



**WISCONSIN LEGISLATIVE COUNCIL
INFORMATION MEMORANDUM**

2011 Assembly Bill 426, Relating to the Regulation of Ferrous Mining, as Recommended for Passage: Changes to Related Environmental and Natural Resource Laws

2011 Assembly Bill 426, relating to the regulation of ferrous (i.e., iron ore) mining, was introduced by the Assembly Committee on Jobs, Economy, and Small Business on December 14, 2011. On January 24, 2012, the committee voted to recommend passage of the bill, as amended by Assembly Substitute Amendment 1 to the bill. The bill exempts the mining of ferrous minerals from the current state metallic mineral mining law and creates an expedited process and modified standards to facilitate permits for ferrous mining in the state.

This memorandum describes the bill, as recommended for amendment and passage by the committee (“the bill”). Specifically, it describes changes made by the bill to various environmental and natural resource laws in the context of ferrous mining. Separate memoranda describe changes made by the bill to the process for obtaining Department of Natural Resources (DNR) approval for ferrous mining activities, and changes made to the enforcement and taxation of ferrous mining.

Under current law and the bill, various permits and approvals may be required in addition to a “mining permit” before a person may mine ferrous minerals in Wisconsin. These related approvals relate to environmental and natural resources impacts resulting from ferrous mining and activities secondary to mining. Examples of related approvals that may be required include drainage and fill permits for activities affecting wetlands and streams; approvals for high capacity wells; wastewater discharge permits; and air emissions permits. In addition, a ferrous mining operation will likely trigger requirements for monitoring groundwater quality and regulations governing the construction and monitoring of a mining waste facility. The bill makes various changes to the standards and procedures governing the issuance of environmental and natural resource approvals relating to ferrous mining.

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 *current law*, with the exception of responsibility for long-term care of the mining waste site, the disposal of solid wastes from a mining operation is

generally governed by administrative rules. When promulgating those rules, the DNR is 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. [s. 289.05 (2), Stats.]

Under ***the bill***, 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 bill 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

Under ***current law***, an applicant must submit a feasibility report and a plan of operation relating to the disposal of solid waste resulting from the mine. ***The bill*** requires a feasibility study to be submitted as part of a mining permit application whereas, under current law, feasibility reports are 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, ***current law*** requires specified minimum information to be provided in a feasibility report.¹

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

¹ In particular, current law requires 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 includes specified scientific samples, methodology, and references.

[s. NR 182.08 (2), Wis. Adm. Code.]

must submit demonstrations showing that there is a reasonable certainty that the facility will not result in a violation of groundwater quality standards beyond the boundaries of the design management zone, discussed below. In contrast, the bill 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. In addition, the bill 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 bill eliminates some required information regarding site closing and other submissions relating to the long-term care of the waste site.

In addition to the feasibility report, **current law** requires an applicant for a mining waste site approval to submit a plan of operation. A plan of operation must contain: engineering plans; an operations manual; a design report; a detailed contingency plan; and an appendix. All of those components must include specific information detailed in the administrative rules. [s. NR 182.09, Wis. Adm. Code.] **The bill** retains most of the required components of the operation plan, but it eliminates portions of the operations manual required under current law and makes other minor modifications.

STANDARDS FOR APPROVAL OF A MINING WASTE SITE

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

In addition, the bill modifies several technical demonstrations required under current law. First, **the bill** requires a demonstration that slopes of a complete waste be no less than 2% and no greater than 50%, versus no less than 20% and no greater than 33% under current law. Second, whereas current law requires that embankment materials or drainage or filter bed materials be compacted to 95% of maximum dry density, the bill requires a demonstration that such materials be compacted to 90% of maximum dry density. In addition, the bill 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 bill 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

Both current law and the bill restrict the locations where a mining waste site may be located. Under **current law**, a mining waste site may 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 contains known mineral resources;
- Within 200 feet of a property line; or
- Within an area where the DNR determines there is a reasonable probability that the waste will result in a violation of surface water or groundwater quality standards.

[s. NR 182.07, Wis. Adm. Code.]

The bill 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 specified navigable waters do not apply under the bill to activities that are approved by the DNR as part of a wetlands certification, navigable water activity permit, or water withdrawal permit under the bill. Finally, the bill 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 **current law**, the DNR may either require the owner or operator of a solid waste disposal site or facility to conduct specified monitoring or conduct its own monitoring of the site or facility. [s. NR 182.13 (1), Wis. Adm. Code.]

The bill retains the DNR's authority to require monitoring, but it does not specify who the DNR may require to do such monitoring and does not expressly authorize the department to monitor the site or facility. The bill also 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 bill 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 bill retains detailed inspection requirements, but eliminates the requirement that the results of such inspections be submitted to the DNR. Instead, under the bill, the results must be recorded in an operating log.

Under **current law**, a qualified representative of the owner of a mine waste facility must 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 bill** retains the visual inspection requirement but provides that such inspections must be conducted on a monthly, rather than weekly, basis.

RECORDKEEPING AND REPORTING REQUIREMENTS

Current law requires owners of mine waste disposal sites or facilities to keep an operating log, retain certain records, and submit specified information to the DNR. [s. NR 182.14, Wis. Adm. Code.] Under **the bill**, no recordkeeping requirements apply to a ferrous mineral surface mine that is backfilled with mining waste. For other mining waste sites and facilities, the bill retains some and modifies other recordkeeping requirements.

First, the bill generally retains the record retention requirements that apply under current law. Next, the bill references the operating log in connection with requirements for inspections, but it eliminates the general operating log requirements. Finally, the bill eliminates some reporting requirements and retains other reporting requirements. Specifically, the bill 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 bill retains a requirement to submit an annual summary report, containing statistical summaries of annual and cumulative project data.

PROOF OF FINANCIAL RESPONSIBILITY FOR LONG-TERM CARE OF THE MINING WASTE SITE

Under **current law and the bill**, 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 current law, a similar requirement applies to waste site facilities constructed for prospecting metallic minerals.)

Under **current law**, a mining waste facility owner must 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 have passed since the closure of the mining waste site, the owner may apply to the DNR for termination of the obligation to provide proof of financial responsibility for the long-term care of the site.² If the owner does not submit such an application, the obligation to maintain proof of financial ability continues indefinitely. [s. 289.41 (1m) (b) 2m., Stats.]

After an owner submits an application to have the obligation terminated, the DNR may 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 is requested, if it determines that proof of financial responsibility for long-term care of the site is no longer required. The DNR must make its decision within 120 days after the publication of a notice regarding the opportunity

² 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.

for public comment or within 60 days after a public hearing is adjourned, whichever is later. [s. 289.41 (1m) (g), Stats.]

Under ***the bill***, 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 bill does not provide for a public hearing regarding that question.

FEES RELATING TO SOLID WASTE DISPOSAL

Under ***current law***, a person who proposes to construct mining solid waste facility generally must 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 must 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 is greater. An owner or operator of a waste disposal site must also pay a groundwater fee; an environmental repair fee; a waste facility siting board fee; and a recycling fee.

The bill 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.

IMPACTS TO WETLANDS

With respect to wetlands, ***the bill*** does not change the general jurisdiction of the state, the permitting process that the DNR uses for evaluating applications for water quality certification, the concept that wetland water quality standards require that various functional values of wetlands be protected from adverse impacts, or the criteria to be used to assure the maintenance or enhancement of these functional values. Similar to current law, the bill requires wetland impacts to first be avoided, then minimized, and then mitigated.

However, the bill makes several significant changes to the standards governing wetland permits, as detailed below. Unlike current law, the bill *requires* the DNR to issue water quality certifications if any impacts that remain after all practical measures are taken to avoid and minimize impacts are offset by mitigation, as defined in the bill and discussed below.

WETLAND PERMITTING PROCESS

Under ***current law***, a person who proposes to place fill in wetlands in Wisconsin generally must obtain a permit. If the wetland is a "federal wetland" the applicant must obtain a permit from the U.S. Army Corps of Engineers (ACE) and the DNR must certify that the activity will not violate the state's water quality standards for wetlands, termed a "water quality certification." The DNR generally issues a water quality certification if it finds that no

practicable alternative exists that would avoid adverse impacts to wetlands, all practicable measures to minimize adverse impacts to the functional values of the affected wetlands have been taken, and the activity will not result in significant adverse impacts to wetland functional values or to water quality, or cause other significant adverse environmental consequences. [s. 281.37 (2) (b), Stats.; s. NR 103.08 (4) (a), Wis. Adm. Code.]

Placing fill in non-federal wetlands³ in Wisconsin also requires water quality certification from the DNR but is not subject to the ACE permit requirements. Numerous activities other than filling (such as draining or dredging) may also be evaluated based on their effects on wetlands as part of the review of any separate permit requirement for such an activity. Water quality standards for wetlands are narrative standards that describe “beneficial uses” or “functional values”⁴ of a wetland such as flood water retention, groundwater recharge or discharge, and fish and wildlife habitat. [ss. 281.15 and 281.36, Stats.; s. NR 1.95 (3) and chs. NR 102-105 and 299, Wis. Adm. Code.]

Under current law, with respect to metallic mining, wetland impacts and other environmental impacts are balanced, recognizing that it may be impossible to site a mine without some adverse impacts to wetlands, as mining activities are defined by the location of the ore body and limited by cost and technological constraints.

Under ***the bill***, for federal wetland approvals, the DNR may impose requirements in addition to those contained in an ACE permit only as required to address impacts not addressed in the ACE permit. The bill prohibits the DNR from requiring more mitigated acres than the acreage required under the ACE permit.

For non-federal wetlands, the bill limits the DNR’s review to evaluating alternative site configurations within the area of the ore body to be mined and directs the DNR to determine which configuration best avoids and minimizes impacts to non-federal wetlands. It directs the DNR, in evaluating these impacts, to recognize all of the following:

- The limitations associated with the location of the ore body.
- The need for the processing facilities and waste sites to be contiguous to the mine.
- The presumption that there will be impacts to non-federal wetlands.

The bill 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 areas of special natural resource interest (“ASNRI”), and to wetlands in areas of special natural

³ Non-federal 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).

⁴ 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.

resource interest (“ASNRI wetlands”), and that the use of wetlands for mining activities in a way that would result in a significant adverse impact on wetlands is presumed to be necessary.⁵

Finally, the bill requires that in evaluating the significant adverse impacts to wetlands, the DNR must compare the functional values of the wetlands that will be impacted by the mining project with other wetlands and water bodies in the region.

EXEMPTIONS

Exempt activities in wetlands

Under ***current law***, the following activities are generally exempt from permitting requirements for non-federal wetlands: normal farming, silviculture, or ranching activities; maintenance, emergency repair, or reconstruction of damaged parts of structures that are in use in a wetland; construction or maintenance of irrigation or drainage ditches; and construction or maintenance of farm roads, forest roads, or temporary mining roads that is performed in accordance with best management practices, as determined by the DNR. However, the exemptions do not apply to new activities, activities that impair the flow or circulation of a non-federal wetland, or activities that reduce the reach of a non-federal wetland. [s. 281.36 (4), Stats.]

The bill retains the exemptions provided under current law. However, the bill does not include the restriction on the exemptions as applied to new activities, activities that impair the flow or circulation of a non-federal wetland, or activities that reduce the reach of a non-federal wetland.

Artificial wetlands

Under ***current law***, artificial wetlands are also currently exempt from wetland water quality standards unless the DNR determines that significant functional values are present. [s. NR 103.06 (4), Wis. Adm. Code.] ***The bill*** includes an exemption for artificial wetlands but does not condition this exemption on the DNR not determining that significant functional values are present.

WETLAND MITIGATION

The term “wetland mitigation” or “compensatory mitigation” refers to actions taken to offset the negative impacts of a project on wetlands. These activities may consist of the restoration or enhancement of previously destroyed or degraded wetlands or the creation of new wetlands or

⁵ Under current law, an ASNRI is defined as an area that possesses significant ecological, cultural, aesthetic, educational, recreational, or scientific values. ASNRI wetlands are further defined as wetlands both within the boundary of ASNRI and wetlands that are in proximity to or have a direct hydrologic connection to ASNRI. [See s. NR 103.04, Wis. Adm. Code.]

the purchase of credits from a wetland mitigation bank.⁶ Wetland mitigation may be part of both the ACE and the DNR wetland permitting processes.

Under **current law**, the DNR may not consider a mitigation proposal unless the applicant demonstrates that all appropriate and practicable measures will be taken to avoid and minimize adverse impacts on wetlands. [s. 281.37 (2) (b), Stats.; s. NR 103.08 (4) (a), Wis. Adm. Code.] A similar requirement is included in the bill.

As noted above, under current law, a water quality certification analysis for wetlands includes the evaluation of the overall impact of a proposal on wetland functional values. [s. NR 103.08 (2) and (4) (a), Wis. Adm. Code.] Where mitigation may be included in a proposal, the DNR may consider the positive effect of mitigation as part of its evaluation of wetland functional values. [s. NR 103.08 (4) (a) 3., Wis. Adm. Code.] The DNR's authority to consider mitigation projects does not *entitle* the applicant to a permit or other approval in exchange for conducting a mitigation project; rather, mitigation is intended to *allow* the DNR to approve permit applications that it might be inclined to disapprove, absent the opportunity to use mitigation to offset the negative impacts of a proposed project.

The bill allows the applicant to propose a wetlands compensation and mitigation program to offset any significant impacts to wetlands. The bill lists the activities that can be part of such a program and includes activities that would not qualify as wetland mitigation under current law. Under the bill, a wetland compensation and mitigation program may include any of the following:

- Compensation and mitigation activities, as defined in the bill.
- Protection of upland groundwater recharge areas.
- Shoreline stabilization projects.
- Riparian restoration projects.
- Purchase of credits from a mitigation bank, located anywhere in the state.

As part of a compensation and mitigation plan, the bill requires an applicant to identify and consider compensation and mitigation that could be conducted in the same watershed in which the mining site is located. **Current law** prohibits the DNR from considering proposed mitigation as part of the review of an application for water quality certification for any part of a project that will adversely impact an ASNRI wetland. [s. 281.37 (2) (c), Stats.; s. NR 103.08 (4) (b), Wis. Adm. Code.] Under **the bill**, mitigation may be used to offset adverse impacts to all types of wetlands, including ASNRI wetlands.

⁶ "Mitigation project" means the restoration, enhancement, or creation of wetlands to compensate for adverse impacts to other wetlands. "Mitigation project" includes using credits from a wetlands mitigation bank. [s. 281.37 (1) (b), Stats.]

With limited exceptions, **current law** requires the equivalent of 1-1/2 acres of mitigated wetlands for every acre that is adversely impacted. [s. NR 350.06, Wis. Adm. Code.] In determining this equivalency, restoration, enhancement, and creation of wetlands are weighted differently: each acre restored wetland receives one credit; each acre of enhanced wetland receives zero to one credit; and each acre of created wetland receives 1/2 credit. [s. NR 350.07, Wis. Adm. Code.] **The bill** 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.

Current law generally requires that mitigation must occur within 1/2 mile of an impacted wetland, which is considered “on-site” mitigation. If the DNR determines that on-site mitigation is not practicable, or that it is ecologically preferable that the mitigation occur off-site, the DNR must allow mitigation to be performed as near as practicable to the location of the adversely impacted wetland. [s. NR 350.04, Wis. Adm. Code.] **The bill** adds a third scenario in which off-site mitigation is authorized. Under the bill, mitigation may occur off-site if on-site mitigation is not practicable, or if off-site mitigation is ecologically preferable, or if there is insufficient wetland acreage on-site. As noted, under the bill, such mitigation may include purchases of credits from a mitigation bank located anywhere in the state.

IMPACTS TO NAVIGABLE WATERS

Current law requires DNR permits for the following activities affecting navigable water bodies: 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.

As described below, **the bill** creates a new, single set of standards governing the DNR’s issuance of all such permits, if the permits are applied for in connection with a ferrous mining project. In addition, whereas under current law a mine operator may need to submit multiple permit applications for different activities impacting navigable waters, the bill specifies that a person applying for more than one permit or contract for a navigable water activity may submit a single application.

The bill also makes changes regarding *who* may apply for a permit to engage in a navigable water activity. **Current law** requires applicants for some permits (for example, permits for structures and deposits and permits for changing stream courses) to be riparian land owners. In contrast, **the bill** provides that persons engaged in bulk sampling or mining need not be a riparian owner to obtain any of the permits related to navigable water impacts required under current law.

PERMIT STANDARDS

As mentioned, **current law** requires permits to be obtained for each of five types of activities affecting navigable water bodies. For all of the navigable waters permits, current law specifies some types of activities that are exempt from the individual permit requirement. Where individual permits are required under current law, each permit type has a different set of applicable standards.

In contrast, ***the bill*** establishes a single set of standards governing the issuance of a navigable water activity permit. Specifically, it requires the DNR to issue a permit or enter into a contract approving a navigable water activity 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; and
- The activity will not significantly degrade water quality.

The bill requires a person applying for this type of permit or contract to submit a plan to the DNR containing “measures” that the applicant proposes to implement to offset any significant navigable waters impacts associated with the proposed ferrous mining project. These measures may include providing public access to, restoring, or enlarging up to 1.5 acres of navigable waters 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 bill; or conservation measures as provided under the water withdrawal provisions in the bill. If the DNR concludes that implementation of these measures offset the adverse navigable waters impacts to the extent that the standards discussed in the preceding paragraph will be met by the applicant, the DNR must issue the permit or enter into the contract.

WATER WITHDRAWALS

Under ***current 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. Current law provides specific rules governing such activities in the context of mining projects. Specifically, for metallic mining projects, a surface water withdrawal permit is generally required for the withdrawal of water from a lake or stream if the withdrawal will result, in any 30-day period, in a water loss of two million gallons per day above the authorized base level⁷ of water loss of the person making the withdrawal. A high-capacity well approval is 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 exceeds 100,000 gallons each day. In addition, a new or modified surface water or high-capacity well approval is typically required if water withdrawals will result in a water loss beyond a specified threshold amount.

⁷ 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.

The bill similarly requires that a person must obtain a permit before withdrawing or using surface water and before withdrawing groundwater as part of a 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 bill does not require separate approvals for those two types of water withdrawals. Instead, for ferrous mining projects, the bill creates a single permit, termed a “mining water withdrawal permit.” The mining water withdrawal permit is governed by different standards than apply under current law.

Under **current law**, upon receipt of an application for a surface water withdrawal permit relating to a metallic mining project, the DNR must 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.⁸ The DNR must also hold a public hearing on the permit to take testimony on specified issues, such as public rights and benefits and the rights of competing users of the water resources. Within 30 days of the hearing, the DNR must issue or deny the permit, based on the following standards:

- If injury to public rights exceeds the public benefits generated by the mining, the DNR must deny the permit.
- If the proposed withdrawal will consume nonsurplus waters and will unreasonably injure rights of riparians who are beneficially using such waters, the DNR must deny the permit, unless it grants a permit based on modifications of a proposed withdrawal made to avoid injury to public or riparian rights or all affected riparians consent to the proposed withdrawal.
- In all other cases, the DNR must grant the permit.

[s. 293.65 (2), Stats.]

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

- The well is 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 will be lost from the water basin in which the well is located as a result of interbasin diversion or consumptive use, or both.

⁸ “Surplus water” means water of a stream that is not being beneficially used, as determined by the DNR. [ss. 30.01 (6d) and 293.65 (2) (b), Stats.]

- The well may have a significant environmental impact on a spring.

[s. 281.34 (4), Stats.]

With certain exceptions, the DNR may not approve construction of a high-capacity well that will 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 may include conditions in a permit necessary to avoid any of these impacts. [s. 281.34 (5), Stats.]

The bill replaces the standards applicable to both surface water withdrawal permits and high-capacity well construction approvals. Under the bill, 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 are 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.

In addition, in determining whether a proposal satisfies the requirements listed above, the DNR must consider whether the public benefits resulting from a ferrous mining operation exceed any injury to public rights and interests in a body of water affected by the operation. In making such considerations, the bill requires the DNR to recognize that the withdrawal and

use of the waters of the state in connection with mining is in the public's interest and welfare and fulfills a public purpose. The bill also requires the DNR to consider several specific factors regarding the public benefits of mining operations and other public and private interests.

The bill also authorizes the DNR to require a permit applicant to offset a significant impact to a public or private water supply. The bill 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.

The bill 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 bill 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

Under *current law*, 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 preventative action limits, which represent the percentage of an enforcement standard that may trigger action by DNR to prevent further groundwater contamination.

Outside the boundaries of a designated "design management zone," current law requires certain projects requiring DNR approval, including mining and prospecting operations, to adhere to such enforcement standards.⁹ 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.¹⁰ [s. NR 140.26 (2) (a), Wis. Adm. Code.]

Under current law, the horizontal distance to the boundaries of a design management zone for metallic mining projects is generally: 1,200 feet from the outer waste boundary for a mining waste facility; 1,200 feet from the edge of a metallic mineral surface mine or surface prospecting excavation; and 1,200 feet from the maximum outer edge of the underground

⁹ Current law exempts metallic mining projects from general statutes governing groundwater quality and authorizes the DNR to promulgate rules establishing groundwater standards for metallic mining projects, notwithstanding statutes that generally govern groundwater quality. [ss. 160.19 (12) and 293.15 (11), Stats.] However, DNR administrative rules require prospecting and mining sites and mining waste sites to comply with generally applicable groundwater quality standards. [s. NR 182.075, Wis. Adm. Code.]

¹⁰ A smaller design management zone has the effect of stricter regulation, because enforcement actions are taken when contaminants have traveled a lesser distance in groundwater than would be the case with a larger design management zone.

prospecting or mine workings for an underground metallic mineral mine or prospecting excavation.

Under ***the bill***, 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 property boundary, whichever distance is less.

The bill modifies the DNR's authority to change a given design management zone. Under current law, the DNR may reduce the distance to the boundary of a design management zone for a metallic mining site in specified circumstances, but it may not expand it. In contrast, the bill authorizes the DNR to expand a design management zone for a ferrous mining site by an additional 1,200 feet in any direction, if the DNR determines that preventive action limits and enforcement standards will be met at the boundary of the expanded design management zone and that preventive action limits and enforcement standards cannot be met at the boundary of the zone if it is not expanded. The bill does not appear to authorize the DNR to reduce the size of a design management zone for ferrous mining projects.

Finally, the bill modifies the vertical boundaries of design management zones. Under current law, design management zones for metallic mining sites extend vertically from the land surface through all saturated geological formations. Under the bill, 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.

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 ***current law***, an applicant for a mining permit must demonstrate compliance with local zoning ordinances, including shoreland and floodplain zoning ordinances. However, in some cases, the DNR may directly authorize specified mining facilities in such areas, or municipalities may 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 bill exempts specified activities relating to ferrous mining from floodplain and shoreland zoning ordinances. Specifically, the bill 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 or floodplain zoning ordinance, if the activity is authorized as part of a ferrous mining permit. It likewise provides that such activities do not violate floodplain or shoreland zoning ordinances if they are authorized by the DNR as part of a mining operation covered by a ferrous mining permit. Finally, the bill specifies that an applicant for a ferrous mining permit need not obtain a variance from floodplain or shoreland zoning ordinance for such activities.

EFFECT OF OTHER LAWS

Under **current law**, if there is a conflict between a substantive standard in the metallic mineral mining law and another state or federal standard, the other standard controls. [s. 293.93, Stats.] However, procedures and timelines in the mining law apply to all permits and approvals required in connection with a metallic mine, provided that an applicant submits applications for such approvals in a timely manner. [s. 293.43 (1m) (b), Stats.]

Under **the bill**, 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 bill.

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

This memorandum was prepared by Anna Henning, Staff Attorney, and Larry Konopacki, Senior Staff Attorney, on January 25, 2012.