

# RECLAMATION PLAN

**PERMIT #:** \_\_\_\_\_

**APPLICANT NAME:** \_\_\_\_\_

**LAND OWNER NAME:** \_\_\_\_\_

**PIT NAME:** \_\_\_\_\_

**LOCATION:**  
**TOWNSHIP:** \_\_\_\_\_

**LEGAL DESCRIPTION:** \_\_\_\_\_

**PARCEL ID #** \_\_\_\_\_

## OPERATIONS, SITE CONDITIONS & LAND USE

#	Question	Answer
<b>General operations</b>		
1.	When did operations commence at this site?	
2.	How long will the mine operate?	
3.	What areas, if any, of the existing site have been abandoned and will never be reclaimed?	
4.	<b>a)</b> What are the phases of the extraction operation and how long will each last? <b>b)</b> Will you be reclaiming each phase as you go either temporarily or permanently?	
5.	<b>a)</b> What structures are on the site? <b>b)</b> Are asphalt, chemicals, or fuels stored on site? <b>c)</b> If so, where and what?	
<b>Topography and Geology</b>		
6.	<b>a)</b> What was the land like before the operation began (rolling hills? farmland? rocky? forested?)	
7.	<b>a)</b> What is the topography of the site now, including previously and currently mined areas? <b>b)</b> How many basins? <b>c)</b> How deep? <b>d)</b> Exposed faces? <b>e)</b> How tall? <b>f)</b> Where and how large are any stockpiles?	
8.	<b>a)</b> In general terms, what is the geologic composition of the site? <b>b)</b> What materials are being produced from the pit? <b>c)</b> How thick is the mineable portion of the deposit at this site?	
9.	Were soil borings ever performed on the site? (not necessary, but helpful).	
<b>Groundwater</b>		
10.	<b>a)</b> What is the approximate depth to groundwater in the area? <b>b)</b> What is the direction of groundwater flow?	
11.	Are there any well records in the vicinity?	

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#	Question	Answer
12.	How close to water table will operations occur?	
<b>Surface Water and Drainage</b>		
13.	What are the nearest surface waters (rivers, streams, creeks, wetlands, seasonal wet spots, frog holes, etc.)	
14.	<b>a)</b> Where does water collect on the site and where does it leave the site via surface flow or near-surface seepage (especially during a heavy rainfall)? <b>b)</b> How close are stockpiles to these drainageways?	
<b>Biological Information</b>		
15.	<b>a)</b> What biological resources and plant communities exist on the site? <b>b)</b> What wildlife uses the site?	
<b>Post-Mining Land Use</b>		
16.	To what zoning district does the quarry revert after operations cease?	
17.	<b>a)</b> What land uses are proposed for the site (and, if multiple, in what areas of the pit)? <b>b)</b> Does proposed final land use comply with existing zoning regulations?	
18.	In what respects are site conditions, climate, etc. suitable for this use?	
19.	To your knowledge, is there any contamination of the soil or groundwater at this site?	
20.	What structures, equipment or roadways will remain on the site after mining has ceased?	
21.	Is the land expected to remain in existing ownership?	

## RECLAMATION MEASURES

#	Question	Answer
<b>Final Grading and Slopes</b>		
22.	What will be the final topography of the site?	
23.	<b>a)</b> Is it infeasible to achieve 3:1 slopes in any areas? <b>b)</b> If so, do you have engineering analysis which shows that steeper slopes would be stable? <b>c)</b> If steeper slopes are potentially unstable, will the creation of benches or terraces still allow the desired land use?	

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#	Question	Answer
24.	Do any slopes occur at the edge of a water body? (slopes must extend 6 feet below lowest seasonal water level; DNR Ch. 30 regulations may also apply.)	
25.	<b>a)</b> What type fill material will be used to achieve final slopes? <b>b)</b> Will material be imported? If so, what and from where? <b>c)</b> Will use of this fill be compatible with post mining land use?	
26.	<b>a)</b> What methods will be used to ensure that topsoil adheres to graded areas and slopes? <b>b)</b> Likewise, what measures will be taken to avoid or correct excess compaction?	
<b>Topsoil management</b>		
27.	<b>a)</b> What is/was the average depth of the topsoil layer over the proposed excavation area? <b>b)</b> What volume of topsoil will you be stockpiling for later use? <b>c)</b> What is your estimate of the volume of topsoil currently stockpiled?	
28.	When removing topsoil from an area, are there areas where you'll immediately re-apply that topsoil to avoid 'double handling' and to speed reclamation?	
29.	If mining in wooded areas, do you plan to shred or chip downed woody plants and use them as mulch to stabilize exposed areas?	
30.	<b>a)</b> How will topsoil stockpiles be stabilized to prevent erosion? <b>b)</b> How close will stockpiles be to existing drainageways?	
31.	<b>a)</b> What thickness of topsoil will be applied (minimum 6")? <b>b)</b> Will any topsoil or topsoil substitute have to be imported? <b>c)</b> If so, from where? <b>d)</b> If a substitute is used, what is it?	
<b>Revegetation</b>		
32.	In general terms, what plant communities are being restored on this site (e.g. old field, industrial forest, natural forest, prairie, agricultural, etc., or some combination)?	
33.	What seed mixes / planting plans have you selected for use?	
34.	How will the area be seeded? (agricultural equipment, hand seed, seed drill, hydroseed?)	
35.	When will seeding occur (prohibited between July 1 and August 15)?	
36.	How will seed be protected after seeding? (dragged? what type of mulch?)	
37.	How will standards for revegetation be quantified to show that a sustainable stand of vegetation has been established which will support the post mining land use?	

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#	Question	Answer
<b>Erosion Control</b>		
38.	<b>a)</b> What erosion control measures will be installed prior to & concurrent with each phase of the project (excavation, material storage, reshaping, and revegetating)? <b>b)</b> What designs will be used for ditch protection, settling ponds, infiltration basins, check dams, etc.? <b>c)</b> Where & how large are buffer areas to which drainage will be discharged prior to reaching surface water?	
39.	<b>a)</b> How often will erosion control measures be inspected? <b>b)</b> Who will inspect? <b>c)</b> Who is responsible for repair?	
<b>Monitoring</b>		
40.	What methods will be used to monitor revegetation success?	
41.	What will the criteria be for successful reclamation? (It should be quantifiable.)	

I hereby certify, as duly authorized representative or agent that \_\_\_\_\_ (name of operator) will comply with the provisions of this reclamation plan as well as the statewide nonmetallic mining reclamation standards established in ss. NR135.05 through NR 135.15, Wis. Admin. Code and best management practices are installed and maintained.

\_\_\_\_\_  
Signature of Applicant or Duly Authorized Agent

\_\_\_\_\_  
Date signed

I/we, as the landowner(s) or lessee(s) of the property described herein, do hereby certify that i/we have reviewed the reclamation plan submitted by \_\_\_\_\_ (name of operator), concur with its provisions and agree to permit its implementation.

\_\_\_\_\_  
Signature of Landowner or Lessee

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Signature of Landowner or Lessee

\_\_\_\_\_  
Date Signed

- Attachments:
- Map 1 - Topography Map – Existing conditions
  - Map 2 - Aerial Photo of site
  - Map 3 - Map of proposed post-mining conditions
  - Map 4 - Cross Sections of site – current and post-mining
  - Financial Assurance Calculation sheet