



WISCONSIN LEGISLATIVE COUNCIL INFORMATION MEMORANDUM

2013 Wisconsin Act 1, Relating to the Regulation of Ferrous Mining Changes to Related Environmental and Natural Resources Laws

2013 Wisconsin Act 1 (“the Act”), relating to the regulation of ferrous (i.e., iron) mining, creates an expedited process and modified permitting standards to facilitate permits for ferrous mining in the state. It generally does not change Wisconsin law governing the mining of non-ferrous minerals. The Governor signed the Act into law on March 11, 2013.

Before engaging in ferrous mining, a mine operator may be required to obtain permits and approvals under various state and federal laws for environmental and natural resource impacts related to mining. This memorandum describes changes made by the Act to those related environmental and natural resource laws.

Changes made by the Act to the process for obtaining Department of Natural Resources (DNR) approval for ferrous mining activities, enforcement of a ferrous mining permit, and the taxation of ferrous mining activities are discussed in a separate memorandum (Information Memorandum 2013-02, *2013 Wisconsin Act 1, Relating to the Regulation of Ferrous mining Permitting Process, Enforcement and Taxation*).

Throughout this memorandum, references to “prior law” refer to the metallic mineral mining law, which the Act generally retains for non-ferrous minerals, but which the Act makes inapplicable to ferrous mining.

CHANGES TO RELATED ENVIRONMENTAL AND NATURAL RESOURCE LAWS

Various permits and approvals may be required in addition to an exploration, prospecting/bulk sampling, or mining permit before a person may explore for or extract minerals in Wisconsin. Many of these approvals relate to environmental and natural resources impacts that may result from mining and activities secondary to mining. Examples of related approvals that may be required include permits for activities affecting wetlands and navigable waters; approvals for high capacity wells; wastewater discharge permits; and air emissions permits. In addition, a mining operation is subject to groundwater quality regulations and regulations governing the

construction and monitoring of a mining waste facility. The Act makes various changes to the standards and procedures governing the issuance of certain environmental and natural resource approvals relating to ferrous mining.

IMPACTS TO WETLANDS

Wetland Permitting Process¹

Under general wetland law and the Act, a wetland general permit² or wetland individual permit³ is required if an activity will result in a discharge of dredged material or fill material into wetlands, unless the activity is exempt from this requirement. These laws prohibit the DNR from issuing wetland permits unless it determines that the discharge will comply with all applicable water quality standards.⁴ If an affected wetland is a “federal wetland,” the applicant must also obtain a permit from the ACE.⁵

Under ***general wetland law***, the DNR is required to establish wetland general permits for certain types of discharges, and may issue other wetland general permits to regulate other types of discharges. When drafting a wetland general permit, the DNR is required to impose requirements, conditions, and exceptions to ensure that the discharges that will occur under the permit will cause only minimal adverse environmental effects. A general permit may only apply to a single and complete project. The DNR may prohibit discharges under general permits into certain types of wetlands specified in statute. The DNR may require a person seeking authorization for an activity under a general permit to apply for a wetland *individual* permit if, based on an inspection, it determines that conditions specific to the site require additional restrictions on the discharge in order to provide reasonable assurance that no significant adverse impacts to wetland functional values will occur.

Under ***the Act***, projects involving wetland impacts related to bulk sampling or ferrous mining may also be granted general permits under the general permit process, if applicable. Most of the requirements described above relating to wetland general permits apply to a general permit related to bulk sampling or ferrous mining.

¹ The Wisconsin Legislature recently enacted 2011 Act 118, which made extensive changes to the state’s wetlands permitting process. The DNR has not yet revised its administrative rules relating to wetland permitting to provide for consistency with this enactment. Therefore, this memorandum generally does not include evaluation of the Administrative Code related to wetlands, with limited exceptions.

² A general permit is a permit that does not apply to a specific project. Instead, it applies statewide to any person authorized to engage in the activity covered by the permit.

³ An individual permit is issued for a specific activity at a particular place.

⁴ Water quality standards for wetlands are narrative standards that describe “beneficial uses” or “functional values” of a wetland such as flood water retention, groundwater recharge or discharge, and fish and wildlife habitat.

⁵ Federal wetlands are wetlands that are subject to federal jurisdiction under 33 U.S.C. s. 1344. Nonfederal wetlands are nonnavigable, isolated, intrastate wetlands, which were removed from the ACE’s jurisdiction by the U.S. Supreme Court in *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001).

Under ***general wetland law and the Act***, a wetland individual permit is required for a person to discharge dredged material or fill material into any wetland unless the discharge is authorized under a general permit or is exempt from permitting requirements. An application for a wetland individual permit must include an analysis of the practicable⁶ alternatives that will avoid and minimize the adverse impacts of the discharge on wetland functional values⁷ and that will not result in any other significant adverse environmental consequences.⁸

The DNR must consider all of the following factors when it assesses the impacts of a project on wetland functional values:

- The direct impacts of the proposed project to wetland functional values.
- The cumulative impacts attributable to the proposed project that may occur to wetland functional values based on past impacts or reasonably anticipated impacts caused by similar projects in the area affected by the project.
- Potential secondary impacts of the proposed project to wetland functional values.
- The impact on functional values resulting from mitigation.
- The net positive or negative environmental impact of the proposed project.

In addition to these factors, ***the Act*** requires the DNR to evaluate whether the discharge will result in a significant adverse impact to wetland functional values for ferrous mining activities by doing all of the following:

- Comparing the functional values of the wetland with other wetlands located within the boundaries of the mining site or within the same water management unit as the mining site and with other waters of the state that are located in the same water management unit.
- Taking into consideration the floristic province in which the mining site is located.

The Act also requires the DNR to determine the impact of a proposed discharge on wetland functional values by using wetland ecological evaluation methods that are jointly accepted by the ACE and the DNR and that are appropriate to the affected wetland.

⁶ Under general wetland law and the Act, “practicable” means reasonably available and capable of being implemented after taking into consideration cost, site availability, available technology, logistics, and proximity to the proposed project site, in light of the overall purpose and scope of the project.

⁷ For a description of wetland functional values as codified by the DNR, see ss. NR 1.95 (3) (b) and 132.06 (4) (g), Wis. Adm. Code. The Act specifies a separate list of wetland functional values that are comparable to those under prior law and lists activities and effects that must be minimized for the purpose of maintaining or enhancing wetland functional values.

⁸ Under general wetland law and the Act, the DNR is required to limit its review of practicable alternatives to those that are located at or adjacent to the site of the activity if the applicant has demonstrated that the proposed project will result in a demonstrable economic public benefit.

General wetland law requires the DNR to make a finding that a proposed project is in compliance with water quality standards and that a wetland individual permit may be issued if it determines that all of the following apply:

- The proposed project represents the least environmentally damaging practicable alternative taking into consideration practicable alternatives that avoid wetland impacts.
- All practicable measures to minimize the adverse impacts to wetland functional values will be taken.
- The proposed project will not result in significant adverse impact to wetland functional values, in significant adverse impact to water quality, or in other significant adverse environmental consequences.

Under **the Act**, if the DNR determines that the three findings above apply to a ferrous mining activity, taking into account compensation for significant adverse impacts to wetland functional values provided in a mitigation plan, the DNR is required to make a finding that a discharge of dredged material or fill material is in compliance with all applicable water quality standards and is required to issue a wetland individual permit.

The Act also includes a general legislative finding that because of the fixed location of ferrous mineral deposits, it is probable that mining those deposits will result in adverse impacts to wetlands and that the use of wetlands for bulk sampling and mining activities in a way that would result in a significant adverse impact on wetlands is presumed to be necessary.

Other Approvals Related to Wetlands

Numerous activities other than a discharge of material may also be evaluated based on their effects on wetlands as part of the review of any separate permit requirement for such an activity. Because the Administrative Code related to wetland permitting has not yet been reconciled with 2011 Act 118, as noted above, it is not clear to what extent the standards for approval of a proposal to place dredged or fill material in a wetland will apply to these other types of activities.

The Act generally requires evaluations of wetland impacts for ferrous mining activities other than the discharge of dredged or fill material to be conducted in the same manner and subject to the same standards as described above for evaluations of proposed discharges.

Federal Wetlands

As noted above, if a proposed project will impact federal wetlands, the applicant must also obtain a permit from the ACE. Under **general wetland law**, the DNR generally processes wetland permits related to impacts to federal wetlands in the same manner as for non-federal wetlands. Under **the Act**, the DNR may impose wetland-related requirements for projects impacting a federal wetland in addition to those contained in an ACE permit only as required to address significant adverse impacts to wetland functional values, significant adverse impacts

to water quality, or other significant adverse environmental consequences not addressed in the ACE permit.

Wetland Mitigation

The term “wetland mitigation” refers to actions taken to compensate for the negative impacts of a project on wetlands.⁹ Examples of mitigation include restoring previously destroyed or degraded wetlands, creating new wetlands, and purchasing credits from a wetland mitigation bank.

General wetland law requires the DNR to establish a mitigation program that applies only to the issuance of wetland individual permits. The program must allow mitigation to be accomplished by any of the following methods:

- Purchasing or applying credits from a mitigation bank¹⁰ in this state.
- Participating in the in lieu fee subprogram,¹¹ if established.
- Completing mitigation within the same watershed or within one-half mile of the site of the discharge.

General wetland law provides that purchasing credits from a mitigation bank and participation in the in lieu fee subprogram are the preferred types of mitigation. The DNR is required to establish mitigation ratios that are consistent with the federal regulations that apply to mitigation and mitigation banks, but the minimum ratio must be at least 1.2 acres for each acre affected by a discharge. Mitigation that occurs within the same watershed as the discharge or within one-half mile of the discharge need be only 90% of the ratio that would be required if the mitigation were to occur further from the site of the discharge.

The Act allows the applicant to propose a wetlands mitigation program to compensate for adverse impacts to functional values of wetlands caused by a ferrous mining activity. Mitigation projects may be performed by a person other than the applicant, if approved by the DNR. A wetland mitigation program must include all of the federal mitigation measures and may include any of the following:

- Implementation of a project for mitigation.

⁹ Under general wetland law and the Act, “mitigation” is defined as the restoration, enhancement, creation, or preservation of wetlands to compensate for adverse impacts to other wetlands.”

¹⁰ The DNR is required to establish a system of service areas for the mitigation banks under the mitigation program that is geographically based on the locations of the major watersheds in the state.

¹¹ General wetland law authorizes the DNR to establish an “in lieu fee subprogram” as part of the mitigation program, under which payments are made to the DNR or another entity for the purposes of restoring, enhancing, creating, or preserving wetlands or other water resource features.

- Purchase of mitigation credits from a mitigation bank, including for a site in a mitigation bank that is located anywhere in the state, subject to the locational requirements described below.
- Participation in the in lieu fee subprogram described above.

As part of a mitigation plan, the Act requires an applicant to identify and consider mitigation that could be conducted in the same watershed in which the mining site is located. If it is not practicable or ecologically preferable to conduct mitigation at an on-site location¹² or if there is no on-site location that will provide sufficient wetland acreage, the DNR must require that the applicant conduct mitigation within the same watershed in which the wetland to be affected is located. If mitigation within the same watershed is not practicable or ecologically preferable, the DNR must require that the applicant conduct mitigation within the same water basin (Lake Superior, Lake Michigan, or the Mississippi River) in which the wetland to be affected is located. If mitigation in the same water basin is not practicable or ecologically preferable, the applicant generally may conduct mitigation at a site elsewhere in the state. The Act also requires wetland mitigation to compensate for impacts to wetlands located in the ceded territory¹³ to occur within the ceded territory.

The Act limits the amount of required mitigation to 1.5 acres of mitigation per acre adversely impacted, and, for purposes of mitigation banks, counts each acre restored, enhanced, or created as one credit. With respect to federal wetlands, the Act also prohibits the DNR from requiring more mitigated acres than the acreage required under the ACE permit.

Exemptions

Under ***general wetland law and the Act***, the following activities, among others, are exempt from wetland permitting requirements: maintenance, emergency repair, or reconstruction of damaged parts of structures that are in use in a wetland; construction or maintenance of irrigation ditches; maintenance of drainage ditches; and construction or maintenance of farm roads, forest roads, or temporary mining roads that is performed in accordance with best management practices. Under ***general wetland law***, these exemptions do not apply to a new activity if the activity may impair the flow or circulation of a wetland or reduce the reach of a wetland. ***The Act*** does not include this restriction for ferrous mining activities.

Under ***general wetland law***, artificial wetlands are also exempt from wetland water quality standards unless the DNR determines that significant functional values are present. ***The Act*** includes an exemption for artificial wetlands but does not limit the exemption based on a determination by the DNR that significant functional values are present.

¹² The Act defines “on-site location” to mean a location that is on a mining site or within one-half mile of an outer boundary of a mining site.

¹³ “Ceded territory” is defined in the Act to mean the territory in Wisconsin ceded by the Chippewa Indians to the United States in the treaty of 1837, 7 Stat. 536, and the treaty of 1842, 7 Stat. 591. The ceded territory covers roughly the northern third of the state.

Infringement of Public Rights

Under ***general wetland law***, the DNR has broad authority to proceed against possible violations of the statutes regulating discharges into wetlands for which the DNR determines that the public interest may not be adequately served by imposition of a penalty or forfeiture. Such a proceeding may result in an order directing the responsible parties to perform or refrain from performing acts in order to fully protect the public interest. This type of order may be civilly enforced. ***The Act*** does not provide this authority to the DNR for wetlands activities related to ferrous mining.

IMPACTS TO NAVIGABLE WATERS

Under ***general navigable water law***, a person generally is required to obtain a permit from the DNR before conducting any of the following activities relating to navigable waters: placing structures and deposits in navigable waters; constructing bridges and culverts; enlarging and protecting waterways; changing stream courses; and removing material from beds of navigable water bodies. In some cases, such activities may be authorized by a general permit of statewide applicability. If an activity is not authorized under a general permit or explicitly exempted from regulation under state statute, an individual permit typically must be obtained.

For structures and deposits in navigable waters, general navigable water law requires the DNR to issue an individual permit for a proposed structure or deposit if it makes all of the following findings:

- The applicant is a riparian owner.
- The structure or deposit will not materially obstruct navigation.
- The structure or deposit will not be detrimental to the public interest.
- The structure or deposit will not materially reduce the flood flow capacity of a stream.

For bridges and culverts, the DNR is required to issue an individual permit if it finds all of the following:

- The bridge or culvert will not materially obstruct navigation.
- The bridge or culvert will not materially reduce the effective flood flow capacity of a stream.
- The bridge or culvert will not be detrimental to the public interest.

For the protection and enlargement of waterways, the DNR is required to issue an individual permit if it finds all of the following:

- The activity will not be detrimental to the public interest.

- The activity will not cause environmental pollution.
- Any enlargement connected to a navigable waterway complies with all of the laws relating to platting of land and sanitation.
- No material injury will result to the riparian rights of any riparian owner of real property that abuts any water body affected by the activity.

For changing stream courses, the DNR is required to issue an individual permit if it makes all of the following findings:

- The applicant is the owner of any land upon which the change in course or straightening of the navigable stream will occur.
- The proposed change of course or straightening of the navigable stream will improve the economic or aesthetic value of the applicant's land.
- The proposed change of course or straightening of the navigable stream will not adversely affect the flood flow capacity of the stream or otherwise be detrimental to the public interest.
- The proposed change of course or straightening of the navigable stream will not be detrimental to the rights of other riparian owners located on the stream or all of these riparian owners have consented to the issuance of the permit.

For removal of material from beds of navigable water bodies, the DNR is required to issue an individual permit if it finds the issuance of the permit will be consistent with the public interest in the navigable water. The DNR may also enter into a contract on behalf of the state for the removal and lease or sale of any mineral, ore, or other material from beneath the bed of a navigable water that the state owns if the contract will be consistent with public rights and if the navigable water will not be disturbed in the removal operation

For ferrous mining activities, ***the Act*** creates a single set of approval requirements governing all of the types of navigable waters impacts described above. Specifically, the Act requires the DNR to issue an approval for a "navigable water activity," defined to mean any of the five types of activities for which a permit is required under prior law, if all of the following apply:

- The activity will not significantly impair public rights and interest in navigable water.
- The activity will not significantly reduce the effective flood flow capacity of a stream.
- The activity will not significantly affect the rights of riparian owners or the applicant has obtained the consent of all affected riparian owners.

- The activity will not significantly degrade water quality.¹⁴

The Act requires an applicant to propose “measures” to meet the above requirements and to propose a schedule for implementing the measures. Measures that an applicant may propose include:

- Providing public access to, restoring, or enlarging up to 1.5 acres of navigable waters, but not less than one acre, in exchange for each acre of navigable waters that is significantly impacted.
- Improving public rights or interests in navigable waters.
- Offsetting significant impacts to water quality or quantity.
- Enhancing flood storage.
- Compensation or mitigation as provided under the wetlands provisions in the Act.
- Conservation measures as provided under the water withdrawal provisions in the Act.

If the DNR determines that the approval requirements will be met by implementing some or all of the measures proposed by the applicant, the DNR must determine which measures are required and approve a schedule for implementation, and is required to approve the navigable waters activity.

However, the Act prohibits the DNR from considering such offsetting measures when evaluating an application for a navigable waters activity approval if the navigable water is any of the following:

- A perennial stream¹⁵, if its drainage area upstream from the farthest downstream point of the navigable water activity is more than two square miles.
- A navigable water, other than a stream, that is more than two acres in area every day of every year in which there is average precipitation and that is not a freeze-out pond.
- A Class I, Class II, or Class III trout stream.

The Act specifies that a person need not be a riparian owner to apply for a navigable water activity approval under the Act, or to obtain a contract to engage in a navigable water activity.

¹⁴ These findings necessary for approval of a navigable waters activity are similar to findings required under s. 30.025 (3) (b), Stats., for utility projects and facilities.

¹⁵ “Perennial stream” is defined as a stream that has a continuous flow every day of every year in which there is average precipitation.

Destruction or Filling of a Lakebed

Prior law specifically prohibited the DNR from authorizing the destruction or filling in of a lake bed in connection with a metallic mining permit, notwithstanding any other provision of law.

The Act does not retain the specific prohibition regarding the destruction or filling of a lake bed in connection with a ferrous mining permit. Under the Act, any proposal to fill a lake bed in connection with a ferrous mining operation would be subject to the general standards in the Act governing the issuance of a permit for activities affecting navigable waters.

WATER WITHDRAWALS

In general under Wisconsin law, separate DNR approvals are required for withdrawals of large quantities of surface water from a lake or stream and withdrawals of large quantities of groundwater. **Prior law** provided specific rules governing such activities in the context of mining projects. Specifically, a surface water withdrawal permit was generally required for the withdrawal of water from a lake or stream if the withdrawal would result, in any 30-day period, in a water loss of two million gallons per day above the authorized base level¹⁶ of water loss of the person making the withdrawal. A high-capacity well approval was generally required for the withdrawal of groundwater or the dewatering of a mine if the capacity and rate of withdrawal of all wells involved in the withdrawal of groundwater or the dewatering of mines exceeded 100,000 gallons each day. In addition, a new or modified surface water or high-capacity well approval was typically required if water withdrawals resulted in a water loss beyond a specified threshold amount.

The Act similarly requires that a person must obtain a permit before withdrawing or using surface water and before withdrawing groundwater as part of a ferrous mining or bulk sampling operation if the capacity and rate of withdrawal of all wells involved in the withdrawal of groundwater or the dewatering of mines exceeds 100,000 gallons each day. However, the Act does not require separate approvals for those two types of water withdrawals. Instead, for ferrous mining projects, the Act creates a single permit, termed a “mining water withdrawal permit.” The mining water withdrawal permit is governed by different standards than apply under prior law.

Prior law required the DNR, upon receipt of an application for a surface water withdrawal permit relating to a metallic mining project, to determine the minimum stream flow or lake level necessary to protect public rights, the minimum flow or level necessary to protect the rights of affected riparian owners, the point downstream beyond which riparian rights are not likely to be injured by the proposed withdrawal, and the amount of surplus water at the point of the proposed withdrawal.¹⁷ The DNR was also required to hold a public hearing on the permit to take testimony on specified issues, such as public rights and benefits and the rights of

¹⁶ In general, the authorized base level of water loss is a water loss the person reports under existing approvals for water withdrawals. If the person has no existing approvals, the base level is zero.

¹⁷ “Surplus water” refers to water of a stream that is not being beneficially used, as determined by the DNR.

competing users of the water resources. Within 30 days of the hearing, the DNR was required to issue or deny the permit, based on the following standards:

- If injury to public rights exceeded the public benefits generated by the mining, the DNR was required to deny the permit.
- If the proposed withdrawal consumed nonsurplus waters and would unreasonably injure rights of riparians who were beneficially using such waters, the DNR was required to deny the permit, unless it granted a permit based on modifications of a proposed withdrawal made to avoid injury to public or riparian rights or all affected riparians consented to the proposed withdrawal.
- In all other cases, the DNR was required to grant the permit.

Regarding groundwater withdrawals, prior law required the DNR to conduct an environmental review prior to approving construction of a high-capacity well if any of the following criteria applied:

- The well was located in a groundwater protection area, defined as an area within 1,200 feet of a specified outstanding or exceptional resource water that is not a trout stream.
- More than 95% of the amount of water withdrawn by the well would be lost from the water basin in which the well was located as a result of interbasin diversion or consumptive use, or both.
- The well could have a significant environmental impact on a spring.

With certain exceptions, the DNR was prohibited from approving the construction of a high-capacity well that would impair a public water supply, cause significant environmental impact to a groundwater protection area, result in a water loss greater than 95%, or have a significant environmental impact on a spring. The DNR could include conditions in a permit necessary to avoid any of these impacts.

The Act replaces the standards applicable to both surface water withdrawal permits and high-capacity well construction approvals related to ferrous mining projects. Under the Act, the DNR generally must issue a mining water withdrawal permit if the withdrawal or use of the surface water or groundwater satisfies all of the following requirements:

- The proposed withdrawal and uses of the water are substantially consistent with the protection of public health, safety, and welfare and will not be significantly detrimental to the public interest.
- The proposed withdrawal and uses of the water will not have a significant adverse impact on the environment and ecosystem of the Great Lakes basin or the Upper Mississippi River basin.

- The proposed withdrawal and use of the water will not be significantly detrimental to the quantity and quality of the waters of the state.
- The proposed withdrawal and use of the water will not significantly impair the rights of riparian owners or the applicant obtains the consent of the riparian owners.
- The proposed withdrawal and use of the water will not result in significant injury to public rights in navigable waters.
- If the withdrawal or the use of the water will result in an interbasin diversion, relevant statutory requirements will be satisfied.
- The proposed withdrawal or use of the water will comply with any requirements imposed by the DNR to offset significant impacts to public or private water supplies.

An applicant for a mining water withdrawal permit must submit a plan containing proposed conservation measures to meet the standards listed above. The DNR may require one or more specific conservation measures to be included in the plan. If the DNR finds that the standards above will be satisfied through the implementation of some or all of the conservation measures contained in the plan, it must issue the water withdrawal permit.

The Act also authorizes the DNR to require a permit applicant to offset a significant impact to a public or private water supply. The Act authorizes the DNR to impose specified reasonable additional permit conditions, provided that the conditions relate to specified issues and do not interfere with the mining operation or bulk sampling or limit the amount of water to be used for the mining operation or bulk sampling, with one exception: if the DNR determines that a high-capacity well for a mining project may impair a privately owned high-capacity well, the DNR is required to include conditions to ensure that the privately owned high-capacity well will not be impaired, unless the private high-capacity well owner agrees to the impairment.

The Act does not exempt an applicant for a ferrous mining water withdrawal permit from the requirement to obtain a permit under the Great Lakes Compact law, if applicable.

Finally, once an applicant files an application for a water withdrawal permit, the Act authorizes the applicant to enter any land from which the applicant proposes to withdraw water or use water for the purpose of making any surveys required for the mining operation or bulk sampling.

GROUNDWATER QUALITY

The DNR develops enforcement standards in consultation with the Department of Health Services (DHS) for certain chemical substances found in groundwater that are of concern for public health. The DNR also establishes preventive action limits, which represent the percentage of an enforcement standard that may trigger action by the DNR to prevent further groundwater contamination. ***The Act*** does not modify numerical groundwater quality standards and surface water quality standards.

Design Management Zone

Outside the boundaries of a designated “design management zone,” certain projects requiring DNR approval, including mining and prospecting operations, must adhere to groundwater quality enforcement standards.¹⁸ For mining sites and mining waste sites, if an enforcement standard is exceeded outside the boundaries of a design management zone, the DNR may act to prevent any new releases of the substance from traveling beyond the design management zone or other applicable point of standards application and restore groundwater quality within a reasonable period of time.¹⁹

Under **prior law**, the horizontal distance to the boundaries of a design management zone for ferrous mining projects was generally 1,200 feet from the outer waste boundary for a mining waste facility and 1,200 feet from the edge of a surface mine or surface prospecting excavation or the property line, whichever was closer.

Similarly, under **the Act**, the boundaries of design management zones for ferrous mining operations are generally 1,200 feet from the engineered structures of a mining waste site, including any wastewater and sludge storage or treatment lagoon, the edge of the mine and adjacent mine mill and ferrous mineral processing and other facilities, or at the boundary of the property owned or leased by the mining operator, or on which the mining operator holds an easement, whichever is closer.

As under prior law, the Act allows the DNR to reduce the horizontal distance to the boundary of the design management zone for a ferrous mine by no more than 600 feet, if the DNR determines that preventive action limits and enforcement standards or alternative concentration limits will be met at the boundary of the reduced design management zone.

Finally, the Act modifies the vertical boundaries of design management zones. Under **prior law**, design management zones for ferrous mining sites extended vertically from the land surface through all saturated geological formations. Under **the Act**, the vertical distance to the boundary of the design management zone extends no deeper than 1,000 feet into the Precambrian bedrock under a ferrous mining site, or the final depth of the mining excavation, whichever is greater.

Mandatory Intervention Boundary

Prior law required the operator of a mining site to monitor groundwater quality at locations approved by the DNR along and within the site’s “mandatory intervention boundary.” If a

¹⁸ Prior law exempted metallic mining projects from general statutes governing groundwater quality and authorized the DNR to promulgate rules establishing groundwater standards for metallic mining projects, notwithstanding statutes that generally govern groundwater quality. However, DNR administrative rules required prospecting and mining sites and mining waste sites to comply with generally applicable groundwater quality standards.

¹⁹ A smaller design management zone has the effect of stricter regulation, because the DNR may require that actions be taken when contaminants have traveled a lesser distance in groundwater than would be the case with a larger design management zone.

preventive action limit or enforcement standard was exceeded beyond the mandatory intervention boundary, prior law generally required the DNR to require a corrective response to prevent an exceedance of groundwater quality standards at the design management zone boundary. The horizontal distance to the mandatory intervention boundary was generally 150 feet from the outer waste boundary, the outer edge of the mine or prospecting excavation, or the outer edge of the underground workings as projected to the land surface.

The Act creates similar requirements for a mandatory intervention boundary for ferrous mining sites but establishes a general horizontal distance to the mandatory intervention boundary of 300 feet from the outer waste boundary or the outer edge of the excavation, unless reduced by up to 150 feet by the DNR under specified conditions. The Act also provides that a ferrous mine operator is not required to conduct groundwater monitoring along mandatory intervention boundaries that are within other mandatory intervention boundaries.

SHORELAND AND FLOODPLAIN ZONING

The state shoreland and floodplain zoning programs establish building setback, grading, lot size, and other parameters for land located within 1,000 feet of a navigable lake, pond, or flowage, and for land up to 300 feet from a navigable river or stream (or to the landward side of the floodplain of a river or stream, whichever distance is greater). The programs operate as a state and local partnership, whereby the DNR establishes standards which then are incorporated in local zoning ordinances and enforced by local governments. The state's floodplain zoning program is also based on minimum requirements established by the Federal Emergency Management Agency, which requires states to have a floodplain zoning program in order to qualify for subsidized flood insurance and disaster relief due to flooding.

Under **prior law**, an applicant for a mining permit was required to demonstrate compliance with local zoning ordinances, including shoreland and floodplain zoning ordinances. However, in some cases, the DNR could directly authorize specified mining facilities in such areas, or municipalities could grant a special exemption or variance to accommodate a mining project. [See s. 289.35, Stats., and s. NR 116.21, Wis. Adm. Code.]

The Act exempts specified activities relating to ferrous mining from shoreland zoning ordinances. Specifically, the Act provides that the DNR may not prohibit a waste site, structure, building, fill, or other development or construction activity in an area that would otherwise be prohibited under a shoreland zoning ordinance if the activity is authorized as part of a ferrous mining permit. It likewise provides that such activities do not violate shoreland zoning ordinances if they are authorized by the DNR as part of a mining operation covered by a ferrous mining permit. Finally, the Act specifies that an applicant for a ferrous mining permit need not obtain a variance from a shoreland zoning ordinance for such activities.

With respect to floodplain zoning, the Act specifies that municipal floodplain zoning ordinances may not prohibit development or construction activity authorized by the DNR in a mining permit except to the extent necessary for the municipality to maintain eligibility for participation in the National Flood Insurance Program.

REGULATION OF MINING WASTE

Mining operations produce waste in the form of overburden (material above the mineral to be mined), tailings (material that remains after the sought-after mineral is extracted and processed), and waste rock (rock that does not include sufficient quantity of the sought-after mineral to be processed). Under **prior law**, with the exception of responsibility for long-term care of the mining waste site, the disposal of solid wastes from a mining operation was generally governed by administrative rules. When promulgating those rules, the DNR was required to consider the special requirements of metallic mining operations in the location, design, construction, operation, and maintenance of facilities for the disposal of metallic mining wastes, as well as any special environmental concerns that arise as a result of the disposal of metallic mining wastes.

Under **the Act**, the disposal of mining waste is governed by the new ferrous mining statute, and approvals and demonstrations for a mining waste site or facility are submitted as part of a mining permit. The Act specifies that the DNR may not regulate the use of mining waste in reclamation or the construction of any facility or structure except through the department's review of the mining plan and reclamation plan and the approval of the application for the mining permit.

Feasibility Study and Plan of Operation

Prior law required an applicant for a metallic mining permit to submit a feasibility report and a plan of operation relating to the disposal of solid waste resulting from the mine. **The Act** requires a feasibility study to be submitted as part of a mining permit application whereas, under prior law, feasibility reports were submitted and processed separately.

Current administrative rules acknowledge that the amount of data that must be included in a feasibility report varies according to the type of site. However, **prior law** required specified minimum information to be provided in a feasibility report.²⁰

The feasibility study required to be submitted under **the Act** includes many of the same components required for feasibility reports under prior law, but the Act modifies or eliminates several requirements. For example, under **prior law**, an applicant for a mining waste site

²⁰ In particular, prior law required the following information to be included, at a minimum:

- General information regarding the proposed facility, such as site location, contact information, and estimated quantities of waste.
- The results of a characterization and analysis of all mining wastes to be disposed of or stored in the waste site, including an evaluation of the quantities, variability, and physical, radiologic and chemical properties of the proposed waste based on testing of representative samples.
- A discussion of regional site setting, addressing hydrology, geology, climatology, and other characteristics of the region; and the proposed design of the facility.
- A preliminary water budget for the periods before construction, during operation, and after closure of the waste facility.
- An analysis of the impact of the waste site on aesthetics.
- Data regarding the safety factors of tailing pond embankments.
- A contingency plan in the event of an accidental or emergency discharge or other unanticipated condition.
- An economic analysis for site closing and long-term care of the waste site.
- Alternatives to the design and location of the proposed waste site.
- An appendix that included specified scientific samples, methodology, and references.

approval was required to submit demonstrations showing that there was a reasonable certainty that the facility would not result in a violation of groundwater quality standards beyond the boundaries of the design management zone. In contrast, **the Act** requires modeling to assess waste site performance at a depth of not more than 1,000 feet into the Precambrian bedrock or the depth of the mining excavation, whichever is greater.

Under **prior law**, this modeling assessed the waste site's compliance with groundwater standards for an unspecified period of time following closure of the mining waste site. **The Act** limits the applicable time period for assessing such compliance to 250 years following the closure of a mine. In addition, the Act retains the requirement that alternatives to the design and location be identified, but it removes requirements for demonstrating a site selection process fulfilling specified criteria to minimize the overall adverse environmental impact of the waste site. In addition, the Act eliminates some required information regarding site closing and other submissions relating to the long-term care of the waste site.

As under **prior law**, **the Act** requires that the feasibility report (study) must include waste characterization and analysis, to identify the physical, radiological, and chemical properties of the mining waste associated with a proposed ferrous mine. **The Act** specifies that waste characterization testing must include, at a minimum, static testing, kinetic testing, and microscopic testing for mineralization characterization.

In addition to the feasibility report, **prior law** required an applicant for a mining waste site approval to submit a plan of operation. A plan of operation was required to contain: engineering plans; an operations manual; a design report; a detailed contingency plan; and an appendix. All of those components were required to include specific information detailed in the administrative rules. **The Act** retains most of the required components of the operation plan, but it eliminates portions of the operations manual required under prior law and makes other minor modifications.

Standards for Approval of a Mining Waste Site

As noted, **the Act** prohibits the DNR from regulating mining waste sites except in connection with a mining permit. Thus, although the Act incorporates many of the standards used in the DNR review of mining waste site applications under prior law, those standards are generally included as required demonstrations in the feasibility study and plan of operation, rather than as standards governing DNR approval of a mining waste site.

In addition, the Act modifies several technical demonstrations required under prior law. First, the Act requires a demonstration that slopes of a complete waste be no greater than 50%, versus no less than 20% and no greater than 33% under prior law. Second, whereas prior law required that embankment materials or drainage or filter bed materials be compacted to 95% of maximum dry density, the Act requires a demonstration that such materials be compacted to 90% of maximum dry density. In addition, the Act eliminates a requirement that a mine waste facility, where practicable, should be located so that tailings pipelines do not cross any major watercourse or pass through any wetland. Finally, the Act removes a standard requiring that high priority be given to selecting a design and operating procedure for the waste sites that provides for the reclamation of all disturbed sites and minimizes the risk of environmental pollution.

Restrictions on the Location of a Mining Waste Site

Under **prior law**, a mining waste site could not be located in the following areas:

- Within areas identified as unsuitable for mining, taking the presence of endangered and threatened species into account.
- Within 1,000 feet of any navigable lake, pond, or flowage.
- Within 300 feet of a navigable river or stream.
- Within a floodplain.
- Within 1,000 feet of the edge of the right-of-way for a state trunk highway, interstate, or federal highway, state or federal park, scenic easement purchased by the DNR or the Department of Transportation, the boundary of a designated scenic or wild river, a scenic overlook designated by the DNR, or a bike or hiking trail designated by the federal government or state Legislature.
- Within 1,200 feet of any public or private water supply well.
- Within an area which contained known mineral resources.
- Within 200 feet of a property line.
- Within an area where the DNR determined there was a reasonable probability that the waste would result in a violation of surface water or groundwater quality standards.

The Act includes similar location criteria, with some exceptions. Namely, it does not include a restriction relating to the unsuitability of the area for mining. In addition, the restrictions for locations within 1,000 feet or 300 feet of the specified navigable waters do not apply under the Act to activities associated with a mining waste site that are approved by the DNR as part of a wetlands certification, navigable water activity permit, or water withdrawal permit under the Act. In addition, the Act modifies the restriction for location near the property line to prohibit the location of a mining waste site within 200 feet of the outer boundary of the property owned or leased by the mining operator, or on which the mining operator holds an easement, excluding the portion of the site from which ferrous minerals were extracted that is backfilled with mining waste. Finally, the Act does not include the restriction on locations where the DNR determines that there is a reasonable probability that the waste will result in a violation of surface water or groundwater quality standards.

Inspection and Monitoring of a Mining Waste Site

Under **prior law**, the DNR could either require the owner or operator of a solid waste disposal site or facility to conduct specified monitoring or could conduct its own monitoring of the site or facility.

The Act retains provisions regarding the scope and frequency of monitoring that the DNR may require, with some exceptions. Exceptions generally relate to the submission of specified samples to the DNR. Specifically, the Act eliminates provisions requiring the submission of water elevation measurements and sampling and requiring specified types of groundwater sampling. With regard to the inspection of active and inactive dams connected with the waste site, the Act retains detailed inspection requirements, but eliminates the requirement that the results of such inspections be submitted to the DNR. Instead, under the Act, the results must be recorded in an operating log.

Under **prior law**, a qualified representative of the owner of a mine waste facility was required to visually inspect various aspects of the facility at least weekly to check for specified conditions such as structural weakening, damage to fences or barriers, and possible environmental damage. **The Act** retains the visual inspection requirement but provides that such inspections must be conducted on a monthly, rather than weekly, basis.

Recordkeeping and Reporting Requirements

Prior law required owners of mine waste disposal sites or facilities to keep an operating log, retain certain records, and submit specified information to the DNR. The recordkeeping and reporting requirements did not apply to a ferrous mineral surface mine that was backfilled with mining waste.

For ferrous mining waste sites and facilities, **the Act** retains some and modifies other recordkeeping requirements. First, the Act generally retains the record retention requirements that applied under prior law. Next, the Act references the operating log in connection with requirements for inspections, but it eliminates the general operating log requirements. Finally, the Act eliminates some reporting requirements and retains other reporting requirements. Specifically, the Act eliminates provisions requiring a mine owner to: relay specified conditions to the DNR within five days; submit duplicate copies of specified records to the DNR upon closure of the facility; forward monitoring data to the DNR on a quarterly basis; and notify the DNR prior to cessation of disposal operations. The Act retains a requirement that the mine owner submit an annual summary report, containing statistical summaries of annual and cumulative project data. The Act also retains the exemption under prior law for portions of a mine that are backfilled with mining waste.

Proof of Financial Responsibility for Long-Term Care of the Mining Waste Site

An owner of a mining waste facility must demonstrate proof of financial ability to pay for the long-term care of a mining waste site. (Under prior law, a similar requirement applied to waste site facilities constructed for prospecting metallic minerals.)

Under **prior law**, a mining waste facility owner was required to prove his or her financial ability to provide for the long-term care of the site by submitting a bond, irrevocable trust, escrow account, or other specified mechanism to prove financial responsibility. After 40 years had passed since the closure of the mining waste site, the owner could apply to the DNR for

termination of the obligation to provide proof of financial responsibility for the long-term care of the site.²¹ After an owner submitted an application to have the obligation terminated, the DNR was authorized to grant a termination of the proof of financial responsibility obligation, after holding a 30-day public comment period and a public hearing, if a hearing was requested, if it determined that proof of financial responsibility for long-term care of the site was no longer required. The obligation to maintain proof of financial ability continued until the DNR approved termination.

Under ***the Act***, a mine operator's obligation to provide proof of financial responsibility for long-term care of a mining waste site ends automatically when 40 years have passed since the closure of the site. In addition, after 20 years have passed since the closure of the site, an owner of a mining waste site may apply to the DNR to have its obligation terminated. Within 30 days of receipt of the application to terminate the obligation, the DNR must provide notice to the public of an opportunity to comment on terminating the mine operator's obligation. Within 120 days of posting such notice, the department must render a decision regarding termination of the obligation. The Act does not provide for a public hearing regarding that question.

Fees Relating to Solid Waste Disposal

Prior law generally required a person who proposed to construct a mining solid waste facility to pay a plan review fee when submitting a plan for a solid waste site and a license fee after closure of the site. In addition, owners or operators of licensed mining waste disposal facilities generally would have been required to pay a tonnage fee for each ton of waste received and disposed of at a waste disposal facility, or a minimum waste management fund base fee of \$100, whichever was greater. An owner or operator of a waste disposal site was also required to pay a groundwater fee; an environmental repair fee; a waste facility siting board fee; and a recycling fee.

The Act exempts ferrous mining projects from three of seven fees generally assessed with regard to solid waste disposal. Specifically, it eliminates the license fee, tonnage fee, and recycling fee for waste sites and facilities constructed for ferrous mine operations.

POSSESSION AND TRANSPORTATION OF ANIMALS ON THE THREATENED OR ENDANGERED SPECIES LIST

Unless authorized by a DNR permit, Wisconsin law generally provides that no person may take, transport, possess, process, or sell any wild animal listed on the DNR's endangered and threatened species list. ***Prior law*** did not provide any special exemptions from those general prohibitions for metallic mining or prospecting activities.

The Act authorizes a person to take, transport, or possess a wild animal on the DNR's endangered and threatened species list without a permit if all of the following apply:

²¹ Regardless of the time period during which a mining site owner must maintain proof of financial responsibility, the owner's legal liability for the site continues in perpetuity and transfers together with the ownership of the site.

- The person avoids and minimizes adverse impacts to the wild animal to the extent practicable.
- The taking, transporting, or possession does not result in wounding or killing the wild animal.
- The person takes, transports, or possesses the wild animal for the purpose of bulk sampling activities authorized under the Act.

EFFECT OF OTHER LAWS

Under ***prior law***, if there was a conflict between a substantive standard in the metallic mineral mining law and another state or federal standard, the other state and federal standard controlled. However, procedures and timelines in the mining law applied to all permits and approvals required in connection with a metallic mine, provided that an applicant submitted applications for such approvals in a timely manner.

Under ***the Act***, if there is a conflict between the ferrous mining statute and another state environmental statute, the ferrous mining statute will generally control, regardless of the nature (substantive or procedural) of the conflicting provision. However, except with regard to procedural requirements, the statute that implements the Great Lakes Compact controls over the ferrous mining statute under the Act.

PERMIT PROCEDURE FOR CONSTRUCTION OF TRANSMISSION LINES AND PUBLIC UTILITIES

The construction of high-voltage transmission lines, large electric generating facilities, or specified facilities or equipment for electric, natural gas, or water utilities may require approvals from both the DNR and the Public Service Commission (PSC). Under ***prior law***, a person who proposed to construct such a project was required to submit a single permit application to the DNR in lieu of multiple permit applications that might otherwise be required. The combined permit application was required to be submitted at the same time the person filed an application with the PSC. The DNR was required to participate in PSC investigations or proceedings with regard to the project. In addition, the DNR was required to take final action on an application within 30 days of the final action by the PSC.

Under ***the Act***, a person who proposes to construct such a facility for ferrous mineral mining and processing activities may, but is not required to, submit a combined application for the various DNR permits that may be required. If the person elects to submit the combined application, the procedures described above apply. If the person does not elect to submit a combined application, then the PSC approval and DNR permits may be processed separately. Regardless of whether a combined application is submitted, the application would not be processed as a “related approval” subject to the timelines and fee limitations under the Act.

This memorandum is not a policy statement of the Joint Legislative Council or its staff.

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