NON-METALLIC MINING RECLAMATION PLAN

Operator: Haas Sons, Inc.

Owner: Haas Sons Properties

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Summary

This reclamation plan has been developed to provide information about the existing site of the proposed mine, the proposed site operations, and how the mine will be reclaimed to the proposed post mining land use.

This reclamation plan is for a 50-acre field located west County Highway NN, in the township of Edson. The land is currently used for agricultural production and managed for crop production.

The operator will mine sand, gravel and granite bedrock that is located on glacial outwash that is characterized as meltwater stream sediment from the Chippewa Lobe. A majority of the site will be mined below the water table and reclaimed as a wildlife pond. A small portion the site will be mined above the water table and will be reclaimed to wildlife habitat.

A. Site Information

1. Landowner

Landowner: Haas Sons Properties
Address: 203 E. Birch Street
City, State, ZIP: Thorp WI, 54703

Applicant: Haas Sons, Inc.
Address: 203 E. Birch Street
City, State, ZIP: Thorp, WI 54771

2. **Lease:**
The operator has signed an offer to purchase with the landowner for the purpose of mining sand and gravel on their property for 10 years.
See attached offer to purchase.

3. **Legal Description**
Tax Parcel Number(s): 22805-0114-00000000, 22805-0111-00000000
Described as follows: SE ¼ of the NE ¼ of section 1, Township 28 North, Range 5 West: and South ½ of the NE ¼ of the NE ¼ of Section 1, Township 28 North, Range 5 West

4. **Property Owners Within 660 Feet of Project Sit**

Bruce Wozniak Etal	Timlin Living Trust	Curvin & Elie Brubacher
Jeremy Minarik	Kim Nelson	

5. **Soil & Groundwater Information**
Soil Survey of Chippewa County shows the soils at the mine site are mapped as Brill Silt Loam (BpA), Loyal Silt Loam (LoB), Loyal Silt Loam (LoC2), and Withee Silt Loam (WeB). Brill Silt Loam (BpA) topsoil is approximately 8 inches thick, and the subsoil is approximately 5 inches thick. Approximately 9.6 acres covers the proposed site. Loyal Silt Loam (LoB) topsoil is approximately 8 inches thick, and the subsoil is approximately 28 inches thick. Approximately 6 acres covers the proposed site. Loyal Silt Loam (LoC2) is approximately 7 inches thick, and the subsoil is approximately 29 inches thick. Approximately 2.5 acres covers the proposed site. Withee Silt Loam (WeB) topsoil is approximately 8 inches thick, and the subsoil is approximately 24 inches thick. Approximately 6 acres cover the proposed site.

During site investigations the operator documented the following soils horizon thicknesses in the test holes.
A horizon – 8-10 inches of topsoil
B horizon - Approx. 24 inches of red/brown clay

Using the soil survey estimates the maximum volume of topsoil for the entire mine site is 53,760 cubic yards of topsoil and 153,600 cubic yards of subsoil.

Groundwater elevation was determined by pervious mine Wozniak as well as test holes that that were dug.

6. Biological resources, plant communities and wildlife

The proposed site is currently an agricultural field used as crop land. There are crops planted at the site during growing seasons. Animals use the land for a source of food. There are no native plant species at the site. Area surrounding the proposed site consists of swamps, farm field, creek, and forest. Native plants and animals live in these areas. They provide animals with the essentials to live. There are no endangered species in the area (see attached Natural Heritage Inventory data sheet).

B. Site Operations

1. Description of Materials to be Extracted

Sand, gravel, and granite bedrock products will be extracted and processed at the site.

2. Extraction and Processing to be Conducted at the Site

The proposed driveway will be used from County Highway NN. Sand, gravel, and granite bedrock will be mined, crushed, washed, and removed from the site. A portable crushing & washing plant will be used to process the material and stockpile it on site. Materials within the mine will be excavated and transported using bulldozers, excavators, draglines, and conveyors.

Sand, gravel, and granite bedrock will be excavated from the mine above the water table in one lift approximately 15 feet deep. An area in the floor of the mine will be excavated below the water table to create wash ponds. Once bedrock it reached it will be blasted and mined. Water for washing process will be pumped from these ponds. No high capacity wells will be installed or used to support sand and gravel processing.

No flocculants or other chemicals will be used to support sand and gravel processing. No waste materials that are generated off-site will be hauled to the mine, stockpiled or used in site reclamation.

3. Volumes of Materials

A sequence of mine Cells are planned to systematically mine and reclaim the site. The anticipated area of disturbance and estimated volume of raw materials to be removed during the life of the mine is as follows.

Cell	Area (acre)	During 1st two years (cubic yards)	During Full Life of Operation (cubic yards)
1	7.85	Approx. 100,000 yds.	879,200
2	6.46	0	723,520
3	8.85	0	991,200
Total	23.16	Approx. 100,000	2,593,920

4. **Site Dewatering and Effluent Discharge**
This will be an internally drained site. No site dewatering or effluent discharge will take place. It is anticipated that sand, gravel, and granite bedrock will be mined below the water table in all cells.

5. **Stormwater Permits/Management**
The operator will obtain a Wisconsin DNR Nonmetallic Mining stormwater permit and manage stormwater in accordance with the standards established in the permit. At a minimum storm water will be contained within the mine boundaries for all rainfall events according to the 25 year, 24 hour frequency storm (4.87 inches).

Soil berms created during topsoil and subsoil stripping will be stabilized and used to contain and direct stormwater runoff towards the excavated floor of the mine where it will infiltrate. Stormwater will be managed this way over the entire life of the mine. A notice of intent will be sent to the DNR.

6. **Erosion Control & Permits**
All topsoil and subsoil stockpiles will be graded to a slope of 3:1 or flatter and stabilized as soon as conditions allow to conserve soil and limit erosion. Silt fence will be installed along all soil stockpiles to control erosion. Berms will be stabilized using best management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices (Appendix F).

7. **Reclamation Activities During Operations**
A process of contemporaneous reclamation will be used to systematically mine and reclaim the site. Under this process the site will be reclaimed as soon as possible after materials have been extracted and processed using the planned Cell sequence.

At the beginning of the mining operations for each cell all the topsoil (estimated 9 inches) will be stripped and stockpiled in berms. Following topsoil stripping operations all the subsoil (estimated 23 inches) will be stripped and stockpiled in berms that are separate from the topsoil berms. All berms will be shaped to a 3:1 slope or flatter and seeded with DOT Seed Mix 20. Mining operations will then excavate, process, and remove sand and gravel from the site.

When excavation of sand and gravel in a Cell is complete rough grading work will be performed to create slopes around the perimeter of the mine that are 3:1 or flatter. Rough grading will also be performed to establish reclamation grades for the mine floor. Subsoil will then be place over the slopes and flat lying areas of mine to a depth of 10 inches or more.

Topsoil will then be placed over the subsoil to a depth of 6 inches or more. Upon completion of subsoil and topsoil re-application, soils testing will be performed following procedures established in the Wisconsin Nutrient Management Standard 590 to determine

the organic matter, phosphorus, potassium and pH. Soil amendments (including lime and fertilizer) will be applied based on the soil test results to meet the fertility requirements needed to achieve the intended post mining land use.

The site will then be seeded. Areas with slopes steeper than 10:1 will have straw mulch applied. Areas flatter than 10:1 will not receive mulch.

Reclamation test plots will be established within the first two years of mining. Test plots will be established for each post mining land use. These test plots will be monitored and used to help determine success in future areas of mine reclamation.

8. Timetable/Sequence of Operations

Location	Activity
Cell 1	Plant will be set in the North end of cell 1. Mining will start on the southwest corner of cell 1 and move North and East as mine is opened. Cell 1 will be restored once mining is moved to cell 2. Cell 1 will take approximately 8 years to complete. Cell 1 will be the only cell included in the Chapter 30 once pit is opened Chapter 30 will include cell 2 once boundary of cell 2 is reached.
Cell 2	We will set and pile in the North part of Cell 2. Then we will mine out the initial area from South to North. This will take approximately 7 years. While mining this area, we will restore the boundaries of Cell 1.
Cell 3	We will set plant in Cell 3 on the northwest end. Then we will mine Cell 3 from south to north. This will take approx. 10 years. We will restore the west and east boundary of Cell 2 while mining this area and pile into Cell 3. Final restoration will be conducted once quarry is complete. See final site map for chapter 30 pond upon completion.

9. Timetable

Estimated period of operation/extraction for each cell:

Cell 1	8 years
Cell 2	7 years
Cell 3	10 years
Total _____	**25 years**

C. Final Site

1. Disposition of Structures and Roads

A gravel paved driveway approximately 800 feet long will remain in place at the location of the mine access road connection to County Highway NN. The driveway will provide access to the wildlife habitat areas.

Structures such as the scale, scale house, and scale will be removed prior to final reclamation. The ponds created in Cell 1, Cell 2, and Cell 3 will remain in place as shown on the Final Site Map (See Appendix A – Cross Sections). There are no areas of concentrated flow entering, leaving, or within the reclaimed mine site.

2. Soil Reapplication & Reconditioning

Overburden piles will be leveled off or used on slopes. This work will be done with scrapers or bulldozers. Slopes will be stabilized using best management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices (Appendix F).

Subsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil has already been applied. Trucks will dump subsoil and bulldozers will spread the material to be 10 inches thick on the slopes and floor of the mine. The use of tracked equipment while spreading subsoil will limit soil compaction.

Topsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil or topsoil has already been applied. Trucks will dump topsoil and bulldozers will spread the material to be 6 inches thick on the slopes and floor of the mine. The use of tracked equipment while spreading topsoil will limit soil compaction.

In the event that rubber tire equipment cannot be routed to prevent subsoil and topsoil compaction deep tillage equipment will be used to alleviate compaction in the upper 12 to 14 inches of the soil profile.

Soils testing will be performed following procedures established in the Wisconsin Nutrient Management Standard 590 to determine the organic matter, phosphorus, potassium and pH. Soil amendments (including lime and fertilizer) will be applied based on the soil test results to meet the fertility requirements needed to achieve the intended post mining land use.

3. Safety Assurances

Given the slopes on the reclaimed mine site and the post mining land uses there are very limited safety concerns. The pond will have a 3:1 slope that extends 6 feet below the water line. Areas reclaimed as Wildlife habitat will have 3:1 slope. A 15ft safety bench will be made at the top of the highwall and will be at the water elevation level. This will allow for wildlife to access and exit the pond safely as well as create a safe flat area before the highwall.

4. **Seeding Plan**

Seeding will be selected to achieve the post mining land use that is planned for each designated area. Areas that will be reclaimed to wildlife habitat will be seeded to native grasses. Seed will be broadcast seeded and rolled to improve seed – soil contact. DNR Seed Mix 2 will be used in these areas and applied at the rates listed (see Appendix B). The wildlife pond area will be allowed to vegetate using below the water line natural seed distribution without seeding by the operator.

5. **Future Use**

The mine site will be reclaimed to establish two different post mining land uses including upland grassland wildlife habitat and wildlife pond habitat. The approximate location of each post mining land use is shown on Final Site Map. Every thing outside of the Wildlife habitat pond is upland grass area.

<u>Upland Grassland Wildlife Habitat Post Mining Land Use</u>

Steep slopes around the perimeter of the mine will be reclaimed to an Upland Grassland Wildlife Habitat.

The proposed performance measures used to determine reclamation success are:

a. The establishment of a mine soil profile with a minimum of 6 inches of topsoil and 10 inches of subsoil.
b. The establishment of full plant rooting depth.
c. The establishment of target soil chemistry and fertility to achieve and sustain the post mining land use.
d. The establishment of the seeding so that:
    i. All species in the seeding are present.
    ii. No more that 50% of the total vegetation is one species from the seed mix.
    iii. Biomass shall be a minimum of one ton per acre per year.

Site monitoring will be conducted to assess the success of the seeding and monitor the site for invasive or noxious plan species. Areas of failed seeding shall be examined to determine the cause of the failure. Invasive or noxious species will be spot treated with herbicide according to the product label or hand removal and disposed of properly.

<u>Wildlife Pond Habitat Post Mining Land Use</u>

Areas of the mine that are below the water table will be reclaimed as a Wildlife Pond.

The proposed performance measures used to determine reclamation success are:

a. The establishment of irregular shorelines that vary in shape and slope.
b. The establishment of shoreline slopes that vary from 3:1 to 10:1 and extend a minimum of 6 feet vertically below the water line.
c. The 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.

Site monitoring will be conducted to assess the success of vegetation establishment and monitor the site for invasive or noxious plan species. Areas poor vegetation establishment shall be examined to determine the cause. Invasive or noxious species will be spot treated with herbicide according to the product label or hand removal and disposed of properly.

Endangered Resources Preliminary Assessment

Created on **9/26/2022**. This report is good for one year after the created date.

DNR staff will be reviewing the ER Preliminary Assessments to verify the results provided by the Public Portal. ER Preliminary Assessments are only valid if the project habitat and waterway-related questions are answered accurately based on current site conditions. If an assessment is deemed invalid, a full ER review may be required even if the assessment indicated otherwise.

Results

A search was conducted of the NHI Portal within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area. Based on these search results, below are your next steps.

No further action is necessary.

This project is covered by the Broad Incidental Take Permit/Authorization for No/Low Impact Activities (No/Low BITP/A) (https://dnr.wi.gov/topic/ERReview/ITNoLowImpact.html). This BITP/A covers projects that the DNR has determined will have no impact or a minimal impact to endangered and threatened species in the state. Due to this coverage under the No/Low BITP/A, a formal review letter is not needed and there are no actions that need to be taken to comply with state and/or federal endangered species laws, any take that may result from the proposed project is permitted/authorized.

A copy of this document can be kept on file and submitted with any other necessary DNR permit applications to show that the need for an ER Review has been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.

Project Information

Landowner name	**Witt**
Project address	**6972 County Highway NN, Stanley WI, 54768**
Project description	**Gravel Pit**

Project Questions

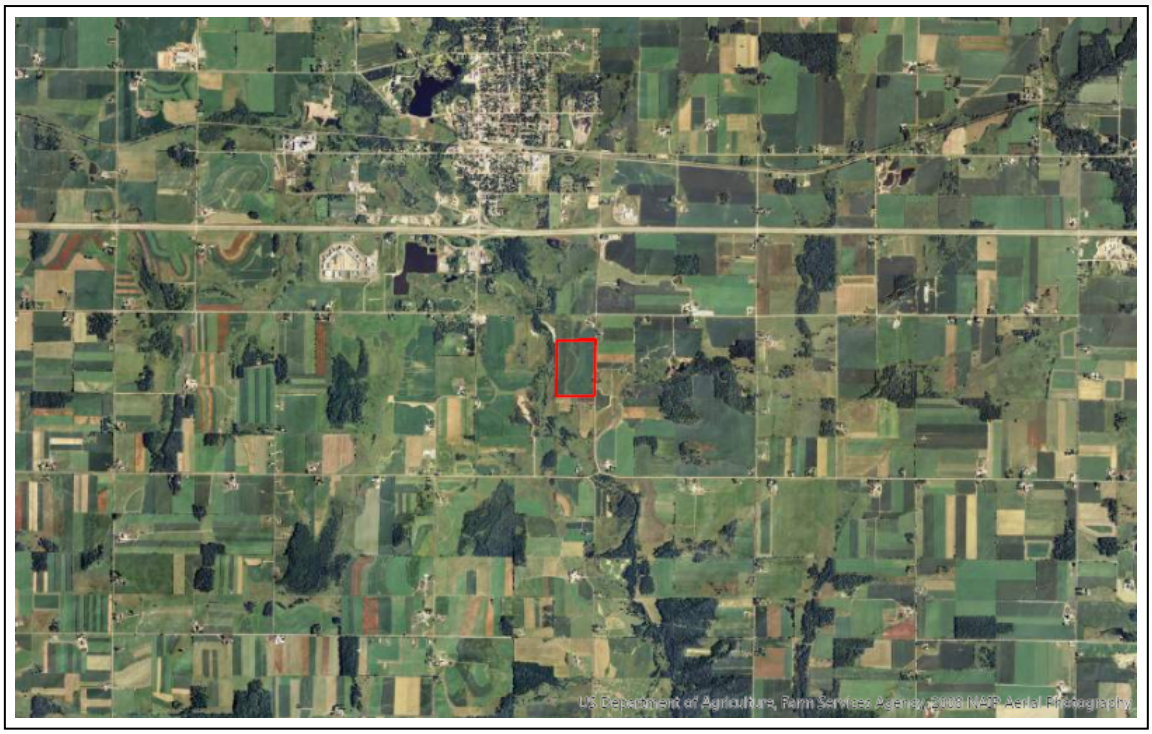
Does the project involve a public property?	**No**
Is there any federal involvement with the project?	**No**
Is the project a utility, agricultural, forestry or bulk sampling (associated with mining) project?	**No**
Is the project property in Managed Forest Law or Managed Forest Tax Law?	**No**
Project involves tree or shrub removal?	**No**
Is project near (within 300 ft) a waterbody or a shoreline?	**Yes**
Is project within a waterbody or along the shoreline?	**No**

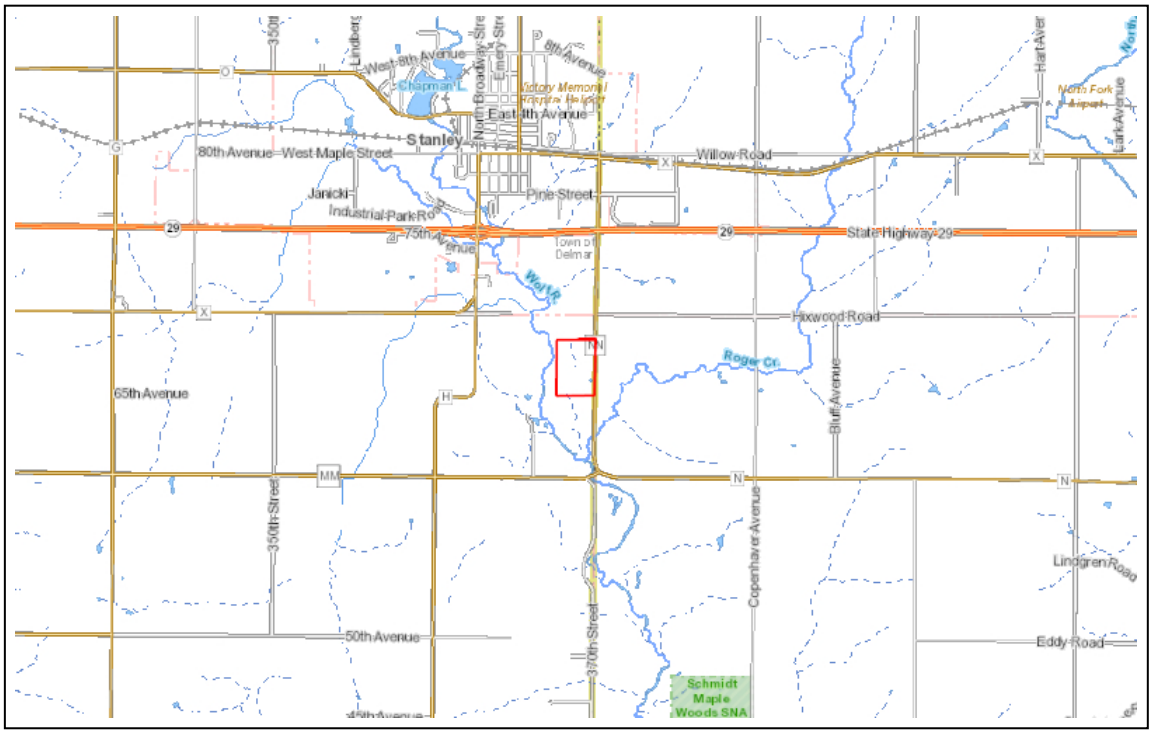
Does the project area (including access routes, staging areas, laydown yards, select sites, source/fill sites, etc.) occur **entirely within** one or more of the following habitats?

Urban/residential	**No**
Manicured lawn	**No**

Artificial/paved surface	**No**
Agricultural land	**Yes**
Areas covered in crushed stone or gravel	**No**

Project Area Maps





Natural Heritage Inventory data township tool

Data for Township 28N, Range 05W

The following is a list of species and natural features on the Natural Heritage Working List that have been documented for T28N, R05W. Bald eagles are not represented, and sensitive species have been removed, where applicable, including cave bats. The data presented here **should not** be used for screening or reviewing a proposed land development or land management project for potential impacts to endangered resources. Learn about other methods for obtaining data, including project-specific data here.

Click on the table headings to sort the table, and click on a heading again to change the sort order. Each species or community on the list has been documented in at least one location (but possibly many locations) within the township. The scientific names link to pages with more information about each species or feature. Also, these data were last updated on **October 13, 2021**, so there may be more recent county records not reflected here. Return to the township tool.

Scientific Name	Common Name	WI Status	Federal Status	Group
Emydoidea blandingii	Blanding's Turtle	SC/P	SOC	Turtle~

Last revised: October 13, 2021

		Witt Quarry - **Proposed Reclamation Cost Estimation Summary**			
Reclamation Item	**Units**	**Description**	**Cost of**	**Units**	**Cost**
Equipment Cost	AC	Placing of Subsoil	$700.00	43.5	$30,450.00
Equipment Cost	AC	Placing of Topsoil	$700.00	43.5	$30,450.00
Equipment Cost	AC	Respreading and Recontouring of Subsoil/Topsoil	$600.00	43.5	$26,100.00
Equipment Cost	AC	Cost Prep for Seeding. Disking, Ground Work, etc.	$300.00	43.5	$13,050.00
Material	AC	Seed and Fertilizer	$400.00	43.5	$17,400.00
Equipment Cost	AC	Seeding	$500.00	43.5	$21,750.00
Stabilizing Soil Storage	AC	Temporary and Final	$400.00	43.5	$17,400.00
Erosion Control	AC	Cost of any Temporary Erosion Control	$300.00	43.5	$13,050.00
Reseeding	AC	Cost of Reseeding if First Seeding Fails	$300.00	43.5	$13,050.00
		Estimated Cost Per Acre	$4,200.00		
		Overall Cost			$182,700.00