waters;
- Exceptional resource waters;
- Great Lakes waters;
- Fish and aquatic life waters; and
- Variance waters.

Wis. Admin. Code § NR 102.05(1).

No degradation is allowed in outstanding and exceptional resource waters. Only limited degradation is allowed in fish and aquatic life waters, which comprise the majority of waters in the state. See Wis. Admin. Code §§ NR 102.10–.13, 207.03.

If an existing use impairs water quality, the DNR may apply additional restrictions through control strategies, 33 U.S.C. § 1314(a), reductions of maximum daily loads, 33 U.S.C. § 1313(d), or state waste load allocation. Wis. Admin. Code ch. NR 212; see also Wis. Admin. Code § NR 106.11 (DNR may allocate allowable loads to meet water quality standards).

A WPDES permit generally will contain the following provisions:

- 1 Starting and expiration dates.
- 2 Numerical effluent limitations. Limits on specific pollutants are applied to each “outfall” (point source). The numerical limits utilize either categorical or water quality based standards, whichever is the most stringent.
- 3 Whole effluent toxicity provisions. These limits require biomonitoring and a toxicity reduction evaluation procedure in the event of test failures. These limits are also applied to each outfall.
- 4 Schedule of compliance. This is a schedule of dates by which certain levels of pollution control must be achieved.
- 5 Monitoring and reporting requirements. A permit establishes the responsibility of the discharger for monitoring and filing reports.
- 6 General conditions under NR 205 applicable to all discharge permits such as requirements regarding bypasses, spills, modifications, renewals of the permit, reopener clauses, non-compliance notifications, power failures, record retention, reporting the results of more frequent than required monitoring.

A person or entity intending to discharge into the waters of the state must apply for a WPDES permit at least 180 days prior to the discharge. Wis. Stat. § 283.37(2). The same is true for existing facilities that anticipate new or increased discharges. Wis. Stat. § 283.59.

Prior to issuing a permit, the DNR will issue a public notice and solicit public review and comment. Wis. Stat. § 283.39. The comment period generally lasts 30 days. By law, any interested person, including the applicant or an affected state agency, may request a public hearing within 30 days of the public notice. Wis. Stat. § 283.49(1)(a). A hearing will be scheduled if requested by the EPA, any affected state, on the petition of five or more persons, or if the DNR deems that there is a significant public interest in holding such a hearing. Wis. Stat. § 283.49(1)(b).

WPDES permit holders must submit to the DNR a discharge monitoring report (DMR) each month and provide detailed information regarding discharge of each pollutant covered under the permit. If the permit holder fails to file its DMR, or submits a falsified DMR, the responsible person may face civil or criminal prosecution. See *State v. Halverson*, 130 Wis. 2d 300, 387 N.W.2d 124 (1986). The EPA or the DNR may also require the permit holder to produce information and records or to allow on-site inspections and sampling. 33 U.S.C. § 1318(a); Wis. Stat. § 283.55. Failure to comply with either agency's request may result in suspension or modification of the permit, as well as civil or criminal prosecution. Wis. Stat. §§ 283.53(2), .91.

7 Storm Water Management

Sand mine operations will often result in storm water discharges that must be managed and permitted. Storm water management refers to the regulation and control of storm water pollution. Storm water pollution comes from the transportation of pollutants such as sediments, oil, and solvents by storm water runoff to lakes and streams, directly or indirectly, through sewers and drains. In Wisconsin, storm water is defined as "runoff from precipitation including rain, snow, ice melt or similar water that moves on the land surface via sheet or channelized flow." Wis. Admin. Code § NR 216.002(33). Storm water is regulated through federal, state, county and local laws. To ensure full compliance, an entity conducting an activity that has stormwater impacts must review and comply with all of these levels of regulation.

Wisconsin is authorized by the EPA to administer the National Pollution Discharge Elimination System (NPDES) program covering stormwater and has promulgated rules to do so. Wisconsin Administrative Code chapter NR 216 contains three subchapters, one each for municipal, industrial, and construction site discharge permits. Each subchapter regulates permit applicability, the application process, permit requirements, and fee structures. Chapter NR 216 also provides for a general storm water discharge permit that applies only to certain classes or categories of discharges, or only to discharges located in a designated area of the state, or both. Wis. Stat. § 283.35; Wis. Admin. Code § NR 216.003. The maximum time period for a general permit is five years. See Wis. Admin. Code § NR 216.003 (limiting permit term to maximum under federal law; maximum time under federal law is five years). Coverage is under the general permit unless the discharge is not included within its scope, in which case an individual permit is required. Wis. Admin. Code § NR 216.003(2).

Construction site erosion control and storm water discharge permits are required for projects that will disturb one or more acres of land, unless the project falls into one of the exemptions listed in section NR 216.42. Wis. Admin. Code § NR 216.42(1). To obtain the construction site erosion control and storm water discharge permit, the landowner must develop site-specific erosion control and storm water management programs. See Wis. Admin. Code §§ NR 216.46, .47. The landowner must also submit a Notice of Intent (NOI) to the DNR at least 14 working days before the start of any land-disturbing construction activities. Wis. Admin. Code §§ NR 216.43(1), .44(1). Unless notified by the DNR to the contrary, construction can

begin from receipt of the NOI by the DNR or upon receipt of notice the site is covered by the general permit. Wis. Admin. Code § NR 216.44(1). After the project is completed, a notice of termination must be filed with the DNR. Wis. Admin. Code § NR 216.55. Note that a permit may be required for projects that disturb: less than one acre, if the project is part of a larger plan of development; 40 C.F.R. § 122.26(b)(15)(i), between one and five acres; *Id.* and five or more acres. 40 C.F.R. §§ 122.26(b)(14), (c)(1). Erosion resulting from the construction of public buildings and commercial buildings (“places of employment”) are regulated by the DNR. Wis. Stat. § 281.33(3m); Wis. Admin. Code § NR 216.42(4) (they were previously regulated by the Department of Commerce). The Wisconsin Department of Agriculture, Trade and Consumer Protection sets and implements agricultural soil and water conservation practices. Wis. Stat. § 92.05(1).

Industrial storm water discharge permits apply to discharges from specified categories of industrial facilities, including specific heavy and light manufacturers, certain recycling and scrap yards and bulk storage facilities, and transportation facilities. See 40 C.F.R. § 122.26(b)(14), (c)(1); Wis. Admin. Code § NR 216.21. All covered facilities under this subchapter of NR 216 are required to obtain discharge permits, unless a facility can certify to the DNR that it has no exposure of storm water to industrial materials or operations that could contaminate storm water. Wis. Admin. Code § NR 216.21(3). The owner or operator of the facility must develop and implement a site-specific storm water pollution prevention plan (SWPPP). Wis. Admin. Code § NR 216.27(1). The SWPPP sets forth specific information to reduce the exposure of storm water to industrial materials, such as the designation of a storm water pollution prevention team, Wis. Admin. Code § NR 216.27(3)(a), best management practices, Wis. Admin. Code § NR 216.27(3)(h)–(k), and implementation schedules. Wis. Admin. Code § NR 216.27(L)–(m).

8 Discharges to Public Sewers

Although likely uncommon for a sand mine operation, discharges made to public sewers, as opposed to directly into waters of the state, are subject to requirements imposed by both the DNR and the publicly owned treatment facility, sometimes referred to as the *publicly owned treatment works* (POTW), that accepts the discharge. Typically, dischargers to POTWs are industrial entities.

The discharging entity must notify the DNR and the POTW of its intent to discharge and must describe the types of pollutants to be discharged. Wis. Stat. §§ 283.37(4), .59(2). The discharging entity must also reduce the amount of pollutants, or alter its pollutants’ properties, before discharging to a POTW, a process known as *pretreating*. Pretreatment standards require dischargers to: “[P]revent the introduction of pollutants that will interfere with POTW operations or sludge disposal”; and “[P]revent the introduction of pollutants that will pass through POTW treatment process untreated.”

VI. Wetlands

The development of sand mine operations can impact wetlands. This section discusses the regulatory implications of wetland impacts.

A Federal v. Nonfederal Wetlands

Wetlands are regulated by federal, state, and local governments, each of which has its own regulatory definition of what constitutes a wetland. These definitions are not always self-evident, or even consistent with one another.

Regulation of federal wetlands begins with section 404 of the CWA, which requires a permit for the discharge of dredge or fill material into “waters of the United States.” 33 U.S.C. §§ 1344(a), 1362(7). 33 U.S.C. § 1344 is often referred to as section 404 of the CWA. Dredge or fill materials can come from general excavating activities, including ditching, and channelization. 33 C.F.R. § 323.2(d); *see also National Mining Ass’n v. Corps of Eng’rs*, 145 F.3d 1399 (D.C. Cir. 1998). “Waters of the United States” is broadly defined, and includes wetlands and wetlands adjacent to qualifying water bodies. *See* 33 C.F.R. § 328.3(a). Federal regulations define wetlands as: 33 C.F.R. § 328.3(b); *see also* 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, <http://www.wetlands.com/regs/tlpge02e.htm>.

“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.”

In 2001, the U.S. Supreme Court issued an important decision regarding federal jurisdiction over wetlands. 531 U.S. 159 (2001). In *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers*, the Corps had interpreted “waters of the United States” to include isolated seasonal ponds that had no hydrological connection to navigable water, but that were significant to the life requirements of migratory birds traveling across state lines. *SWANCC*, 531 U.S. at 164–65. The Supreme Court held that this was an improper extension of the Corp’s jurisdiction to regulate navigable waters under the CWA. In *Carabell v. United States Army Corps of Engineers*, No. 03-1700, 2007 WL 470555 (6th Cir. Feb. 12, 2007) (unpublished), the Sixth Circuit, following the Supreme Court’s decision in the consolidated cases of *Rapanos v. United States*, 376 F.3d 629 (6th Cir. 2004), *vacated*, 547 U.S. 715 (2006), and *Carabell v. United States Army Corps of Engineers*, 391 F.3d 704 (6th Cir. 2004), *vacated by Rapanos v. United States*, 547 U.S. 715 (2006), remanded to the district court with instructions to remand to the Army Corps of Engineers (Corps) for further proceedings consistent with the Supreme Court’s decision in *Rapanos*. The cases concern the authority of the Corps to regulate wetlands. Specifically at issue in *Rapanos* was whether the Corps had jurisdiction over wetlands hydrologically connected to a navigable waterway, as through a drainage ditch. In *Carabell*, the issue was whether the Corps had jurisdiction to regulate wetlands separated from a navigable waterway by a manmade structure, such as a berm. In *Rapanos*, the Supreme Court addressed CWA protections for wetlands adjacent to non-navigable tributaries and issued five opinions, with no single opinion commanding a majority of the Court. The plurality opinion stated that “only those wetlands with a continuous surface connection to bodies that are ‘waters of the United States’ in their own right, so that there is no clear demarcation between ‘waters’ and wetlands, are ‘adjacent to’ such waters and covered by the Act.” *Rapanos v. United States*, 547 U.S. at 742. Justice Kennedy’s concurring opinion concluded that “waters of the United States” included wetlands that had a significant nexus to traditional navigable waters, “if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as ‘navigable.’” *Id.* at 780. EPA has prepared draft guidance on “Identifying Waters Protected by the Clean Water Act” but has not yet issued a final guidance document on this issue. *See* <http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm> for further developments (last visited Aug. 16, 2011).

Wisconsin responded to *SWANCC* by filling in regulatory gaps created by the decision, i.e., by creating “state” wetlands, directly regulated by the state, in addition to federal wetlands

regulated by the Corps and indirectly regulated by the state through water quality certification. Wisconsin law defines a wetland as “an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions.” Wis. Stat. § 23.32(1); Wis. Admin. Code § NR 103.02(5). Wisconsin’s definition of wetlands tends to be broader than the federal definition, resulting in the federal and nonfederal dichotomy. Kent & Dudiak, *supra*, at 138.

1 Federal Discharge Permitting Procedure

When applying for a discharge permit under section 404 of the Clean Water Act, an applicant first looks to whether the proposed activity may be exempt from permitting or comes within the purview of a general permit. Exempt activities include: farming, maintenance or repair of dams and bridge abutments, and the construction of sedimentation basins on construction sites. 33 U.S.C. § 1344(f). Other activities may fall under the protection of a general permit, which extends broad authority over certain designated activities that have a minimal impact on navigable waters. 33 U.S.C. § 1344(e)(1). General permits may be issued by a Corps district engineer for a particular district (Wisconsin is within the St. Paul District of the Corps, headquartered in St. Paul, Minnesota) or by the Corps’s Chief of Engineers for application nationwide. 33 C.F.R. § 320.1(c).

Individual section 404 permit applications are submitted to, and approved by, the Corps. The Corps will review the application, issue a public notice, and establish a public comment period. 33 C.F.R. § 325.2(a)(1), (2). If appropriate, the District Engineer may determine that a public hearing is required prior to making a final decision. Factors considered when evaluating the permit application include: (1) aesthetics, (2) historic values, (3) fish and wildlife, (4) flood hazards, (5) navigation, (6) erosion, (7) recreation, (8) water supply, and (9) water quality. 33 C.F.R. § 320.4(a).

The Corps may condition its approval of a permit based on an applicant’s mitigation plan. A mitigation plan is a proposal that seeks to maintain the government’s goal of “no net loss” to existing aquatic resources and wetlands. Under a memorandum of agreement between the EPA and the Corps, mitigation is only proper when: (1) potential impacts are avoided to the maximum extent possible; (2) remaining unavoidable impacts are reduced to the extent appropriate and practicable; and (3) compensatory mitigation is provided for impacts that cannot be minimized. Kent & Dudiak, *supra*, at 140. The plan’s measures should be appropriate to the scope and degree of the impacts and practicable in terms of cost, existing technology, and logistics, in light of overall project purposes.

2 State Regulation of Wetlands

If the wetland qualifies as a federal wetland and the activity requires a permit and does not fall within chapter 30 of the Wisconsin Statutes, see Wis. Stat. §§ 30.12 (below the ordinary high water mark); 30.19 (grading of the bank in excess of 10,000 square feet), the DNR’s jurisdiction over the project is limited to a water quality certification review. 33 U.S.C. § 1341(a)(1); Wis. Admin. Code. § NR 299.04. As part of the process for obtaining a federal discharge permit, a copy of the application must be sent to the DNR for review. 33 U.S.C. § 1341. The DNR has 120 days to issue a decision on certification. Wis. Admin. Code § NR 299.05(1). It may deny, grant, conditionally grant, or waive certification. Wis. Admin. Code § NR 299.05(2). Any person affected by the DNR’s decision may request a contested-case hearing (within 30 days after publication of the notice) or seek judicial review (upon issuance of the department’s decision if no public notice is required or after the 30-day period for a

contested-case request expires). Wis. Admin. Code § NR 299.05(5)–(7). The DNR’s decision to grant certification will be based on whether the proposed discharge complies with water quality standards set forth in chapters 281 and 283, and with public interest standards set forth in chapters 30, 31, and 281. Wis. Admin. Code § NR 299.04. The procedure for the DNR’s water quality certification is found in chapter NR 299 of the Wisconsin Administrative Code.

Chapter NR 103 establishes the water quality standards for wetlands. These standards apply to all regulatory, planning, management, liaison, and financial decisions that affect wetlands, including state permits issued under chapters 30, 31, 281, and 283 and federal permits issued under 33 U.S.C. § 1344. Kent & Dudiak, *supra*, at 147.

Chapter NR 103 sets forth “functional values or uses” related to water quality for wetlands that are to be protected, and provides criteria to assure the maintenance or enhancement of those functional values. Wis. Admin. Code § NR 103.03(1)–(2). DNR review under chapter NR 103 includes a determination as to whether the proposed activity is *water dependent*, or “of a nature that requires location in or adjacent to surface waters or wetlands to fulfill its basic purpose.” Wis. Admin. Code § NR 103.07(3). If the activity is not water dependent, the DNR assesses whether there are practicable alternatives to the project before assessing any impacts. Wis. Admin. Code § NR 103.08(3); Kent & Dudiak, *supra* note 87, at 148. A practicable alternative is one that is “available and capable of being implemented after taking into consideration cost, available technology and logistics in light of overall project purposes.” Wis. Admin. Code § NR 103.07(2). If a practicable alternative exists, the applicant has not met the requirements of chapter NR 103. Wis. Admin. Code § NR 103.08(4)(a). If there are no practicable alternatives, or if the activity is water dependent, the DNR will assess whether there are significant adverse impacts from the proposed activity on wetland functional values, including: (1) storm water storage; (2) pollutant filtration; (3) shoreline protection; (4) habitat for aquatic organisms and wildlife; and (5) recreational, cultural, scientific, and aesthetic values. Wis. Admin. Code § NR 103.03(1); Kent & Dudiak, *supra*, at 148.

VII. Wisconsin Environmental Policy Act

A General Overview

If sand mine is required to obtain a permit from DNR, the DNR’s decision to issue the permit may invoke obligations under the Wisconsin Environmental Policy Act (WEPA). Wis. Stat. § 1.11. WEPA is modeled after the National Environmental Policy Act and requires that all state agencies evaluate the potential environmental impact of their actions, including issuing permits and approvals to construct or expand a facility, such as an industrial sand mine.

WEPA does not require environmental review of county or municipal government actions, *Robinson v. Kunach*, 76 Wis. 2d 436, 251 N.W.2d 449 (1977).nor does it apply to actions of private parties unless their actions involve state agency regulation or funding. *Larsen v. Munz Corp.*, 167 Wis. 2d 583, 482 N.W.2d 332 (1992).

WEPA is designed to “ensure adequate consideration of environmental factors in the decision-making process of state agencies,” and to “get information on proposed actions before the public and other state agencies.” *Wisconsin’s Env’tl. Decade, Inc. v. DNR*, 94 Wis. 2d 263, 271, 288 N.W.2d 168 (Ct. App. 1979) (citing *Wisconsin’s Env’tl. Decade, Inc. v. PSC*, 79 Wis. 2d 409, 416, 256 N.W.2d 149 (1977)); accord *City of New Richmond v. DNR*, 145 Wis. 2d 535, 542, 428 N.W.2d 279 (Ct. App. 1988). Courts have described WEPA as an environmental full disclosure law. *Wisconsin’s Env’tl. Decade, Inc. v. DNR*, 94 Wis. 2d at 271. WEPA seeks to

protect aesthetic, conservational, and recreational interests, as well as physical or economic interests affected by agency action. *Larsen v. Munz Corp.*, 167 Wis. 2d 583, 482 N.W.2d 332 (1992). WEPA's requirements are essentially procedural, and the statute does not set forth significant substantive goals. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 558 (1978). Instead, the purpose of WEPA is to better inform the public and state agencies of potential environmental impacts of their actions, for consideration in the decision-making process.

Not all state agency actions require a substantive environmental review; however, for those actions that are subject to WEPA, two types of review are available – the Environmental Assessment (EA), and the Environmental Impact Statement (EIS). In almost all circumstances, state actions related to the approval of a industrial mining operations will require an EA. An EA is a somewhat less comprehensive review, and is also less costly and less time consuming to generate. An EIS, on the other hand, is an extremely comprehensive review, can be very costly to generate and can take many months to complete.

Importantly, if a private action requires approval by a state agency, the costs incurred by an agency to comply with WEPA may be charged to the party seeking agency approval, unless it is a municipality. Wis. Stat. § 23.40.

B Environmental Assessment

An environmental assessment (EA) is the vehicle by which agencies determine whether an action is major and significant and therefore requires an EIS. Wis. Admin. Code § NR 150.02(9). It provides state agencies with a preliminary evaluation of potential environmental impacts of the proposed action. *Id.* The EA is similar in content and process to an EIS, but on a smaller, more limited scale. The EA includes an assessment of potential environmental impacts of the proposed action and includes an evaluation of alternatives. *Id.*

The EA also includes a determination of whether an EIS is required. Wis. Admin. Code § NR 150.22(2)(a). The agency must consider, among other factors, the following:

- The extent of short-term and long-term environmental effects, including secondary effects;
- The extent of cumulative effects of repeated actions of the same type, or of related actions;
- The degree of risk or uncertainty in predicting environmental effects or effectively controlling potential environmental impacts;
- The degree to which the proposed action may establish a precedent for future actions or foreclose future options, including consistency with plans or policy of local, state, or federal government; and
- The extent of controversy over the effects on the quality of the human environment.

If the EA reveals that the proposed action is not a major action significantly affecting the quality of the human environment, the responsible agency will issue a Notice of a Finding of No Significant Impact (FONSI). The FONSI will explain the results of the EA, and may address questions raised during the public comment period.

C Environmental Impact Statement (EIS)

The preparation of an EIS begins with issue identification. The identification process may consist of meetings, hearings, workshops, surveys, questionnaires, interagency committees, or other appropriate methods or activities, and may be integrated with other public participation requirements. Wis. Admin. Code § NR 150.21(3)(a).

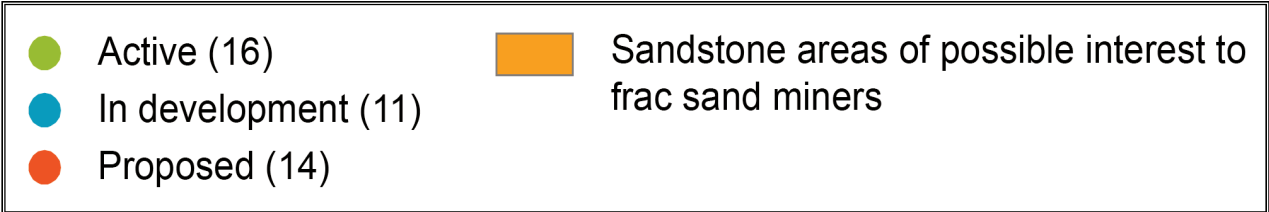
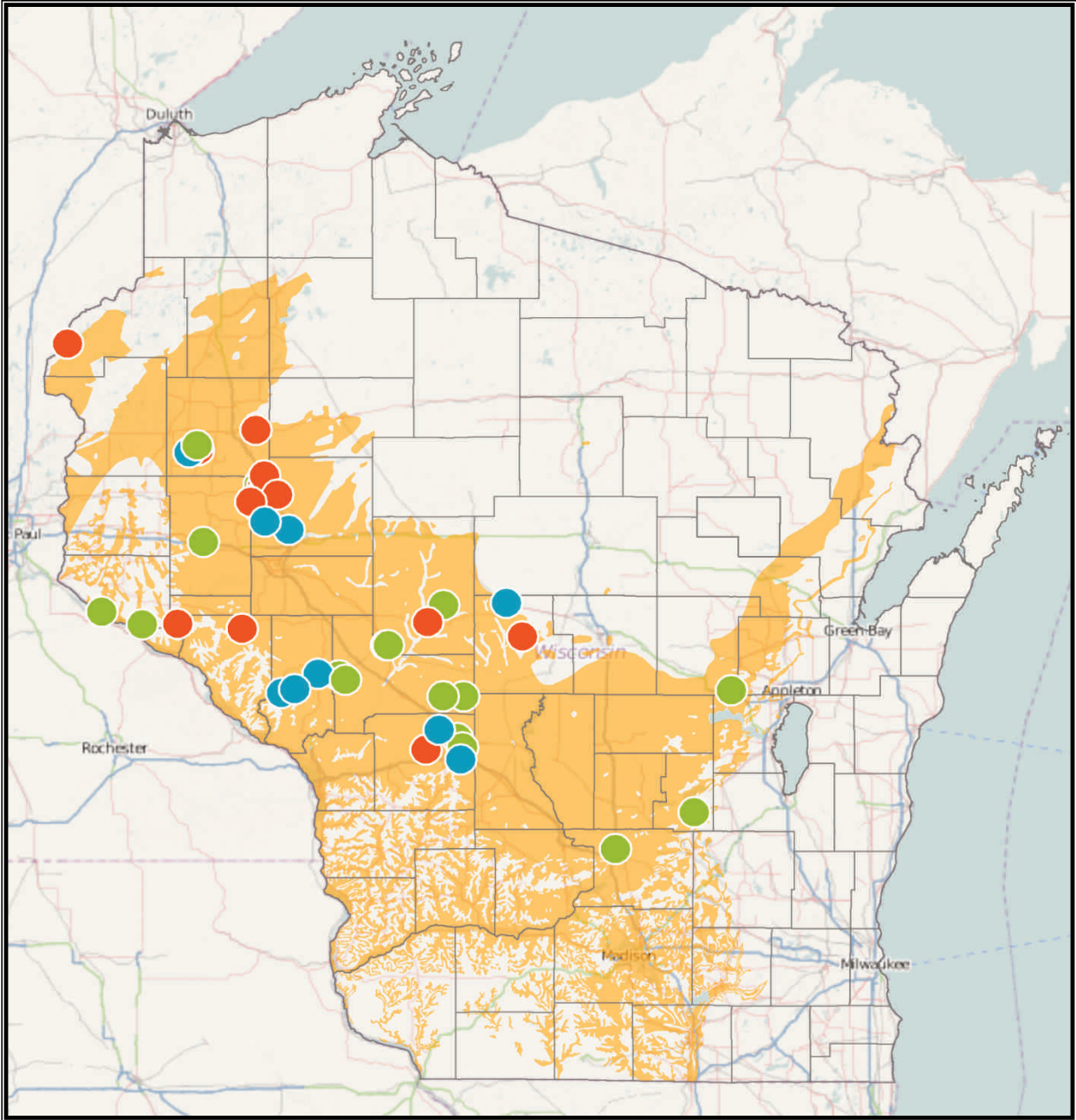
The agency then performs an analysis of the environmental and economic impacts of the proposed action. The results of its analysis are presented in the EIS. Contents of the EIS must include the following:

- A description of the purpose and need for the proposed action;
- A description of the proposed action and the affected environment;
- An evaluation of the probable environmental consequences of the proposal, including:
 - a adverse environmental effects that could not be avoided should the proposal be implemented;
 - b the economic advantages and disadvantages;
 - c the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity; and
 - d any irreversible and irretrievable commitments of resources that would be involved;
- An evaluation of alternatives to the proposal; and
- A description of other federal or state approvals required in connection with the proposal.

Wis. Admin. Code § NR 150.22(2).

An EIS is not generated to justify an agency action; rather it operates to disclose potential adverse environmental impacts of that action. Wis. Admin. Code § NR 150.22(1)(c). The contents of an EIS will not necessarily dictate whether the proposed action will be approved, denied or terminated. *Id.*

Figure 2 - Active and Proposed Sand Mines (Summer 2011)



Source: Wisconsin Center for Investigative Journalism

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