State of Wisconsin

LEGISLATIVE REFERENCE BUREAU

☞ Appendix A ... segment XII

LRB BILL HISTORY RESEARCH APPENDIX

☞ The drafting file for 2011 LRB–3458/2 (For: Rep. Honadel)

has been copied/added to the drafting file for

2011 LRB–3520 (For: Rep. Honadel)

☞ Are These "Companion Bills" ?? ... No

RESEARCH APPENDIX -

PLEASE KEEP WITH THE DRAFTING FILE

Date Transfer Requested: 11/22/2011 (Per: JK)

☞ The attached draft was incorporated into the new draft listed above. For research purposes the attached materials were added, as a appendix, to the new drafting file. If introduced this section will be scanned and added, as a separate appendix, to the electronic drafting file folder.

(a) "Groundwater flow net" means a drawing showing equipotential contour lines and the direction that groundwater will flow.

(c) "Regional" means relating to the area that may affect or be affected by a proposed mining waste site, which ordinarily will not exceed the area within a radius of 5 miles of the mining waste site.

(e) "Water budget" means an assessment of water inputs, outputs, and net changes to a natural system or engineered facility over a fixed period.

(f) "Well nest" means 2 or more wells constructed to different depths and installed within 10 feet of each other at the ground surface.

(1e) HAZARDOUS MINING WASTE. (a) Prior to the informational hearing under s. 295.57 (5) the department shall designate any mining wastes identified by the department as hazardous under s. 291.05 (1).

(b) The disposal of any mining wastes that are identified by the department as hazardous under s. 291.05 (1) in a mining waste site is subject to this subchapter, and not to chs. NR 660 to 669, Wis. Adm. Code, except as necessary to comply with applicable federal regulations adopted under the federal Resource Conservation and Recovery Act, 42 USC 6901 to 6991m.

(1m) LOCATION CRITERIA. (a) Except as provided in par. (b), no person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within 1,000 feet of any of the following:

1. The nearest edge of the right–of–way of any state trunk highway, as defined in s. 340.01 (60).

2. The boundary of any state or national park.

3. The boundary of a scenic easement purchased by the department or the department of transportation.

4. The boundary of a designated scenic or wild river.

5. A scenic overlook designated by the department by rule.

6. A hiking or biking trail designated by the department or the U.S. Congress.

(b) The prohibition in par. (a) does not apply if, regardless of season, the proposed mining waste site is visually inconspicuous due to screening or being visually absorbed due to natural objects, compatible natural plantings, earth berm, or other appropriate means; or if, regardless of season, the proposed mining waste site is screened so as to be as aesthetically pleasing and inconspicuous as is feasible.

(be) Except as provided in par. (bn), no person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within 1,000 feet of a navigable water that is a lake, pond, or flowage.

(bg) Except as provided in par. (bn), no person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within 300 feet of a navigable water that is a river or stream.

(bn) The prohibitions in pars. (be) and (bg) do not apply to an activity that is associated with a mining waste site and that is approved by the department under s. 295.60, 295.605, or 295.61.

(bq) No person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within a floodplain.

(bt) No person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, in an area within the property owned by the mining operator and on which the mining site is located if the area is closer than 200 feet to the outer boundary of that property.

(c) No person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within 1,200 feet of any public or private water supply well that provides water for human consumption.

(d) No person may locate or operate a mining waste site, excluding the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste, within an area that contains mineral resources that are known at the time the application for the mining permit is issued, are likely to be mined in the future, and lie within 1,000 feet of the surface.

(1s) BACKFILLED WASTE SITE. For surface mining, the portion of a mining site from which ferrous minerals are extracted and that is backfilled with mining waste and any buildings, structures, roads, or drainage controls associated with that portion of the mining site may be considered a single mining waste site.

(2) GENERAL. An applicant for a mining permit shall submit as part of the application a mining waste site feasibility study and plan of operation that demonstrates the suitability of the proposed mining waste site for the disposal of mining wastes and that describes the operation of the mining waste site.

(3) WASTE CHARACTERIZATION AND ANALYSIS. For the purposes of this section, the applicant shall perform waste characterization and analysis, to identify the quantities, variability, and physical, radiological, and chemical properties of each

mining waste as necessary to assess the potential environmental impact of handling, storage, and disposal. The applicant may include in the waste characterization and analysis a review of the literature and results from similar existing facilities, materials, or studies. For the purpose of the waste characterization and analysis, the applicant shall conduct testing on representative samples of materials available, on individual mining wastes from the mining process, and if the applicant proposes mixed storage or disposal of individual mining wastes, on composite mining wastes. If physical or chemical segregation of a mining waste is proposed, the applicant shall test each individual waste resulting from the physical or chemical segregation. The applicant shall complete all of the following components of the waste characterization and analysis:

(a) Identification of all mining wastes that will be disposed of or stored in the mining waste site, including classification of mining waste types, estimates of the rates of generation and volumes of each type, and an explanation of the proposed ultimate disposition of each type.

(b) Chemical, radiological, physical, and mineralogical analyses of each type of mining waste.

(c) Analyses of the particle size of the mining wastes.

(d) Chemical and physical characteristics testing, including testing to determine the leaching potential of the mining wastes and the composition of the resulting leachate, using, at a minimum, the method in federal environmental protection agency publication EPA 600/2–78–054, except that this testing is not required if the applicant demonstrates, based on the analyses in pars. (b) and (c) or on past experience, that there is not a probability for significant environmental damage or a probability of an adverse impact on public health, safety, or welfare.

(4) SITE SPECIFIC INFORMATION. In addition to performing the mining waste characterization and analysis under sub. (3), for the purposes of the mining waste site feasibility study and plan of operation, an applicant shall conduct field and laboratory investigations to determine physical, chemical, and biological characteristics of the proposed mining waste site. The applicant shall do all of the following:

(a) Perform field investigations to determine the specific topography, soil types, and depth to bedrock and groundwater.

(b) Perform at least one soil boring, to bedrock or refusal, every 80 acres, characterizing the major geomorphic features such as ridges and lowlands and characterizing each major soil layer according to the unified soil classification system.

(c) Prepare a boring log for each soil boring, including soil and rock descriptions, method of drilling, method of sampling, sample depths, date of boring, and water level measurements and dates, with elevations referring to United States geological survey mean sea level datum.

(d) Collect soil samples to adequately determine the geology and ensure the proper design and monitoring of the mining waste site, including doing all of the following:

1. Collecting the soil samples at not greater than 5 foot depth intervals, unless physical conditions such as soil homogeneity indicate that greater intervals are adequate.

2. Collecting the soil samples using generally accepted techniques for sampling undisturbed soils, where that is appropriate.

3. Classifying all soil samples according to the unified soil classification system.

(e) Perform soil tests as necessary for classification and correlation purposes and to develop necessary geotechnical design parameters for the mining waste site, without compositing soil samples.

(f) Determine the hydraulic conductivity of the various soil strata, using in situ hydraulic conductivity testing procedures as appropriate to confirm values determined in the laboratory.

(g) Determine horizontal and vertical groundwater flow patterns in and around the proposed mining waste site based on data obtained from groundwater monitoring wells and piezometers constructed in conformity with ch. NR 141, Wis. Adm. Code.

(h) Conduct a program to establish baseline water quality through monitoring groundwater and surface water in the vicinity of the mine and the proposed mining waste site on a monthly basis and establishing physical–chemical and biological characteristics of the concentrations of substances in the water before mining begins at the mining site. The applicant shall do all of the following:

1. Select physical–chemical parameters based on transport and transformation mechanisms in the environment as well as other factors affecting the mobility and toxicity of pollutants.

2. Select biological parameters based on the environmental characterizations under sub. (5) (g), the degree of impact predicted, and the potentially affected organism's sensitivity to contaminants.

3. Establish a final parameter list for groundwater and surface water based on preliminary sampling and known information concerning the waters in the vicinity

of the mine and the mining waste site, consideration of applicable water quality standards, and the geology and composition of the ferrous mineral deposit that will be mined. At a minimum, in the program under this paragraph the applicant shall collect water quality data for all of the following parameters:

a. Specific conductance.

b. Temperature.

c. Hydrogen ion concentration (pH).

d. Dissolved oxygen.

e. The major anions sulfate, chloride, and bicarbonate.

f. The major cations calcium, magnesium, potassium, and sodium.

g. Other total and dissolved metals, including aluminum, iron, and manganese, that may be introduced by the mining activities.

h. General chemistry, including total alkalinity, total organic carbon, gross alpha, gross beta, ammonia, nitrate, total dissolved solids, total hardness, and total suspended solids.

(5) CONTENTS RELATED TO WASTE SITE FEASIBILITY. An applicant shall include all of the following in the mining waste site feasibility study and plan of operation:

(a) A description of the mining waste site location, proposed acreage, proposed mining waste site life and range of disposal capacity, and estimated types and quantities of mining wastes to be contained.

(b) A description of the mining waste characterization and analysis conducted under sub. (3), including a description of the test methods used in evaluating the characteristics of the mining waste and the procedures and records for documenting the chain of custody of the test samples.

(c) An existing site conditions plan sheet consisting of a topographic survey of the area, with elevations tied to United States geological survey mean sea level datum, illustrating the property boundaries, proposed boundaries of the mining waste site, survey grid and north arrow, buildings, water supply wells, utility lines, other man–made features, soil boring locations, observation well locations, and other pertinent information.

(d) A series of geologic cross–sections illustrating existing topography; soil borings; soil classification; soil properties; interpreted soil stratigraphy; bedrock; well and boring locations and constructions; and stabilized water level readings.

(e) A water table map, using the existing site conditions plan under par. (c) as a base, that is based on stabilized water level readings and, if seasonal changes in groundwater levels are significant, maps those changes.

(f) If more than 2 well nests are constructed, groundwater flow nets to illustrate horizontal and vertical flow, which may be illustrated on the geologic cross–sections under par. (d), if appropriate.

(g) An environmental characterization that describes the structure and functional relationships of ecosystems potentially affected by the proposed mining waste site.

(h) A report on the water quality data collected under the baseline monitoring program under sub. (4) (h) to establish baseline water quality.

(i) A land use map, using the existing site conditions plan under par. (c) as a base, showing plant communities, wildlife habitat, places where rare and endangered species have been sighted, archaeological or historic sites, buildings, and areas of social importance.

(j) A table showing existing water quality of all potentially affected surface waters, indicating important aquatic habitat.

(k) Local climatological data for seasonal precipitation, evaporation, air temperature, and wind velocity and direction. The applicant may use an annual record on the proposed mining waste site or adequate data to correlate the proposed mining waste site conditions to an existing observation station as the basis for this data.

(L) A discussion of regional conditions, supplemented with maps or cross–sections where appropriate, addressing all of the following:

1. Topography.

2. Hydrology, including surface water drainage patterns and important hydrologic features such as navigable waters, springs, drainage divides, and wetlands.

3. Geology, including the nature and distribution of bedrock and unconsolidated deposits.

4. Hydrogeology, including depth of groundwater, flow directions, recharge and discharge areas, groundwater divides, aquifers, and the identification of the aquifers used by all public and private wells within at least 1,200 feet of the proposed mining waste site.

5. Groundwater and surface water quality and precipitation chemistry.

6. Climatology.

7. Identification of owners of land adjacent to the proposed mining waste site.

8. Zoning.

9. Existing land uses with particular emphasis on known recreational, historic, archaeological, scientific, cultural, or scenic significance.

10. Existing or proposed access roads and weight restrictions on those roads.

11. Identification of aquatic and terrestrial ecosystems such as stream orders and classifications.

(m) A discussion of alternative methods of disposing of mining waste materials, including an analysis of the practicability of the reuse, sale, recovery, or processing of the mining wastes for other purposes.

(n) An analysis of the results of the mining waste characterizations under sub. (3), the site specific information under sub. (4) and this subsection, and the regional information under par. (L) in relation to the approach for locating the mining waste site and developing appropriate design, construction, operation, monitoring, and long–term care requirements for each type of mining waste.

(o) A proposed mining waste site design, based on conclusions resulting from analysis of the mining waste characterizations under sub. (3) and the site data under sub. (4), that includes all of the following:

1. A map, using the existing site conditions plan under par. (c) as a base, that shows proposed access, lateral extent of filling, and phases of mining waste site development.

2. A series of cross–sections, using the geological cross–sections under par. (d) as the base, that show existing topography, proposed base grades, and final grades.

3. Preliminary earthwork balance calculations, showing amounts of materials expected to be moved on the mining waste site prior to the disposal of mining waste.

4. Proposed methods for leachate control.

5. Proposed methods of mining waste site development, phasing, access control, and other special design features.

6. Expected material balances showing the quantities of each type of mining waste identified in par. (a) showing the amounts generated, disposed of on site, and taken off site, including all of the following:

a. The projected conditions existing at the end of a typical year of production.

b. The projected conditions existing at the end of operations.

c. The projected conditions existing at the end of reclamation.

7. A discussion of the reasoning behind the design of the major features of the mining waste site, such as traffic routing, base grade and relationships to subsurface conditions, anticipated waste types and characteristics, phases of development, mining waste site monitoring, and similar design features.

8. A proposed monitoring program, based on potential variations in the quality and quantity of mining waste and methods of processing, transport and disposal, and on the variability of important environmental conditions, designed to monitor the proposed mining waste site for compliance with all environmental standards that are applicable under this subchapter.

9. The results of engineering and hydrologic modeling to assess mining waste site performance relative to compliance with applicable groundwater quality standards to a depth of not more than 1,000 feet into the Precambrian bedrock or to the final depth of the mining excavation, whichever is greater, and to compliance with applicable surface water quality standards, examining a period equal to the proposed period in which the mining waste site is proposed to operate plus 100 years after closure of the mining waste site. The applicant may also include information from other mining operations and operations for the extraction of nonferrous metallic minerals to substantiate that the proposed mining waste site design, including associated contingency plans and monitoring and response plans, will

allow for the operation and closure of the mining waste site in a manner that will not substantially adversely affect groundwater and surface water quality in accordance with applicable standards.

10. If the applicant proposes to expand an existing mining waste site, an evaluation of the existing mining waste site design and operation.

(p) Preliminary water budgets for the periods before construction, during construction, and after closure of the mining waste site, each addressing climatological situations depicting dry, wet, and average precipitation and evaporation conditions, based on climatological records. In preparing the water budget, the applicant shall consider precipitation, slurry water input and return, evaporation, surface runoff, evapotranspiration, the moisture holding capacity of soil and mining waste, and the velocities and volumes of groundwater flow. In the water budget, the applicant shall describe the estimated amount and quality of seepage and discharge to surface water and groundwater.

(q) An analysis of the impact of the mining waste site on aesthetics and how any impact can be minimized or mitigated to the extent practicable.

(r) Data regarding the safety factors of tailings basin embankments, considering the following, on a case–by–case basis:

1. Geology of the mining waste site including type and homogeneity of the foundation.

2. Materials and methods to be used for embankment construction.

3. Physical and chemical characteristics of the mining waste as deposited and predicted changes through time.

4. The potential area to be affected in case of failure, considering land use and the surrounding environment.

5. Requirements of the mine safety and health administration of the federal department of labor.

(s) An economic analysis, including an engineer's cost estimate, for mining waste site closure and long–term care.

(t) Identification and analysis of alternatives to the design and location of any new proposed mining waste site and discussion of operation alternatives to the extent they have a significant impact on design and location alternatives.

(u) An appendix that includes all of the following:

1. Boring logs, soil tests, well construction data, and water level measurements.

2. A description of the methods and equations used in the analysis of the raw data.

3. References.

(6) CONTENTS RELATING TO OPERATION. An applicant for a mining permit shall submit as part of the mining waste site feasibility study and plan of operation provisions relating to operation of the mining waste site including all of the following:

(a) Engineering plans consisting of all of the following:

1. An existing site conditions plan sheet indicating site conditions before development to the extent not provided under sub. (5).

2. A base grade plan sheet indicating mining waste site base grades or the appearance of the mining waste site if it were excavated in its entirety to the base elevation, before installation of any engineering modifications and before disposal of any mining wastes.

3. An engineering modifications plan sheet indicating the appearance of the mining waste site after installation of engineering modifications.

4. A final site topography plan sheet indicating the appearance of the site at closing including the details necessary to prepare the mining waste site for reclamation and long–term care.

5. A series of phasing plan sheets showing initial mining waste site preparations for each subsequent major phase or new area where substantial mining waste site preparation must be performed, along with a list of construction items and quantities projected to be necessary to prepare the phase indicated.

6. A site monitoring plan sheet showing the location of all devices for the monitoring of leachate quality, leachate production, and groundwater quality and levels in both the natural zone of saturation and that developed within the mining waste site, along with a table indicating the parameters to be monitored for and the frequency of monitoring before and during mining waste site development.

7. A long–term care plan sheet showing the completion of closure and indicating those items anticipated to be performed during the period of long–term care for the mining waste site, along with a discussion of the procedures to be used for the inspection and maintenance of runoff control structures, settlement, erosion damage, leachate control facilities, and leachate and groundwater monitoring and a table listing those items and the anticipated schedule for monitoring and maintenance.

8. If applicable, the following information on the plan sheets under subds. 1. to 7.:

a. A survey grid with baselines and monuments to be used for field control.

b. Limits of filling for each major mining waste type or fill area.

c. All drainage patterns and surface water drainage control structures both within the actual fill area and at the perimeter of the mining waste site, including

any berms, ditches, sedimentation basins, pumps, sumps, culverts, pipes, inlets, velocity breaks, sodding, erosion matting, vegetation, or other methods of erosion control.

d. The method of placing mining waste within each phase.

e. Ground surface contours at the time represented by the drawing, indicating spot elevations for key features.

f. Areas to be cleared, grubbed, and stripped of topsoil.

g. Borrow areas for liner materials, granular materials for filter beds, berms, roadway construction, and cover materials.

h. All soil stockpiles, including soils to be used for cover, topsoil, liner materials, filter bed materials, and other excavation.

i. Access roads and traffic flow patterns to and within the active fill area.

j. All temporary and permanent fencing.

k. The methods of screening such as berms, vegetation, or special fencing.

L. Leachate collection, control, and treatment systems, including any pipes, manholes, trenches, berms, collection sumps or basins, pumps, risers, liners, and liner splices.

m. Leachate and groundwater monitoring devices and systems.

n. Disposal areas for severe weather operations.

o. Support buildings, utilities, gates, and signs.

p. Handling areas for the segregation of various types of mining waste.

q. Construction notes and references to details.

r. On the appropriate plan sheet, the location of each cross–section under subd. 9., with the section labeled using the mining waste site grid system.

9. A series of mining waste site cross–sections, drawn perpendicular and parallel to the mining waste site baseline at a maximum distance of 500 feet between cross–sections and at points of important construction features, each cross–section showing, where applicable: existing and proposed base and final grades; soil borings and monitoring wells that the section passes through or is adjacent to; soil types, bedrock, and water table; leachate control, collection, and monitoring systems; quantity of mining waste and area filled by each major mining waste type; drainage control structures; access roads and ramps on the mining waste site perimeter and within the active fill area; the filling sequence or phases; and other appropriate site features.

10. Drawings and typical sections for, as appropriate, drainage control structures, tailings distribution systems, access roads, fencing, leachate control systems and monitoring devices, buildings, signs, and other construction details.

(b) A plan for initial site preparations, including a discussion of the field measurements, photographs to be taken, and sampling and testing procedures to be used to verify that the in–field conditions encountered were the same as those defined in the mining waste site feasibility study and plan of operation and to document that the mining waste site was constructed according to the engineering plans and specifications submitted for department approval.

(c) A description of typical daily operations, including a discussion of the timetable for development; methods for determining mining waste types disposed of or excluded; typical mining waste handling techniques; hours of operation; traffic routing; drainage and erosion control; windy, wet, and cold weather operations; fire protection equipment; methods for dust control; method of placing mining waste

materials; monitoring; closure of filled areas; leachate control methods; and critical backup equipment.

(d) An analysis of the financial responsibility for closure and long–term care from the time of closing of the mining waste site to termination of the obligation to maintain proof of financial responsibility for long–term care.

(e) A description of procedures for backfilling all soil borings and monitoring wells when they are abandoned.

(f) A contingency plan to prevent or minimize damage to human health or the environment in the event of an accidental or emergency discharge or other condition that does not comply with conditions of the mining permit or other applicable standards. The applicant shall ensure that the plan does all of the following:

1. Follows the spill prevention, control, and countermeasures plan in regulations promulgated under 33 USC 1321.

2. Indicates, for the monitoring programs required under sub. (5) (o) 8., the levels of substances that if exceeded require the operator to activate the contingency plan.

3. Includes a provision for more concentrated and frequent monitoring in the area of any excessive measurement.

4. Describes possible accidental or emergency discharges or other unplanned events and identifies the corresponding corrective action or alternative action to be implemented should the criteria for action be exceeded.

5. Specifies the action to be taken if an analysis of groundwater samples requires a response.

(g) A list of the groundwater and surface water quality parameters for which the applicant will monitor under s. 295.643 and a description of the methods for

groundwater and surface water sample collection, preservation, and analysis that will be used.

(7) REQUIRED DEMONSTRATIONS. Through the mining waste site feasibility study and plan of operation, the applicant shall demonstrate that all of the following apply or will apply with respect to the operation of the mining waste site, excluding the area from which ferrous minerals will be extracted and that is backfilled with mining waste:

(a) No mining waste will be deposited in such a way that the mining waste or leachate from the mining waste will result in a violation of any applicable surface water quality criteria or standards, applicable wetland water quality standards, or applicable groundwater quality standards.

(b) Surface water drainage will be diverted away from and off the active fill area.

(c) Access to the mining waste site will be restricted through the use of fencing, natural barriers, or other methods approved by the department.

(d) The entire perimeter of the mining waste site will be made accessible for inspection and for earth moving equipment required for emergency maintenance.

(e) Any area to be used for the disposal of mining waste and any borrow areas will first be stripped of all topsoil to ensure that adequate amounts are available for reclamation and closure activities.

(f) Effective means will be taken to control dust resulting from the mining waste site.

(g) Provisions will be made for back–up equipment in the event of the breakdown of critical operating equipment.

(h) The design and operation specifications for mining waste site facilities include contingency measures, which may include emergency power supplies, redundant equipment, or temporary holding facilities, to deal with emergency conditions.

(hm) Any mining waste site designed with a liner or situated in soils with sufficiently low permeability to either partially or completely contain leachate is designed with a leachate management system that can effectively remove leachate, prevent surface seepage, and promote adequate settlement to permit final reclamation.

(i) All surface water drainage ditches, culverts, and other drainage control structures are designed for a rainfall event measured in terms of the depth of the rainfall occurring within a 24–hour period and having an expected recurrence interval of once in 100 years.

(j) The final slopes of the completed mining waste site will be no less than 2 percent and no greater than 50 percent, unless the mining waste site is specifically designed for a final use compatible with other slopes.

(k) The final cover design for the mining waste site is based on the results of the mining waste characterization and engineering needs identified in studying the mining waste site feasibility.

(L) Provisions are made for collection and treatment of leachate for all areas designed to contain leachate.

(m) The mining waste site is located and designed, and will be constructed and operated, so that any liner system or naturally occurring soil barrier is compatible with all mining waste that is disposed of or stored in the mining waste site.

(n) For any dam, sufficient freeboard, measured from the inside of the top of the dam, to contain a rainfall event measured in terms of the depth of the rainfall occurring within a 24–hour period and having an expected recurrence interval of once in 100 years and to prevent overtopping by waves during such a rainfall event or a minimum of 2 feet of freeboard, whichever is greater, will be provided.

(o) Drainage or filter bed material has been selected and designed to promote drainage, reduce the potential for piping, and be stable under leaching conditions.

(p) Material used in earth embankments, drainage, or filter beds, will be free of vegetation, organic soils, frozen soils, and other extraneous matter that could affect the compactibility, density, permeability, or shear strength of the finished embankment.

(q) Embankment materials and drainage or filter bed materials will be compacted to 90 percent of the maximum dry density as determined by the standard proctor compaction test, ASTM D698, or to a greater density as necessitated by the embankment height, and the materials will be compacted in appropriate layers as determined through the slope stability analysis, except that compaction and crushing of waste rock for use outside an earth core is not required.

(r) Emergency spill containment areas will be provided near the tailings pipeline in case of power or pipeline failure.

(s) Tailings pipelines will be self–draining to the tailings area or to an emergency spill containment area.

(t) The mining waste site is located in the same watershed as the surface facilities for the mining unless it is not practicable to locate the mining waste site in the same watershed as the surface facilities for the mining, as determined on a site specific basis.

(u) The disposal of the mining waste will minimize the discharge of environmental pollutants to groundwater to the extent practicable.

(w) Tailings pipelines are as short as practicable.

(x) Upstream rainfall catchment areas are minimized.

(y) The outside of the top of any dam is higher than the inside of the top of the dam so that runoff from the top is forced to the inside of the dam.

(z) The mining waste site design includes staged reclamation, if practicable.

(8) LIMITATION ON REGULATION OF CERTAIN MINING WASTE. The department 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.

(9) APPLICABILITY OF OTHER LAWS. Subchapters I to V and VII of ch. 289 and rules promulgated under those subchapters do not apply to a mining waste site, to the disposal of mining waste in a mining waste site, or to mining wastes used in the reclamation or construction of facilities and structures on the mining site.

295.53 Environmental impact statement. **(1)** CONSULTANTS. The department may enter into contracts for environmental consultant services under s. 23.41 to assist in the preparation of an environmental impact statement or to provide assistance to applicants.

(2) NOTICE. After the department receives an application for a mining permit, it shall notify the public and affected agencies that an environmental impact statement will be prepared for the proposed mine and that the process of identifying major issues under s. NR 150.21 (3), Wis. Adm. Code, is beginning.

(3) ENVIRONMENTAL IMPACT REPORT. (a) An applicant shall prepare an environmental impact report for the mining project. In the environmental impact

report, the applicant shall provide a description of the proposed mining project, the present environmental conditions in the area and the anticipated environmental impacts of the proposed mining project, the present socioeconomic conditions in the area and the anticipated socioeconomic impacts of the proposed mining project, details of any wetlands compensation program under s. 295.60 (8), any measures for navigable waters under s. 295.605 (4), any proposed changes to the forest designations specified in sub. (4) (c), and the alternatives to the proposed mining project. As the applicant provides more information or makes modifications to the proposed mining project, the department may revise the requirements it specified under s. 295.465 (2) to ensure the potential environmental effects can be identified in the department's environmental impact statement.

(b) The department shall assist the applicant in meeting the deadlines for ultimate submission and review of those analyses consistent with this subchapter. If a particular scientific analysis is not completed as of the date the environmental impact report is required to be submitted, the applicant shall identify in the environmental impact report the scope of the analysis and anticipated date that it will be submitted.

(c) 1. The applicant shall submit the environmental impact report with the application for the mining permit.

3. Upon receipt of the environmental impact report, the department shall review the environmental impact report and, if the department finds that the environmental impact report does not contain information reasonably necessary for the department to evaluate the proposed mining project and its environmental effects, the department may request additional information from the applicant.

(d) The department shall accept original data from an environmental impact report for use in the environmental impact statement and need not verify all original data provided by the applicant to accept the data as accurate. The department shall use original data from an environmental impact report in the environmental impact statement if the data contains the information identified in sub. (1) (e) 1. and any of the following conditions is met:

1. The department, its consultant, or a cooperating state or federal agency collects sufficient data to perform a limited statistical comparison with data from the environmental impact report that demonstrates that the data sets are statistically similar within a reasonable confidence limit.

2. An expert who is employed by, or is a consultant to, the department or is employed by, or is a consultant to, a cooperating state or federal agency determines that the data is within the range of expected results.

3. The department, its consultant or a cooperating state or federal agency determines that the methodology used in the environmental impact report is scientifically and technically adequate for the tests being performed.

(4) PROCEDURE FOR ENVIRONMENTAL IMPACT STATEMENT. (a) The department shall prepare an environmental impact statement for every application for a mining permit. In preparing the environmental impact statement, the department shall comply with s. 1.11 (2) and s. NR 150.22 (2), Wis. Adm. Code.

(b) The department shall include in the environmental impact statement a description of the significant long–term and short–term impacts, including impacts after the mining has ended, on all of the following:

1. Tourism.

2. Employment.

3. Schools and medical care facilities.

4. Private and public social services.

5. The tax base.

6. The local economy.

(c) The department and other state agencies shall address the application for a mining permit, for any approval, and for any action relating to the mining project involving other state agencies in one comprehensive analysis in the environmental impact statement prepared by the department, including any environmental analysis required by the department with regard to any of the following:

1. The withdrawal of land entered as county forest land under s. 28.11 and any modification of, or amendment to, a county forest land use plan necessitated by the withdrawal of the land.

2. The withdrawal of land entered as forest cropland under s. 77.10.

3. The withdrawal of land designated as managed forest land under subch. VI of ch. 77 and any modification of, or amendment to, a managed forest land management plan necessitated by the withdrawal of the land.

4. The transfer of land for which amounts were awarded by the department, including under s. 23.09 (17m), 26.38, 28.11 (5r), or 77.895, to fund the acquisition of, or to fund activities conducted on, forest land and any modification of, or amendment to, a forest stewardship management plan or other plan necessitated by the transfer of the land.

(d) The public notice, informational hearing, and comment provisions in s. 295.57, the provision concerning the effective date of approvals in s. 295.58 (6), and the provisions for review in s. 295.77 apply to an environmental impact statement prepared under this subsection. If the department revises and redistributes an

environmental impact statement or portion of an environmental impact statement prepared under this section, the department shall distribute the environmental impact statement or portion of the environmental impact statement as provided in s. 295.57, but the period for public comment is 30 days, rather than 45 days.

(e) The department shall conduct its environmental review process jointly with any federal or local agency that consents to a joint environmental review process. The department may adopt any environmental analysis prepared by another state agency or by a federal or local agency. The department may enter into a written agreement with any of those agencies that have a major responsibility related to or that are significantly affected by the proposed mining. In the written agreement, the parties shall define the responsibility of each agency in the development of a single environmental impact statement on the proposed mining and outline the procedures to be used in the regulatory process. The department shall be the lead agency for any environmental review process involving other state agencies. To the extent that any federal or local agency's environmental review process conflicts with the provisions of this section or s. 295.57, then the department shall follow the provisions of this section and s. 295.57 and may only coordinate its environmental review to the extent consistent with the provisions of this section and s. 295.57. The department shall comment on any federal agency's environmental assessment or environmental impact statement associated with a mining project in accordance with s. NR 150.30, Wis. Adm. Code.

(5) RELATIONSHIP TO OTHER LAWS. This section and s. 295.57 govern the department's obligations under ss. 1.11 and 1.12 with respect to a mining project. Sections 23.11 (5) and 23.40 and ss. NR 2.085, 2.09, and 2.157, Wis. Adm. Code, do not apply with respect to a mining project. The rest of ch. NR 2, Wis. Adm. Code, only

applies with respect to a mining project to the extent that it does not conflict with this section and s. 295.57. Sections NR 150.24 and 150.25, Wis. Adm. Code, do not apply with respect to a mining project. The rest of ch. 150, Wis. Adm. Code, only applies with respect to a mining project to the extent that it does not conflict with this section and s. 295.57.

295.56 Exemptions. (1) The department may grant an exemption, as provided in this section, from any of the requirements of this subchapter applicable to any of the following:

(a) A mining permit application, including the mining plan, reclamation plan, and mining waste site feasibility study and plan of operation.

(b) A mining permit.

(c) Any other approval.

(2) (a) An applicant shall submit a request for an exemption in writing and shall describe the grounds for the exemption and provide documentation identifying the conditions requiring the exemption, the reasons for the exemption, and the reasonableness of the exemption.

(b) An applicant may obtain an exemption only if the applicant submits the request no later than the 180th day after the application for the mining permit is administratively complete under s. 295.57 (2), unless the condition that is the basis for the requested exemption is not known to the applicant before that day, in which case the deadline is extended to the 20th day before the deadline under s. 295.57 (7) (a).

(c) The department shall issue a decision on a request for an exemption no later than the 15th day after the day on which it received the request under par. (a). Subject to par. (b) and except as provided in par. (d), the department shall grant the

exemption if it is consistent with the purposes of this subchapter and will not violate any applicable environmental law outside of this subchapter and if one of the following applies:

1. The exemption will not result in significant adverse environmental impacts.

2. The exemption will result in significant adverse environmental impacts, but the applicant will offset those impacts through compensation or mitigation, as provided in s. 295.60; through the measures provided in s. 295.605, or through the conservation measures provided in s. 295.61.

(d) 1. The department shall deny a request for an exemption if granting the exemption would violate federal law.

2. If federal law imposes a standard for an exemption that differs from the standard in par. (c) and that cannot be modified by state law, and if that standard has been approved by the federal government for use by the state through a delegation agreement, federally approved state implementation plan, or other program approval, then the department shall determine whether to grant the request for the exemption using the federal standard.

295.57 Application procedure. (1) SUBMISSION. (a) An applicant shall submit the application for a mining permit as provided in s. 295.47.

(b) The department and the state geologist shall protect as confidential any information, other than effluent data, contained in an application for a mining permit, upon a showing that the information is entitled to protection as a trade secret, as defined in s. 134.90 (1) (c), and any information relating to production or sales figures or to processes or production unique to the applicant or that would tend to adversely affect the competitive position of the applicant if made public.

(2) DETERMINATION OF ADMINISTRATIVE COMPLETENESS. (a) An application for a mining permit is administratively complete on the 30th day after the department receives the application, unless, before that day, the department provides the applicant with written notification that the application is not administratively complete. The department may determine that an application is not administratively complete only if the applicant does not submit one of the following:

2. A mining plan that contains the types of information specified in s. 295.48 (1), (2), (3), and (4).

3. A reclamation plan that contains the types of information specified in s. 295.49 (1), (2), and (3).

4. A mining waste site feasibility study and plan of operation that contains the types of information specified in s. 295.51 (5), (6), and (7).

5. An environmental impact report.

6. The evidence required under s. 295.47 (2) (g).

(b) In making the determination under par. (a), the department may not consider the quality of the information provided.

(c) In a notice provided under par. (a), the department shall specify what is missing from the application.

(d) The running of the 30–day period under par. (a) is tolled from the day on which the department provides notification, in compliance with par. (a), that an application is not administratively complete until the day on which the applicant submits the missing or revised mining plan, reclamation plan, mining waste site feasibility study and plan of operation, environmental impact report, or evidence required under s. 295.47 (2) (g). The department shall notify the applicant when it receives the missing or revised mining plan, reclamation plan, waste site feasibility

study and plan of operation, environmental impact report, or evidence required under s. 295.47 (2) (g). The application is administratively complete on the day on which the department provides the notification to the applicant or on the expiration of the remainder of the 30–day period, whichever is sooner.

(e) The department may request additional information needed to process a mining application from the applicant after the application is administratively complete, but the department may not delay the determination of administrative completeness based on a request for additional information.

(3) NOTICE OF ADDITIONAL APPROVALS. Within 30 days after the mining permit is administratively complete under sub. (2), the department shall notify the applicant in writing of any approval required for the construction or operation of the mining site that was not previously identified by the department.

(3m) RECEIPT OF CERTAIN APPROVALS. If a storm water discharge permit under s. 283.33 (1) (a) or a water quality certification under rules promulgated under subch. II of ch. 281 to implement 33 USC 1341 (a) is needed for a mining operation, the person applying for the mining permit may apply for and be issued the permit or certification.

(4) PUBLIC INFORMATION AND NOTICE. (a) The department shall make available for review in the city, village, or town in which the proposed mining site is located, information concerning the proposed mining, including all of the following:

1. The application for the mining permit, including the mining plan, reclamation plan, and mining waste site feasibility study and plan of operation.

2. Any of the following relating to an approval other than the mining permit:

a. The application.

b. A draft approval.

c. Information or summaries relating to the approval.

3. The environmental impact statement, environmental impact report, and any additional supporting information used in the department's evaluation of the proposed mining.

4. The department's analyses and preliminary determinations relating to any approval.

(b) The department shall distribute a notice that describes the availability of the information under par. (a); the opportunity for written public comment, including an invitation for the submission of written comments by any person within 45 days after the notice is published; and the date, time, and location of the public informational hearing and that includes any additional information that a law concerning any approval requires to be provided. The department shall publish the notice as a Class I notice under ch. 985. The department shall also send the notice to all of the following:

1. The clerk of any city, village, town, or county with zoning jurisdiction over the proposed mining site.

2. The clerk of any city, village, town, or county within whose boundaries any portion of the proposed mining site is located.

3. The clerk of any city, village, or town, contiguous to any city, village, or town within whose boundaries any portion of the proposed mining site is located.

4. The main public library of each city, village, town, or county with zoning jurisdiction over the proposed mining site or within whose boundaries any portion of the proposed mining site is located.

5. Any regional planning commission for the area within which the proposed mining site lies.

6. Any state agency that the department knows is required to grant a permit or other authorization necessary for the construction or operation of the proposed mining project.

7. The federal environmental protection agency, U.S. Army Corps of Engineers, and states potentially affected by the proposed discharge if a water discharge permit under ch. 283 or a water quality certification for a federal wetland under s. 295.60 (4) is to be considered at the public informational hearing.

8. The federal environmental protection agency and appropriate agencies in other states that may be affected if an air pollution control permit under ch. 285 is to be considered at the public informational hearing.

9. If a water withdrawal permit under s. 295.61 for a withdrawal of surface water is to be considered at the public informational hearing, the persons specified in s. 30.18 (4) (a).

10. If an individual permit under s. 30.12 for a structure through which water transferred from the Great Lakes basin would be returned to the source watershed through a stream tributary to one of the Great Lakes is to be considered at the public informational hearing, the governing body of each city, village, and town through which the stream flows or that is adjacent to the stream downstream from the point at which the water would enter the stream.

11. Any person upon request.

12. The applicant.

13. Any other person to whom the department is required to give notice of any proposed determination, application, or hearing concerning an approval under the laws relating to the issuance of any approval or under s. 1.11.

(c) The department shall coordinate the public comment period for the mining permit with the public comment period for any other approval for the mining operation, except that if an application for an approval is filed too late to allow public comment within the public comment period for the mining permit, the department shall issue separate notice, as described in par. (b), for the approval after the application is filed.

(5) INFORMATIONAL HEARING. The department shall hold a public informational hearing before issuing or denying a mining permit and not less than 30 days after publishing the notice under sub. (4) (b). The department shall hold the public informational hearing in the county where the majority of the proposed mining site is located. The department shall hold a single public informational hearing covering the mining permit, all other approvals, and the environmental impact statement, except that if an application for an approval is filed too late to allow the application to be considered at the public informational hearing for the mining permit, the department shall hold a separate public informational hearing on the approval in the county where the proposed site is located not less than 30 days after publishing the notice under sub. (4) (b) for the approval. The public informational hearing under this subsection is not a contested case hearing under ch. 227.

(6) SUMMARY. After considering the comments received under subs. (4) and (5) and before acting on the application for the mining permit, the department shall prepare a summary of the comments and the department's response to the comments.

(7) DEADLINE FOR ACTING ON MINING PERMIT APPLICATION. (a) No more than 360 days after the day on which the application for a mining permit is administratively

complete under sub. (2), the department shall approve the application, and issue a mining permit, or deny the application, in accordance with s. 295.58.

(b) If the department does not comply with par. (a), the application for the mining permit is automatically granted and the department shall issue a mining permit. The applicant may engage in mining based on the automatic approval, notwithstanding any delay by the department in issuing the mining permit.

(8) DEADLINE FOR ACTING ON OTHER APPROVALS. (a) Except as provided in par. (c), if an applicant files an application for an approval other than a mining permit no later than 60 days after the day on which the application for the mining permit is administratively complete under sub. (2), the department shall approve the application, and issue the approval, or deny the application no more than 360 days after the day on which the application for the mining permit is administratively complete under sub. (2).

(b) Except as provided in par. (c) if an applicant files an application for an approval other than a mining permit more than 60 days after the day on which the application for the mining permit is administratively complete under sub. (2), the deadline for acting on the application is extended beyond the deadline under par. (a) by the number of days beyond the 60th day after the day on which the application for the mining permit is administratively complete that the applicant files the application for the approval.

(c) Paragraphs (a) and (b) do not apply to the application for an air pollution control permit under s. 285.62.

(d) The department shall incorporate an approval other than a mining permit into a single document with the mining permit, unless the application for the

approval was filed more than 60 days after the day on which the application for the mining permit is administratively complete under sub. (2).

(8m) SUBMISSION OF TECHNICAL REVIEW TO GREAT LAKES REGIONAL BODY. If an applicant files an application under s. 281.346 for an approval for a withdrawal of surface water or groundwater that is subject to regional review or council approval, the department shall provide its technical review, as defined in s. 281.346 (1) (u), to the regional body, as defined in s. 281.346 (1) (q), no later than 90 days after the applicant files the application for the approval.

(9) APPLICABLE PROCEDURE. The provisions of this section and ss. 295.58 (5) and (6) and 295.77 concerning public notice, comment, and hearing; issuance of department decisions; effective date of department decisions; and review of department decisions; and the duration of approvals apply to any approval, notwithstanding any provisions related to those matters in s. 44.40 or 169.25, subch. I or VI of ch. 77, ch. 23, 29, 30, 169, 281, 283, 285, 289, or 291, or rules promulgated under those provisions, except as provided in s. 281.343 (7r) and except that if a withdrawal of surface water or groundwater is subject to regional review or council approval under s. 281.346, the applicable provisions related to regional review or council approval apply.

295.58 Mining; department grant or denial of permit. (1) CRITERIA FOR APPROVAL. (a) Except as provided in sub. (2) and except with respect to property specified in s. 41.41 (11), the department shall issue a mining permit if it finds all of the following:

1. That the mining plan and reclamation plan are reasonably certain to result in reclamation of the mining site consistent with this subchapter.

2. That the waste site feasibility study and plan of operation complies with s. 295.51.

3. That the applicant has committed to conducting the proposed mining in compliance with the mining permit and any other approvals issued for the mining.

4. That the proposed mining is not likely to result in substantial adverse impacts to public health, safety, or welfare.

5. That the proposed mining will result in a net positive economic impact in the area reasonably expected to be most impacted by the mining.

6. That the applicant has applied for all necessary zoning approvals applicable to the proposed mining.

(b) The department shall approve or deny an application for a mining permit in writing and shall include the reasons for its decision with clarity and in detail. The department may modify the applicant's proposed mining plan, reclamation plan, or mining waste site feasibility study and plan of operation in order to meet the requirements of this subchapter, and, as modified, approve the application. The approval of the application for a mining permit constitutes the approval of the mining plan, reclamation plan, and waste site feasibility study and plan of operation. In its decision on the application for a mining permit, the department shall include a final decision on compliance with s. 1.11 and the requirements of s. 295.53, discussing all of the following:

1. Whether the department has considered the environmental impact statement and comments received on it.

2. Whether the department has complied with ss. 1.11 and 295.53.

3. Whether, consistent with social, economic, and other essential considerations, the department has adopted all practicable means within its authority to avoid or minimize any harm to the environment and, if not, why not.

(2) CRITERIA FOR DENIAL. The department shall deny the mining permit if it finds any of the following:

(a) That the site is unsuitable for mining.

(b) That the proposed mining may reasonably be expected to create any of the following situations:

1. Hazards resulting in irreparable, substantial physical damage to any of the following that cannot be prevented under the requirements of this subchapter, avoided to the extent practicable by removal from the area of hazard, or mitigated by purchase or by obtaining the consent of the owner:

a. A dwelling house.

b. A public building.

c. A school.

d. A church.

e. A cemetery.

f. A commercial or institutional building.

g. A public road.

2. Irreparable substantial environmental damage to lake or stream bodies despite adherence to the requirements of this subchapter. This subdivision does not apply to an activity that the department has authorized under statute, except that the destruction or filling in of a lake bed may not be authorized unless it is authorized under s. 295.60, 295,605, or 295.61.

3. Landslides or substantial deposition from the proposed mining operation in stream or lake beds which cannot feasibly be prevented and which have not been authorized under s. 295.60 or 295.605.

(c) That the applicant has violated, and continues to fail to comply with, this subchapter.

(d) Subject to sub. (3), that the applicant, principal shareholder of the applicant, or a related person has within 10 years before the application is submitted forfeited a mining reclamation bond that was posted in accordance with a permit or other authorization for a mining operation in the United States, unless the forfeiture was by agreement with the entity for whose benefit the bond was posted and the amount of the bond was sufficient to cover all costs of reclamation.

(e) Subject to sub. (3), that the applicant, a related person, or an officer or director of the applicant has, within 10 years before the application is submitted, been convicted of more than one felony for violations of laws for the protection of the natural environment arising out of the operation of a mining site in the United States, unless one of the following applies:

1. The person convicted has been pardoned for all of the felonies.

2. The person convicted is a related person or an officer or director of the applicant with whom the applicant terminates its relationship.

3. The applicant included in its permit application under s. 295.47 a plan to prevent the occurrence in this state of events similar to the events that directly resulted in the convictions.

(f) Subject to sub. (3), that the applicant or a related person has, within 10 years before the application is submitted, declared bankruptcy or undergone dissolution that resulted in the failure to reclaim a mining site in the United States in violation

of a state or federal law and that failure has not been remedied and is not being remedied.

(g) Subject to sub. (3), that, within 10 years before the application is submitted, a mining permit or other authorization for mining issued to the applicant or a related person was permanently revoked because of a failure to reclaim a mining site in the United States in violation of state or federal law and that failure has not been and is not being remedied.

(3) EXCEPTION FROM DENIAL CRITERIA. The department may not deny a mining permit under sub. (2) (d) to (g) if the person subject to the convictions, forfeiture, permanent revocation, bankruptcy, or dissolution is a related person but the applicant shows that the person was not the parent corporation of the applicant, a person that holds more than a 30 percent ownership in the applicant, or a subsidiary or affiliate of the applicant in which the applicant holds more than a 30 percent interest at the time of the convictions, forfeiture, permanent revocation, bankruptcy, or dissolution.

(4) STATEMENT. The department shall send a statement as to whether the applicant has satisfied the requirements of this subchapter to the applicant and to the other persons specified in s. 295.57 (4) (b) 1. to 9.

(5) DURATION OF APPROVALS. (a) A mining permit is valid for the life of the mining project, subject to the enforcement provisions under s. 295.79.

(b) An approval under s. 295.60 or 295.61 remains valid for the life of the mining, subject to the enforcement provisions under s. 295.79.

(c) An approval issued for a mining project under ch. 23, 29, 30, 169, 281, 283, 285, 289, or 291, except for a permit under ch. 283 or 285 that is subject to a federal

requirement limiting its duration, remains valid for the life of the mining project, subject to the enforcement provisions applicable to the approval.

(6) EFFECTIVE DATE OF APPROVALS. A mining permit and any other approval is issued upon mailing and is final and effective upon issuance.

(7) MERCHANTABLE BY-PRODUCTS. In a mining permit, the department shall require the operator to treat merchantable by–products as refuse if after 3 years from the time the merchantable by–products result from or are displaced by mining the material has not been transported off the mining site, unless removal is continuing at a rate of more than 12,000 cubic yards per year.

(8) GENERAL CONTRACTOR OR AFFILIATE. No operator may engage a general contractor or affiliate to operate a mining site if the general contractor or affiliate has been convicted of more than one felony for violation of a law for the protection of the natural environment arising out of the operation of a mining site in the United States within 10 years before the issuance of the operator's mining permit, unless the general contractor or affiliate receives the department's approval of a plan to prevent the occurrence in this state of events similar to the events that directly resulted in the convictions.

295.59 Bonds and other security. (1) SECURITY FOR RECLAMATION. (a) Upon notification that an application for a mining permit has been approved by the department but before beginning mining, the operator shall furnish one of the following to the department:

1. A bond, furnished by a surety company licensed to do business in this state, conditioned on faithful performance of all of the requirements of this subchapter and all rules adopted by the department under this subchapter.

2. Cash.

3. Certificates of deposit.

4. Government securities.

(b) The department shall pay to the operator interest received on certificates of deposit or government securities furnished under par. (a).

(c) The operator shall furnish the security required under par. (a) in the amount equal to the estimated cost to the state of fulfilling the reclamation plan, other than the cost of long–term care of the mining waste site, in relation to the portion of the mining site that will be disturbed by the end of the following year. The department shall determine the estimated cost of reclamation of each mining site on the basis of relevant factors, including the character and nature of the lands to be reclaimed, the future suitable use of the land involved, the topography of the mining site, the methods of reclamation being employed, the depth and composition of overburden, and the depth of the ferrous mineral deposit being mined.

(2) CERTIFICATE OF INSURANCE. The operator shall submit a certificate of insurance certifying that the applicant has in force a liability insurance policy issued by an insurer authorized to do business in this state or, in lieu of a certificate of insurance, evidence that the applicant has satisfied state or federal self–insurance requirements, covering all mining operations of the operator in this state and affording personal injury and property damage protection in a total amount determined to be adequate by the department but not more than $1,000,000 and not less than $50,000.

(2m) PROOF OF FINANCIAL RESPONSIBILITY FOR LONG–TERM CARE OF MINING WASTE SITE. An operator shall maintain proof of financial responsibility ensuring the availability of funds for compliance with the long–term care requirements specified in the waste site feasibility study and plan of operation for a period of 40 years after

closing of the mining waste site. The operator shall furnish the proof of financial responsibility to the department in one of the following forms:

(a) A bond

(b) Cash.

(c) Certificates of deposit.

(d) Government securities.

(e) Insurance.

(3) WRITTEN AUTHORIZATION TO MINE. Upon approval of the operator's bonds or other security under subs. (1) and (2m), mining application, and certificate of insurance, the department shall issue written authorization to begin mining at the permitted mining site in accordance with the approved mining plan, reclamation plan, and mining waste site feasibility study and plan of operation.

(4) RECLAMATION BOND FOR MORE THAN ONE MINING SITE. Any operator who obtains mining permits from the department for 2 or more mining sites may elect, at the time that the mining permit for the 2nd or any subsequent mining site is approved, to post a single bond under sub. (1) in lieu of separate bonds for each mining site. An operator who chooses to post a single bond under this subsection shall post a bond in an amount equal to the estimated cost to the state determined under sub. (1) of reclaiming all mining sites the operator has under mining permits. When an operator elects to post a single bond in lieu of separate bonds previously posted on individual mining sites, the department may not release the separate bonds until the department accepts the new bond.

(5) REVIEW OF AMOUNTS. If an operator disagrees with the amount of the bonds or other security that the department requires under this section, the operator may seek review under s. 295.77 of the amount required. The operator may post a bond

or other security in the amount required by the department and begin mining without forfeiting its right to seek review.

295.60 Impacts to wetlands. (1) DEFINITIONS. In this section:

(a) "Area of special natural resource interest" has the meaning given in s. 281.37 (1) (a).

(b) "Artificial wetland" means a landscape feature where hydrophytic vegetation may be present as a result of human modifications to the landscape or hydrology and for which there is no prior wetland or stream history.

(c) "ASNRI wetland" means a wetland that is within the boundary of an area of special natural resource interest or that is in close proximity to or that has a direct hydrologic connection to an area of special natural resource interest.

(d) "Compensation" means the implementation of measures that will function to improve functional values of wetlands or other water quality functions to offset significant adverse impacts that remain after all practicable avoidance and minimization measures have been achieved.

(e) "Federal compensatory mitigation requirement" means any mitigation requirement that is imposed by the federal government.

(f) "Federal wetland" means a wetland that is not a nonfederal wetland and includes an ASNRI wetland.

(g) "Functional values and water quality" means the water quality related wetland functional values and uses specified in sub. (6).

(h) "Impact" means a permanent, temporary, cumulative, secondary, direct or indirect result that is attributable to a discharge to which the wetland water quality standards apply.

(i) "Mitigation" means the restoration, enhancement, or creation of wetlands to offset significant adverse impacts to other wetlands.

(j) "Mitigation bank" means a system of accounting for wetland loss and mitigation that includes one or more sites where wetlands are restored, enhanced, or created to provide transferable credits to be subsequently applied to offset significant adverse impacts to other wetlands.

(k) "Nonfederal wetland" has the meaning given in s. 281.36 (1) (c) and includes an ASNRI wetland.

(L) "On–site location" means a location that is within one–half mile of an outer boundary of a mining site.

(m) "Practicable" means available and capable of being implemented after taking into consideration cost, available technology, and logistics in light of the overall project purposes and the needs for bulk sampling or a mining operation.

(n) "Riparian restoration project" means a project that will restore or enhance the natural beneficial uses and value of a watercourse.

(o) "Water basin" means the Lake Michigan basin, the Lake Superior basin, or the Mississippi River basin or other water basin established by the department.

(p) "Water management unit" means a subdivision of a water basin that is established on a hydrological basis by the department.

(q) "Watershed" means an area of land where all of the water drains into a common waterway.

(r) "Wetland water quality standard" means a water quality standard specified under sub. (6).

(2) SCOPE. This section applies to any water quality certification, or any other approval that involves an evaluation of impact to wetlands, that is associated with mining or bulk sampling.

(3) WETLAND DETERMINATIONS AND DELINEATIONS. For purposes of this section, wetland determinations and wetland boundary delineations shall be consistent with the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual and any final regional supplement to the manual. The department may rely on wetland determinations and wetland boundary delineations made by other agencies and consultants. If the applicant for a water quality certification or for any other approval for an activity involving impacts to wetlands has provided information to the department that is identified in the manual or any final regional supplement as being sufficient to make a wetland determination or a delineation of boundaries, the department may visit the site to conduct surveys or gather additional site–specific quantitative data provided that the department does not discontinue the processing of the application to do so.

(4) WATER QUALITY CERTIFICATION FOR FEDERAL WETLANDS. (a) For purposes of issuing a water quality certification that is required pursuant to 33 USC 1341 (a) for a discharge associated with a mining operation or bulk sampling into a federal wetland or for issuing any other approval associated with a mining operation for an activity that involves any impact to a federal wetland, the department shall review the federal compensatory mitigation requirements proposed as part of the federal permit application.

(b) For purposes of determining whether to issue a water quality certification or other approval that requires an evaluation of impacts to federal wetlands, the department shall determine whether it has reasonable assurance that the federal

permitting process and federal compensatory mitigation requirements will offset any significant adverse impact to the functional values and water quality of the federal wetland. For purposes of areas of special natural resource interest and federal wetlands that are ASNRI wetlands, the department shall determine that reasonable assurance exists if significant adverse impacts have been avoided or minimized to the extent practicable and any remaining significant adverse impacts are offset by compensation or mitigation. If the department determines that reasonable assurance exists, the department may not impose any additional conditions.

(c) If the department determines that reasonable assurance does not exist under par. (b), it may impose conditions in the water quality certification or other approval if such conditions are limited to those that are necessary to offset any significant adverse impacts to the federal wetland that are not offset by the federal compensatory mitigation requirements in the federal permit or other approval. Any conditions imposed by the department shall permit a compensation and mitigation program as provided in sub. (8).

(d) In imposing conditions under par. (c), the department may not increase the number of acres to be mitigated under the federal compensatory mitigation requirements that are applicable to the federal wetland.

(e) The department shall issue a water quality certification under this subsection if the federal permitting process, including any federal compensatory mitigation requirement, offsets the significant adverse impacts to the functional values and water quality of the federal wetland.

(5) WATER QUALITY CERTIFICATION FOR NONFEDERAL WETLANDS. (a) *Certification required.* No person may discharge dredge or fill material associated with a mining

operation or bulk sampling into a nonfederal wetland unless the discharge is authorized under a water quality certification issued under this section.

(b) *Avoidance or minimization of impacts.* For purposes of issuing a water quality certification for a discharge subject to par. (a) or evaluating impacts to nonfederal wetlands for any approval requiring an evaluation of impacts to nonfederal wetlands, the department shall first determine whether any impact to the nonfederal wetland caused by the mining operation or bulk sampling can be avoided or minimized to the extent practicable. If the impacts have been avoided or minimized to the extent practicable, any remaining impacts to nonfederal wetlands or to areas of special natural resource interest may not be a basis for a denial of a water quality certification provided that any remaining significant adverse impacts are offset under a compensation and mitigation program under sub. (8).

(c) *Siting analysis.* 1. An applicant for a water quality certification for a nonfederal wetland shall submit a siting analysis to the department for review. In reviewing the siting analysis, the department shall recognize all of the following:

a. The limitations associated with the proposed location of the ferrous mineral deposits to be mined or associated with bulk sampling.

b. The need for the mining waste sites and any processing facilities to be contiguous to the location of the ferrous mineral deposits to be mined.

c. The presumption that nonfederal wetlands will be impacted.

2. The siting analysis shall be limited to an analysis of alternative configurations associated with the areas of the proposed ferrous mineral deposits to be mined at the mining site and with the areas that are contiguous to those deposits.

3. If it is impracticable to avoid an impact to, or the use of, a nonfederal wetland, the applicant shall identify in the siting analysis, and the department shall review,

those configurations that would result in impacts to the fewest acres of nonfederal wetlands to the extent practicable. The department shall determine which configuration will minimize the impacts to the fewest acres.

4. After the department makes the determination under subd. 3., the department shall evaluate the impact of the mining operation to the functional values and water quality of the nonfederal wetland.

(5m) EVALUATION OF IMPACTS. The department shall determine the impact of a proposed activity upon the functional values and water quality of a wetland by using wetland ecological evaluation methods jointly accepted by the U.S. Army Corps of Engineers and the department and appropriate to the affected wetland.

(6) WETLAND WATER QUALITY STANDARDS. The following wetland water quality standards shall apply to any water quality certification under sub. (4) or (5):

(a) Adverse impacts to the functional values and water quality of wetlands and adverse impacts to other waters of the state that are influenced by wetlands shall be minimized, and any significant adverse impacts remaining after minimization shall be subject to a compensation and mitigation program under sub. (8). For purposes of this section, functional values and uses consist of all of the following:

1. Storm and flood water storage and retention and the moderation of water level fluctuation extremes.

2. Hydrologic functions including the maintenance of dry season streamflow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland to another area, and the flow of groundwater through a wetland.

3. Filtration or storage of sediments, nutrients, or toxic substances that would otherwise adversely impact the quality of waters of the state.

4. Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments.

5. Habitat for aquatic organisms in the food web including fish, crustaceans, mollusks, insects, annelids, and planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages.

6. Habitat for resident and transient wildlife species, including mammals, birds, reptiles, and amphibians, for breeding, resting, nesting, escape cover, travel corridors, and food.

7. Recreational, cultural, educational, scientific, and natural scenic beauty values and uses.

(b) All of the following shall be minimized in order to avoid significant adverse impacts for the purpose of maintaining or enhancing the functional values and water quality identified under par. (a), and any minimization of the following must be taken into account in the department's evaluation of significant adverse impacts:

1. The use of liquids, fill, or other solids or gases.

2. The presence of floating or submerged debris, oil, or other material.

3. The use of materials producing color, odor, taste, or unsightliness.

4. The presence of concentrations or combinations of substances that are toxic or harmful to human, animal, or plant life.

5. Adverse effects on hydrological conditions necessary to support the biological and physical characteristics that are naturally present in wetlands. For purposes of this subdivision, the hydrological conditions include of all of the following:

a. Water currents and erosion and sedimentation patterns.

b. Water temperature variations.

c. The chemical, nutrient, and dissolved oxygen regime of the wetland.

d. The movement of aquatic fauna.

e. The pH of the wetland.

f. Water levels or elevations.

6. Adverse effects on existing habitat and populations of animals and vegetation found in wetlands.

(6m) SCOPE OF EVALUATION. For purposes of issuing a water quality certification under sub. (4) or (5), the department shall evaluate whether an activity will result in a significant adverse impact to the functional values and water quality associated with a wetland by doing all of the following:

(a) Comparing the functional values and water quality 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.

(b) Taking into consideration the floristic province in which the mining site is located.

(7) APPROVAL BY DEPARTMENT; NONFEDERAL WETLANDS. The department shall issue a water quality certification under this section for a nonfederal wetland, if the department determines all of the following:

(a) All practicable measures will be taken to minimize the adverse impacts to wetlands.

(b) Any significant adverse impacts to functional values and water quality that remain are offset through a compensation or mitigation program under sub. (8).

(8) COMPENSATION AND MITIGATION PROGRAM. (a) *Contents.* A compensation and mitigation program to offset significant adverse impacts to functional values and water quality of wetlands shall contain all of the following:

1. Proposed projects for compensation or mitigation and a schedule for implementing the projects. The projects may include riparian restoration projects. These projects may be performed by a person other than the applicant, subject to the department's approval of the projects and schedule.

2. If the program is applicable to a federal wetland, all federal compensatory mitigation requirements associated with the federal wetland application.

(b) *Option of applicant.* An applicant submitting a program under par. (a) may submit proposals for compensation or mitigation or any combination thereof.

(c) *Ratios for mitigation.* The amount of mitigation required may not exceed 1.5 acres of mitigation for each acre of adversely impacted wetland. For purpose of credits in a mitigation bank, each acre that is subject to mitigation shall count as at least one credit.

(d) *Sequence.* If it is not practicable or ecologically preferable to conduct compensation or mitigation at an on–site location or if there is no on–site location that will provide sufficient wetland acreage, the department shall allow the applicant to conduct compensation or mitigation at a site other than an on–site location. Compensation or mitigation shall be accomplished through the following options:

1. Implementation of a project for compensation or mitigation. Projects for compensation at a site other than an on–site location may include projects to protect upland groundwater recharge areas, shoreline stabilization projects, and riparian restoration projects.