



Barron County Soil & Water Conservation Department

330 East LaSalle Ave. Room 220

Barron, Wi 54812

(715)537-6315

Non-Metallic Mining Reclamation Checklist

The purpose of the checklist is to use as a guide to preparing a reclamation plan.

****ATTACH COMPLETED CHECKLIST WITH RECLAMATION PLAN****

NR 135.19(1) PLAN REQUIRED - An operator who conducts or plans to conduct nonmetallic mining on or after August 1, 2001 shall submit to the regulatory authority a reclamation plan that meets the requirements of this section and complies with the standards of Subch. II. To avoid duplication, the reclamation plan may, by reference, incorporate existing plans and materials that meet the requirements of Chapter NR 135.

I. OWNER/OPERATOR INFORMATION

OWNER	OPERATOR (if different)
Name:	Name:
Address:	Address:
City:	City:
State: Zip:	State: Zip:
Home Phone:	Home Phone:
Cell Phone:	Cell Phone:
E-mail Address:	E-mail Address:

- _____ Include the owner/operator information on the reclamation plan.
- _____ Attach a copy of the lease agreement or proof of ownership to Barron County Soil & Water Conservation Department.

****Indicate on the line after each box, the page and section number where that item can be found in reclamation plan.****

II. SITE INFORMATION

A. MINING AREA

NR 135.19(2) SITE INFORMATION - The reclamation plan shall include information sufficient to describe the existing natural and physical conditions of the site, including, but not limited to:

- _____ Description of the mine location with detail to allow someone to locate on a road map.
- _____ Legal Description of the property(s) where the nonmetallic mining is proposed.
- _____ Describe the total acres affected by this project; include stockpiles, processing, roads etc.
- _____ Describe any setbacks from roads and property lines.
- _____ Describe the movement of nonmetallic mining from phase to phase.

- 6 _____ Describe the depth and geologic composition of the non-metallic deposit, (from soil boring results).
- 7 Environmental Review
- a _____ Describe Threatened and Endangered species on and adjacent to the site.
- b _____ Describe the Archeological and Historical Resources on the site.
- 8 Biological Information
- a _____ Describe the plant communities and wildlife habitat on and adjacent to the mining site, (if using the Natural Heritage Inventory- NHI-attach legend).
- b _____ Describe the depth to groundwater and the data used to determine the depth, (borings, WI groundwater map, well data, etc).
- 9 _____ Describe the depth to bedrock and the data used to determine that depth.
- 10 _____ Estimate the volume of material to be extracted in each phase.
- 11 _____ Estimate the volume of material available on site for reclamation.
- 12 _____ Enclose the wetland delineation report.

B. MAPS & ATTACHMENTS (indicate the scale and a north direction arrow)

NR 135.19(2)(a) Maps of the nonmetallic mining site including the general location, property boundaries, the areal extent, geologic composition and depth of the nonmetallic mining deposit, the distribution, thickness and type of topsoil, the approximate elevation of ground water, the location of surface water and the existing drainage patterns.

- 1 _____ Show location of proposed non-metallic mining location in Barron County.
- 2 _____ Show location of proposed non-metallic mining location in the Township.
- 3 _____ Aerial photo indicating the landowners within 300' of the parcel(s) to be mined.
- 4 _____ Aerial photo showing the existing 2' interval contour lines .
- 5 _____ Aerial photo showing the following: (use more than one aerial photo for this information if necessary)
- a _____ Location of the proposed mining boundaries.
- b _____ Location of surface water: lakes, rivers, ponds, streams and intermittent streams, and label appropriately
- c _____ Location of wetlands on proposed mining site and extending out 1/4 mile from the property line..
- d _____ Location of any utilities or manmade structures.
- e _____ Location of wells on and within 1/4 mile of the proposed site.
- f _____ Location of forested areas and agricultural land.
- g _____ Location of concentrated flow and arrows indicating drainage patterns.
- h _____ Location of separation boundaries, (example flood plains etc.).
- i _____ Location of existing roads and right-of-way lines.
- 6 _____ Attach the bedrock map of Barron County with descriptions and Map Units
- 7 _____ Attach the map of the Hydrogeology of Barron County, referring to groundwater flow.

III. RECLAMATION MEASURES

NR 135.19(4) RECLAMATION MEASURES - The reclamation plan shall include a description of the proposed reclamation, including methods and procedures to be used and a proposed schedule and sequence for the completion of reclamation activities for various stages of reclamation of the nonmetallic mining site. The following shall be included:

A. Reclamation Measures

- 1 **NR 135.19(4)a - EARTHWORK AND GRADING** - A description of the proposed earthwork and reclamation, including final slope angles, high wall reduction, benching, terracing and other structural slope stabilization measures and if necessary a site-specific engineering analysis performed by a registered professional engineer as provided by s. NR 135.10 (1) and (2).
 - a _____ Describe the proposed earthwork for the slope reconstruction for reclamation.
 - b _____ Describe the final depths in relationship to the groundwater table.
- 2 **NR 135.19(4)(b) - TOPSOIL** - The methods of topsoil or topsoil substitute material removal, storage, stabilization and conservation that will be used during reclamation storage, stabilization and conservation that will be used during reclamation.
 - a _____ Describe the substitute topsoil to be used if the amount is not available to achieve the post mining land use onsite.
 - b _____ Describe methods used to reapply topsoil.
- 3 **NR 135.19(4)(c) - TOPOGRAPHY** - A plan or map which shows anticipated topography of the reclaimed site and any water impoundments or artificial lakes needed to support the anticipated future land use of the site.
 - a _____ Describe the final slope %, (no more that 3:1 or 33%).
 - b _____ Describe benching and terracing and high wall reduction necessary, if applicable, (must be engineer designed).
- 4 **NR 135.19(4)(d) - STRUCTURES** - A plan or map which shows surface structures, roads and related facilities after the cessation of mining.
 - a _____ Describe what the site will look like after the cessation of mining.
- 5 **NR 135.19(4)(e) - COST** - The estimated cost of reclamation for each stage of the project or the entire site if reclamation staging is not planned.
 - a _____ Include a reclamation budget, (financial assurance needed for the number of acres open each year of operation).
- 6 **NR 135.19(4)(f) - REVEGETATION PLAN** - A revegetation plan which shall include timing and methods of seed bed preparation, rates and kinds of soil amendments, seed application timing, methods and rates, mulching, netting and any other techniques needed to accomplish soil and slope stabilization.
 - a _____ Describe the revegetation plan:
 - b _____ Describe the planned vegetation to be established, (grasses/legumes, trees, shrubs, etc).
 - c _____ Describe the revegetation seed bed preparation.
 - d _____ Describe the method of planting proposed vegetation.
 - e _____ Describe the rates per acre of the planned vegetation.
 - f _____ Describe the proposed date(s) or schedule when seeding, (use the NRCS seeding sheet 710SS sheet as a guideline).
 - g _____ Describe in detail measures used to maintain slope stabilization.
- 7 **NR 135.19(4)(g) - REVEGETATION STANDARDS** - Quantifiable standards for revegetation adequate to show that a sustainable stand of vegetation has been established which will support the approved post-mining land use. Standards for revegetation may be based on the percent vegetative cover, productivity, plant density, diversity or other applicable measures.
 - _____ Describe the quantifiable standard for revegetation for successful reclamation, (percent vegetative cover, productivity, plant density and diversity).

- 8 **NR 135.19(4)(h) - EROSION CONTROL** - A plan and, if necessary, a narrative showing erosion control measures to be employed during reclamation activities. These shall address how reclamation activities will be conducted to minimize erosion and pollution of surface and groundwater.
- a _____ Describe the erosion control methods used, (mulching, netting, etc.).
- 9 **NR 135.19(4)(i) - INTERIM RECLAMTION** - A description of any areas which will be reclaimed on an interim basis sufficient to qualify for the waiver pursuant to s. NR 135.41 and which will be subsequently disturbed prior to final reclamation. Descriptions shall include an identification of the proposed areas involved, methods of reclamation to comply with the standards in subch. II and timing of interim and final reclamation.
- a _____ Describe any areas of interim reclamation that will be disturbed prior to final reclamation.
- 10 **NR 135.19(4)(i) - SAFETY MEASURES** - A description of how the reclamation plan addresses the long-term safety of the reclaimed mining site. The description shall include a discussion of site-specific safety measures to be implemented at the site and include measures that address public safety with regard to adjacent land uses.
- a _____ Describe any safety measures installed to address the safety of the public.

B. MAPS & ATTACHMENTS (indicate the scale and a north direction arrow)

- 1 Aerial photo showing the following:
- a _____ Location of planned roads and structures to remain after mining operation cease.
- b _____ 2' contour lines.
- 1 _____ Cross section showing slope steepness and length, (must be less that 3:1).
- 2 _____ Location of water impoundments and depths.
- 3 _____ Location of wetlands.
- 4 _____ Location of other land uses or site features.
- c _____ Arrows showing the drainage patterns entering and leaving the site.
- d _____ Location of and type of erosion control methods installed to insure sediment control.
- e _____ Location of the proposed post mining land use, (agriculture land, trees, native prairie, oak savanna, etc.).
- f _____ Location of benching and terracing or high wall reduction if applicable.

IV. SOILS MANAGEMENT INFORMATION

A. SOILS INFORMATION

- 1 _____ Describe the soil types in the proposed non-metallic mining area, (available on the NRCS websoil survey online).
- 2 _____ Describe the thickness of the topsoil on site.
- 3 _____ Estimate the volume of the topsoil available on site, (cu yds).
- 4 _____ Estimate the topsoil required for reclamation, (cu yds).
- 5 _____ Describe the method used to remove topsoil.
- 6 _____ Describe the method used in the placement (environmentally safe location) and storage of the topsoil.
- 7 _____ Describe the methods used to stabilize the topsoil stockpiles.

B. MAPS & ATTACHMENTS (indicate the scale and a north direction arrow)

- 1 _____ Map identifying the soil types, soil description, map information for the proposed mining boundaries.

V. MINING OPERATIONS

A. Mining Intent

- 1 _____ Describe the materials to be mined and include methods used to extraction the materials.
- 2 _____ Describe the method used to remove overburden, storage location and stabilization.
- 3 _____ Estimate a timetable and the sequence through each of the phases.
- 4 _____ Describe any storm water impoundments to be used .
- 5 _____ Describe the erosion control methods installed to prevent run-off from the site.
- 6 _____ Describe intent to mine in relationship to the groundwater table.
- 7 _____ Estimate the volume of the material available in overburden/topsoil berms.
- 8 _____ Estimate the volume of the overburden/topsoil used in the construction of the settling pond embankments, (if applicable).
- 9 _____ Estimate the volume of material required to reclaim the mine bottom and side slope in each phase.
- 10 _____ Describe methods for site dewatering and effluent discharge. (if applicable)

B. MAPS & ATTACHMENTS (indicate the scale and a north direction arrow)

1 Aerial photo showing the following:

- a _____ Location of the proposed nonmetallic mining boundaries.
 - b _____ Location of soil borings test holes.
 - c _____ Attach soil boring log information and label to correspond with the appropriate identification on the map.
 - d _____ Location of the point of entry off of the main road.
 - e _____ Location of any proposed wells.
 - f _____ Location of each phase of nonmetallic mining and the order to be mined.
 - g _____ Location and size of overburden and topsoil locations
 - h _____ Location of stocked sand and/or sand and gravel
 - i _____ Location and type of erosion control method for topsoil/overburden piles, site runoff and stabilization of slopes.
 - j _____ Arrows showing drainage patterns during mining, (specify where water will leave the site).
 - k _____ Location of settling ponds.
 - l _____ Location of the proposed facilities; such as the wet/dry plants, offices, etc.
 - m _____ Location and discharge point of site dewatering systems, (if applicable).
- 2 _____ Attach erosion control material sheets, and installation procedures for each product to be installed.
 - 3 _____ Attach a minimum of 2 cross sections to detail the planned topography of the proposed site include the existing groundwater elevation, mining depths and proposed final elevations.
 - 4 _____ Attach a cross section for each of the following; settling ponds, water impoundment basins and proposed ponds in relationship to existing ground, bedrock, groundwater elevation and final elevation.

VI. POST MINING OPERATIONS

NR 135.19(3)(a) POST-MINING LAND USE - The reclamation plan shall specify a proposed post-mining land use for the nonmetallic mine site. The proposed post-mining land use shall be consistent with local land use plans and local zoning at the time the plan is submitted, unless a change to the land use plan or zoning is proposed. The proposed post-mining land use shall also be consistent with any applicable state, local or federal laws in effect at the time the plan is submitted. **(b)** - Land used for nonmetallic mineral extraction in areas zoned under a farmland preservation zoning ordinance pursuant to subch. III of ch. 91, Stats., shall be restored to agricultural use.

- 1 _____ Describe the post mining land use, (agriculture, pasture, forest, native prairie).
- 2 _____ Describe the inspection and maintenance plan for monitoring site upon reclamation.
- 3 _____ Assure that the post mining land use complies with federal, state and local laws in effect at the time of submittal.

VII. FEES

NR 135.39(1) FEES - Fees shall be assessed pursuant to this section for all unreclaimed acres of a nonmetallic mining site.

NR 139.39(2) COLLECTION - Barron County shall collect annual fees from the operator based on the unreclaimed acreage of each nonmetallic mining site described in sub (1). Annual fees shall be collected for the previous calendar year.

- 1 Have you received a copy of the Nonmetallic Mining Fee Assessment form from the Barron County Zoning Office?

VIII. FINANCIAL ASSURANCE

NR 135.40 (2) FILING - Following approval of the nonmetallic mining reclamation permit, and as a condition of the permit, the operator shall file a financial assurance payable exclusively to Barron County.

NR 135.40 (3) AMOUNT AND DURATION OF FINANCIAL ASSURANCE - The objective of financial assurance is to ensure that Barron County has access to funds necessary to implement site reclamation in the event that the operator does not perform the agreed upon duties. The funds shall accurately reflect the cost for the Barron County to hire outside help to perform reclamation. The main purpose of financial assurance is to ensure that the operator will faithfully execute the requirements of the approved reclamation plan, the applicable reclamation ordinance and Ch. NR 135. Refer specifically to s. Nr 135.40 for details of state wide financial assurance requirements, as well as the applicable county or municipal reclamation ordinances.

Forms of financial assurances may include but are not limited to:

- **Bond** - collateral; also known as a performance or forfeiture bond; an instrument provided by a surety company; a 3- party agreement that serves as a guarantee that the provider will pay costs associated with fulfilling the permittee's obligations in the event of a default.
- **Certificate of deposit** - collateral; a deposit with Barron County to guarantee performance of obligations under a reclamation permit.
- **Irrevocable letter of credit** - similar to a bond with the bank or financial institution taking the place of a surety; established solely for the purpose of guaranteeing performance of obligations under a reclamation permit.
- **Irrevocable trust** - trust created by the permittee solely for the purpose of guaranteeing performance of obligations of guaranteeing performance of obligations
- **Escrow account** - account with a bank or financial institution established by the permittee to satisfy the financial assurance requirements, (i.e. to guarantee the performance of the reclamation activities described in a reclamation permit).

NR 135.40(7) CERTIFICATION OF COMPLETION RELEASE - The operator shall notify Barron County, by filing a notice of completion, at the time he or she determines that reclamation of any portion of the mining site or the entire site is complete.

VIII. REGULATORY AUTHORITY RIGHT TO INSPECT

NR 135.42 REGULATORY AUTHORITY RIGHT TO INSPECT - (1) No person may refuse entry or access onto a nonmetallic mining site of a duly authorized officer, employee or agent of the regulatory authority or the department who presents appropriate credentials to inspect the site for compliance with the nonmetallic mining reclamation permit, the applicable reclamation ordinance, this chapter or ch. 295, subch. I, Stats. Any person who enters the site under this right of inspection shall obtain training and provide their own safety equipment needed to comply with any federal, state or local laws or regulations controlling persons on the nonmetallic mining site.

X. SIGNATURE PAGE

- 1 Include with the reclamation plan, the signature page provided by Barron County Soil & Water Conservation Department.

XI. OTHER IMPORTANT INFORMATION

- 1 A copy of any and all permits obtained for the operation of the mining shall be submitted to Barron County.

I, hereby certify, as duly authorized representative or agent that _____ has completed this checklist
(name of the operator)

in the preparation for the reclamation plan on the _____ property and that the reclamation plan complies with the
(property owners)

Wisconsin Nonmetallic Mining Reclamation Standards established in ss NR 135.05 through NR 135.15, WI Code, the Barron County Non-Metallic Mining Ordinance and best management practices are installed and maintained.

Signature

Date