

As mining progresses, reclamation follows.

Photo from Super Aggregates – Waterford, WI Facility

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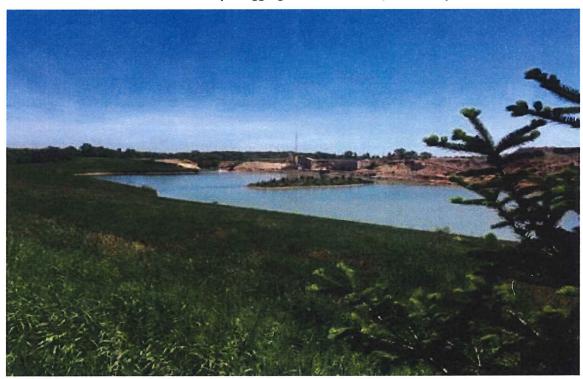


Site Plan Review Booklet July 2020



Reclaimed site seeded with prairie grass and planted evergreens.

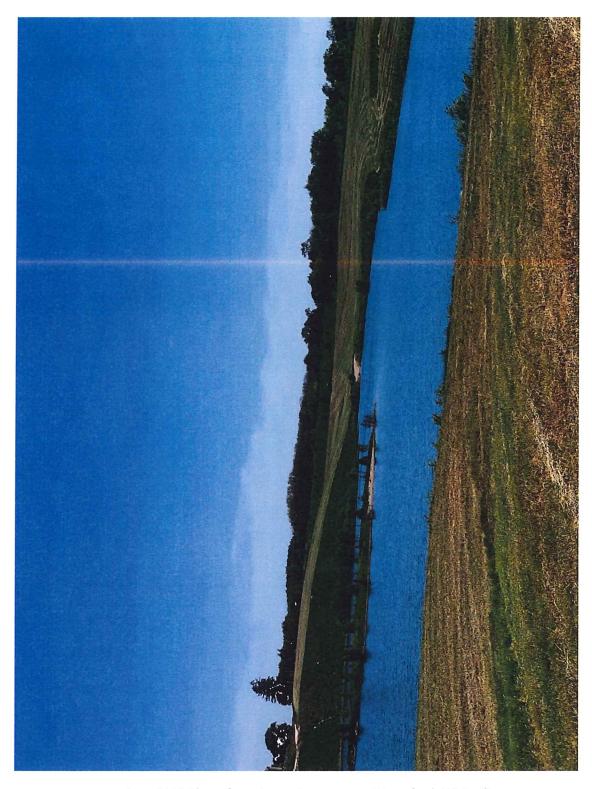
Photo from Super Aggregates – Waterford, WI Facility



Site Plan Review Booklet July 2020



JUL 17 2020



June 2020 Photo from Super Aggregates – Waterford, WI Facility

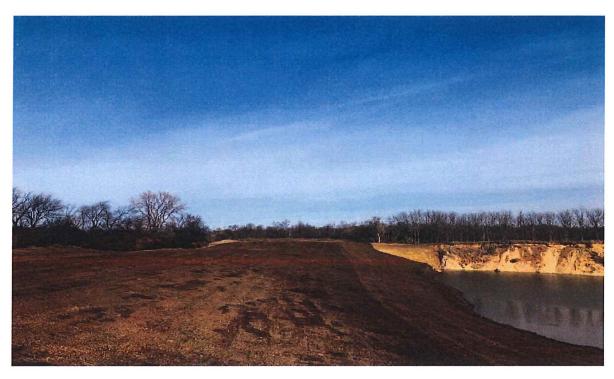
Site Plan Review Booklet July 2020



Page 10 | 26

JUL 17 2020





Reclaimed area, Fall 2017

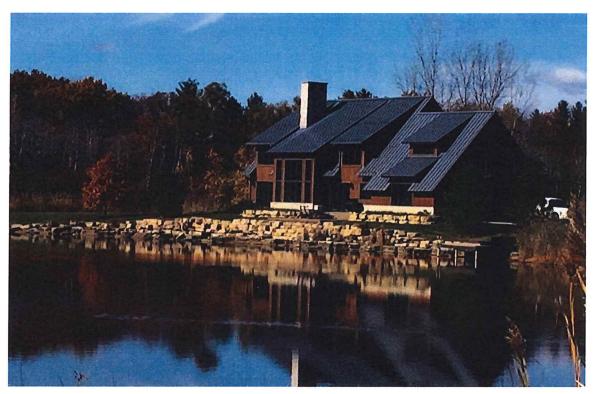


Spring, 2018

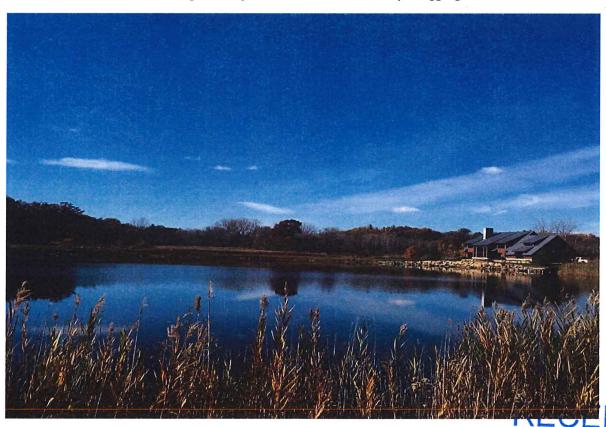
Photos from Super Aggregates – Sugar Creek Facility, Walworth County, WI RECEIVED

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JUL 17 2020



Reclaimed site and single-family residence. Photo from Super Aggregates – Nish Lake



Site Plan Review Booklet July 2020

Page 12 | 26 JUL 17 2020

## **Mining Narrative**

### 1. Ownership of land.

The property is owned by Super Mix of Wisconsin, Jack Pease. Super Aggregates is also owned by Jack Pease and is the non-metallic mine operator. The main office is located at 5435 Bull Valley Road, Suite 330, McHenry, IL 60050. Phone: 815-385-8000.

#### 2. Nonmetallic Minerals to be mined.

The reserves mined from property are sand and gravel materials.

## 3. Character and composition of vegetation and wildlife on land to be affected.

Non-metallic extraction is continuing on-site, and reclaimed areas have been returned to agricultural land use with alfalfa/hay farming.

## 4. The nature, depth and proposed disposition of the overburden.

The overburden consists of topsoil which is a fine silty loam, 1-2 feet in depth and clay subsoil 2-3 feet in depth throughout the property. Once final grades are achieved, the overburden and topsoil shall be used to reclaim the site.

### 5. The estimated depth to which the mineral deposit will be mined.

Reserves are estimated to be 25-50 feet in depth.

## 6. Estimated type and volume of excavation.

Remaining mineable sand and gravel reserves are estimated at 1 million tons. North mining operations are projected to be complete in 5 to 8 years.

## 7. The techniques and equipment proposed to be used, as applicable, for;

#### A. earth materials extraction;

Open pit reserves shall be extracted using a combination of an excavator, haul trucks and wheel loader depending on extraction phase.

#### B. earth materials processing;

Reserves are processed by a combination of screening and crushing techniques. Equipment consist of a feeder, land conveyors, screening plant, crushing plant, wash plant, stacking conveyors and a wheel loader.

#### C. ready-mix plant;

Sand and Gravel materials from the processing area are used in the ready-mix plant.

#### D. concrete recycling plant; and

Imported broken concrete is stock piled until it can be crushed into recycled products. Material shall be stockpiled and shipped on market demand.

#### E. concrete building materials production plant.

Not applicable.

8. Practices and methods proposed to be used to minimize noise, dust, air contaminate CEIVED and vibration and to prevent pollution of surface or underground water.

Page 14 | 26UL 17 2020

EPA standards, enforcement and maintained equipment shall assure noise pollution below allowable levels for the operator of each machine. These noise levels will guarantee no significant noise will be heard beyond 1,500 feet. Dust control and further noise control shall be accomplished by limiting the processing plant in its current location. In addition, berms have been constructed and seeded with a vegetative cover to add additional noise buffering. Continued farming in reclaimed areas shall aid in minimizing noise and screening the operation. Dust and air contaminants shall be minimized by paving or the use of calcium chloride on all on-site roads. Berms and buffer strips shall be planted to suitable vegetation and maintained to prevent pollution of water supply.

9. The method of recycling water used for washing and grading.

Water used for the processing operations shall be drawn from a series of three ponds constructed on-site, they include a freshwater pond, and two deposit ponds. Water used for the washing operation shall be pumped from the freshwater pond into the processing plant to wash the sand and gravel materials. After the material is washed, the water is collected and returned to the first deposit pond allowing clay and silt to settle. The water flows slowly into the second deposit pond allowing the remaining solids to settle. Once the fine materials have deposited, the clean water is directed back into the freshwater pond for reuse. This is a closed circuit with little or no loss of water from the system.

10. The proposed usage or drainage of excess water.

All haul roads, stockpiles and operational areas shall be graded in such a manner as to direct any run-off into the primary deposit pond. The deposit ponds shall be diked to prevent any overland flow of surface water. All other land not affected by mining operations shall be drained naturally by current topography, infiltration and evaporation.

11. Location of existing roads, and anticipated access and haulage roads planned to be used or constructed in conducting surface mining.

Please see Locations & Features Plan.

- 12. Location and names of all streams, creeks and bodies of water within lands to be affected.

  Not applicable.
- 13. Drainage on and away from the lands to be affected, including directional flow of water, natural and artificial drain ways and waterways, and streams or tributaries receiving the discharge.

Please see Locations & Features Plan.

14. Number of Employees and Proposed days and hours of operation of all excavation, processing and operations on the property.

The operation is staffed with a maximum of two employees and extractive/mining operations excepting maintenance functions shall be from 7:00 a.m. to 6:00 p.m., Saturday from 7:00 a.m. to 1:00 p.m. and no operations shall take place on Sundays or legal holidays. The picking up or shipping of materials and the depositing of recyclable materials may occur on a "demand basis" and is not restricted to the aforesaid days and hours. In the event there is a

Site Plan Review Booklet July 2020

JUL 17 2020

contractual obligation to supply materials for Wisconsin Department of Transportation or a Racine County road building project which would require operations after hours, owner may operate during said hours during the term of the project only. In case of an emergency, time and hours of operation may be altered at the discretion of the Town Board through the issuance of a special permit which may be renewed at thirty-day intervals.

## 15. The proposed property reclamation plan.

Owner shall file a reclamation plan for the property in accordance with applicable laws and regulations of the County of Racine. The reclamation plan shall provide that upon termination of mining activities, that part of the property used for extraction operations shall be allowed to fill with water to form a lake The shoreline shall be restored with topsoil and returned to agricultural use. Slopes shall provide a stable and gradual transition from the surface elevation to the estimated mean water level.

# 16. Projected dates of commencement and completion of all excavation, processing and operations on the property.

Non-metallic extractive operations have occurred for many years on the North parcel. Non-metallic extractive North operations are estimated to be complete by 12/31/2028 and reclamation by 12/31/30.



JUL 17 2020

Page 16 | 26

Super Mix of WI / Super Aggregates Waterford Lakes (N) Reclamation Plan Town of Waterford Racine County 7/01/20



JUL 17 2020

**RACINE COUNTY** 

## I. Site Information

#### a. General Location:

The site is located at 32409 High Drive (North), 2 miles North West of Waterford, on the North side of High Drive in the Town of Waterford, Racine County, Wisconsin.

## i. Legal Description:

The South East 1/4 of Section 28, Township 4 North, Range 19 East. 153 acres more or less.

ii. Parcel ID:

016-04-19-28-013-000

iii. Owner and Operator:

Super Mix of WI

Super Aggregates - Jack Pease

5435 Bull Valley Rd.

Suite 330

McHenry, IL 60050

#### b. Property Boundaries:

Please see aerial maps.

#### c. Geological Composition and Depth of Mineral Deposit:

Waterford Lakes Property is in an area of "Pitted Outwash and Other Ice Contact Deposits. Pitted outwash plains, kames, eskers crevasse fillings, and related features. Mainly sand and gravel with sorting and stratification locally poor. Pitted outwash and other ice contact deposits have a high potential for containing commercial sand and gravel. These deposits tend to be smaller and often less uniform than those found in outwash. However, as most ice contact deposits are steep-sided, the sand and gravel are often exposed by erosion and thus more readily found than flat-lying outwash plains and alluvial fans. In addition, the sand and gravel are usually well-drained, making special mining methods unnecessary." (Taken from "Glacial Deposits of Wisconsin" Map 10, 1976)

The depth of the deposit of sand and gravel is quite uniform in thickness, running from 40 to 60 feet deep. Mined materials will be heterogeneous mixture of fine and coarse aggregate varying in size from 200 mesh fines to fist sized cobbles.



### d. Distribution Depth and Type of Topsoil:

Information for the three main soil types have been taken from Sun Hackdin Namy
Kenosha Counties.

Waukesha Silt Loam (W) is a dark colored silt loam with yellowish-brown heavy subsoil becoming sandy at 2-4 feet. Surface drainage generally good. Slightly deficient in places.

Miami Loam (MI) is a light brown loam with sandy clay loam below 18 inches. Surface is gently rolling to hilly. Natural drainage is good.

Miami Silt Loam (Mo) is a light brown silt loam with yellowish- or reddish-brown subsoil grading into sandy clay loam at 2 feet. Surface is undulating to rolling. Drainage is good and slightly deficient on gentle slopes and level areas.

#### e. Ground Water Elevation:

"Well Construction Reports" for the wells that are in Section 28 and of Waterford Township, were obtained from the Wisconsin Department of Natural Resources Bureau of Drinking Water and Groundwater. The general indication that static water level is 15 to 43 feet in the area.

#### f. Location of Surface Water and Wetlands:

The closest significant surface water is an on-site lake. As mining cessation occurs and reclamation is completed, the lake will encompass approximately 40 acres. A significant wetland adjoins the Northwest property corner.

### g. Existing Topography and Drainage Pattern:

Please see topography and drainage plans on the Locations and Features Plan, all slopes provide drainage to the lake.

#### h. Location of Manmade Features:

After mining cessation, lake features will be completed. These features will be constructed to appear naturally occurring open space with encasing agricultural areas. Shoreline slopes provide a stable and gradual transition from the surface elevation to the estimated mean water level.

## i. Location of Previously Mined Areas:

Please see Locations and Features Plan for areas formally mined and reclaimed. From the Southwest property corner, mining and reclamation is rotating in a clockwise fashion.

#### j. Biological Resources

## i. Plant Communities:

Vegetative data for the property was determined through visual observation and review of The Soil Survey Racine County, Wisconsin (USDA). Vegetation includes



native grasses, foxtail, goldenrod, sumac, chokeberry, oaks, walnut and black Y cherry. Alfalfa/hay was the agricultural crop grown in 2019 and planned for the 2020 crop season.

#### ii. Wildlife Use:

Wildlife use and data was determined by visual inspections. Main species present include whitetail deer, turkey, raccoon, woodchuck, rabbit, coyote, red fox, sparrows, robins, squirrel, cardinals and chickadee.

#### k. Altered Lands:

Please see Locations and Features Plan for lake, stockpile and settling pond locations.

## II. Post-Mining Land Use

## a. Original Post Mining Land Use:

The original reclamation plans on file and submitted by Alby Materials included a lake with a boat launch and designated post mining land use as parks/recreation. The Alby reclamation plan also included the removal of the 7 Acre building site where Witte Supply is currently located. Witte Supply expressed interest in a land division and purchase of the 7 Acre parcel. Racine County approved the division and zoning change allowing Witte Supply to remain. A CSM and Deed have been recorded with the Racine County Register of Deeds.

#### b. Post Mining Land Use Revision:

The post mining land use shall be returned to agriculture. Contemporaneous agriculture continues to occur as reclaimed areas are completed. Upon mining operation cessation, stockpiles and equipment shall be removed and final site reclamation shall occur. Please see Reclamation Plan including proposed final contours.

#### III. Reclamation Site Plan and Measures

## a. Reclamation Methods and Procedures:

Contemporaneous reclamation shall occur in a clockwise direction around the lake perimeter to the extent practicable to minimize the area disturbed by mining operations. It is projected reclamation shall be completed within 7-10 years on the North operation. Upon mining cessation, overburden stockpiles and imported soil materials shall be pushed by a dozer or relocated by excavator and haul trucks to blend contour lines and restore slopes from the property line, to the lake shoreline. Final slopes shall be undulating to appear naturally occurring. The areas shall be fine graded with placement a minimum depth of 6" of topsoil from stockpiles. The farm operator shall cultivate and plant crops in restored areas returning to productive agricultural use. The site is internally drained to prevent ponding or runoff.

#### b. Subsoil & Topsoil Redistribution:

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Subsoil redistribution located in stockpiles shall occur as practicable once mining has ceased per phasing plan. Subsoil redistribution shall provide rough grading contours appearing

per phasing plan. Subsoil redistribution shall provide rough grading contours appearing natural occurring from property line to lake edge. This shall be accomplished by dozer, haul trucks and excavator depending on travel distance. Subsoil shall be placed evenly in each phase to promote good bonding between the topsoil and subsoil materials. This shall ensure suitable substrate for plant growth and the development of plant root system.

North Operation topsoil stockpiles contain approximately 48,000 cu yds. exceeding current reclamation requirements. No additional material shall be needed to complete reclamation. Topsoil redistribution located in stockpiles shall occur as subsoil redistribution is complete. This shall be accomplished by dozer, haul trucks and excavator depending on travel distance. Final grades and depth shall be controlled by GPS equipment and topsoil placement shall be more uniform than prior to mining operations. Topsoil redistribution shall be placed at a minimum of 6 inches thick and performed under dry conditions using appropriate equipment as to minimize compaction. Any clods or lumps present after the topsoil redistribution shall be broken down using harrows, disks or other equipment to provide uniform textured soil supporting revegetation plan included in this plan.

## c. Final Topography:

Lake perimeter slopes shall be regraded and maintain a minimum of 6H:1V slopes or flatter where practicable, to promote natural lines and blending contours lines to the undisturbed perimeter site topography. Internal lake slopes from water edge shall be 10H:1V for a minimum distance of 20 feet providing a safety shelf and safe exit. Beyond that distance underwater slopes shall be 2H:1V - 3H:1V to lake bottom.

## d. Structures:

Removal of all mining equipment, settling ponds, scale and scale house will be removed upon mining competition. The paved surface roadway will be gated and left in place for the farm operator ingress and egress.

#### e. Estimated Cost of Reclamation:

Description	Amount	Cost Unit	Cost/Acre
Temporary Stockpile Seeding	1	Acre	200
Temporary Erosion Control Measures	1	Acre	600
Stockpile Maintenance	1	Acre	200
Subsoil Re-spread - Undulating Side Slopes	1	Acre	1,500
Topsoil Re-Spread – GPS Control	1	Acre	2,500
Fine Grading & Disking	1	Acre	250
Seeding (If between Crop Seasons)	1	Acre	450
Fish Stocking and Pond Management	1	Acre	150
Total Cost per Acre			\$5,850

#### f. Financial Assurance



## **RACINE COUNTY**

The objective of financial assurance is to ensure Racine 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 regulatory authority to hire a third party to perform reclamation. The main purpose of financial assurance is to ensure the operator will faithfully execute the requirements of the approved reclamation plan, the applicable reclamation ordinance and NR 135.

The operator is estimating reclamation cost of \$5,850 per Acre and North reclamation shall be completed within 7-10 years from the date of this booklet. The charts below depict North operations and respective reclaimed and unreclaimed areas. Financial assurance requirements shall be a minimum of \$105,450 (\$5,850/A x 37 Acres). Please see itemized Reclamation Cost Estimate above.

## North Parcel

Total Parcel	152.0 Acres
Proposed Final Lake	37.0 Acres
Acres Reclaimed	78.0 Acres
Unreclaimed Acres	37.0 Acres
Bond Acres	37 O Acres

A reclamation bond of \$330,000 has been provided to Racine County for financial assurance. Financial assurance shall be available for active acres until the issuance of the final County Certificate of Reclamation.

#### g. Revegetation Plan:

The revegetation plan includes all activities in support of selecting, obtaining, handling and applying seed to fulfill the reclamation plan. Seed and shall be obtained from a local farm supply service facility or seed dealer. Alfalfa hay shall be seeded at a minimum of 25 lbs. per acre in combination with a nurse crop of seed oats at a rate of 32 lbs. per acre.

If areas to be revegetated are outside the date range (April 15 to June 1) for a typical cropping season, temporary seeding shall be done at any time during the growing season when soil conditions are suitable except between July 1 and August 15. Seeding activities shall not be carried out immediately following rain when the ground is too dry or during windy periods. Temporary seeding of oats shall be at a rate of 64 lbs. per acre.

Reclaimed areas shall be returned to agricultural crop production or temporarily seeded only after soils have been properly prepared as specified above.

**Soil analysis:** Prior to returning reclaimed areas to agricultural production, soil samples shall be taken and sent to a laboratory to conduct analysis and provide recommendations for desired crop and maintain County average crop yields of 150 bushels per acre for corn, 50



bushels per acre for soybeans and 2.6 tons per acre for alfalfa hay yield goals laboratory NTY recommended rates for fertilizer, lime or soil amendments shall be applied prior to seeding.

## General cultivation and seeding methods include:

Cultivation and seeding methods are dependent on agricultural crop type and shall be in a conservation manner using agricultural equipment applicable for agricultural land use and designed for intended crop. Temporary seeding methods include broadcast seeding and drilling using agricultural equipment applicable for agricultural land use. Seeding activities shall be carried out using equipment and in a manner to avoid soil compaction. Revegetation standards are met when 70% of the area has vegetation during the growing season.

## h. Erosion and Storm Water Management:

Mining operations are conducted in a manner that minimizes the acreage being mined at any one time and thus serves to minimize the total area exposed to erosion in accordance with NR 135.06(2). Topsoil stockpiles shall be vegetated and the site is internally drained. Silt fencing to be used in accordance with methods and procedures described in "Wisconsin Construction Site Best Management Practices Handbook" and as deemed necessary and appropriate in the field. Silt fence inspection shall occur after a major rain fall event.

## i. Long Term Safety of Reclaimed Site:

The reclaimed site will revert to agricultural use implementing safe and stable slopes for all agricultural operations. As the lake was developed, a 20' wide safety shelf was constructed along the lake perimeter to provide an adequate safety measure in the case of unexpected water entry.

#### j. Inspection, Operation and Maintenance:

Follow up inspections and communication with the farm operator shall occur throughout each cropping season and after mining operation cessation. Any eroded areas shall be repaired and reseeded. No-till farming methods may be implemented if warranted.

## IV. Criteria for Successful Reclamation:

Reclamation shall be considered successful if reclaimed areas are returned to agriculture and crops grown yield the same or better than prior to mining operations. Lake areas shall be successful once aquatic plant communities are naturally established and the lake is stocked with fish. On site visits with Racine County officials will aid in successful reclamation and approval.

## V. Reclamation Certification

a. I, Jack Pease, President of Super Mix of Wisconsin, hereby certify as owner of property described above will allow, comply and implement the provisions of this reclamation plan.

Jack Pease, Owner

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