



Morning Pit Reclamation Plan Modification

Operator: Stelter INC.

Owner: Charles F. & Cathy A. Morning

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Chippewa County Land Resource Technician Intern

Reclamation Plan Modification for the Morning Gravel Pit

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Introduction

The purpose of this document is to give supporting information for the proposal to expand the existing permitted mine boundary and modify the existing reclamation plan for the Morning gravel pit, located in the NE ¼ of the SE ¼ Section 6 T30N R8W, in the Town of Woodmohr. The expansion area is directly south of the existing mine site and is approximately 16 acres. The existing and expanded site is to be reclaimed as a conservation wildlife pond and upland grassland wildlife habitat.

Initial Site Plan

A) Initial Site Map includes:

1. Location in the township and county
– Appendix A, Location Map
2. Topography of the affected lands
–Appendix E, Initial Site Map
3. Property boundaries showing land under consideration and neighboring parcels within 660 feet
– Appendix E, Initial Site Map

4. Roads within 660 feet of the proposed new site boundary
– Appendix E, Initial Site Map
 5. Road right of way lines
– Appendix E, Initial Site Map
 6. All structures within 660 feet of the new site boundary
– Appendix E, Initial Site Map
 7. Perennial and intermittent streams within 660 feet of the new site boundary
– Appendix E, Initial Site Map
There are no perennial or intermittent streams on or within 660 feet of the site.
 8. Drainage ways/concentrated flow to or from the site
– Appendix E, Initial Site Map
There are no distinct drainage patterns on site; all runoff is concentrated toward the storm water ponds and the site is internally drained.
 9. Wetlands within 660 feet of the new site boundary
– Appendix E, Initial Site Map
 10. Boundaries of previous excavations on site
– Appendix E, Initial Site Map
 11. Wells within 660 feet of the new site boundary
– Appendix E, Initial Site Map
 12. Groundwater elevations at the site and the source of information
– Appendix E, Initial Site Map
Groundwater elevations were determined using the Chippewa County groundwater map
 13. Locations of all utilities at the site
There are no utilities on site.
- B) Supporting information for initial site description
1. Owner and applicant information
Owner:
Charles A and Delores C Morning Trust.
18186 Hwy 64 Bloomer, WI 54724
Applicant:
Stelter INC.
15331 State Hwy 124 Bloomer, WI 54724

2. Lease
Appendix B

3. Legal description
NE ¼ of the SE ¼ Section 6 T30N R8W. Excluding 5 acres of the SE corner of the parcel.

Primary Parcel #: 23008-0641-00000000

4. Parties of interest

A list of names and addresses of landowners within 660 feet of the new site boundary.

Raymond Michels
13601 State Hwy 64
Bloomer, WI 54727

Chippewa County
711 North Bridge Street
Chippewa Falls, WI 54729

Charles & Cathy Morning
18186 State Hwy 124
Bloomer, WI 54724

Mathey Construction Company
920 10th Ave
Onalaska, WI 54650

Haas Sons Properties LLC
203 E Birch Street
Thorp, WI 54771

Leonard & Laura Jean Halfman
18303 130th Street
Bloomer, WI 54724

5. Soils Information

Thickness of the A horizon (topsoil), E horizon (subsurface soil), and B horizon (subsoil) and the method of determination. The thicknesses of the soils on site were determined by using the USDA Soil Survey of Chippewa County Wisconsin. There are four different soil types on the site. Their names and thicknesses are as follows:

Soils	A horizon (Topsoil) Thickness (in)	E horizon (Subsurface Soil) Thickness (in)	B horizon (Subsoil) Thickness (in)
Chetek sandy loam (CkB)	8	5	7
Rosholt sandy loam (RoA)	7	17	14

Site Operations Plan

A) Site Operations Map includes:

1. Location of mining site boundary
– Appendix E, Site Operations Map
2. Separation boundaries and separation dimensions as referenced in Mine Siting Standards
– Appendix E, Site Operations Map
3. Planned cell boundaries
– Appendix E, Site Operations Map
4. Location and extent of disturbed areas
– Appendix E, Site Operations Map
5. Processing facilities
– Appendix E, Site Operations Map
6. Location and discharge point of site dewatering systems
There are no dewatering systems on site
7. Direction of flow of surface runoff
– Appendix E, Site Operations Map
8. Vegetative and structural measures to be taken to screen the operation from view of surrounding land uses
– Appendix E, Site Operations Map
9. Points of public road access
– Appendix E, Site Operations Map
10. Temporary measures to limit on site erosion
– Appendix E, Site Operations Map

B) Description of Site Operations

1. Material to be extracted
Sand and Gravel
2. Description of the type of extraction and processing activities to be done on site
Crushing, washing and screening of sand and gravel. Stockpiling of topsoil, and subsoil.

3. Estimates of the total volume of sand and gravel to be extracted by cell

Cell	Area (acres)	Sand & Gravel (cy)
1	7	130,000
2	8	130,000
3	16	260,000
TOTAL	15	490,000

4. Sequence and progression through the new planned cells and soil management

Cell 1

Strip topsoil and subsoil of about 7 acres and store in berms on the east side of the site. Extract, crush and wash the materials down to the water table within cell 1.

Cell 2

Strip topsoil and subsoil of the remaining 8 acres and store in berms on the east side of the site. Extract, crush and wash the remaining materials within cell 2.

Cell 3

Reapply subsoil and topsoil to the edges of the new site. Commence digging into the water table to create the wildlife pond. Crush and wash material extracted from cell 3.

5. Methods for site dewatering and effluent discharge

The site will be internally drained and a DNR permit is applied for. This permit addresses process water, stormwater, and erosion control. A copy will be supplied when provided by the DNR.

6. Stormwater Permits/Management

All berms will be placed to screen any runoff and the site will be internally drained under the WI DNR General Permit to discharge under the WI Pollutant Discharge Elimination System (WPAES permit).

7. Erosion control & permits required by other agencies

All topsoil and subsoil will be stockpiled along the east side of the property as berms when mined. The boundaries will be sloped to a 3:1 and seeded down with DOT seed mix #20. Topsoil and subsoil will be graded to hold from erosion.

All overburden if not used will be stockpiled to the west of the topsoil berms in no more than a 3:1 slope. It will also be seeded down with Dot seed mix#20.

8. Reclamation activities to be conducted during mining operation

Topsoil and subsoil is to be stripped and stockpiled on the east end of the property.

After material is mined up to the boundaries, subsoil will be placed to a 3:1 slope then covered with no less than 6 inches of topsoil. The topsoil will then be seeded with DNR seed mix #4 and stabilized.

The rest of the mine will be dug out for a wildlife pond and excess topsoil will be spread underwater around the edges of the pond to a minimum depth of 2 feet below the water to encourage plant growth.

9. Timetable for commencement and cessation of nonmetallic mining operations

Cell	Time to Complete
1	2-3 years
2	2-3 years
3	2-3 years

Final Site Plan

A) Final Site Map includes:

1. Final depths, final slope angles, and slope stabilization measures
– Appendix E, Final Site Map
2. Areas which convey concentrated flow to, across, or from the site
– Appendix E, Final Site Map
3. Facilities or structures to remain in place
– Appendix E, Final Site Map
4. Planned development features on site following closure
– Appendix E, Final Site Map
5. Cross sections showing current ground surfaces, final slope, groundwater elevations
– Appendix C & D, Cross Sections

B) Description of Final Reclamation

1. Plans for disposition of surface structures, roads and related facilities after cessation of mining

No structures or roads will remain on site.

2. Topsoil reapplication

The topsoil and subsoil will be removed from the berms around the site and reapplied as uniformly as possible around the perimeter of the site to create slopes of 3:1 or less. The topsoil stockpiles will also be used to create the appropriate slope requirements around the wildlife ponds as required by Chippewa County.

Topsoil and subsoil will be separated to the best of the operators' ability and placed in the area to be reclaimed; subsoil first, then topsoil. This will be graded at 3:1 slopes. Trucks will be routed away from the areas where topsoil is reapplied to limit compaction and rutting. Tracked equipment will also be used in the reapplication process to limit rutting and compaction.

3. Addressing long term safety of the reclaimed mine site

The final site will have slopes of no more than 3:1 within and around the perimeter of the site. The shoreline of the ponds will have slopes ranging from 3:1 to 10:1.

4. Seeding plan

DNR seed mix #4 will be applied to the edges around the wildlife pond. DNR seed mix #2 will be the seeding used for the upland grassland wildlife habitat. This will be applied around the perimeter of the site and on the slopes to the wildlife pond.

5. Standard for verifying successful reclamation

The extent of reclamation success for the site will be measured over the term of a prescribed evaluation period. This evaluation period will extend for a period ranging from three (3) to ten (10) years based on the intended post-mining land use, the intended cover type, and the physical characteristics of the mine site.

Reclamation success for the Wildlife Pond Habitat will be measured periodically throughout the term of the evaluation period using the following evaluation criteria:

a. Site stability

- i. Establishment of irregular shorelines that vary from 3:1 to 10:1 and extend a minimum of 6 feet vertically below the water line
- ii. No visible erosion (rills, gullies, sluffing, etc.) around the shoreline
- iii. Establishment of a minimum of 6 inches of topsoil placed along the shoreline and on the slope a minimum of two feet vertically below the water line to encourage vegetative growth

b. Plant density and species diversity

- i. 75% or more are species from the specified seed mix, 25% or less are weeds, and 2% or less are invasive weeds as measured following standardized methods during and at the end of the established performance period
- ii. No more than 50% of the total vegetation is one species from the seed mix
- iii. A minimum of 70% ground cover during the growing season
- c. Soil chemistry and fertility
 - i. Establishment of a soil profile with a target pH to achieve the post mining land use
 - ii. Organic matter greater than 1 percent

Reclamation success for the Upland Grassland Wildlife Habitat will be measured periodically throughout the term of the evaluation period using the following evaluation criteria:

- a. Site stability
 - i. Slopes no greater than 3:1
 - ii. No visible erosion (rills, gullies, sluffing, etc.)
- b. Plant density and species diversity
 - i. 75% or more are species from the specified seed mix, 25% or less are weeds, and 2% or less are invasive weeds as measured following standardized methods during and at the end of the established performance period
 - ii. No more than 50% of the total vegetation is one species from the seed mix
 - iii. A minimum of 70% ground cover during the growing season
- c. Soil chemistry and fertility
 - i. Establishment of a soil profile with a target pH to achieve the post mining land use
 - ii. Organic matter greater than 1 percent

Description of anticipated future use of the site

The future use of this site will be a conservation wildlife pond and grassland upland wildlife habitat. The final pond depth will be up to 30 feet deep in the north 20 acres (The currently permitted site), and approximately 20 feet deep in the proposed expansion site.