

June 7, 2013

McGhie & Betts Environmental Services, Inc.
Jeffery Broberg
1648 Third Avenue S.E.
Rochester, MN 55904

David Nisbit
14444 Gathje Lane
Utica, MN 55979

Tom Rowekamp
301 3rd Avenue NW
Stewartville, MN 55976

Dear Mr. Broberg:

I am writing in regards to the June 4th approval by the County Board of the Nisbit Conditional Use Permit and the 39 attached conditions. There are a number of conditions that need to be met prior to commencement of mining activities at the Nisbit site and this letter is intended to clarify specifically what items need to be completed and the process that will take place in order to allow you to begin work at the mine.

As you know condition #39 requires that prior to commencement of mining activities the petitioner meet with the Planning Commission to report that all conditions and permits have been met and obtained. In order to get this information to the commissioners for review prior to their meeting, completed items should be submitted at least one week ahead of the scheduled meeting.

The following list of conditions will need to be completed and submitted prior to a Planning Commission meeting. Some of the items listed have already been submitted during the CUP and EAW process and will just need to be compiled or updated for this submittal while others will need to be obtained or worked out with various agencies. I would also like to point out that the road use agreement and financial guarantees will need legal review that we will have to plan on leaving time for prior to the Planning Commission meeting.

- ☐ Condition #1, erosion control plan.
- ☐ Condition #5, fugitive dust plan.
- ☐ Condition #13, state and federal requirements. All applicable permits shall be placed on file with the County prior to commencement of mining operations.
- ☐ Condition #19, road use agreement. Based on Winona County Highway Engineers calculations. Needs legal review.
- ☐ Condition #20, access permit from the Winona County Highway Department.

- ☐ Condition #25, a plan or method for ensuring that vehicles do not exceed weight limits on the roads and bridges upon which they travel including a method of regular reporting. Needs approval of the Winona County Highway Engineer.
- ☐ Condition #28, traffic impact analysis (TIA). Needs approval by Winona County Highway Engineer. In addition a TIA needs to be completed for the section of the route within the City of Winona.
- ☐ Condition #30, reclamation plan.
- ☐ Condition #31, subterranean engineering analysis.
- ☐ Condition #32, financial guarantees. These will need legal review.
- ☐ Condition #35, proof of authority.
- ☐ Condition #36, must provide proof of agreement between local school districts and applicant in order to avoid potential traffic hazards associated with school bus routes and stops.

I hope this list is helpful to you as you compile the necessary information prior to the Planning Commission meeting. If you should have any questions, please feel free to contact me. Thank you for your consideration.

Sincerely,



Lew Overhaug
Winona County Planning & Environmental Services
177 Main Street
Winona, MN 55987
Phone: (507) 457-6335

**OFFICIAL PROCEEDINGS
WINONA COUNTY BOARD OF COMMISSIONERS
SESSION HELD JUNE 4, 2013
9:00 AM WINONA COUNTY BOARD ROOM**

The Winona County Board of Commissioners met in the Commissioners Room on the above date with Commissioners Steve Jacob, Greg Olson, James Pomeroy, Marcia Ward, and Wayne Valentine present. Others present were Duane Hebert, Administrator, Maureen Holte, Assistant County Administrator/Personnel Director, Karin Sonneman, County Attorney, Pat Moga, Finance Director, Beth Wilms, Community Services Director, Jason Gilman, Planning and Environmental Services Director, Jill Johnson, Administration, and Deanna Johnson, Administration. Chair Valentine called the meeting to order at 9:00 AM..

The Board received the following public comments:

Erica Tivadol –	Nisbit CUP
Joanna Rupprecht –	Nisbit CUP
Mari Kaveski	Nisbit CUP
Joe Morse	Nisbit CUP
Frank Bures	Nisbit CUP
Pauline Nisbit Connaughty	Nisbit CUP
Mark Zimmerman	Property Valuation
Tom Kujawa	Nisbit CUP
Jane Caulfield	Nisbit CUP
Doug Nopar	Nisbit CUP

On motion of Commissioner Pomeroy and second by Commissioner Jacob, the Board approved the County Board minutes dated 5-28-2013. Vote: Yes – 5.

On motion of Commissioner Pomeroy and second by Commissioner Ward, the Board approved the Agenda by adding Comprehensive Land Use Plan Update to Committee Reports and Communications. Vote: Yes – 5.

On motion of Commissioner Pomeroy and second by Commissioner Olson, the Board approved the following Consent Business:

Approved the following:

Conditional Use Permit – Menno Bontrager

Conditional Use Permit for Menno Bontrager under Chapter 10.4.6 (36) of the Winona County Zoning Ordinance for the purpose allowing a dwelling on a parcel containing less than forty (40) acres for the following described property:

An approximate 2.5 acre parcel located within the Northeast Quarter of the Northeast Quarter (NE ¼-NE ¼), Section 16, Saratoga Township, (Township 105 North-Range 10 West, Winona County, Minnesota.

with the following conditions:

1. The petitioner will abide by all representations made during the permitting process, to the extent those representations are not negated by the Planning Commission or the Board of Commissioners and to the extent they are not inconsistent with the spirit or letter of these conditions to the conditional use permit.
2. Proposed new driveway shall adhere to the standards described in Chapter #9.7 and 11.6, to include receiving a permit from Saratoga Township if applicable.
3. The petitioners obtain the required Development Certificate and Septic Permit, and comply with all relevant regulations and standards of Winona County and the State of Minnesota.
4. The following statement shall recorded on the deed, along with the Conditional Use Permit;
"Owners, residents and other users of property in this zoning district or neighboring properties may be subjected to inconvenience or discomfort arising from normal and accepted agricultural practices and operation, including but

not limited to, noise, odors, dust, operation of machinery of any kind including aircraft, the storage and disposal of manure or the application of fertilizers, herbicides and pesticides. Owners, residents and users of this property or neighboring property should be prepared to accept such inconveniences or discomfort, and possibly injury from normal operations, and are hereby put on official notice that the state Right-To-Farm Law (Minnesota Statute 561.19) may bar them from obtaining a legal judgment against such normal operations."

5. Pursuant to Chapter 10.4.7 #5 Lot Access Regulations, the petitioner submit a formal easement that identifies that an adequate 33' wide easement exists entirely out to Keller Drive. The Planning Department will not issue the Development Certificate for any of the respective improvements on the subject property until the recording of the access easement has been completed.

Passed and adopted this 4th day of June, 2013.

Adopted the following:

Conditional Use Permit – Timothy & Jennifer Scharmer

Conditional Use Permit for Jennifer and Timothy Scharmer under Section 10.4.6(14) of the Winona County Zoning Ordinance for the purpose of allowing a dog kennel for the following described property:

The Southwest Quarter of the Southwest Quarter (SW ¼ of SW ¼) of Section Sixteen (16), Township One Hundred Six (106), of Range Six (6), Winona County Minnesota that lies Southerly of County Road 15;

Also, the Northwest Quarter of the Northwest Quarter (NW ¼ of NW ¼) of Section Twenty-One (21), Township One Hundred Six (106), of Range Six (6), Winona County Minnesota, excepting therefrom a parcel of land containing two (2) acres, more or less, of land described as follows, to-wit:

Commencing at the Southwest corner of said quarter section, and thence running North along the West line thereof a distance of 670 feet; thence South 21° 15' East a distance of 720 feet to the South line of said quarter quarter section; thence West of said South line a distance of 260 feet to the point of beginning.

Also, that part of the Southwest Quarter of the Northwest Quarter (SW ¼ of NW ¼) of Section Twenty-One (21), Township One Hundred Six (106), of Range Six (6), Winona County, Minnesota, described as follows, to-wit:

Commencing at a point on the North line of said quarter quarter section at a point which is 260 feet East of the Northwest corner thereof; thence continuing East on the North line of said quarter quarter section a distance of 1060 feet to the Northeast corner of said quarter quarter section; thence South on the East line of said quarter quarter section a distance of 580 feet; thence North 61° West a distance of 1210 feet to the point of beginning.

Excepting therefrom that part of the Southwest Quarter of the Southwest Quarter (SW ¼ of SW ¼): of Section Sixteen (16), Township One Hundred Six (106), Range Six (6), Winona County, Minnesota, described as follows:

Beginning at the Southeast corner of Southwest Quarter of the Southwest Quarter (SW ¼ SW ¼) ; thence on an assumed bearing of South 88 degrees 52 minutes 03 seconds West, along the South line of said Southwest Quarter of Southwest (SW ¼ of SW ¼) 170.77 feet; thence North 26 degrees 59 minutes 59 seconds West, 919.14 feet; thence North 84 degrees 21 minutes 40 seconds East, 223.47 feet; thence on a bearing of North 363.24 feet to the center line of Winona County State Aid Highway No 15; thence Northeasterly along said center line and along a non-tangential curve concave to the Northwest, having a radius of 818.61 feet, to the North line of said Southwest Quarter of the Southwest Quarter (SW ¼ SW ¼); thence Easterly along said North line of the Southwest Quarter of the Southwest Quarter (SW ¼ of SW ¼) to the Northeast corner of said Southwest Quarter of the Southwest Quarter (SW ¼ of SW ¼); thence Southerly along the East line of said Southwest Quarter (SW ¼ of SW ¼) to the point of beginning.

with the following conditions:

1. The petitioners will abide by all representations the applicant made during the permitting process, to the extent the Planning Commission did not negate those representations and to the extent they are not inconsistent with the spirit or letter of explicit conditions to the Conditional Use Permit.
2. The petitioners comply with section 9.9 of the Zoning Ordinance relating to Advertising Devices.

Passed and adopted this day passed 4th of June, 2013.

Confirmed payment of Disbursements:

05/22-05/28/2013			
Fund			
1	Revenue	\$	19,459.50
3	Road and Bridge	\$	14,984.50
5	Human Services	\$	68,835.11
Total		\$	103,279.11

Approved Agreement with MnDOT for Mississippi River Trail Signing and Adopted the following:

RESOLUTION #2013 –23

It is resolved that Winona County enter into Mn/DOT Agreement No. 03637 with the State of Minnesota, Department of Transportation for the following purposes:

To provide for the State to enter upon County Right of Way to install Mississippi River Trail signing along the designated Mississippi River Trail route on County roadways and for the County to provide for proper maintenance of the rout signing. Such work will be conducted under State Project No. 8826-139 (T.H. 61) and State Aid Project No. 091-0650-103.

It is further resolved that the County Board Chair and the County Administrator are authorized to execute the Agreement and any amendments to the Agreement.

Adopted at Winona, Minnesota this 4th day of June, 2013.

Authorized Board Chair to sign the VISTA letter of Commitment.

Approved Temporary Beer License for Pickwick Fire and Rescure for an event being held June 28, 2013 and June 29, 2013 from 11:00 AM to 10:00 PM.

Vote: Yes – 5.

On motion of Commissioner Ward and second by Commissioner Pomeroy, the Board authorized the renewal of the 2014-2015 FPI Multi-County Grant Contract and authorized the Chair to sign. Vote: Yes – 5.

A motion was made by Commissioner Pomeroy and second by Commissioner Olson, to stay execution of the enforcement of the Boards April 2, 2013 decision making and negative declaration for an EIS and to suspend further consideration of the CUP pending a ruling by the Court. Vote: Yes – 2. No – Ward, Valentine. Jacob. Motion failed.

On motion of Commissioner Jacob and second by Commissioner Ward to approve the Nisbit Mine application subject to the 37 conditions drafted by the Planning Commission; to include the phasing and seeding language proposed by the applicant, and include the 21.9 cents per ton per mile road impact fee; and two additional conditions:

- 38. The applicant shall be subject to comply with any new regulations that may come to bear as a result of any new information gained to protect against potential silicosis risk, threats to our ground water, or any other other potential threat to our community, that may arise as a result of the permitted mine.
- 39. The applicant shall be responsible for all costs incurred by Winona County for enforcement of this CUP.
- Revise Condition #16 – 6 months Review.
- Revise Condition #28 – comply with a Transportation Impact Analysis for truck haul route disclosure in the City of Winona from the origin to the final destination.

CONDITIONAL USE PERMIT – DAVID & SHERRY NISBIT

Conditional Use Permit for David & Sherry Nisbit, 14444 Gathje Lane, Utica, MN 55979 under Section 10.4.6 (16) of the Winona County Zoning Ordinance for the purpose of allowing an Extraction Pit / Land Alteration for the following described property:

Located in Section 35 Saratoga Township, at 14444 Gathje Lane, Utica, MN 55979

with the following conditions:

1. An erosion control plan is required. Owner/applicant shall provide the County with a detailed erosion control plan which shall mitigate erosion on neighboring property, wind erosion mitigation and finished conditions stabilization. All crushing and processing work must include watering/misting operations to minimize airborne particulate.

2. Hours of Operation are restricted. Hours of operation at the mining site shall be limited to those specified in the application and shall not conflict with the minimum requirements specified in Section 9.10.3(6) Of the Winona County Zoning Ordinance. Additionally, there shall be no hours of operation on the following observed holidays: New Years Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day.

3. Setbacks are required. Mining operations shall not be conducted within 1,000 feet of an existing residential dwelling or within 50 feet of an existing well. The principal owner of the proposed mine site may submit a written consent letter to the County, waiving the 1,000 foot setback requirement, however, no home shall exist within 300 feet of a proposed mine and no waiver shall be granted for less than a 300 foot setback. The County reserves the right to impose greater setback restrictions on a case by case basis, where necessary to mitigate adverse impacts on neighboring land uses.

4. Air Quality Monitoring. In cases where residential homes exist within 1,320 feet of a proposed mining site, the owner/applicant shall be responsible for the costs of air quality monitoring by a professional selected by the County. Air quality standards shall not exceed a maximum allowable limit of 3ug/m3 levels. If these levels are exceeded, mining operations shall cease and be required to take necessary precautions to minimize airborne particulate. The operator shall be required to monitor the ambient level of airborne particulate matter of 2.5 microns in size (PM2.5) and Total Suspended Particulates (TSP). If the air monitors show an exceedance of 35 micrograms per cubic meter of PM2.5 in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize PM2.5 emissions. If the air monitors show an exceedance of 150 micrograms per cubic meter of TSP in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize TSP. The operator shall compile a quarterly summary of monitoring results report within 10 days of the end of each month that shall be available to the County Board. A Minimum of 3 scientific approved air quality monitors are required in active mining areas available for staff review and data collection at all times. Type/brand of monitor will be pre approved by all parties. Air Quality Monitors shall be placed on the downwind perimeters of the land disturbance area and separated by a minimum of 100 feet.

5. A Fugitive Dust Plan Is Required. Owner/applicant shall submit a comprehensive plan to control fugitive dust on the site and during hauling operations. Access drives, shall be watered and/or conditioned regularly to minimize dust at all times. A tire wash system must be installed at the mine site to minimize migration of sand and dust to adjacent roadways.

6. Stock piles. All stock piles shall be kept below 24 feet in height except where stockpiles are covered to prevent wind erosion or where stockpiles are regularly watered to prevent surface areas from drying out and becoming susceptible to windborne erosion or where stockpiles are protected by excavated banks, preventing windborne erosion. All stockpiles shall not encroach upon any easement, roadway or driveway and shall maintain a minimum setback of 30 feet as required in Section 9.10.3(4) if the WCZO.

7. Water Quality Monitoring. The mine operator/owner shall install groundwater monitoring wells adjacent to the proposed mine site where the site is within 1,320 feet of residential plats or suburban development, springs, sinkholes and/or wellhead protection areas or community wells and shall provide the County with groundwater testing by an independent environmental engineer, approved by the County, at the time of commencement of disturbance activities and twice per year until 1 year after the mine has been completely reclaimed.

8. Wetland Permitting. No mining operation shall affect existing wetlands either on site or adjacent to proposed operations without the proper permitting.

9. Prohibited Activities. Blasting, milling and crushing shall not be permitted at the mine site, **except** by specific Planning Department approval with specified time limits and mitigation of airborne particulate. Applicants intending on

blasting must submit detailed information as to the frequency, duration, schedule and vibration standard/thresholds for review and approval by the County Planning Department as part of the initial Conditional Use Permit submittal for Public Hearing review. If approved, all crushing and processing work must include watering/misting operations to minimize airborne particulate. Blasting will be allowed up to 3 times per calendar year. Neighborhood notification will be sent to all property owners within a ½ mile radius of the blasting activity.

10. Noise Levels Restricted. Owner/applicant must conform to all County ordinances with regard and noise level thresholds.

11. Lighting / Glare. Lighting shall be hooded with cut-off style refractors and controlled in some manner as required in Section 9.1.7 of the WCZO.

12. State BMP Guidelines. Owner/applicant shall use the Minnesota Pollution Control Agency's Environmental Management Best Management Practices used as a guidance tool and reference document.

13. State and Federal Requirements. Owner/applicant shall abide by all local, state and federal regulations, including Mine Safety and Health Administration standards. All applicable permits shall be placed on file with the County prior to the commencement of mining operations.

14. Project Manager/ Contact Person Required. Owner/applicant shall at all times have a agent whose name, fax number, telephone number/cellular number and email address are on file with the County and Town Clerk in order to respond promptly to concerns. The agents name and contact information shall be available on site on a 2' x 3' placard or sign at the site entrance adjacent to the public right of way entrance.

15. MPCA Fuel and Hazardous Materials Storage Rules. Owner/applicant shall follow Minnesota Pollution Control Agency regulations for Fuel and Hazardous Materials Management as applicable on site.

16. This conditional use permit shall be valid based on the owner/operator's conformance with the conditions specified herein and the applicable provisions of the Winona County Zoning ordinance. Winona County shall hereby have the right to conduct 6 month performance review to assure conformance with the above stated provisions and to determine if corrective action is required including but not limited to permit revocation.

17. Violations and Penalties. Owner/applicant/operator is hereby notified that violation of the conditions of approval may result in the execution of a stop work order, bond withdrawal, legal action or any combination thereof until such violation is permanently corrected.

18. Requirements Prior to Mining to be Satisfied. Commencement of land disturbance and/or mining activity shall be prohibited until all required submittals and above stated conditions are met and approved by the County. It is highly recommended that the applicant provide the County Planning Department with a schedule of submittals and answers matching the conditions of approval and the timing of each submittal.

Road Use Conditions

19. A Road Use Agreement is Required. Owner applicant shall be required to enter into a road use maintenance agreement with Winona County which shall specify the owner/applicant's responsibilities with regard to road maintenance costs based on the life expectancy of the quarry including but not limited to:

- Temporary posting and signage
- Cracking
- Sub base
- Drainage
- Surface conditions/distortion
- Ride quality
- Shoulder maintenance
- Replacement costs based on pavement rating at the time of commencement of mining operations

271
272 **20. Access Permit.** Owner/applicant shall obtain an access permit from the County for where mine traffic enters or exits
273 onto a County highway. In addition, the owner/applicant shall obtain all required local permits for access to Township roads
274 and shall place the same on file with the County.
275

276 **21. Tracking Pad Required.** The owner/applicant shall be responsible for paving the approach to the county road for a
277 minimum distance of 40 feet from the shoulder of the county road with asphalt. Tracking pads and tire washes shall be
278 reviewed and be part of the fugitive dust plan for control of dust/tracking.
279

280 **22. Traffic is Limited by the Permit for Due Process Considerations.** The quarry operation shall not exceed 140 loaded
281 trucks per day during normal operations, except as permitted by the County for short term operations which must be defined
282 at the time of the conditional use permit review and approval. Any exceedance of 140 loaded trips per day shall be
283 immediately disclosed to the County for review.
284

285 **23. Amendment to Traffic Levels Requires Review.** Requests to re-evaluate average and maximum daily-loaded trips in
286 order to adjust annual road maintenance fees may occur two years or beyond subsequent to the initial start up of the sand
287 mining operation, subject to the County Highway Engineer approval. This condition shall be applicable where annual average
288 traffic volume increase by 10% or more.
289

290 **24. Seasonal Road Closures Apply.** The County reserves the right to restrict or close roads during spring-thaw periods or
291 when otherwise warranted to prevent damage, and to close roads when the conditions are deemed unsafe.
292

293 **25. Reporting Vehicle Weights.** Owner/Applicant shall be required to identify a method of positive controls regarding the
294 weight of vehicles leaving the mine and method to insure vehicles do not exceed the weight limits of the roads and bridges
295 upon which they will travel, and obtain approval by the County Highway Engineer on the methods and frequency of
296 inspection used. Controls such as scales and regular reporting on vehicle weights shall be implemented with minimum
297 quarterly reporting to the County Highway Department in conjunction with road use agreement reporting requirements.
298

299 **26. Street Maintenance and Sweeping Required.** Owner/applicant shall be responsible for monitoring roadways and
300 roadway sweeping as necessary to maintain safe conditions. All transportation routes used by the mine shall not have any
301 accumulation of visible debris or sand from the mine site. The owner/applicant shall take all necessary precautions to avoid
302 spillage on Winona County roadways.
303

304 **27. Requirement for Secure Loads.** No vehicle shall be driven or moved on any roadway unless such vehicle has the load
305 securely covered as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping from vehicles.
306

307 **28. Traffic Impact Analysis Required.** Owner/applicant shall be responsible for the preparation of a traffic study indicating
308 any required improvements for ingress and egress, vision/sight lines and traffic control within a service area defined by the
309 County Highway Engineer. Owner/applicant shall be responsible for the cost of said improvements upon review and approval
310 by the County Highway Engineer-prior to the commencement of mining operations. The Owner/applicant shall comply with
311 a Transportation Impact Analysis for the truck haul route disclosure in the City of Winona from the point of origin to the final
312 destination.
313

314 **29. Local Road Use Agreement with Township Required.** The owner/applicant shall be responsible to enter into a road use
315 agreement with the Township for the use of any local-township road and shall be responsible for maintenance and repair of
316 any damage resulting from the proposed mining operation.
317

318 **Reclamation Conditions**

319

320 **30. Reclamation Plan Required.** A complete and detailed reclamation plan shall accompany all applications which meets or
321 exceeds the requirements of Section 9.10 of the WCZO. The plan shall be prepared by a qualified professional with proper
322 credentials for reclamation plan preparation, specifying the following:

- 323 • A systematic approach to land reclamation for the mining site, including phases and schedule for reclamation with
324 no more than 5 acres open in any phase per year. The County reserves the right to review the conditional use permit
325 annually to enforce compliance.

- Proposed land use after reclamation activities are completed-Reclamation plans for sand mining sites shall include a land use/cover plan equal to the actual land use/cover types previous to mining operations. Areas intended for post-mining agricultural uses must include approval by SWCD for best management practices.
- Inactivity at the mine site shall require reclamation in accordance with the terms of the NPDES permit. NPDES permit shall be placed on file with Winona County before extraction/mining operations commence. Inactivity shall be defined as when an operator of a surface mining operation has curtailed production at the site/operation with the intent to resume at a future date, for a period of one year or more by more than 90 percent of its maximum annual mineral production.

31. Subterranean Engineering Analysis Required. Owner/applicant shall submit an analysis prepared by a qualified independent engineering firm of the existing geologic conditions both in the extraction area and sub-extraction area and the impacts of the mining operations, including the applicability of the reclamation plan including any potential adverse affect on area hydrology, springs or Karst formations. The County reserves the right to have this data reviewed by state geologists/hydrologists and/or SWCD and NRCS staff.

Financial Guarantees

32. Performance Guarantees Required. Performance bonds shall be required for the following:

- 110% of the estimated cost of reclamation for a period equal to the life of the quarry plus 2 years. Performance bonds for reclamation may only cover the areas of disturbance for the duration of mining activity and may 'roll' with disturbance activity accordingly in order to minimize financial burden on the applicant.
- 110% of the estimated cost of the roadway maintenance agreement requirements for a period of 5 years.
- A performance surety shall be provided in the amount of \$1,000 per acre for the total proposed site disturbance. The surety shall be used to reimburse the County for any monies, labor, or material expended to bring the operation into compliance with the conditions of the permit.

Environmental Review

33. An EAW or EIS May Be Required Before CUP Application Acceptance. Discretionary environmental review can be initiated by the Planning Commission and County Board. The Owner/applicant shall provide an Environmental Assessment Worksheet for the proposed site in accordance with Winona County standards.

Miscellaneous

34. Transferability/Severability. These conditions shall apply to all heirs, successors and assigns and shall run with the land until such time as the conditional use permit is modified, amended or terminated.

35. Proof of Authority Required. The applicant shall provide the County with a notarized document assigning representation and proof of ownership of the land and mineral rights for an application to be processed.

36. The applicant will work with the independent school districts along the proposed haul route each year to identify bus stop locations in order to reach a mutual agreement to avoid potential traffic hazards.

37. The petitioner meet with the Planning Commission as a courtesy to report that all conditions and permits have been acquired prior to commencement of mining activities.

38. The applicant shall be subject to comply with any new regulations that may come to bear as a result of any new information gained to protect against potential silicosis risk, threats to our ground water, or any other potential threat to our community, that may arise as a result of the permitted mine.

39. The applicant shall be responsible for all costs incurred by Winona County for enforcement of this Conditional Use Permit (CUP).

Passed and adopted this 4th day of June, 2013

Vote: Yes – Ward, Valentine, Jacob. No – Pomeroy, Olson.

381
382 Mr. Gilman provided an update on the Comprehensive Land Use Committee meeting held on Thursday, May 30,
383 2013 at this time.

384
385 Committee Reports and Communications were received at this time.

386
387 On motion of Commissioner Olson and second by Jacob, the Board recessed the meeting at 10:22 a.m. to conduct a
388 closed meeting Pursuant to Minn. Stat. 13D.03 to consider strategies for Labor Negotiations. Vote: Yes – 5.

389
390 On motion of Commissioner Pomeroy and second by Commissioner Ward, the Board reconvened the meeting at
391 10:45 a.m. Vote: Yes – 5.

392
393 On motion of Commissioner Pomeroy and second by Commissioner Ward, the Board meeting adjourned at 12:05
394 p.m. Vote: Yes – 5.

395
396 **WINONA COUNTY BOARD OF COMMISSIONERS**

397
398
399 Wayne Valentine, Chair

400
401 **Attest:**

402
403
404 Duane Hebert
405 County Administrator

CONDITIONAL USE PERMIT
Winona County, Minnesota

Permit number **1149** has been issued to:

David & Sherry Nisbit
14444 Gathje Lane
Utica, MN 55979

For the purpose of allowing an **Extraction Pit/Land Alteration**

Under Section **10.4.6 (16)** of the Winona County Zoning Ordinance for the following described property:

Located in Section 35 Saratoga Township, at 14444 Gathje Lane

This permit is issued on the 4th day of June 2013 and is valid until revoked.

This permit is subject to the following conditions:

- 1. An erosion control plan is required.** Owner/applicant shall provide the County with a detailed erosion control plan which shall mitigate erosion on neighboring property, wind erosion mitigation and finished conditions stabilization. All crushing and processing work must include watering/misting operations to minimize airborne particulate.

2. **Hours of Operation are restricted.** Hours of operation at the mining site shall be limited to those specified in the application and shall not conflict with the minimum requirements specified in Section 9.10.3(6) Of the Winona County Zoning Ordinance. Additionally, there shall be no hours of operation on the following observed holidays: New Years Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day.
3. **Setbacks are required.** Mining operations shall not be conducted within 1,000 feet of an existing residential dwelling or within 50 feet of an existing well. The principal owner of the proposed mine site may submit a written consent letter to the County, waiving the 1,000 foot setback requirement, however, no home shall exist within 300 feet of a proposed mine and no waiver shall be granted for less than a 300 foot setback. The County reserves the right to impose greater setback restrictions on a case by case basis, where necessary to mitigate adverse impacts on neighboring land uses.
4. **Air Quality Monitoring.** In cases where residential homes exist within 1,320 feet of a proposed mining site, the owner/applicant shall be responsible for the costs of air quality monitoring by a professional selected by the County. Air quality standards shall not exceed a maximum allowable limit of 3ug/m3 levels. If these levels are exceeded, mining operations shall cease and be required to take necessary precautions to minimize airborne particulate. The operator shall be required to monitor the ambient level of airborne particulate matter of 2.5 microns in size (PM2.5) and Total Suspended Particulates (TSP). If the air monitors show an exceedance of 35 micrograms per cubic meter of PM2.5 in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize PM2.5 emissions. If the air monitors show an exceedance of 150 micrograms per cubic meter of TSP in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize TSP. The operator shall compile a quarterly summary of monitoring results report within 10 days of the end of each month that shall be available to the County Board. A Minimum of 3 scientific approved air quality monitors are required in active mining areas available for staff review and data collection at all times. Type/brand of monitor will be pre approved by all parties. Air Quality Monitors shall be placed on the downwind perimeters of the land disturbance area and separated by a minimum of 100 feet.
5. **A Fugitive Dust Plan Is Required.** Owner/applicant shall submit a comprehensive plan to control fugitive dust on the site and during hauling operations. Access drives, shall be watered and/or conditioned regularly to minimize dust at all times. A tire wash system must be installed at the mine site to minimize migration of sand and dust to adjacent roadways.
6. **Stock piles.** All stock piles shall be kept below 24 feet in height except where stockpiles are covered to prevent wind erosion or where stockpiles are regularly watered to prevent surface areas from drying out and becoming susceptible to windborne erosion or where stockpiles are protected by excavated banks, preventing windborne erosion. All stockpiles shall not encroach upon any easement, roadway or driveway and shall maintain a minimum setback of 30 feet as required in Section 9.10.3(4) if the WCZO.
7. **Water Quality Monitoring.** The mine operator/owner shall install groundwater monitoring wells adjacent to the proposed mine site where the site is within 1,320 feet of residential plats or suburban development, springs, sinkholes and/or wellhead protection areas or community wells and shall provide the County with groundwater testing by an independent environmental engineer, approved by the County, at the time of

commencement of disturbance activities and twice per year until 1 year after the mine has been completely reclaimed.

8. **Wetland Permitting.** No mining operation shall affect existing wetlands either on site or adjacent to proposed operations without the proper permitting.
9. **Prohibited Activities.** Blasting, milling and crushing shall not be permitted at the mine site, **except** by specific Planning Department approval with specified time limits and mitigation of airborne particulate. Applicants intending on blasting must submit detailed information as to the frequency, duration, schedule and vibration standard/thresholds for review and approval by the County Planning Department as part of the initial Conditional Use Permit submittal for Public Hearing review. If approved, all crushing and processing work must include watering/misting operations to minimize airborne particulate. Blasting will be allowed up to 3 times per calendar year. Neighborhood notification will be sent to all property owners within a ½ mile radius of the blasting activity.
10. **Noise Levels Restricted.** Owner/applicant must conform to all County ordinances with regard and noise level thresholds.
11. **Lighting / Glare.** Lighting shall be hooded with cut-off style refractors and controlled in some manner as required in Section 9.1.7 of the WCZO.
12. **State BMP Guidelines.** Owner/applicant shall use the Minnesota Pollution Control Agency's Environmental Management Best Management Practices used as a guidance tool and reference document.
13. **State and Federal Requirements.** Owner/applicant shall abide by all local, state and federal regulations, including Mine Safety and Health Administration standards. All applicable permits shall be placed on file with the County prior to the commencement of mining operations.
14. **Project Manager/ Contact Person Required.** Owner/applicant shall at all times have a agent whose name, fax number, telephone number/cellular number and email address are on file with the County and Town Clerk in order to respond promptly to concerns. The agents name and contact information shall be available on site on a 2' x 3' placard or sign at the site entrance adjacent to the public right of way entrance.
15. **MPCA Fuel and Hazardous Materials Storage Rules.** Owner/applicant shall follow Minnesota Pollution Control Agency regulations for Fuel and Hazardous Materials Management as applicable on site.
16. **This conditional use permit shall** be valid based on the owner/operator's conformance with the conditions specified herein and the applicable provisions of the Winona County Zoning ordinance. Winona County shall hereby have the right to conduct 6 month performance review to assure conformance with the above stated provisions and to determine if corrective action is required including but not limited to permit revocation.
17. **Violations and Penalties.** Owner/applicant/operator is hereby notified that violation of the conditions of approval may result in the execution of a stop work order, bond withdrawal, legal action or any combination thereof until such violation is permanently corrected.

18. Requirements Prior to Mining to be Satisfied. Commencement of land disturbance and/or mining activity shall be prohibited until all required submittals and above stated conditions are met and approved by the County. It is highly recommended that the applicant provide the County Planning Department with a schedule of submittals and answers matching the conditions of approval and the timing of each submittal.

Road Use Conditions

19. A Road Use Agreement is Required. Owner applicant shall be required to enter into a road use maintenance agreement with Winona County which shall specify the owner/applicant's responsibilities with regard to road maintenance costs based on the life expectancy of the quarry including but not limited to:

- Temporary posting and signage
- Cracking
- Sub base
- Drainage
- Surface conditions/distortion
- Ride quality
- Shoulder maintenance
- Replacement costs based on pavement rating at the time of commencement of mining operations

20. Access Permit. Owner/applicant shall obtain an access permit from the County for where mine traffic enters or exits onto a County highway. In addition, the owner/applicant shall obtain all required local permits for access to Township roads and shall place the same on file with the County.

21. Tracking Pad Required. The owner/applicant shall be responsible for paving the approach to the county road for a minimum distance of 40 feet from the shoulder of the county road with asphalt. Tracking pads and tire washes shall be reviewed and be part of the fugitive dust plan for control of dust/tracking.

22. Traffic is Limited by the Permit for Due Process Considerations. The quarry operation shall not exceed 140 loaded trucks per day during normal operations, except as permitted by the County for short term operations which must be defined at the time of the conditional use permit review and approval. Any exceedance of 140 loaded trips per day shall be immediately disclosed to the County for review.

23. Amendment to Traffic Levels Requires Review. Requests to re-evaluate average and maximum daily-loaded trips in order to adjust annual road maintenance fees may occur two years or beyond subsequent to the initial start up of the sand mining operation, subject to the County Highway Engineer approval. This condition shall be applicable where annual average traffic volume increase by 10% or more.

24. Seasonal Road Closures Apply. The County reserves the right to restrict or close roads during spring-thaw periods or when otherwise warranted to prevent damage, and to close roads when the conditions are deemed unsafe.

25. Reporting Vehicle Weights. Owner/Applicant shall be required to identify a method of positive controls regarding the weight of vehicles leaving the mine and method to insure vehicles do not exceed the weight limits of the roads and bridges upon which they will travel, and obtain approval by the County Highway Engineer on the methods and

frequency of inspection used. Controls such as scales and regular reporting on vehicle weights shall be implemented with minimum quarterly reporting to the County Highway Department in conjunction with road use agreement reporting requirements.

- 26. Street Maintenance and Sweeping Required.** Owner/applicant shall be responsible for monitoring roadways and roadway sweeping as necessary to maintain safe conditions. All transportation routes used by the mine shall not have any accumulation of visible debris or sand from the mine site. The owner/applicant shall take all necessary precautions to avoid spillage on Winona County roadways.
- 27. Requirement for Secure Loads.** No vehicle shall be driven or moved on any roadway unless such vehicle has the load securely covered as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping from vehicles.
- 28. Traffic Impact Analysis Required.** Owner/applicant shall be responsible for the preparation of a traffic study indicating any required improvements for ingress and egress, vision/sight lines and traffic control within a service area defined by the County Highway Engineer. Owner/applicant shall be responsible for the cost of said improvements upon review and approval by the County Highway Engineer-prior to the commencement of mining operations. The Owner/applicant shall comply with a Transportation Impact Analysis for the truck haul route disclosure in the City of Winona from the point of origin to the final destination.
- 29. Local Road Use Agreement with Township Required.** The owner/applicant shall be responsible to enter into a road use agreement with the Township for the use of any local-township road and shall be responsible for maintenance and repair of any damage resulting from the proposed mining operation.

Reclamation Conditions

- 30. Reclamation Plan Required.** A complete and detailed reclamation plan shall accompany all applications which meets or exceeds the requirements of Section 9.10 of the WCZO. The plan shall be prepared by a qualified professional with proper credentials for reclamation plan preparation, specifying the following:
- A systematic approach to land reclamation for the mining site, including phases and schedule for reclamation with no more than 5 acres open in any phase per year. The County reserves the right to review the conditional use permit annually to enforce compliance.
 - Proposed land use after reclamation activities are completed-Reclamation plans for sand mining sites shall include a land use/cover plan equal to the actual land use/cover types previous to mining operations. Areas intended for post-mining agricultural uses must include approval by SWCD for best management practices.
 - Inactivity at the mine site shall require reclamation in accordance with the terms of the NPDES permit. NPDES permit shall be placed on file with Winona County before extraction/mining operations commence. Inactivity shall be defined as when an operator of a surface mining operation has curtailed production at the site/operation with the intent to resume at a future date, for a period of one year or more by more than 90 percent of its maximum annual mineral production.
- 31. Subterranean Engineering Analysis Required.** Owner/applicant shall submit an analysis prepared by a qualified independent engineering firm of the existing geologic conditions both in the extraction area and sub-extraction area and the impacts of the mining operations, including the applicability of the reclamation plan including any

potential adverse affect on area hydrology, springs or Karst formations. The County reserves the right to have this data reviewed by state geologists/hydrologists and/or SWCD and NRCS staff.

Financial Guarantees

32. Performance Guarantees Required. Performance bonds shall be required for the following:

- 110% of the estimated cost of reclamation for a period equal to the life of the quarry plus 2 years. Performance bonds for reclamation may only cover the areas of disturbance for the duration of mining activity and may 'roll' with disturbance activity accordingly in order to minimize financial burden on the applicant.
- 110% of the estimated cost of the roadway maintenance agreement requirements for a period of 5 years.
- A performance surety shall be provided in the amount of \$1,000 per acre for the total proposed site disturbance. The surety shall be used to reimburse the County for any monies, labor, or material expended to bring the operation into compliance with the conditions of the permit.

Environmental Review

33. An EAW or EIS May Be Required Before CUP Application Acceptance.

Discretionary environmental review can be initiated by the Planning Commission and County Board. The Owner/applicant shall provide an Environmental Assessment Worksheet for the proposed site in accordance with Winona County standards.

Miscellaneous

- 34. Transferability/Severability.** These conditions shall apply to all heirs, successors and assigns and shall run with the land until such time as the conditional use permit is modified, amended or terminated.
- 35. Proof of Authority Required.** The applicant shall provide the County with a notarized document assigning representation and proof of ownership of the land and mineral rights for an application to be processed.
- 36. The applicant will work with the independent school districts along the proposed haul route** each year to identify bus stop locations in order to reach a mutual agreement to avoid potential traffic hazards.
- 37. The petitioner meet with the Planning Commission** as a courtesy to report that all conditions and permits have been acquired prior to commencement of mining activities.
- 38. The applicant shall be subject to comply** with any new regulations that may come to bear as a result of any new information gained to protect against potential silicosis risk, threats to our ground water, or any other potential threat to our community, that may arise as a result of the permitted mine.
- 39. The applicant shall be responsible** for all costs incurred by Winona County for enforcement of this Conditional Use Permit (CUP).

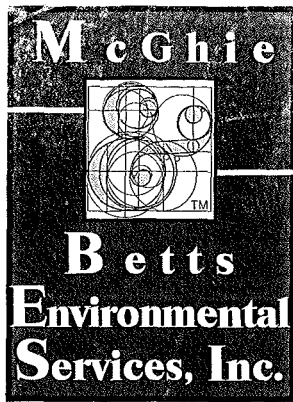
This permit is granted upon the express conditions that said owner and his/her contractors, agents, workmen and employees shall comply in all respects with the Ordinances of the County of Winona and the laws of the State of Minnesota.

This permit is granted following a formal public hearing by the Winona County Planning Commission on August 16th, 2012 and approved by the Board of Commissioners of Winona County on June 4th, 2013

Given under the hand of the Planning Director of Winona County this 4th day of June 2013



Jason Gilman, AICP
Winona County Planning &
Environmental Services Director



Rochester Minnesota

Environmental Site
Investigations, Management
& Design

Asbestos, Lead, & Other
Hazardous Materials

Wetland Delineation
& Permitting

Indoor Air Quality

Geological Hazards

UST & Spills

Environmental
Assessment Worksheet
& Impact Statements

VIC (Voluntary Investigation
& Clean Up)

1648 Third Avenue S.E.
Rochester, MN 55904

Tel. 507.289.3919
Fax. 507.289.7333

e-mail. mcghiebetts.com

Established 1991

July 20, 2012

Mr. Jason Gilman, Director
Winona County Environmental Services
177 Main Street
Winona, MN 55987

Re: CUP Application-Summary of submittals
Nisbit Mine, sec 35 Saratoga Township

Dear Mr. Gilman.

In accordance with the authorization of David and Sherry Nisbit, landowners, and Mr. Tom Rowekamp, CEO of IT Sands, LLC we are resubmitting the Conditional Use Application for the 20 acre Nisbit silica sand mine located on tax parcel 140002521 in the SW/4 of the NE/4 of section 35, T105N, R10W, Saratoga Township of Winona County.

Our submittal package follows the "Silica Sand Mining and Processing Application Packet" currently posted on the Winona County website and includes the following:

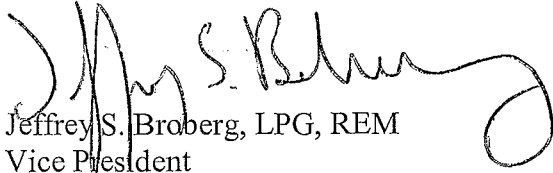
1. A Letter of Interest with a summary of the proposed operations and facility. The pre-application meeting was held in your office on May 14, 2012.
2. A completed Conditional Use Permit Application with supporting information including
 - a. Completed and signed application
 - b. A statement of intended uses formatted to address the County's "Criteria for Grant a Conditional Use (section 5.5.4.1). The Saratoga Township Acknowledgement form was submitted to your office by David Nisbit under separate cover.
 - c. Standard CUP sketch map
 - d. Four maps: Maps A – Existing Conditions, B-1- Phase I Proposed Operations, B-2 Phase 2 Proposed Operations, and C-Restoration Plan.
3. Mine Plan, Performance Standards and Reclamation Plan addressing Winona Zoning Ordinance section 9-10 including:
 - a. Required information from zoning ordinance section 9-10-2
 - b. Text describing the Performance Standards
 - c. Narrative mine plan including details, maps and figures with information on Pre-mining conditions including geology, landscape, topography, vegetation, soils, sand markets, mining operations including depths, sequencing and staging, restoration
4. An independent Traffic Study prepared by Wenck & Associates.
5. Letters of Authorities including
 - a. Agreement between Nisbit's and IT Sands dated May 29, 2012
 - b. Letter from Ryan and Grinde, LTD certifying mineral rights for the Nisbit's

We are submitting a single paper copy and a CD-ROM with electronic PDF files of all submittals.

If you or your staff have any questions or need clarification or added information please contact me at 507-289-3919 or via e-mail at jsbroberg@mcghiebetts.com.

Sincerely:

McGhie & Betts Environmental services, Inc.

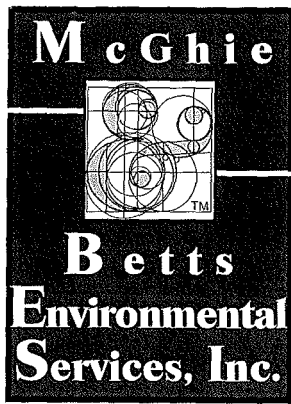
A handwritten signature in black ink, appearing to read "Jeffrey S. Broberg", with a large, stylized loop at the end.

Jeffrey S. Broberg, LPG, REM
Vice President

Minnesota Licensed Professional Geologist #30019
Registered Environmental Manager #3009

Nisbit Silica Sand Mining CUP
July 19, 2012

- 1. A Letter of Interest with a summary of the proposed operations and facility. The pre-application meeting was held in your office on May 14, 2012.**



July 18, 2012

Mr. Jason Gilman
Winona County Planning & Zoning
177 West Main St
Winona, MN 55987

Re: Letter of Interest/Pre-Application

Dear Mr. Gilman:

This is a letter to follow-up on our May 14, 2012 pre-application meeting with Tom Rowekamp, you, Zoning Administrator Eric Johnson and Planner Lou Overhaug to discuss the criteria for the re-submittal of the David Nisbit Conditional use permit for Silica Sand Mining.

The application is coming forward now in July 2012 and is on behalf of the landowners David and Sherry Nisbit and mine operators IT Sands LLC represented by Tom Rowekamp, who has an agreement with the Nisbit's to apply for a CUP and mine silica sand on approximately 20 acres on a 40 acre parcel owned by the Nisbits (Letter agreement between Nisbit and IT Sands LLC is included in the packet).

McGhie & Betts Environmental Services has been retained by Mr. Rowekamp to handle the application and representation at the Planning and Zoning Committee and the County Board and Mr. Jeffrey S. Broberg, LPG is the principal contact for the application.

The Nisbit mine is proposed on 20 acres located in the SW/4 of the NE/4 of section 35 of Saratoga Township of Winona County (T105N, R10W). The parcel lies on the north side of Gethje Lane, a dead end private road that serves adjoining parcels and lies west of CR113 approximately 2.8 miles south of the intersecting of CR113 and CR6. The mining plan is designed to mine silica sand in phases and is shown on the attached maps.

Mining activity will be conducted Monday through Friday 6AM to 10PM and 7AM to noon on Saturday with no work on Sundays or State/federal holidays. Mining will require the removal of limestone and shale cap rock which may require blasting. Mining of silica sand will proceed with backhoes, loaders, a dry screen plant and dump trucks.

Phase I will mine from west to east to an elevation of 1200 \pm 8 and will mine approximately 8 acres maintaining a 3-5 acre working/processing area with a maximum 24 foot working face. Stormwater and erosion control and management will be implemented in accordance with the MPCA permit requirements for non-metallic mining. The areas mined will be stabilized and temporarily restored as the mining progresses. Phase I silica sand production is estimated to be 203,000 cubic yards. The details are shown in maps and text in the CUP submittal.

Phase II mining will commence from west to east to a bottom elevation of \pm 1170 using the same equipment and methods as Phase I. An estimated 492,000 cubic yards of sand will be extracted. Permanent restoration will cover the mined surface with the removed topsoil and spoil and the mined areas will be seeded with a pasture mix in

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Minnesota

Environmental Site
Investigations, Management
& Design

Asbestos, Lead, & Other
Hazardous Materials

Wetland Delineation
& Permitting

Indoor Air Quality

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accordance with the proposed plan as the Phase II mining gets to be more than 3-5 acres.

Most of the silica sand will be hauled to Winona for sale and transport to oil field service . Some sand will be used locally for dairy barn bedding.

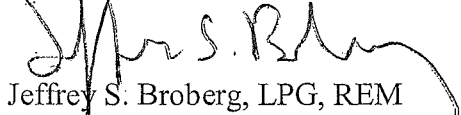
A haul road will be constructed on the Nisbit parcel and will cross Gethje Lane onto the Thomas Campbell parcel to the south and will enter CR113 at an existing driveway approximately 1500 feet north of the County line in an area with good site distances. The haul route will go south on CR113 and then east to CR33, north to US14 and east on US14 to Winona.

Material stockpiles may be developed to mine while hauling is not possible and to load and haul when mining is not being conducted.

In May we discussed these and numerous other issues. The attached re-submittal includes many details on the proposed project.

Sincerely:

McGhie & Betts Environmental Services, Inc.



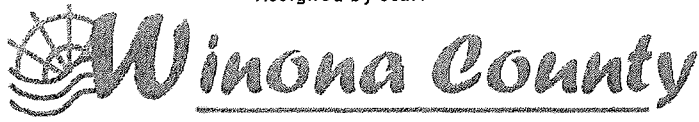
Jeffrey S. Broberg, LPG, REM
Vice President

Minnesota Licensed Professional Geologist #30019
Registered Environmental Manager #3009

- 2. A completed Conditional Use Permit Application with supporting information including**
 - a. Completed and signed application**
 - b. A statement of intended uses formatted to address the County's "Criteria for Grant a Conditional Use (section 5.5.4.1). The Saratoga Township Acknowledgement form was submitted to your office by David Nisbit under separate cover.**
 - c. Standard CUP sketch map**
 - d. Four maps: Maps A – Existing Conditions, B-1- Phase I Proposed Operations, B-2 Phase 2 Proposed Operations, and C-Restoration Plan.**

Receipt Number

Assigned by staff



Winona County Planning
 Winona County Government Center
 177 E. Main Street
 Winona, MN 55987
 Phone: 507.457.6335
 Fax: 507.454.9378
 www.co.winona.mn.us

Petition for Conditional Use Permit

General Information

Owner Name	DAVID & Sherry Nisbit		
Address	1444 Gathje Lane		
City, State, Zip	Utica, MN 55979		
Telephone	Home 507 932 3981	Work / Cell	
Mailing Address (if different)			

Property Information

Please provide a complete legal description of the property. The legal description can be found on your deed, abstract or the Minnesota property tax statement.			
PIN #	SW/4 Section 35	Township 105N	Range 10W
Property Size	Site width 405 900 irregular	Site depth 40 1070 irregular	
	Square feet 827,640	Acres 19 Ac	
Existing Structures (include completion dates)	NONE		
	See Maps A, B-1, B-2 and C		

Request Information

Intended use of structure	Residential <input type="checkbox"/>	Commercial <input type="checkbox"/>	Agricultural <input checked="" type="checkbox"/>	Industrial <input type="checkbox"/>		
Class of work	New <input type="checkbox"/>	Addition <input type="checkbox"/>	Alteration <input type="checkbox"/>	Repair <input type="checkbox"/>	Demolition <input type="checkbox"/>	Relocation <input type="checkbox"/>
Description of Request	mine silica sand in Ag. district					
	See mining agreement between Nisbit and IT Sand LLC.					
Structure dimensions	Length NA	Width NA	Height NA			
Setbacks (ft)	Side yard (near)	Side yard (far)	Rear yard	Road centerline	Shoreline	

Information

# of Employees:	20	Current:	0	Proposed:	20
Parking Spaces:	10	Customers:	2	Employees:	8
Explain Signage Size /Type:	No trespass, Mine Safety & Health Postings				
Explain what flammable or hazardous materials will be present:	Fuel for equipment				
Explain hours and days of operation:	7AM - 10PM Monday - Friday, 7AM - noon Saturday no work on Holidays or Sundays				

5.5.3 Required Information and Exhibits

1. Completed application, including the names and addresses of the petitioner or petitioners and their signature to the petition and a statement of the requested conditional use.
2. A legal description of the property for which the conditional use is requested.
3. A statement of reasons warranting the intended use in the zoning district to insure compatibility of the proposed use with the County Comprehensive Plan.
4. A site plan of the property. The site plan shall include, as pertinent but not limited to, the following information: the location of proposed structures, existing structures, geological features, floodplains, architectural plans, traffic generation, signs, drainage, water table, flood proofing, landscaping plans, lighting arrangements, placement of solid waste, hours of operation, utilities, topography, vegetation, soils information, adjacent land use, roads, property lines, waterways, sewage treatment areas, water supply systems, parking, road access, filling, dredging, grading, channel improvement, storage of materials, water supply, sanitary facilities, specifications for building construction and materials.
5. The petitioner must submit to the Planning Department a Township Acknowledgment Form. The petitioner is responsible to contact the Town Board where the subject property lies to seek a place on their agenda as a means to advise the Town Board of the proposal. After considering the proposal, the Town Board will record any concerns, observations, and/or recommendation on the Township Acknowledgment Form for the Planning Commission to consider during their review of the request.
6. A non binding recommendation from the Township in which the proposal is to be located.
7. Any other relevant information and material requested by the Planning Director or the Planning Commission.

ALL APPLICANTS MUST SIGN

I certify by my signature that all information presented herein is true and correct to the best of my knowledge. I give permission for staff of Winona County to enter my property for the purpose of collecting information, shooting video to be used as part of the public hearing process, and inspections in the future to verify compliance with conditions should CUP be approved.

Owner Signature

Dan M... Sherry Niskit

Date

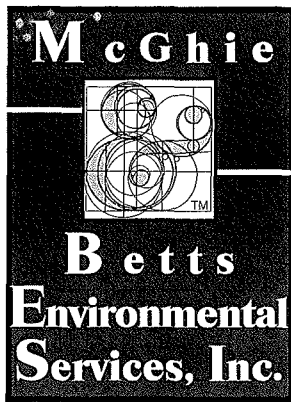
7-14-12

Agent / Representative Signature

Date

Note: At the public hearing, the applicant may appear in person or through an agent or an attorney of his/her choice. The applicant/agent/attorney may present testimony, evidence and arguments in support of his/her application. All site plans, pictures, etc. become the property of the Department and will remain in the file.

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Rochester
Minnesota

Environmental Site
Investigations, Management
& Design

Asbestos, Lead, & Other
Hazardous Materials

Wetland Delineation
& Permitting

Indoor Air Quality

Geological Hazards

UST & Spills

Environmental
Assessment Worksheet
& Impact Statements

VIC (Voluntary Investigation
& Clean Up)

July 18, 2012

Jason Gilman
Winona Planning and Zoning
177 West Main St
Winona, MN 55987

Re: David Nisbit Conditional Use Permit (CUP) application
Criteria to Grant a CUP.

In accordance with the authorization of Mr. David Nisbit we are writing to comply with the information requirements for a silica sand mining CUP application for his parcel located in section 35 of Saratoga Township. Below are the response and findings to the following CUP criteria. (The County criteria for a CUP are in **Bold**. *Our response is in italics*)

**5.5.4.1 Criteria to Grant a Conditional Use Permit for a
Request that is not a Livestock Feedlot or a Dwelling on
Less than Required Acreage in the A/RC District**

**The Planning Commission before making a recommendation to the
County Board regarding a Conditional Use request, shall ensure that the
request fulfills all specific standards of the Winona County Zoning
Ordinance, and shall find adequate evidence to the following findings:**

**1. The use will not create an excessive burden on existing parks,
schools, streets/roads and other public facilities and utilities which
serve or are proposed to serve the area.**

The mining and extraction activity on the Nisbit site will have no impact on any surrounding property. The mining will have no impact on parks, schools, streets/roads, public facilities and utilities.

Truck hauling of the sand to the final users will utilize Gathje Drive, a private driveway with non-exclusive use agreements between all of the abutting landowners who use the driveway. The mine will construct and maintain a private driveway on the Thomas land to the south of Gathje Drive allowing the entrance on to CR113 to be farther south with improved site distances. Upon entering CR113, the public, road the main haul routes are County and State highways that are designed and maintained for truck traffic (a traffic impact report accompanies the CUP application). Dairies that use sand bedding on farms will utilize delivery routes along Township roads.

**2. The use will be sufficiently compatible or separated by distance or
screening from adjacent land so that existing properties will not be
depreciated in value and there will be no deterrence to development
of vacant land.**

The sand mining is in the middle of the Nisbit parcel that is situated in the middle of farm land and abuts row crop agriculture on all sides. Rural residential properties to the south do not have a view of the proposed mine from the residences because they are set behind the trees in the valley. We know of no occurrences in Winona County where proximity to a mine has devalued adjoining properties.

1648 Third Avenue S.E.
Rochester, MN 55904

Tel. 507.289.3919
Fax. 507.289.7333

e-mail. mcghiebetts.com

Established 1991

The mine is no deterrence to the use or development of the agriculturally zoned lands near the proposed mine.

3. The structure and site shall have an appearance that will not have an adverse effect upon adjacent residential properties.

There will be no structures. All the facilities and equipment will be portable and will be in place only as long as the mining is active. Except for elevation changes and the development of a 3 acre working face the site will have an appearance not unlike the existing ridge.

4. The use is reasonably related to the overall needs of the County and to the existing land use.

The proposed mine is on and is surrounded by land zoned for agriculture in Saratoga Township where agricultural land use is the priority that is stated in the Winona county Comprehensive Land Use Plan. The use of sand for dairy bedding is related to the overall needs. The use of silica sand as a mineral resource for export is related to the overall needs of the County to use natural resources to the economic benefit of the landowners and residents.

5. The use is consistent with the purpose of the Zoning Ordinance and the purposes of the zoning district in which the applicant intends to locate the proposed use.

The proposed mine is consistent with the purpose of agricultural and natural resource use as described in Winona's Zoning Ordinance and mining performance standards for these consistent uses are defined in Chapter 9 section 10 of the Ordinance.

6. The use is in conformance with the Comprehensive Plan of the County.

The Winona Comprehensive Plan recognizes the importance of natural resources including soils and bedrock for agriculture, agricultural support and for extractive uses of minerals.

The Saratoga Township plan designates the entire Township for Agricultural natural Resources and the protection of the land against urban encroachment, all factors consistent with the proposed mine.

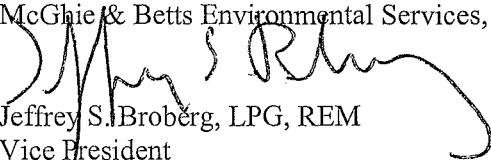
7. The use will not cause a traffic hazard or congestion.

The mandated traffic impact analysis shows that the proposed use would have a maximum of 140 trips/day and will not result in a traffic hazard or degradation of function of the existing roads. The driveway exit/entrance to CR113 has been moved to the south of Gathje Drive to improve site distances and prevent traffic hazards at the mine entrance.

This submittal comes with the CUP application and the required maps, mine plan, performance standards, reclamation plan and traffic study. Narrative you have any further question please contact me at 507-289-3919

Sincerely:

McGhie & Betts Environmental Services, Inc.


Jeffrey S. Broberg, LPG, REM
Vice President

Minnesota Licensed Professional Geologist #30019
Registered Environmental Manager #3009

Statement as to the proposed uses(s) of the property or building

Requested Action:

Extract Sand from hill

The Town Board after receiving information by the petitioner or their authorized agent(s) describing their intentions to obtain zoning or planning approval for a land use proposal from Winona County has the ability to execute one of the three options listed below.

Should the Town Board need more information regarding the proposal either from the applicant or the Planning Department please contact the appropriate entity prior to completing the acknowledgment form below.



Sign below this entry acknowledging the petitioner advised the Town Board of the proposal, and the Board has no comments regarding the request. The petitioner will return the signed form to the Planning Department with staff informing the Board of Adjustment or the Planning Commission the Township has provided no comments.

Township Official

Dennis Tolleson Chair

Date

7-18-12



Sign below this entry acknowledging the petitioner advised the Town Board of the request, and the Board supports the proposal and will compose a written statement explaining its support to the Planning Department.

Township Official

Date



Sign below this entry acknowledging the petitioner advised the Town Board of the request, and the Board does not support the proposal and will compose a written statement explaining its concerns to the Planning Department.

Township Official

Dennis Tolleson Chair

Date

7-18-12

The Township Acknowledgment Form is part of the process of obtaining zoning and planning approval in Winona County. It is understood and agreed by the petitioner that any error, misstatement or misrepresentation of fact or expression of fact in the application, either with or without intention on part of the application, such as might, or would cause the issuance of an approval in direct opposition to the Winona County Zoning Ordinance, shall constitute sufficient ground for the revocation of the approval at any time.

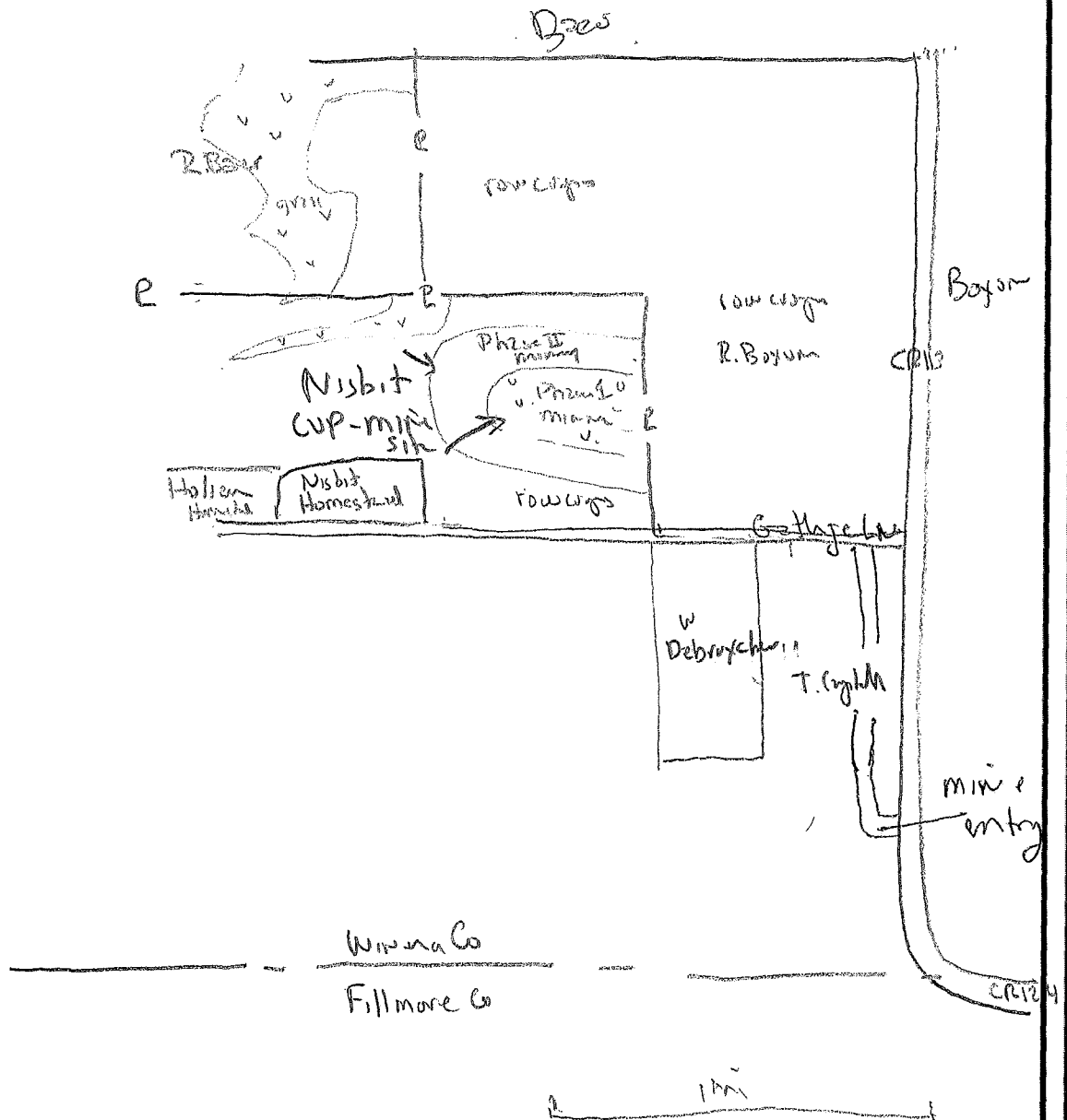
Petitioner

Dennis Tolleson

Date

7-18-12

Site Plan for Nisbit CUP



See detailed maps and description report IN

Required Sketch Information

- | | |
|---|---|
| <input checked="" type="checkbox"/> All NEW and EXISTING Structures | <input checked="" type="checkbox"/> Direction of Runoff |
| <input checked="" type="checkbox"/> All Structure Dimensions | <input checked="" type="checkbox"/> Easement(s) |
| <input checked="" type="checkbox"/> Structure Setback Distances (centerline of road/property lines) | <input checked="" type="checkbox"/> North Arrow |
| <input checked="" type="checkbox"/> Neighboring Property Owner | <input checked="" type="checkbox"/> Road Names |
| <input checked="" type="checkbox"/> Sewage Treatment System (and alternate area) | <input checked="" type="checkbox"/> Well(s) and Water Lines |
| <input checked="" type="checkbox"/> Karst features (sinkholes etc...) | <input checked="" type="checkbox"/> Driveway Permit |
| <input checked="" type="checkbox"/> Wetlands, streams, springs (water features) | |

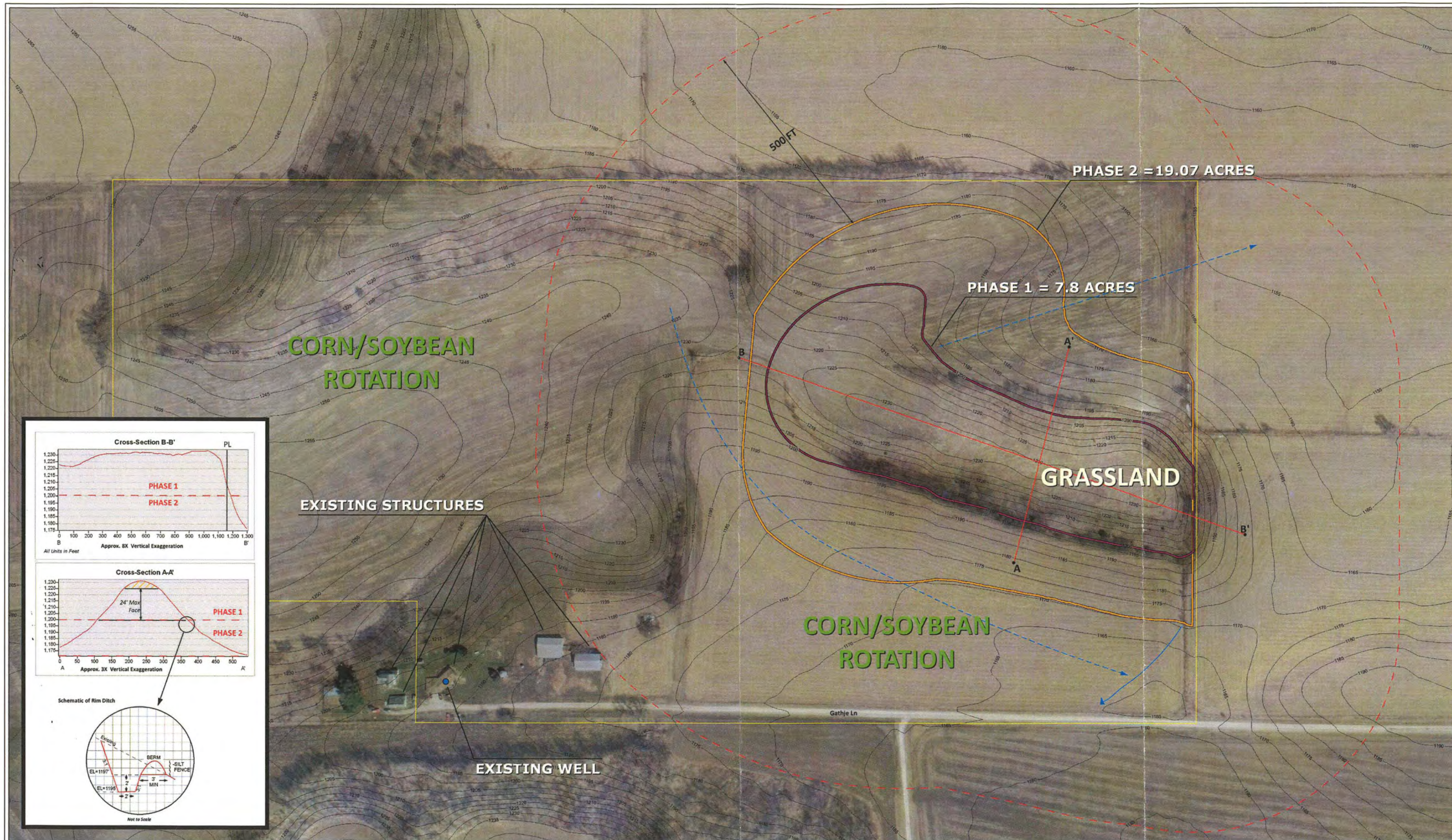
Average slope (%) at building site _____

Average slope (%) at building site (2nd) _____

Parcel Number 140002521

Signature [Signature]

Date 7/18/12



Map Document A - Existing Conditions

- Phase I
- Phase II
- Drainage Flow Line

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.

McGhie & Betts
Environmental Services, Inc.

Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghebetts.com

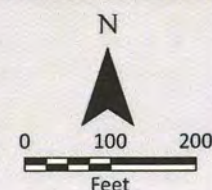
Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW 1/4 of the NE 1/4 S35
T105N R10W
Winona County

Scale: 1" = 100'
When printed on original paper size 24"x36"
Date: 7/20/2012

Map By: BMO

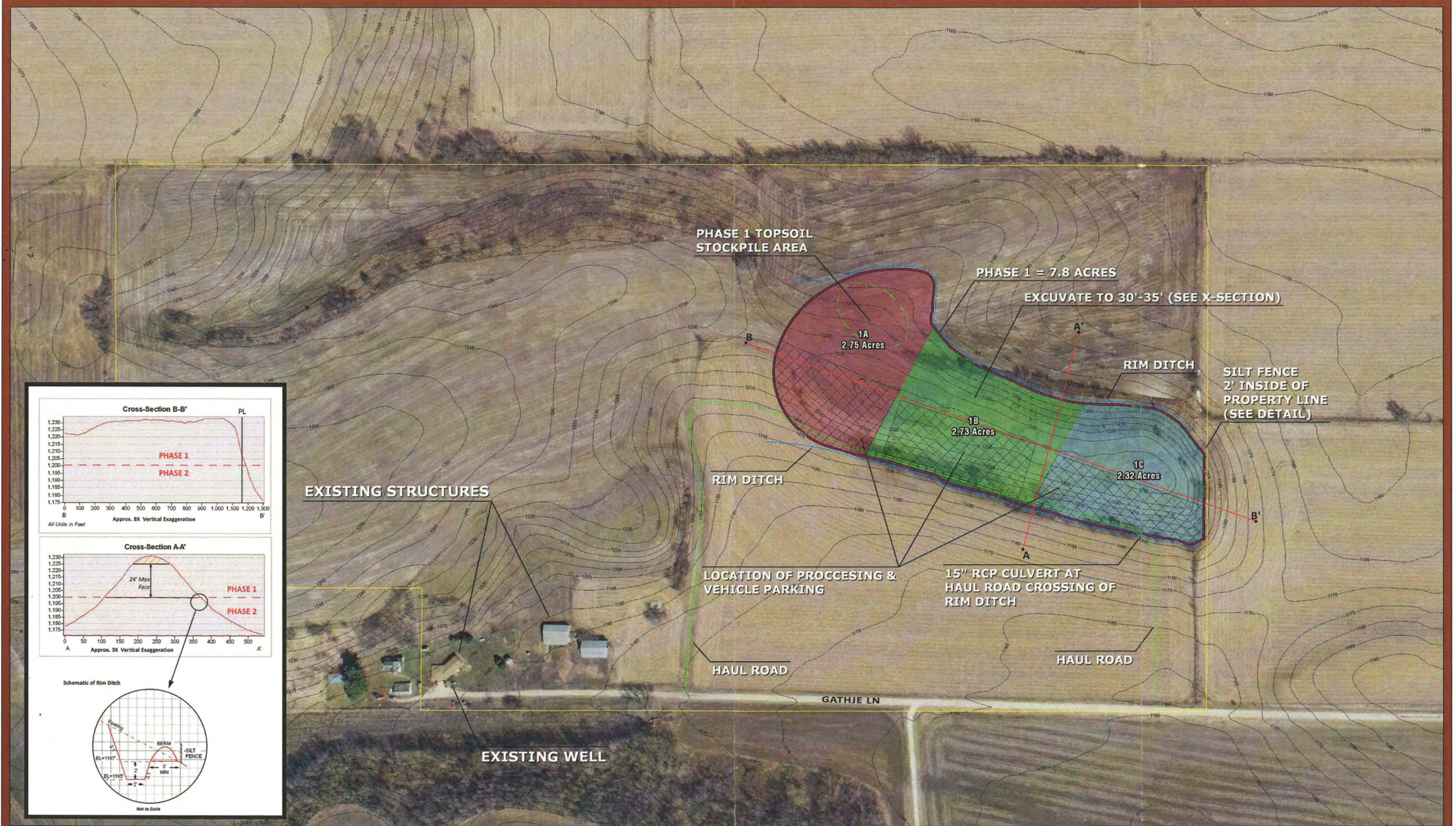
MAP LEGEND

- Existing Well
- 5 Foot Contour Interval
- Phase 1 Boundary
- Phase 2 Boundary (19.07ac)
- Nisbit Property



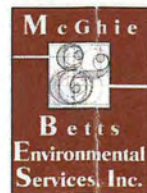
PROJECT LOCATION





Map Document B1 - Phase 1 Proposed Operations

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.



Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghebetts.com

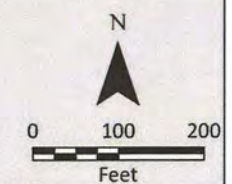
Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW 1/4 of the NE 1/4 S35
T105N R10W
Winona County

Scale: 1" = 100'
Date: 7/20/2012

Ref Scale: 1:1,200
Map By: BMO

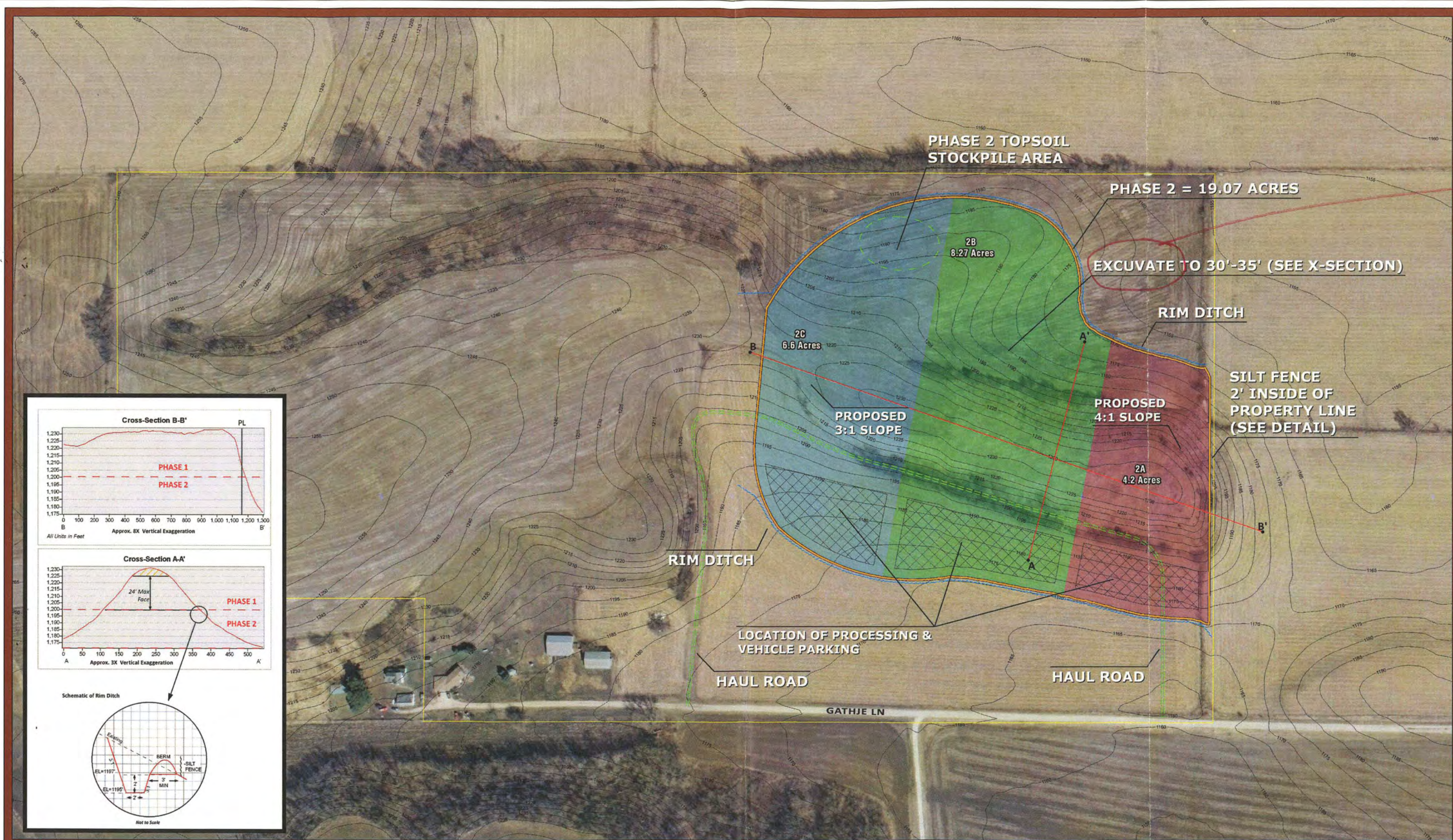
MAP LEGEND

- Haul Road
- 5 Foot Contour Interval
- Rim Ditch & Berm
- Phase 1 Boundary (7.8 ac)
- Nisbit Property
- Vehicle Parking & Storage Area



PROJECT LOCATION





Map Document B2 - Phase 2 Proposed Operations

— Phase II

--- HAUL ROAD

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.

McGhie & Betts
Environmental Services, Inc.

Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
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Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW 1/4 of the NE 1/4 S35
T105N R10W
Winona County

Scale: 1" = 100' Ref Scale: 1:1,200
Date: 7/20/2012 Map By: BMO

MAP LEGEND

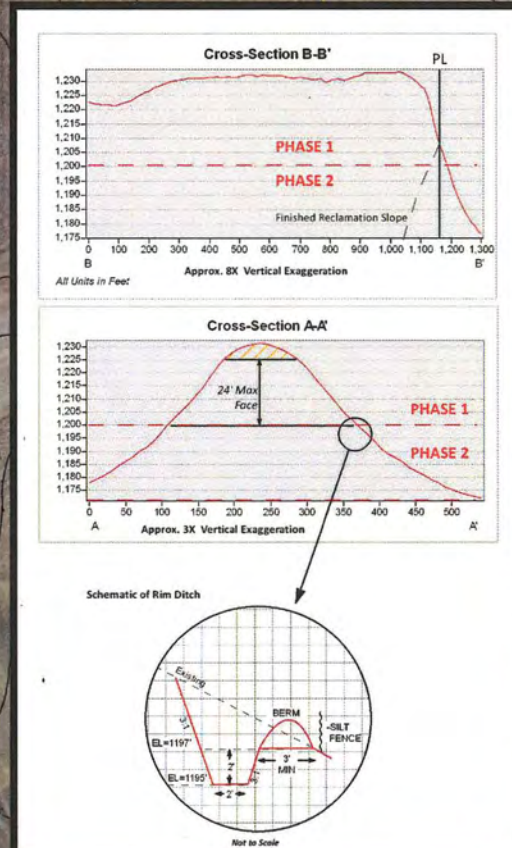
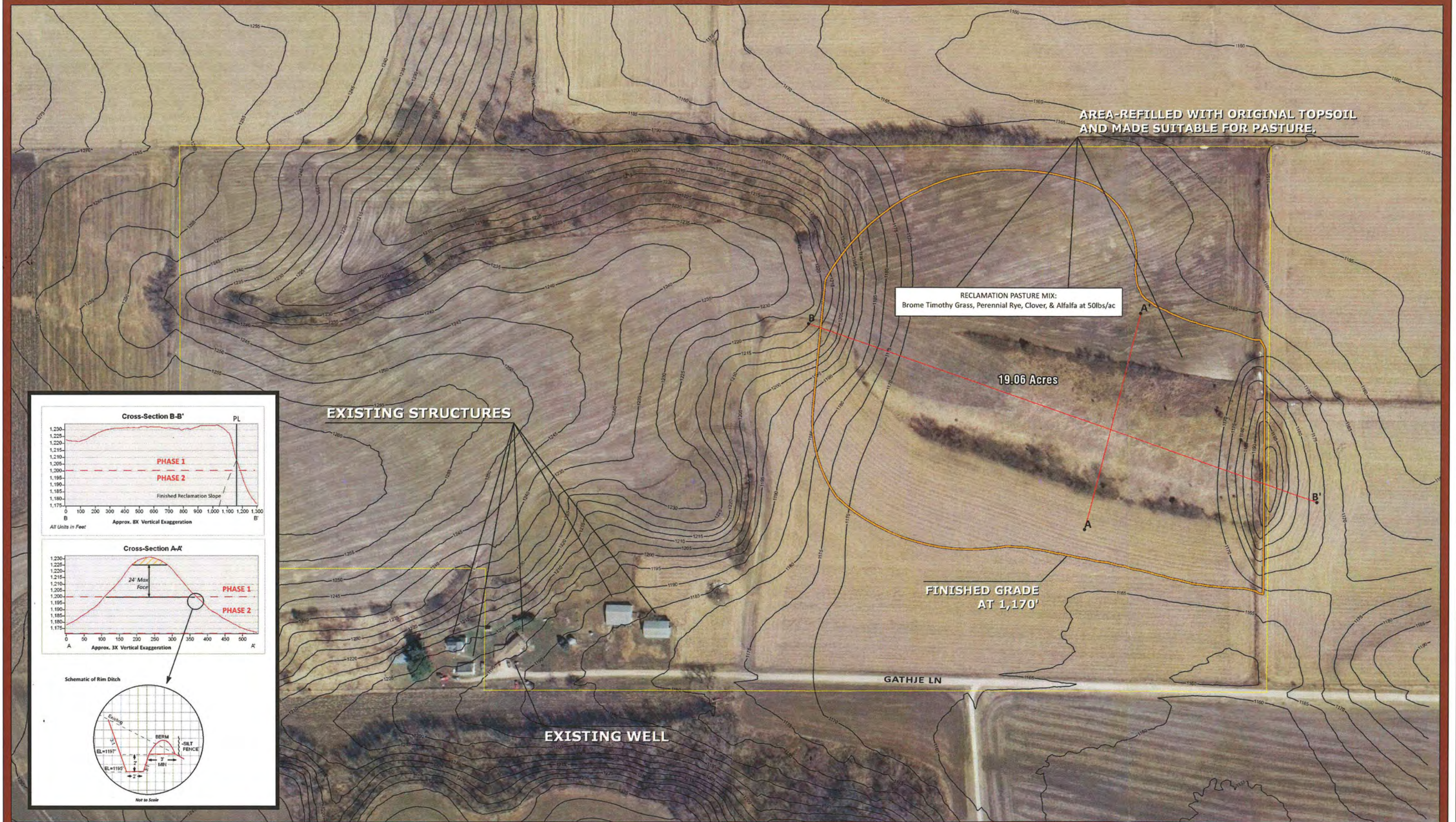
- Haul Road
- 5 Foot Contour Interval
- Rim Ditch & Berm
- Phase 1 Boundary (19.07ac)
- Nisbit Property
- Vehical Parking & Storage Area

N

0 100 200
Feet

PROJECT LOCATION

T105N R10W
SECTION 35



Map Document C - Final Reclamation Plan
 - Final Grade Elevation 1,170' (+/- 5')

Land Surveying
 Urban-Land Planning
 Consulting - Civil Engineering
 1648 Third Ave. S.E.

McGhie & Betts Environmental Services, Inc.

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Sand Mine Phase 1
 Nisbit Property
 Saratoga Township
 SW1/4 of the NE 1/4 S35
 T105N R10W
 Winona County

Scale: 1" = 100'
 Date: 7/20/2012

Ref Scale: 1:1,200
 Map By: BMO

MAP LEGEND

- Nisbit Property
- 5 Foot Contour Interval
- Phase 1 Boundary (19.07ac)

0 100 200 Feet

PROJECT LOCATION

- 3. Mine Plan, Performance Standards and Reclamation Plan addressing Winona Zoning Ordinance section 9-10 including:**
 - a. Required information from zoning ordinance section 9-10-2**
 - b. Text describing the Performance Standards**
 - c. Narrative mine plan including details, maps and figures with information on Pre-mining conditions including geology, landscape, topography, vegetation, soils, sand markets, mining operations including depths, sequencing and staging, restoration**

Nisbit/Rowekamp Silica Sand Mine CUP
Required Information Section 9-10-2
Sec 35, Saratoga Township, Winona County
July 20, 2012

The Winona County Zoning Ordinance section 9.10 governs Extraction Pits/Land Alterations and specifies the required information. Below is a detail of the requirements in Winona County Zoning Ordinance 9.10.2 Required Information

1) **APPLICANT INFORMATION**

1. **Landowner/Applicant:** David Nisbit
Address: 14444 Gathje Lane
City, State, ZIP: Utica, MN 55979
2. **Operator/Applicant:** IT Sands LLC. Tom Rowekamp
Address: 301 3rd Avenue NW
Stewartville, MN 55976

2) **LEGAL DESCRIPTION**

- Tax Parcel Number(s): 140002521
- Described as Follows: 20 acre portion for extraction in quarter section:
Winona County, Saratoga Township
T.105N.-R.10W; Section 35;
SW ¼ of NE ¼
See Maps A-C

- 3) **MAPS: Scale 1"=100' covering 500 foot radius from the mine.**
- a. Map A includes legend and inset showing details of phasing
 - i. Existing contours derived from 2010 air photo and 2008 LiDAR Digital Elevation Model (DEM)
 - ii. Existing vegetation is visible and noted on the map
 - iii. Existing drainage is denoted by dashed and solid blue line
 - iv. Existing structures are clearly visible on air photos
 - v. Existing wells are as noted by landowner.
 - b. Map B-1 7.8 acre Phase I Proposed operations; Map B-2; 19.07 Phase 2 Proposed Operations
 - i. No structures are proposed all equipment will be mobile
 - ii. Excavation sites are indicated and represented by a north-south and east-west cross section
 - iii. Excavation shown with heights derived from topography and shown on cross section
 - 1. Phase I removes limestone/shale cap rock and mines to elevation 1200
 - 2. Phase II mines to elevation 1170
 - iv. Locations of storage of excavated materials include designated stockpile up to 20 feet high, and materials will be utilized to build a rim ditch and berm and to build and maintain haul roads.
 - v. Location of vehicle parking is within the designated vehicle parking and storage area
 - vi. Explosives will not be stored on the site
 - vii. Erosion and sediment control features are indicated on the map and describe in the attached map narrative
 - c. Map C Reclamation Plan
 - i. Final elevation will mine to 1170 and use overburden to create the proposed contours shown on the map. However, the exact elevation of the finished top will be determined by the amount of spoil (waste rock) and topsoil that has been stripped and removed and not be known until the total overburden volume is available for measurement.
 - ii. The proposed seed mix, a pasture mix of grasses and legumes is shown on the map
 - iii. No structures are proposed to be erected at the end of the project.

4) Soil and Sediment Control Plan

Upon completion of each phase, soils will be replaced and seeding and mulching will take place. Reclaimed phases will be returned to pasture as an agricultural use as soon as there is no interference with mining operations. Maps B-1, B-2 and C show the limits and phasing.

Erosion and Sediment Control:

The stormwater management plan developed in accordance with Minnesota Pollution Control Agency criteria contains stormwater within the mine. Ponding areas in a ring berm and ring ditch stormwater treatment system are designed to provide infiltration, settling and sediment control and to contain runoff so as not to increase the stormwater runoff during a 100-year storm event. Runoff will be prohibited from leaving the site by sloping the excavated areas toward the mine and directing the water into the treatment system. The berm and ditch will be seeded and vegetated with perennial grasses and forbs using a MNDOT Mix 190 prescribed for 2-5 year stabilization.

The holding ponds will be removed during the restoration after all extraction is complete.

The site will operate under a Minnesota Pollution Control Agency Permit (MPCA) Non Metallic Mining Operations General Permit. This permit is in the process and a copy of the permit will be sent to the county.

Perimeter berms will be maintained throughout the mining operation. Topsoil stockpiles will be constructed with a 3:1 (Horizontal to Vertical) side slope and a flat top of not less than 8 feet. Silt fence will be placed downhill of stockpile and the pile will be seeded to establish vegetation. A tracking control pad will be maintained at all exits from project.

Topsoil Management:

The soils on the site are sandy and are thin on the north side and thicker on the south. The soils in Phase I will be stripped with dozers and scrapers and used to develop the permanent berm and stockpile areas where materials will be stored until the restoration begins. The organic rich topsoil will be segregated and stockpiled for future use and the subsoil, cap rock and other non-organic soils will be used for the core of the berms and base of the restoration profile. Topsoil will be spread across the restored and graded areas and will be the seedbed for vegetation establishment.

The exact volume of topsoil has not been determined but is estimated at 40 to 60 acre feet. All the topsoil will be retained on the site for restoration.

Restoration Earthwork:

Any overburden materials having no marketable value will be used to backfill previously mined areas, especially along the finished slopes.

In Phase I, the mining operation will dig to the target depth of 1170 on the west end to create an area to place overburden and unusable fine sand to begin restoration as the mining proceeds. The mining will proceed from west to east to allow for any overburden to be placed in the restoration area on the west end and along the perimeter of the Phase I mining area. This process will be continuous and ongoing from year to year and will proceed so that a 1.5 to 3.0 acre working area will remain open.

The areas that are depleted of sand for each phase will be temporary restored with black dirt covered with perennial grasses (pasture mix) until the Phase II mining progresses back over the area to recover the deeper sand.

The final slope along the east line will be a maximum of 3:1 leaving a mound along the east property line.

The final restoration will place topsoil back over the mined area at an elevation that will vary from 1165 (± 5 feet) on the north to 1170 (± 5 feet) on the south creating a low profile ridge across the center of the site. The final reclaimed slopes will be stabilized with topsoil and will be seeded and mulched for use as pasture.

Restoration Re-vegetation:

The restoration plan is in two phase: 1) Temporary restoration with a sandy area roadside mix. 2) Final restoration for pasture.

Phase 1 temporary restoration will occur to re-establish topsoil and perennial pasture grass vegetation after the Phase I mining progresses from west to east and has developed a minimum 3-acre operational area at the 1200 foot elevation. Once restoration begins we would blade the topsoil originally removed from the hill back over the site to a depth of 8" to 1 foot and seed this area with a perennial grass mix MNDOT240 Sandy roadside mix (see attached) at a rate of 75#/acre.

Phase II final restoration will occur once the final depth of the mine is established at ± 1165 -1170 and will be restored with the goal of restoring the site to pasture for livestock grazing or to crop production, depending on the volume of available topsoil. This restoration will occur after 3-acres of final mining has occurred and will involve pushing and blading the previously removed topsoil over the mined surface to a minimum depth of 8" followed by seeding with a cool season pasture mix suitable for cattle, a mixture of brome, timothy, perennial rye and the legumes clover and alfalfa at a rate of 50#/acre.

5) Dust and Noise Control:

Dust:

The principal means of dust control is limiting the size of the open face and working area to less than 5-acres. The mining plan proposes to establish vegetation over all operational areas that are not in active use for mining, stockpiles, operations and hauling.

Berms and stockpiles of overburden or waste sand that will not be exported will be placed to create windbreaks from the prevailing NW and SW winds.

Operations will comply with the recommendations of the Department of Health and Human Services Center for Disease Control and National Institute of Occupational Health and Safety Information Circular 9521, 2010. "Best Practices for Dust Control in Metal/Nonmetal Mining.

The manual prescribes best management practices to protect workers and prevent fugitive dust. For the Nisbit Mine three principal areas of dust control are prescribed:

- Mining area: Equipment and trucks will have cabs with filtration systems to protect workers. Water will be employed on travel surfaces.
- Processing areas: Crushers and screens will employ wet suppression for dust at transfer points.
- Private haul roads: The roads will be constructed of crushed limestone aggregate and recycled bituminous. The driving surface will be treated with oil, chloride and water to control dust. There is no hauling on crushed rock public roads and dust suppression will not be used on paved surfaces.

Noise:

Noise for mining and processing equipment and trucks will be typical of construction operations. All diesel and gasoline driven equipment will have mufflers. To the extent practicable the processing equipment will be shielded and placed near the mining operation. Truckers will be instructed not to empty dynamic breaking while hauling.

Backup beepers will be utilized on all equipment in accordance with MNOSH Rules.

The area is sparsely populated and there are few noise receptors in close proximity to the site. The topography of the working face and operational area and the wind speed and direction will influence the noise for receptors in the area.

The applicant acknowledges and recognizes the requirement to adhere to the Winona Zoning Code and Minnesota Noise Rules MR7030 for Class 3 noise areas (agricultural

Nisbit/Rowekamp Silica Sand Mine CUP
Required Information Section 9-10-2
Sec 35, Saratoga Township, Winona County
July 20, 2012

and related activities) that prescribes standards for day and night that “are constant with speech, sleep, annoyance and hearing conservation requirements for receivers.

The noise levels for this activity would be measured at the property line and would be:

Daytime and nighttime: L10 (10% of the time in a one hour survey) = 80 dB

Daytime and nighttime: L50 (50% of the time in a one hour survey) = 75 d

6) Full and adequate description of all phases of the mining

The narrative plan describing all aspects of the proposal is attached a separate document that is indexed and signed by Jeffrey S. Broberg, a Minnesota Licensed Professional Geologist. The description includes a thorough table of contents to make it easy to find information about the existing conditions, geology, markets, and operation and restoration details.

NISBIT SILICA SAND MINE PERFORMANCE STANDARDS 9.10.3

The Winona County Zoning Ordinance section 9.10.3s Performance Standards are addressed below.

1. Water Resources:

The Nisbit Mine will not interfere with surface water drainage beyond the boundaries of the site. The proposed mine is on a linear east-west trending ridge near the highest elevation in western Winona County and near the crest of the watershed divide. There is no water run-on from adjoining properties. Water runoff will be controlled by a ring ditch and dike that will allow infiltration of stormwater and melt water.

Water quality will not be affected by the mining or processing. The mine has no chemical inputs and does not require fertilizers, pesticides like the abutting crop land and the mining and processing does not require surfactants, flocculants or any other chemical inputs.

2) Safety Fencing:

The operation is not adjacent to a residential zone and is not within 300 feet of two or more residential properties. The applicant will not install a perimeter fence; however, lockable gates will be installed at the entry and exit points.

There will be no ponds or steep slopes that require fencing.

3) Access Roads:

The access road is shown on Figure 3 of the Narrative and shows a private driveway that extends from Gethje Lane south parallel to CR113 to a point approximately 800 feet north of the County Line where CR113 curves to the east. This moves the truck hauling access to CR113 to the south to provide better site distances than those that exist at Gethje Lane. The driveway will be at an existing agricultural drive and has been reviewed and approved by the County Engineer.

The site access and level of service at the new driveway are described in the attached traffic report.

4) Setbacks:

Processing will not be conducted closer than 100 feet from a property line no closer than 500 feet to any residential or commercial structure (see map A)

Mining will all be conducted in and adjacent to agricultural zones.

Mining will be conducted up to within 10 feet of the eastern property line and will be restored to match the grade at the eastern property line and drop to the west at a maximum 3:1 slope.

Mining will not be conducted within 30 feet of any public Right-of-way.

5) Appearance:

There will be no permanent structures. All equipment will be mobile, including scales, scale shack, processing equipment etc and will be moved as the phases develop and will be removed from the site at the conclusion of the project.

6) Hours of Operation:

Hours of operation for mining, processing and hauling will be 6AM-10PM Monday to Friday and 7AM to Noon on Saturday. NO work will be conducted on state or federal holidays.

7) Topsoil Management:

Topsoil management is specified in the erosion/sediment control plan and the phasing plan. All rock overburden, topsoil and subsoil will be reserved on site for road building, building a perimeter berm and for restoration. Restoration will include contemporaneous temporary restoration as mining proceeds in order to get perennial vegetation to minimize the areas of exposed sandstone.

8) Final Grading and Slopes:

- a) The reclamation plan shown as map C shows the final slopes. All slopes will be restored to a 4:1 or shallower grade with unconsolidated materials... No high-walls will be left after reclamation. The final grading plan was prepared by Dan Zemke, Minnesota Professional Engineer and Jeff Broberg, Minnesota Professional Geologist.
- b) All finished slopes will be at a 4:1 or flatter grade (<25'/100')
- c) There will be no body of water. The rim ditch is an erosion control feature designed to infiltrate water and prevent the offsite movement of water and the ditch will be filled and restored at the conclusion of the project.

9) Driveway/Access for Site:

- a) The driveway access for the mine will be on the Thomas Campbell property under agreement between Campbell, Nisbit and IT sands. The entrance will not be within 25 feet of any adjacent property boundaries.
- b) The Campbell driveway is an existing agricultural driveway and has the approval of the County Engineer.

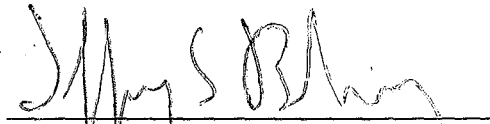
**Winona County Conditional
Use Permit Application
Non-Metallic Mining Reclamation
Plan Narrative**

***David Nisbit Property
14444 Gathje Lane
Utica, MN 55979***

***Part of the SW ¼ of the NE ¼ of Section 35
Saratoga Township (T105N, R10W)
Winona County, Minnesota***

MBI#: Y7987/Y11429

I Certify That This Investigation and Report Were Prepared By Me or Under My Direct Supervision.



Jeffrey S. Broberg; LPG, REM
Minnesota Licensed Professional Geologist #30019
Registered Environmental Manager #3009

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Figure 2 – 2010 Air Photo with parcels and property owners

Figure 3 – Private Driveway and CR113 Entrance on Thompson parcel

Appendix:

Appendix 1 – Soil Survey Data: soil types, Capability Class, Prime Farmland

Appendix 2 – County Well Index and Well Logs

Maps:

Required per Winona County Zoning Ordinance 2011

1. Map A – Existing Conditions
 - a. 5 foot Contours
 - b. Existing Veg.
 - c. Existing Drainage & Permanent Water Areas
 - d. Existing Structures
 - e. Existing Wells
2. Map B1 – Phase 1 Proposed Operations
 - a. Structures to be Erected
 - b. Location of Sites to be Excavated
 - c. Location of Excavation Deposits showing max heights
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David Nisbit Property
14444 Gathje Lane
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4. Map C – Final Reclamation Plan
5. Map D – Winona County Geologic Atlas Bedrock Geology

Winona County Conditional Use Permit Application
David Nisbit Property
14444 Gathje Lane
Utica, MN 55979
MBI#: Y7987/Y11429

Page 1

Owner: David Nisbit

Operator: Tom Rowekamp

Consultants: Jeffrey S. Broberg, LPG, REM
McGhie & Betts Environmental Services, Inc
1648 3rd Ave SE
Rochester, MN 55904
507-289-3919
jsbroberg@mcghiebetts.com

I: APPLICANT INFORMATION

1. Landowner/Applicant: David Nisbit
Address: 14444 Gathje Lane
City, State, ZIP: Utica, MN 55979

2. Operator/Applicant: Tom Rowekamp
Address: 301 3rd Avenue NW
Stewartville, MN 55976

3. Legal Description
Tax Parcel Number(s): 140002521
Described as Follows: portion for extraction in quarter section:
Winona County, Saratoga Township
T.105N.-R.10W; Section 35;
SW ¼ of NE ¼

II: NARRATIVE OF PROPOSED USES:

Location:

The Nisbit silica sand mining proposal is approximately 20-acres located in the SW 1/4 of the NE 1/4 of Section 35 of Saratoga Township (T105N R10W). The parcel lies on the north side along Gathje Lane, a dead-end private road that serves adjoining parcels. Gathje Lane enters CR113 approximately 2.8 miles south of the intersection with CR6 and ½ mile north of the Fillmore County Line (Figure 1 & 2).

PRE-MINING CONDITIONS AND LAND USE:

Onsite Development:

The proposed mining area owned by David Nisbit, includes an east-west trending sandstone ridge that is agricultural land. Mr. Nisbit and his family live at a farmstead on the site with the houses located more than 850 feet west of the mining area (Map A). The farmstead has a single private water well.

The mining will be conducted in two phases. Phase I of the mining (Map A), extracting sand down to an elevation of 1190 is a former pasture that has no history of crop production. Phase II of the mining (Maps B1 and B2), to a base elevation of 11170 and will mine sand along the north and south flanks of the pasture ridge in areas now devoted to row crop production. The Final Reclamation Plan is shown as Map C.

Adjacent Property Owners of Project Site:

Five other parcels adjoin the Nisbit site (Figure 2):

- 1). Roger and Rita Baer, 30271 County Road 109, Lewiston, MN 55952: 507-523-3194. A parcel to the north west with a homesite 3200 feet from the proposed mine. According to the County Well Index there is a 500 foot deep, cased and grouted well on a small parcel adjacent to the Bear site (Scott McGee Unique No #695896 in the NW/4 of the SW/4 sec 35, T105N R10W).
- 2). Rachael Boyum, 16172 Grover Dr, Utica, MN 55979: 507-875-2417. A 120-acre parcel to the east and northeast that has an abandoned farmstead with no serviceable buildings. There is no record of a private well on the (CWI):
- 3). Craig Harmon, 33639 MA Dailey Road Utica, MN 55979: 507-932-3229. A 237-acre parcel to the west and southwest with a farmstead 3200 feet west southwest from the proposed mine. According to the CWI the Harmon's have a cased and grouted well that is 490 feet deep with casing to 452 feet. (Harmon well unique #132675, NE/4 of NE/4 sec 34, T105N R10W):

4). Tom Campbell, 11763 County Road 6 St. Charles, MN 55972, 507-932-4028 . A 102-acre farm with no buildings or residents to the south and southeast owned by:

5). Bill Debruyckerc, 4615 Gathje Lane Utica, MN 55979 507-932-0608. A 20 acre parcel to the south with an occupied residence more than 1500 feet south of the site. According to the County Well Index the site has a 420 foot deep cased and grouted well into the Jordan formation. (Unique #641660, NE/4 SE/4 sec 35 T105N R10W)

Infrastructure:

The Nisbit parcel is served by a private road, Gathje Lane that is subject to private easements. Gathje Lane enters Winona CR113 about ½ mile north of the Fillmore County line (figure 1) .

There are no pipelines, power transmission lines or other infrastructure on the parcel or on adjoining properties.

Previous Activities on the Site:

The site has been a family farm most recently devoted to row-crop production and pasture/grassland.

Topography and Landscape:

The prominent ridge that runs east- west across the center of the David Nisbit property is a bedrock controlled feature that is draped with a thin layer of topsoil (Figure 1). The ridge is at an elevation of 1160-1230 near the watershed divide between Money Creek, 2.25 miles to the west, and Pine Creek, 2 miles to the east. There are no surface water features on the site and the sandy soils generate rapid infiltration and little runoff. Groundwater data from nearby wells indicates that the water level is 200 feet below the surface.

Vegetation and Water Features:

The filed visits and air photos presented earlier indicated the land is former pasture land and cropland.

In order to assess biodiversity we referenced three other maps the 1997 “Priority Areas of Native Biodiversity in Southeastern Minnesota”, the Winona County Biologic Survey and the Minnesota land cover Database.

The Priority Areas of Native Biodiversity, County Biological Survey show no areas of significant native plants on the Site. The Priority areas maps show the woods on the adjoining property to the south as having scores “below minimum biodiversity significance”. The land

cover map has not assessed the upland crop areas in Winona County and therefore there is no GIS coverage for vegetation.

We have reviewed and analyzed four maps and the Soil Survey.

- 1) The County Biological Survey map for Saratoga Township. This map shows no significant features on the site or in the area.
- 2) A an air photo showing the 19.1 acre mining area and the current land cover which is 15.8 acres of crop land (82%) and 3.3 acres of pasture/grassland (18 %). The grassland cover is typical of many old pastures with a stable turf of grasses and forbs dominated by brome and cool season grasses and a fence line with pioneer species and invasive species shrubs and trees (box elder, elm, cedar, buckthorn, honeysuckle).
- 3) A review of the National Wetland Inventory Map and the hydric soil maps from the Soil survey show that there are no wetlands on the site or on adjoining property.
- 4) A review of the Winona county Protected Waters Map shows that there are no surface waters on the site or adjoining property.

Geology:

Geologically the Nisbit ridge has a thin (<12') cap-rock of resistant limestone and shale (up to 15' of Platteville Limestone and 3' of Glenwood Shale) that overlays 90-100 feet of white sandstone of the St Peter Formation. Based on nearby well data the top of the Shakopee Formation Dolomite underlying the sandstone at an elevation of $\pm 1125'$, 35 below the lowest elevation on the Nisbit Farm and 45 feet below the depth of silica sand mining (Map D).

The St. Peter sand is desirable for multiple purposes including local use as dairy bedding and a filter medium. The sand is also exported from the area for use in various industries ranging from enhanced oil and gas production to glass production.

- The St. Peter Sandstone is not a karst horizon and there are no sinkholes on the site or on adjoining property. The St. Peter formation is not subject to sinkholes formed by dissolution of the sandstone bedrock but does overlay carbonate bedrock of the Shakopee formation which does develop karst features causing rare sinkholes to develop in the bottom 20-30 feet of the St. Peter Sandstone. In SE Minnesota the basal St. Peter sinkholes form in drainaway settings and beneath ponds. The sinkhole formation process involves frequent saturation or permanent flooding of the St. Peter Sandstone with water that percolates downward and dissolves the underlying Shakopee Dolomite. The voids left by the persistent dissolution of the dolomite allows the overlying sand at the base of the 90 foot thick St. Peter Sandstone to flow into the cavities collapsing sand into the underlying voids. Based on the stratigraphy, sand thickness, distance to the underlying dissolving karst and the lack of water features that would saturate or flood the subsurface geologic investigation completed in SE Minnesota have proven that there is no risk of sinkhole formation in the upper 70 feet of the St. Peter Sandstone.

Soils:

The soils covering the site are thin and are derived from loess and weathered sandstone bedrock. The soils are rapidly permeable with low water bearing capacity and are prone to drought. Soil Data taken from the United States Department of Agriculture Natural Resources Conservation Service, "Web Soil Survey". The soils information including soil types, capability class and prime farmland is information taken from web soil survey and is included with this application (Appendix 1).

Within the mining area the soils that will be stripped, stockpiled and re-used for reclamation are:

- 11D, Sogn silt loam, rocky, 6 to 30% slopes, capability class 7, not prime farmland
- 898F, Bellechester-Brodale complex, rocky, 15 to 60% slopes, capability class 7, not prime farmland
- 301D, Lindstrom silt loam 12 to 18% slopes, capability class 4, not prime farmland.

These soils will be stripped and stockpiled in separate piles and later used to reclaim mining site.

The ridge proposed for mining is not currently farmed above an elevation of 11190 due to the slope, shallow bedrock and droughty nature of the soils. The current plan will mine the ridge from west to east in phases and will restore the mined area with reserved topsoil and re-vegetation with a mixture of pasture grasses and legumes and trees.

Silica Sand Products and By-Products from Proposed Nisbit Mine:

Formation: St. Peter Sandstone:

The purpose of the Nisbit proposal is to mine, transport and sell silica sand extracted from the St. Peter Sandstone formation which is ~75 feet thick and is present on the site from an elevation of ~1200 to a depth of ~1125.

St. Peter Silica Sand Markets:

The bulk of the Silica sand extracted from the Nisbit site is for export across North America and is utilized as frac sand to act as proppants to stimulate the production of oil and gas from tight formations.

We anticipate that 80% of the sand will be shipped to a rail loading facility in Winona to be transported by rail to oil fields.

Up to 20-25% of the silica sand will be utilized locally for dairy bedding.

Overburden materials:

The limestone and shale cap-rock that overlies the sand above the 1220 elevation is overburden that must be removed to access the sand. The limestone overburden materials have some beneficial use and some of the overburden will be crushed and used for road rock to maintain the private roadways that lead to CR113. The proportion not utilized for road rock will be retained, stockpiled and used as sub-grade materials during the site restoration.

The clay from the Glenwood Shale will be utilized as sub-grade material for the restoration of the site.

Waste Silica Sand Screenings:

Fine silica sand, passing the #70 sieve, has no utility as a proppant for oil field fracing and well stimulation; however the fine fraction has other beneficial uses including dairy bedding, as a filter media and the raw product for glass making. At this time we only have markets for local dairy sand, but, other markets may develop for the fine sand.

Sampling and testing of the St. Peter sand at the Nisbit site indicate that 13% to 25% of the sand is finer than the 70 sieve size and is not suitable as a fracing proppant. Fine sand not exported for proppants may have other beneficial uses that have not yet been determined but the fine sand may become a waste product.

If the fine sand cannot be sold it will be utilized for site restoration and placed back in the exaction before being shaped and seeded.

Size and Sequence of Proposed Excavation and Facilities:

Parcel:

Mining will only occur on the ridge in the middle of the parcel above an elevation of 1170 encompassing approximately 19-acres (Maps A-C). While the CUP application is for the enter parcel less than 20-acres of the site will be mined.

Mining Area and Depth:

The total area that will be mined is just under 20-acres and will extract from the crest of the ridge at ~1230 to 1170 leaving a slight ridge across the middle of the site. The project will not create a pit, hole or pond.

Sequencing and Staging:

Mining:

The first phase will begin with construction of mining infrastructure and stripping including construction of truck access roads and the sediment pond. The mining area will have soils removed and placed in stockpiles on the perimeter of the Phase I mining activity the mining operation will proceed east along the near-center of mine moving within the north and south boundaries above the 1200 elevation. The temporary restoration between the finish of Phase I extraction and Phase II mining will involve slope stabilization, black dirt spreading and vegetation establishment in a timely manner, while not interfering with the mining operation.

Phase I of the mine proposes to excavate from west to east covering approximately 7.8 acres across the top of the ridge, top elevation ~1230 to an elevation of 1200 (± 5 feet) in Phase I. In Phase I a deeper excavation will be made to the 1170 elevation on approximately 3-acres in order to extract the sand and create an area for placing overburden and fine sand waste. This allows the removal of the cap rock and creates a place to start the mine restoration with the overburden and rock waste.

Phase II of the mine proposes to excavate from east to west covering approximately 19.02-acres from 1200 to an elevation of 1170 (± 5 feet) at the base. It is estimated that approximately 200,000 Cubic Yard The mining of this site will be completed in phases based on elevation first progressing from west to east for the sand above elevation 1200 and working back from east to west to extract the sand to the 1165-1170 elevation.

Due to the topography of the mine site, there may be some variation in phase boundaries and stockpiling locations as the mine progresses.

Measures will be taken continuously to keep any drainage internal within the mine boundary. Swales will be incorporated to direct flow into proposed ponding areas.

The future phasing will proceed from east to west from the property line developing the finished 3:1 slope and mining to the target elevation. Mining operations will be similar to those described above for Phase I.

Upon completion of each phase, soils will be replaced and seeding and mulching will take place. Reclaimed phases will be returned to pasture as an agricultural use as soon as there is no interference with mining operations.

Restoration Earthwork:

Any overburden materials having no marketable value will be used to backfill previously mined areas, especially along the finished slopes.

In Phase I, the mining operation will dig to the target depth of 1170 on the west end to create an area to place overburden and unusable fine sand to begin restoration as the mining proceeds. The mining will proceed from west to east to allow for any overburden to be placed in the restoration area on the west end and along the perimeter of the Phase I mining area. This process will be continuous and ongoing from year to year and will proceed so that a 1.5 to 3.0 acre working area will remain open.

The areas that are depleted of sand for each phase will be temporary restored with black dirt covered with perennial grasses (pasture mix) until the Phase II mining progresses back over the area to recover the deeper sand.

The final slope along the east line will be a maximum of 3:1 leaving a mound along the east property line.

The final restoration will place topsoil back over the mined area at an elevation that will vary from 1165 (± 5 feet) on the north to 1170 (± 5 feet) on the south creating a low profile ridge across the center of the site. The final reclaimed slopes will be stabilized with topsoil and will be seeded and mulched for use as pasture.

Restoration Re-vegetation:

The restoration plan is in two phase: 1) Temporary restoration with a sandy area roadside mix. 2) Final restoration for pasture.

Phase I temporary restoration will occur to re-establish topsoil and perennial pasture grass vegetation after the Phase I mining progresses from west to east and has developed a minimum 3-acre operational area at the 1200 foot elevation. Once restoration begins we would blade the topsoil originally removed from the hill back over the site to a depth of 8" to 1 foot and seed this area with a perennial grass mix MNDOT240 Sandy roadside mix (see attached) at a rate of 75#/acre.

Phase II final restoration will occur once the final depth of the mine is established at ± 1165 -1170 and will be restored with the goal of restoring the site to pasture for livestock grazing or to crop production, depending on the volume of available topsoil. This restoration will occur after 3 acres of final mining has occurred and will involve pushing and blading the previously removed topsoil over the mined surface to a minimum depth of 8" followed by seeding with a cool season pasture mix suitable for cattle, a mixture of brome, timothy, perennial rye and the legumes clover and alfalfa at a rate of 50#/acre.

OPERATIONAL MINING DETAILS:

Schedule:

We anticipate starting the mining in the summer of 2012 as soon a permit is issued. Based on the available reserves we anticipate mining to take 20 to 24 months over a three year period of time.

Extraction and Processing Proposed Hours and Days of Operation

Proposed mining and hauling operations are Monday through Friday 7AM to 10PM and Saturday 7AM to Noon.

Maintenance of on-site equipment may occur outside of the time allowed for mining.

Months of Operation:

Mining can occur on the site year around, however, hauling is generally restricted to times when temperatures are above 10°F and hauling cannot be done during the MNDOT Spring Highway Weight Restrictions.

Mining Operations: Extraction and Processing Equipment to be Utilized at the Site

Mining and on-site processing activities will include earth excavating, blasting, screening, crushing, and loading materials (Maps A-C). Various types of heavy earth work machinery, principally back-hoes, loaders and dump trucks will be used to strip and stockpile topsoil, extract materials, screen fine sand to be used for Dairy sand and restoration backfill and load silica sand for export onto trucks. Periodic processing with portable crushers and portable dry screening may be used based on the quality and hardness of the materials encountered during the excavation.

No washing or wet screening of excavated material will take place on site. The material will be transported to another location for further processing by the purchaser.

Only the driveway will be outside of the mine phasing boundaries, otherwise all excavation, stockpiling, equipment storage and on-site processing (crushing/screening) will be done within the proposed mining limits.

Sand stockpiles using elevators to pile the sand would allow truck loading from stockpiles will be developed that would not exceed 25 feet in height. These stockpiles would be active temporary working stockpiles and will follow the working face of the sand excavation.

Blasting:

Blasting may be necessary to remove the cap rock off the ridge and to loosen well cemented sandstone, but based on the initial test pits and rock samples is not anticipated for this operation. If blasting is found to be necessary the owner and operator will retain professional and licensed blasting contractors who operate in accordance with all federal, state, county and township regulations. No explosives will be stored on the site. The blasting contractor will notify all adjoining neighbors in advance of the blast alerting them to the time and duration of the event and vibration monitoring shall be done as necessary at the adjacent homes and structures within ¼ mile of the proposed blast.

Setbacks:

The mining will occur above the elevation of 1170 and will have the following setbacks (Map C):

- More than 200 feet from the south property line
- 50 feet from the north property line
- 1600 feet from the west property line

On the east end we propose to mine the surface at the top of the ridge to within 10 feet of the property line and create a 4:1 slope back to the west in order to create a stable slope during restoration.

Structures Proposed:

No permanent structures are proposed for the site. A temporary job trailer, port-a-john, portable scale and portable crusher and screen may be used periodically on the site.

Fencing:

The site is remote and not adjacent to any residential area, therefore the site is not proposed to be fenced or gated.

Appearance:

Due to the phasing and continuous restoration the site will have the appearance of a 3 to 5-acre sand pit surrounded by cropland.

Proposed Quantity of Mining:

The establishment of the mined volume does not necessary translate to the volume of materials exported to the site due to the fact that different users have different criteria and specifications for products. For example dairy bedding can have a significant percentage of organic matter and

black dirt, but, filter sand or frac sand can have none, while dairy bedding can have no cemented chunks of sand but the processing required for other uses will crush the chunks into the needed size.

The gross volume of excavated materials is:

- Phase I to 1200' elevation: 126 acre feet ~ 203,300 cubic yards.
 1. We estimate that 8-10% of this volume (~10 to 12 acre feet) will be retained on site as the soil need for restoration or materials that have no market value.
 2. We estimate fine sand, passing the #70 sieve will be 13 to 25% of the gross volume. This material will be used for Dairy bedding, other beneficial uses or will be used for restoration.
- Phase II to elevation 1165-1170 = 305 acre feet ~ 492,100 cubic yards
 1. We estimated that up to 10% of this volume (~ 30 acre feet) will be retained on the site for restoration.
 2. We estimate fine sand, passing the #70 sieve will be 20 to 25% of the gross volume. This material will be used for Dairy bedding, other beneficial uses or will be used for restoration.

Rate of Extraction and Longevity:

The timing of the extraction is totally dependent on market demands that we cannot accurately predict. We expect to sell 200,000 to 300,000 cubic yards a year and if this takes place Phase I would take one year to complete. Phase II will take an additional two years.

While the market demand for dairy sand is small, the demand is steady, but, the market demand for filter or frac sand is a new and emerging and is thought to be much more variable and difficult to predict.

Grading and Slopes:

Existing slopes on the site approach 30%.

The mining plan will utilize backhoes to develop a near vertical working face for the sand extraction. The working face will migrate in accordance with the phasing plan.

End slopes will be steeper due to the fact that the mining is cutting down the middle of a linear ridge that is not being proposed to be mined on the Boyum property to the east or to extend farther west than the proposed line. On the west the final slopes will be 3:1; on the west end and 4:1 (Map B-2).

Stockpiles will have a slope equivalent to the angle of repose of the sand, approximately 2:1 depending on the moisture content.

On-site Processing:

Crushing and screening are proposed to be conducted on the site with portable equipment that will follow the working face.

Crushers will be used when pockets or beds in the sand are well cemented and require disaggregation with crushing to separate the sand grains.

Dry Screening will be utilized to sort out particles, clumps and grains larger than the #20 screen size and to separate the fine sand that passes the #70 sieve.

No wet washing is proposed and no water wells will be installed to withdraw water or to monitor the existing water.

Erosion and Sediment Control:

The stormwater management plan developed in accordance with Minnesota Pollution Control Agency criteria contains stormwater within the mine. Ponding areas in a ring berm and ring ditch stormwater treatment system are designed to provide infiltration, settling and sediment control and to contain runoff so as not to increase the stormwater runoff during a 100-year storm event. Runoff will be prohibited from leaving the site by sloping the excavated areas toward the mine and directing the water into the treatment system. The berm and ditch will be seeded and vegetated with perennial grasses and forbs using a MNDOT Mix 190 prescribed for 2-5 year stabilization.

The holding ponds will be removed during the restoration after all extraction is complete.

The site will operate under a Minnesota Pollution Control Agency Permit (MPCA) Non Metallic Mining Operations General Permit. This permit is in the process and a copy of the Permit will be sent to the County.

Perimeter berms will be maintained throughout the mining operation. Topsoil stockpiles will be constructed with a 3:1 (Horizontal to Vertical) side slope and a flat top of not less than 8 feet. Silt fence will be placed downhill of stockpile and the pile will be seeded to establish vegetation. A tracking control pad will be maintained at all exits from project.

Topsoil Management:

The soils on the site are sandy and are thin on the north side and thicker on the south. The soils in Phase I will be stripped with dozers and scrapers and used to develop the permanent berm and

stockpile areas where materials will be stored until the restoration begins. The organic rich topsoil will be segregated and stockpiled for future use and the subsoil, cap rock and other non-organic soils will be used for the core of the berms and base of the restoration profile. Topsoil will be spread across the restored and graded areas and will be the seedbed for vegetation establishment.

The exact volume of topsoil has not been determined but is estimated at 40 to 60 acre feet. All the topsoil will be retained on the site for restoration.

Site Dewatering and Effluent Discharge:

There is no surface water on the site and local well logs show the water table to be approximately 200 feet below the ground surface (Appendix 2). No water wells will be used for the mine and no mining will take place within 180 feet of the water table.

We are not proposing installing groundwater monitor wells due to the following factors

- The project will not be drilling new wells or using water for processing or washing plant.
- The mining operation is not using or applying hazardous materials
- The mining will be down to the 1170 elevation, approximately 200+ foot above the water table. Over 45 feet of St. Peter Sand will remain beneath the site as a natural filter.

Dust:

The principal means of dust control is limiting the size of the open face and working area to less than 5 acres. The mining plan proposes to establish vegetation over all operational areas that are not in active use for mining, stockpiles, operations and hauling.

Berms and stockpiles of overburden or waste sand that will not be exported will be placed to create windbreaks from the prevailing NW and SW winds.

Operations will comply with the recommendations of the Department of Health and Human Services Center for Disease Control and National Institute of Occupational Health and Safety Information Circular 9521, 2010. "Best Practices for Dust Control in Metal/Nonmetal Mining.

The manual prescribes best management practices to protect workers and prevent fugitive dust. For the Nisbit Mine three principal areas of dust control are prescribed:

- Mining area: Equipment and trucks will have cabs with filtration systems to protect workers. Water will be employed on travel surfaces.
- Processing areas: Crushers and screens will employ wet suppression for dust at transfer points.
- Private haul roads: The roads will be constructed of crushed limestone aggregate and recycled bituminous. The driving surface will be treated with oil, chloride and water to

control dust. There is no hauling on crushed rock public roads and dust suppression will not be used on paved surfaces.

Noise:

Noise for mining and processing equipment and trucks will be typical of construction operations. All diesel and gasoline driven equipment will have mufflers. To the extent practicable the processing equipment will be shielded and placed near the mining operation. Truckers will be instructed not to empty dynamic breaking while hauling.

Backup beepers will be utilized on all equipment in accordance with MNOSH Rules.

The area is sparsely populated and there are few noise receptors in close proximity to the site. The topography of the working face and operational area and the wind speed and direction will influence the noise for receptors in the area.

The applicant acknowledges and recognizes the requirement to adhere to the Winona Zoning Code and Minnesota Noise Rules MR7030 for Class 3 noise areas (agricultural and related activities) that prescribes standards for day and night that "are constant with speech, sleep, annoyance and hearing conservation requirements for receivers.

The noise levels for this activity would be measured at the property line and would be:

Daytime and nighttime: L10 (10% of the time in a one hour survey) = 80 dB

Daytime and nighttime: L50 (50% of the time in a one hour survey) = 75 dB

Lights:

If lights are necessary during winter operations portable lighting will be used and will be downcast to illuminate the working area.

Access Roads and Driveways:

A private driveway from the mining area will extend south and cross Gathje Road to enter to the Thompson property where a new privet drive will be constructed along the west edge of the existing right-of-way and will extend approximately ½ mile south to a driveway entrance on CR113 (Figure 3). The private drive on the Thompson property was recommended by the applicant and agreed to by the Winona County Highway Engineer to alleviate concerns over site distances at Gathje Drive. The private haul road will be designed for one-way loaded traffic and will be constructed of crushed rock and covered with crushed rock or recycled bituminous. The entry to the township road will be surfaced with recycled bituminous within the public ROW ad to the point of the turn

Empty trucks will continue to use Gathje Drive which is private driveway with easements granted to multiple parties that dictate the operations and maintenance. The applicant is proposing to maintain and improve Gathje Road.

Road Use and Traffic:

Site of Load Out:

The current load out site is located on 12th Street in Winona just north of US14 and west of the Gilmore Creek Bridge.

Proposed Traffic:

The applicant proposes to utilize a maximum of up to 20 haul trucks with 140 full loads exported every day generating 280 trips.

Proposed Route to Export Load-out:

The designated haul route for loaded trucks will be:

1. Exit and turn right on CR 113 from the private Thompson haul road. Proceeding south to Fillmore County 124.
2. Proceed east on Fillmore 124 one mile and turn left (north) on Winona CR33
3. Proceed 9 miles north on CR 33 to right turn on US 14
4. Proceed 16 miles on US 14 turn left on 12 Street in Winona
5. Proceed 600 feet and turn right into plant.

The designed haul route for empty trucks will be:

1. Exit left from plant onto 12 Street and turn right on US14
2. Proceed on US 14 to Utica and turn left on Winona Co 33 headed south, turn right on Winona CR7
3. Proceed west on CR6 one mile and turn left on Winona CR113
4. Proceed south on CR113 and turn right on to Gathje Drive

Proposed Route for Local Dairy Sand:

Local dairy and filter sand will take the most direct route on township, County and State highways to the farms where the sand is utilized. It is not possible to predict all the dairy farm and filter sand customers, but by using the most direct route the loads would go east on Gathje Lane and either north or south on CR113 and on to the roads that serve the respective farms.

Final Reclamation (Map C):

1. Disposition of Structures and Roads
All processing and mining equipment will be removed. The truck access road will be removed and returned to farm field. All private driveway accesses to residences and farm buildings will remain.
2. Soil Reapplication
The B horizon soils will be replaced first with the A Horizon (topsoil) replaced in a minimum depth of 8 inches. The topsoil shall be replaced as uniformly as possible.
3. Safety Assurances
No safety hazards exist and there will be no public access to the mine. Access to the site is located to provide appropriate vision for ingress/egress and internal logistics for the operation of equipment and circulation of trucks as they are loaded. The operation will follow MSHA regulations for mining safety and health. The reclaimed slopes will be no greater than 3:1 slopes, which are considered safe.

Dust control will be conducted with chloride treatments of the haul roads and water for the working areas.
4. Seeding Plan
The seeding of the mining site shall be done in accordance with "Standards for Stabilization Treatments." A Standard pasture mixture of cool season grasses and legumes will be used for both temporary restoration between Phase I and Phase II mining and for the final reclamation after the mining is complete.
5. Future Use
The reclaimed area is intended to be used for pasture and agricultural purposes with an appropriate pasture mix.

Following completion of reclamation, the property owner will assume responsibility for future agricultural land use.

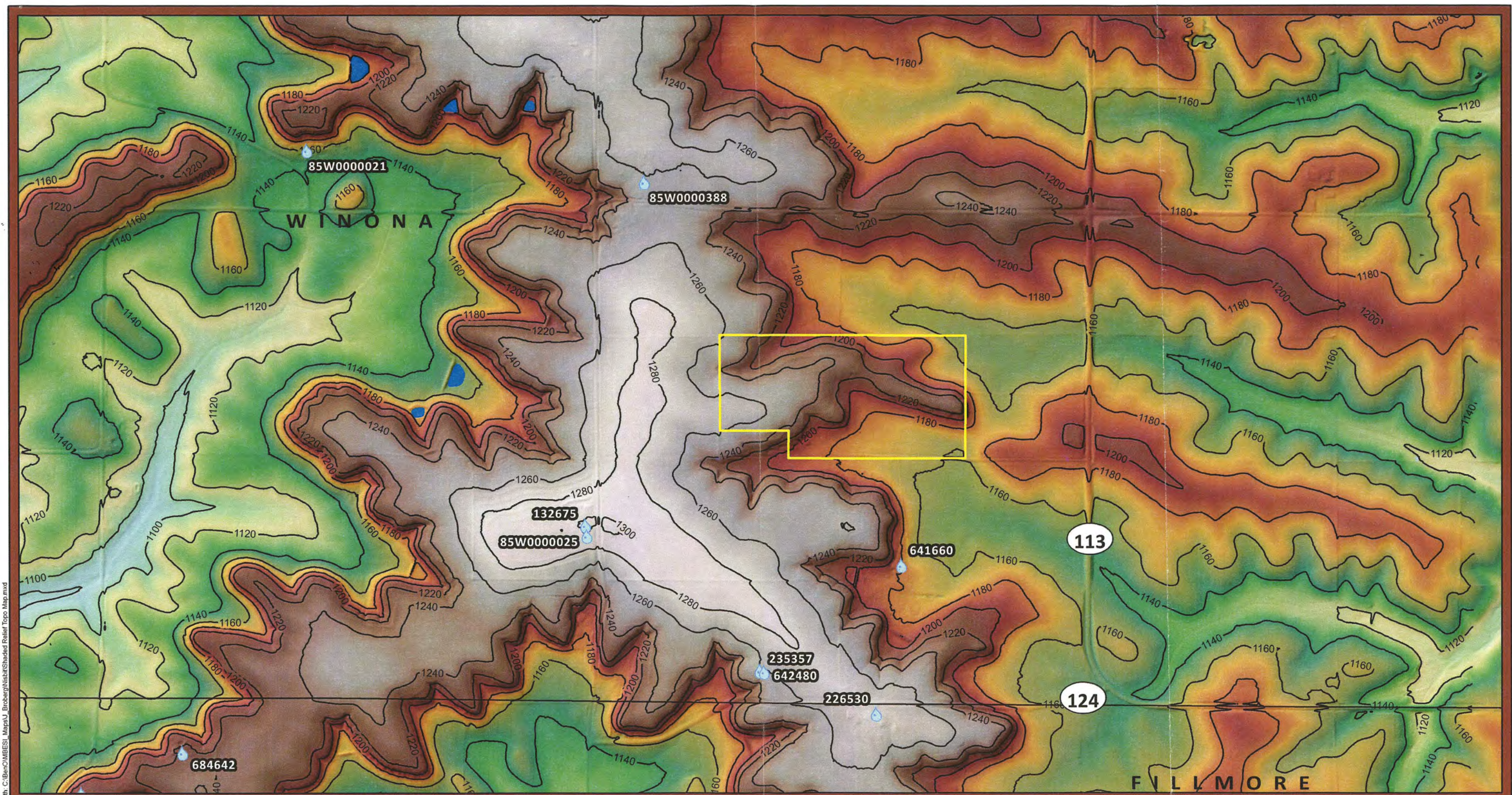
Road Use Fees:

The applicant intends to propose an alternative to the new County policy of charging a toll of \$0.219/ton mile based on the gross weight of the loaded vehicle. We will be proposing a fee based on tons of exported silica sand. We will have the details of the proposal before June 15, 2012.

Proof of Authority:

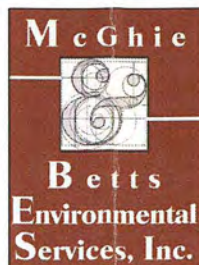
The executed agreement between David Nisbit and Tom Rowekamp will be provided under separate cover.

4. An independent Traffic Study prepared by Wenck & Associates.



**FIGURE 1 - SHADED RELIEF WITH
TOPOGRAPHY, WATER FEATURES,
AND PRIVATE WELLS**

Land Surveying
Urban-Land Planning
Consulting - Civil
Engineering
1648 Third Ave. S.E.



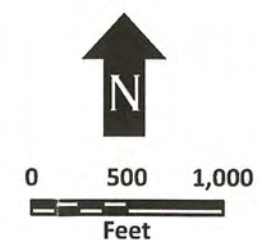
Geotechnical
Engineering
Construction
Material Testing
Landscape
Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghiebetts.com

Saratoga Township
Winona County

Map By: BMO

Map Scale: 1" = 1,000'

Date: Friday, May 18, 2012



Map Location

Path: C:\Ben\MBES\ Maps\Nisbit\Adjacent Landowner Map.mxd

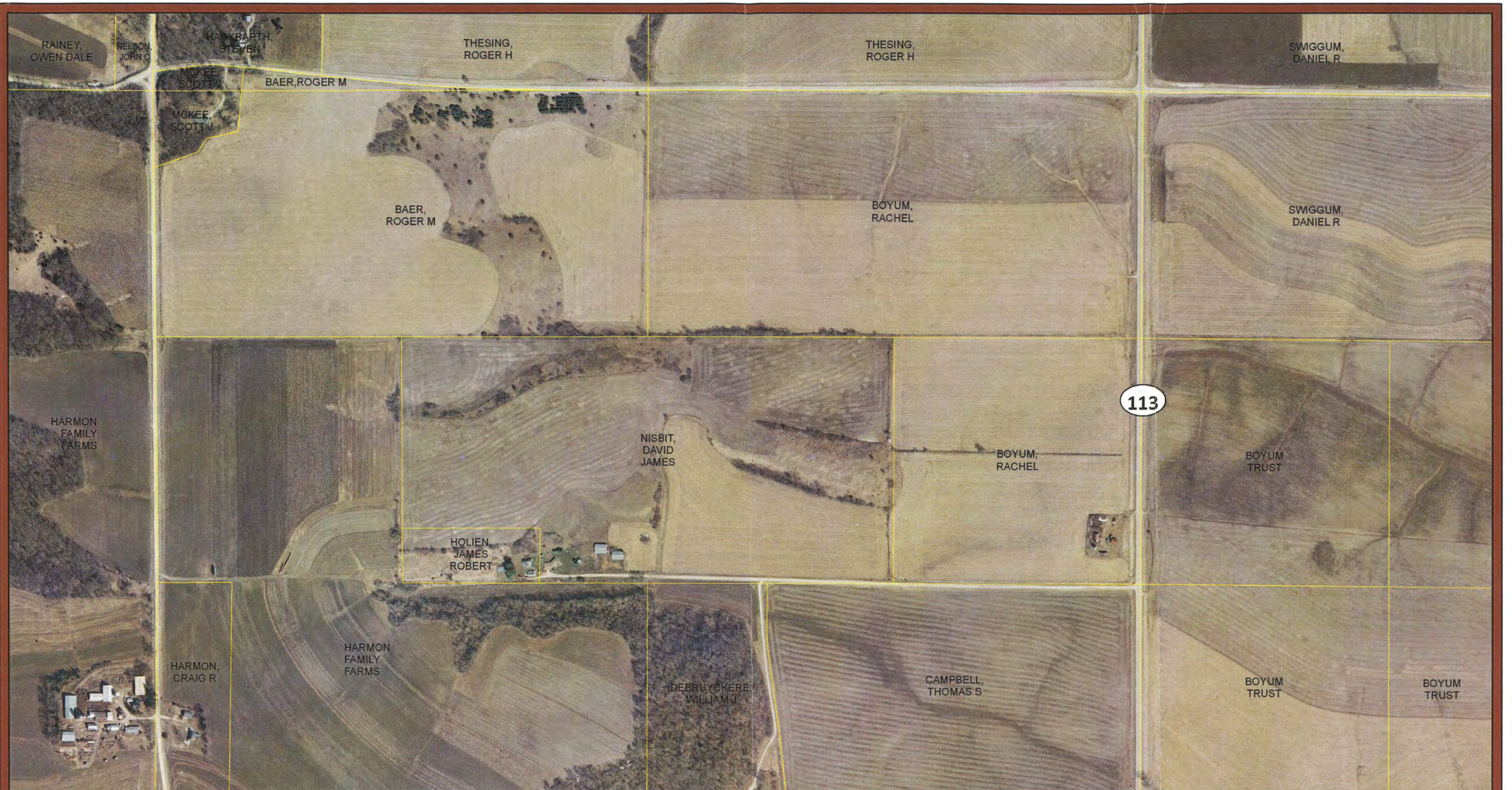
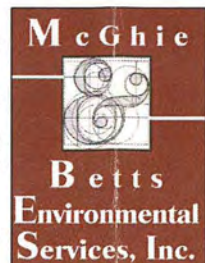


FIGURE 2 - ADJACENT LANDOWNERS

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.



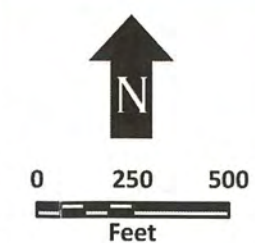
Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghiebetts.com

Saratoga Township
Winona County

Map By: BMO

Map Scale: 1" = 500'

Date: Friday, May 18, 2012

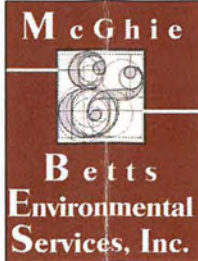


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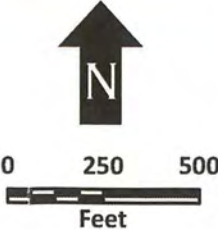
FIGURE 3 - THOMAS DRIVEWAY

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.

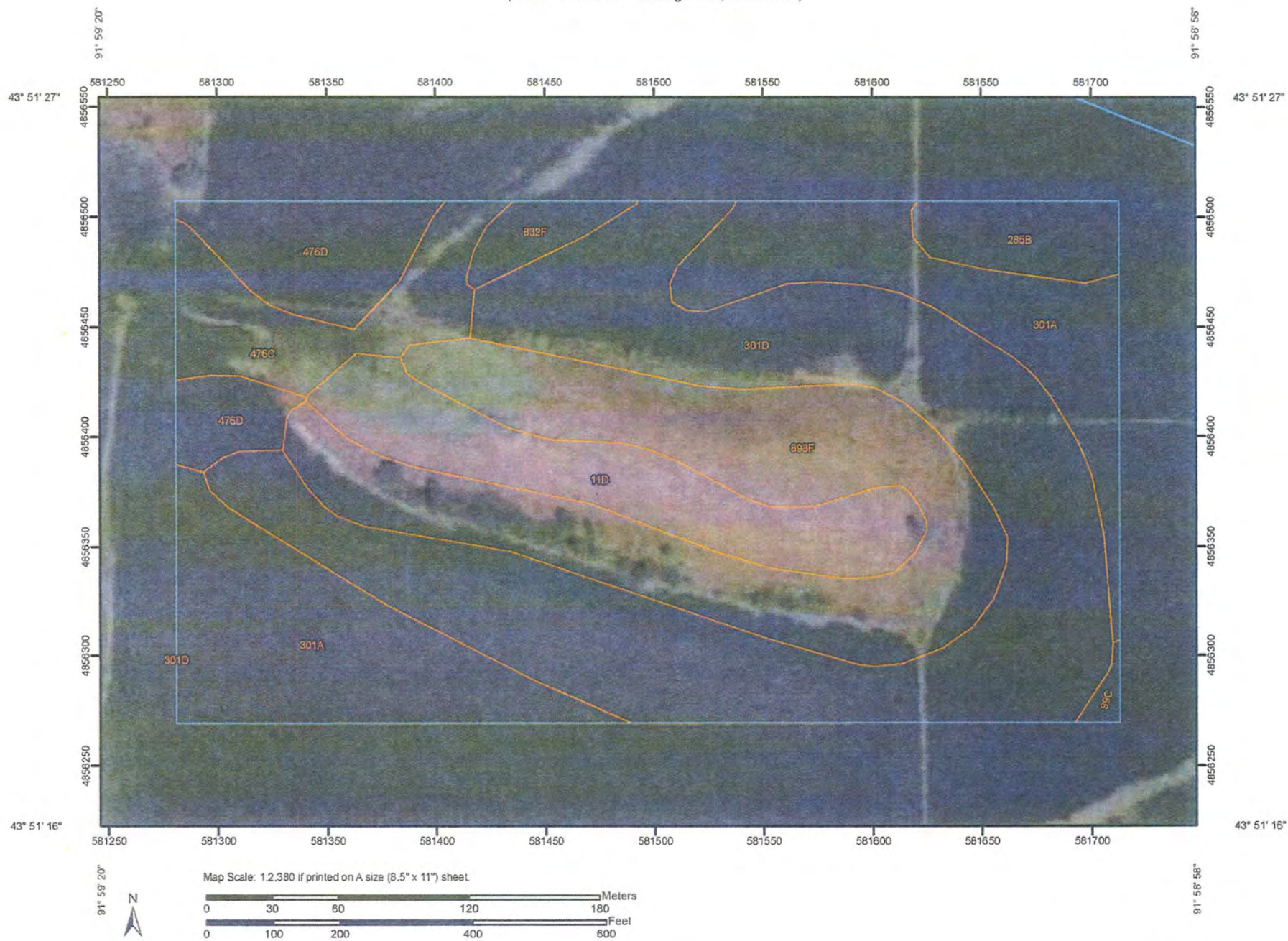


Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghiebetts.com

Saratoga Township
Winona County
Map By: BMO
Map Scale: 1" = 500'
Date: Friday, May 18, 2012




Soil Map—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co)



Soil Map—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co)

MAP LEGEND






















Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

Special Line Features

-  Gully
-  Short Steep Slope
-  Other

Political Features

 Cities

Water Features

Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:2,380 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Winona County, Minnesota
Survey Area Data: Version 6, Aug 2, 2010

Date(s) aerial images were photographed: 8/16/2003

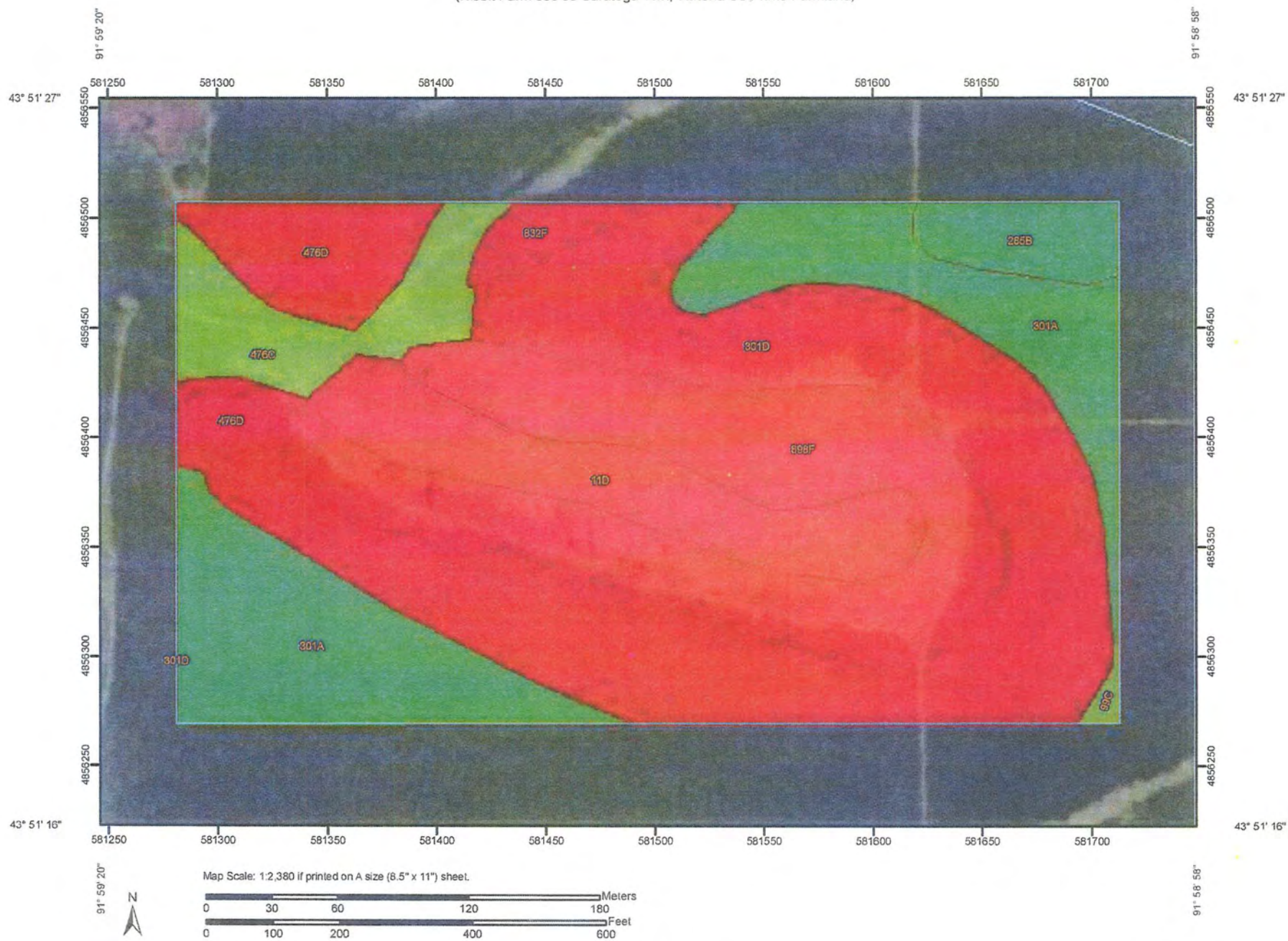
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Map Unit Legend

Winona County, Minnesota (MN169)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11D	Sogn silt loam, rocky, 6 to 30 percent slopes	2.2	8.8%
99C	Racine silt loam, 6 to 12 percent slopes	0.1	0.3%
285B	Port Byron silt loam, 3 to 6 percent slopes	0.7	2.9%
301A	Lindstrom silt loam, 1 to 3 percent slopes	5.0	19.7%
301D	Lindstrom silt loam, 12 to 20 percent slopes	8.5	33.3%
476C	Frankville silt loam, 6 to 12 percent slopes	1.4	5.7%
476D	Frankville silt loam, 12 to 18 percent slopes	1.6	6.3%
832F	Lacrescent-Rock outcrop complex, 30 to 45 percent slopes	0.4	1.5%
898F	Bellechester-Brodale complex, rocky, 15 to 60 percent slopes	5.5	21.5%
Totals for Area of Interest		25.4	100.0%


Farmland Classification—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co Prime Farmland)



Farmland Classification—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co Prime Farmland)

MAP LEGEND

Area of Interest (AOI)



 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings


-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available




Political Features

 Cities


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes

 Major Roads

 Local Roads

MAP INFORMATION

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Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Winona County, Minnesota
Survey Area Data: Version 6, Aug 2, 2010

Date(s) aerial images were photographed: 8/16/2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/17/2012
Page 2 of 3

Farmland Classification

Farmland Classification— Summary by Map Unit — Winona County, Minnesota (MN169)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
11D	Sogn silt loam, rocky, 6 to 30 percent slopes	Not prime farmland	2.2	8.8%
99C	Racine silt loam, 6 to 12 percent slopes	Farmland of statewide importance	0.1	0.3%
285B	Port Byron silt loam, 3 to 6 percent slopes	All areas are prime farmland	0.7	2.9%
301A	Lindstrom silt loam, 1 to 3 percent slopes	All areas are prime farmland	5.0	19.7%
301D	Lindstrom silt loam, 12 to 20 percent slopes	Not prime farmland	8.5	33.3%
476C	Frankville silt loam, 6 to 12 percent slopes	Farmland of statewide importance	1.4	5.7%
476D	Frankville silt loam, 12 to 18 percent slopes	Not prime farmland	1.6	6.3%
832F	Lacrescent-Rock outcrop complex, 30 to 45 percent slopes	Not prime farmland	0.4	1.5%
898F	Bellechester-Brodale complex, rocky, 15 to 60 percent slopes	Not prime farmland	5.5	21.5%
Totals for Area of Interest			25.4	100.0%

Description

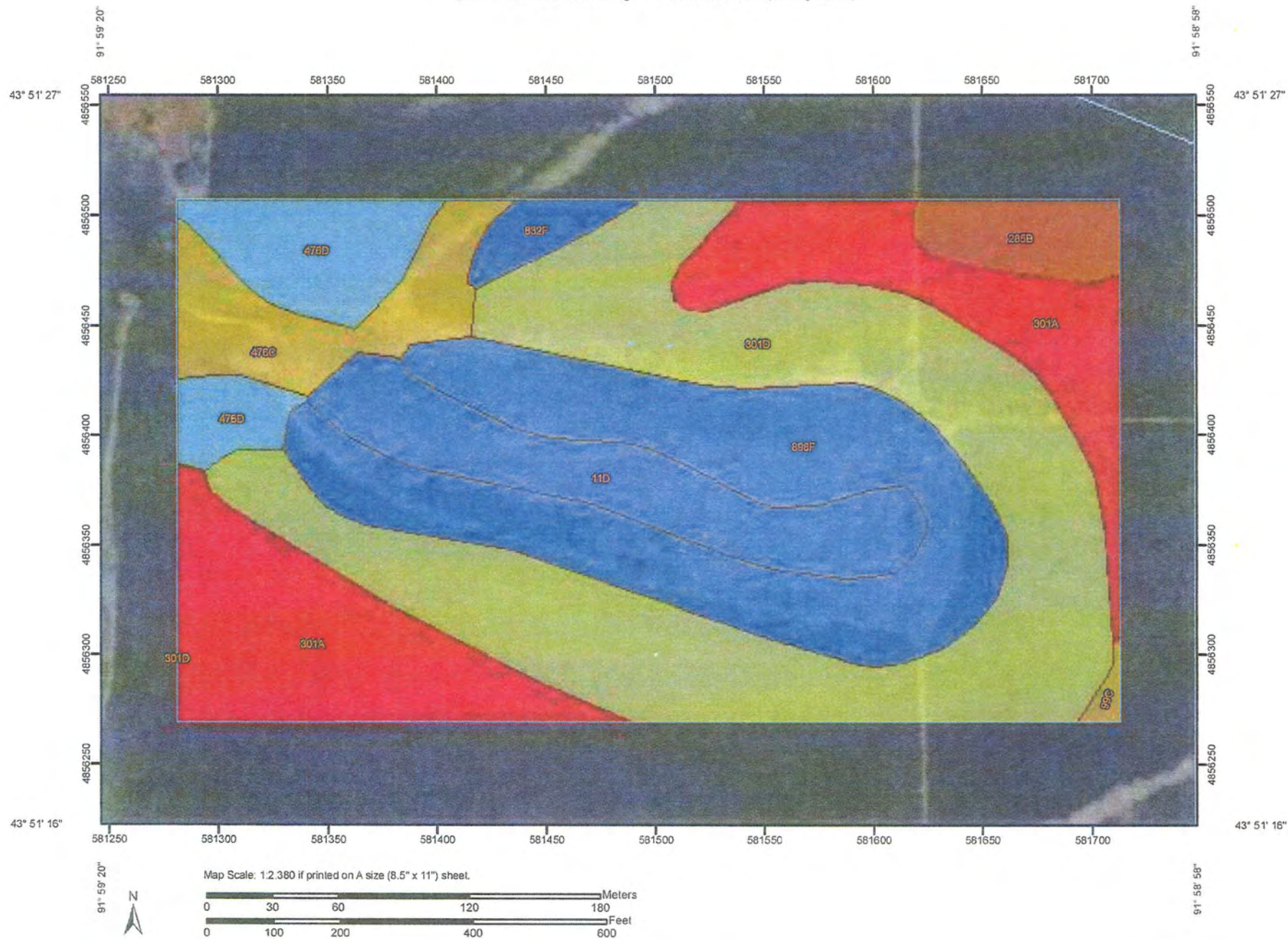
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower


Nonirrigated Capability Class—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co Capability Class)




Nonirrigated Capability Class—Winona County, Minnesota
(Nisbit Farm sec 35 Saratoga Twn, Winona Co Capability Class)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

-  Capability Class - I
 Capability Class - II
 Capability Class - III
 Capability Class - IV
 Capability Class - V
 Capability Class - VI
 Capability Class - VII
 Capability Class - VIII
Not rated or not available

Political Features

 Cities

Water Features

Streams and Canals

Transportation

-  Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

Map Scale: 1:2,380 if printed on A size (8.5" × 11") sheet.

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Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Winona County, Minnesota
Survey Area Data: Version 6, Aug 2, 2010

Date(s) aerial images were photographed: 8/16/2003

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Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Winona County, Minnesota (MN169)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
11D	Sogn silt loam, rocky, 6 to 30 percent slopes	7	2.2	8.8%
99C	Racine silt loam, 6 to 12 percent slopes	3	0.1	0.3%
285B	Port Byron silt loam, 3 to 6 percent slopes	2	0.7	2.9%
301A	Lindstrom silt loam, 1 to 3 percent slopes	1	5.0	19.7%
301D	Lindstrom silt loam, 12 to 20 percent slopes	4	8.5	33.3%
476C	Frankville silt loam, 6 to 12 percent slopes	3	1.4	5.7%
476D	Frankville silt loam, 12 to 18 percent slopes	6	1.6	6.3%
832F	Lacrescent-Rock outcrop complex, 30 to 45 percent slopes	7	0.4	1.5%
898F	Bellechester-Brodale complex, rocky, 15 to 60 percent slopes	7	5.5	21.5%
Totals for Area of Interest			25.4	100.0%

Description

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

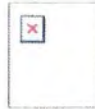
Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Rating Options

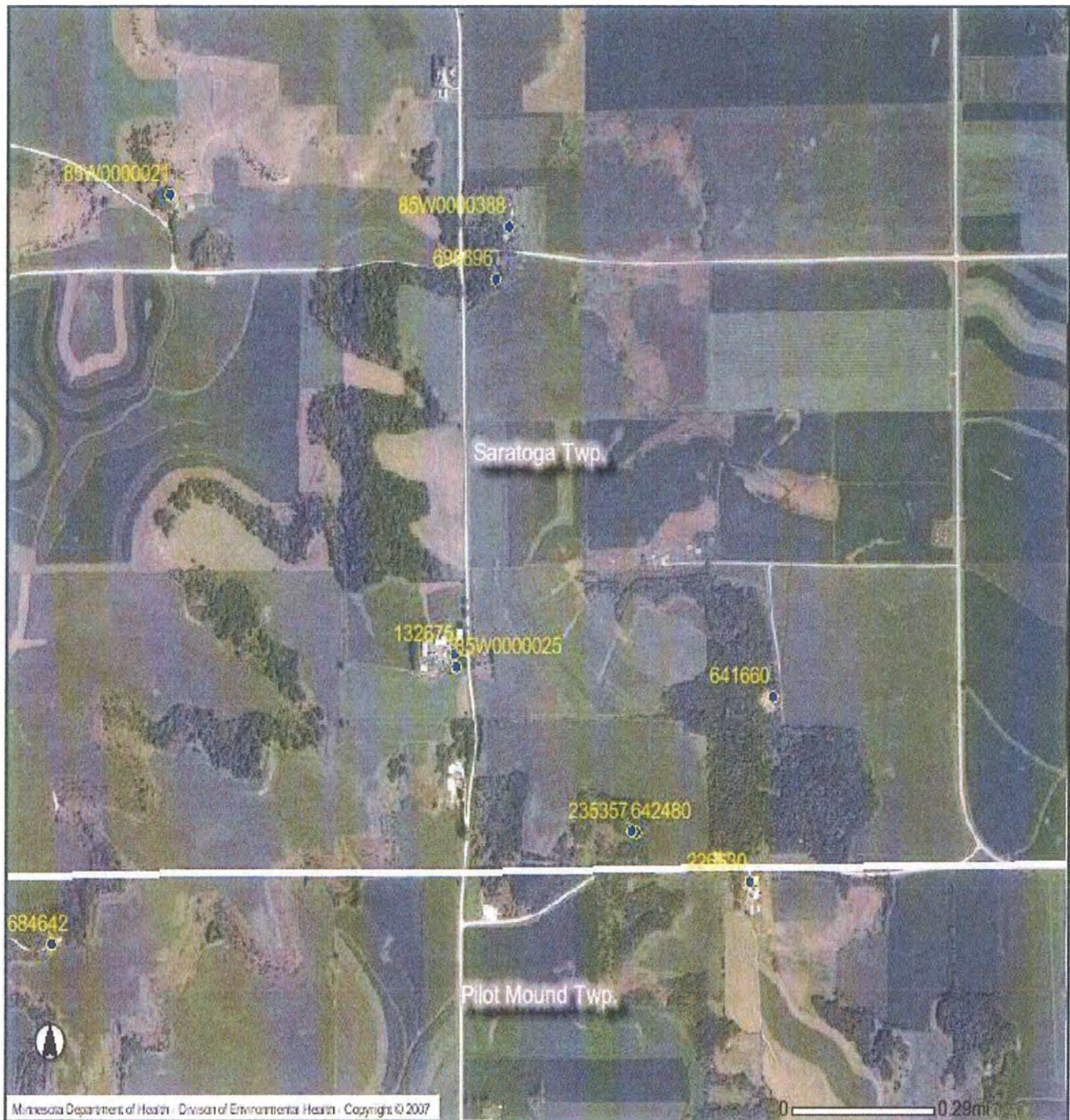
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



The Minnesota County Well Index



Minnesota Unique Well No.

641660County Winona
Quad Arendahl
Quad ID 26C

MINNESOTA DEPARTMENT OF HEALTH

**WELL AND BORING
RECORD**Entry Date 01/04/2001
Update Date 08/02/2011
Received Date

Minnesota Statutes Chapter 103I

Well Name DEBRUYCKERC, WILLIAM J.		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		420 ft.	420 ft.	05/03/2000
105	10 W 35 DBCDAD Elevation Method	Drilling Method Non-specified Rotary		
1213 ft. 7.5 minute topographic map (+/- 5 feet)				
Well Address RR 1 BOX 951 UTICA MN 55979		Drilling Fluid	Well Hydrofractured? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		Use Domestic	From Ft. to Ft.	
Geological Material		Casing Type	Joint Welded Drive Shoe? <input checked="" type="checkbox"/>	
CLAY 24	BROWN SOFT	Steel (black or low carbon)	Yes <input type="checkbox"/> No Above/Below ft.	
SAND & GRAVEL 25	BROWN SOFT			
DOLOMITE 55	BROWN HARD			
SANDSTONE 71	BROWN SOFT			
DOLOMITE 171	GRAY HARD			
SANDSTONE 100	BROWN SOFT			
		Casing Diameter	Weight	Hole Diameter
		8 in. to 55 ft.	lbs./ft.	
		4 in. to 393.3 ft.	lbs./ft.	
		Open Hole from 393 ft. to 420 ft.		
		Screen NO	Make	Type
		Diameter	Slot/Gauze	Length Set Between
		Static Water Level		
		132 ft. from Land surface Date Measured 05/03/2000		
		PUMPING LEVEL (below land surface)		
		ft. after hrs. pumping g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer WHITEWATER Model FAT 95		
		<input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade		
		<input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Located by:		Grout Material: Neat Cement from 0 to 393 ft. 8.25 yds.		
Method: Digitization (Screen) - Map (1:24,000)		Nearest Known Source of Contamination		
Unique Number Verification: N/A		100 feet North East direction Septic tank/drain field type		
System: UTM - Nad83, Zone15, Meters		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
X: 581428 Y: 4855843		Pump <input type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name GRUNDFOS Model number 10S15-21		
		HP 1.5 Volts 230		
		Length of drop Pipe 189 ft. Capacity 12 g.p.m. Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input type="checkbox"/>		
		Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock Shakopee Fm(Prairie Du Chie		Well Contractor Certification		
Last Strat Jordan		Rowland Well Co. 23474 ROWLAND, N.		
Aquifer Jordan		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock 53 ft.				
County Well Index Online Report		641660		
		Printed 9/16/2011 HE-01205-07		

Minnesota Unique Well No.

132675County Winona
Quad Arendahl
Quad ID 26C

MINNESOTA DEPARTMENT OF HEALTH

**WELL AND BORING
RECORD**Entry Date 04/17/1988
Update Date 08/02/2011
Received Date

Minnesota Statutes Chapter 103I

Well Name HARMON, HERBERT		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		490 ft.	490 ft.	11/18/1976
105	10 W 34 DADAAA Elevation Method	7.5 minute topographic map (+/- 5 feet)		
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No		
--		From Ft. to Ft.		
Use Domestic				
Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No Above/Below 1 ft.		
Casing Diameter		Weight	Hole Diameter	
4 in. to 452 ft.		10.78 lbs./ft.	8 in. to 452 ft.	
			4 in. to 490 ft.	
Open Hole from 452 ft. to 490 ft.				
Screen NO		Make	Type	
Diameter		Slot/Gauze	Length	Set Between
Static Water Level				
275 ft. from Land surface Date Measured 11/18/1976				
PUMPING LEVEL (below land surface)				
275 ft. after 3 hrs. pumping 35 g.p.m.				
Well Head Completion				
Pitless adapter manufacturer Model				
<input type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Grout Material: Neat Cement from 7 to 452 ft. 9 yds.				
Nearest Known Source of Contamination				
200 feet W direction Septic tank/drain field type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Pump <input type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP Volts				
Length of drop Pipe ft. Capacity g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input type="checkbox"/>				
Yes <input type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Well Contractor Certification				
Christenson Well		20065	GILMAN, G.	
License Business Name		Lic. Or Reg. No.	Name of Driller	
First Bedrock Galena		Aquifer Jordan		
Last Strat Jordan		Depth to Bedrock 13 ft.		
County Well Index Online Report		132675		Printed 9/16/2011 HE-01205-07

Minnesota Unique Well No.

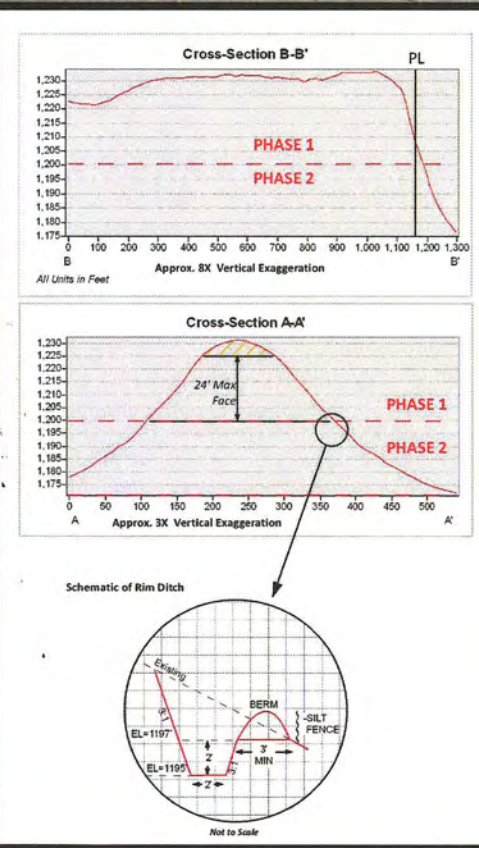
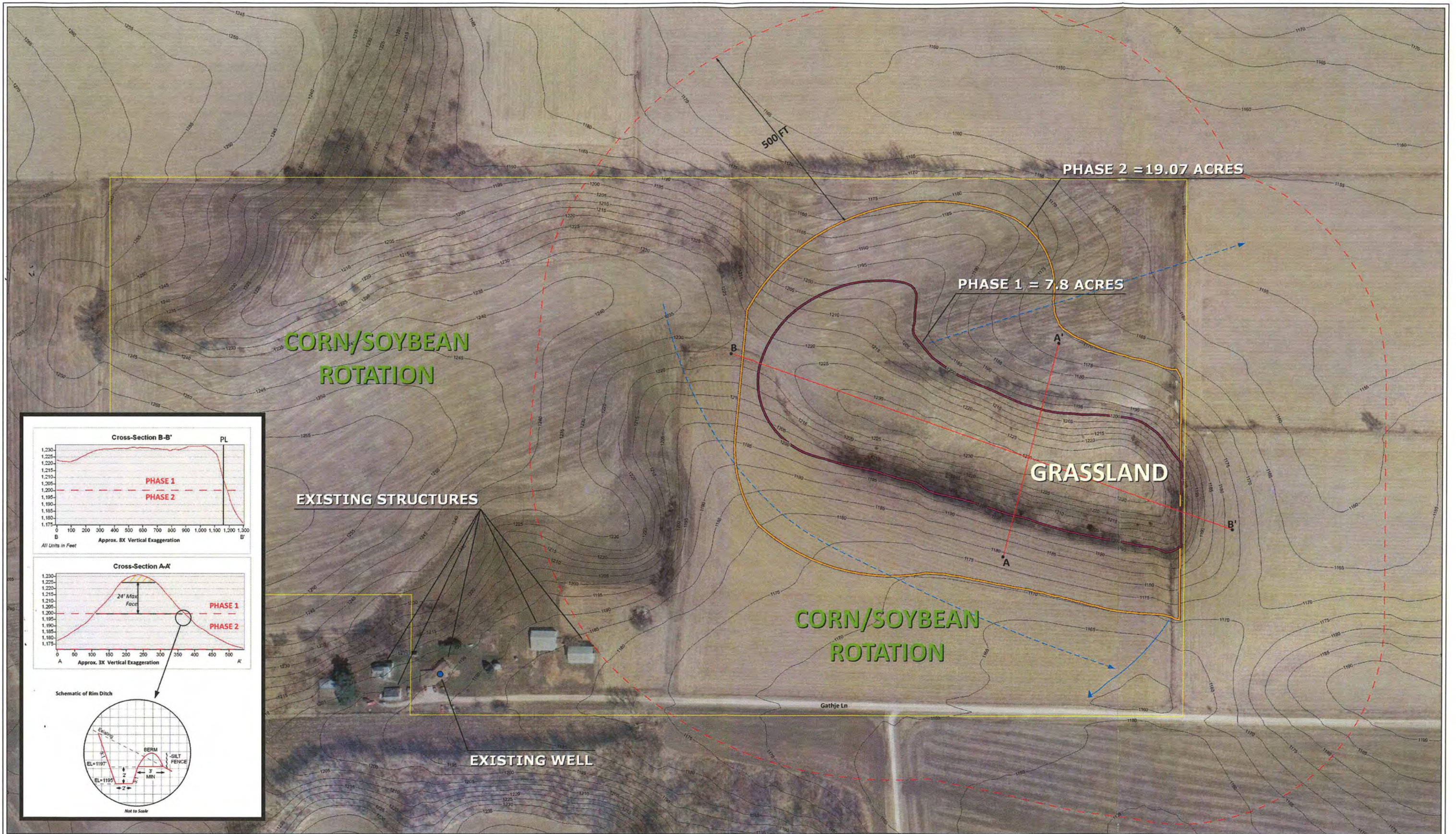
695896County Winona
Quad Arendahl
Quad ID 26C

MINNESOTA DEPARTMENT OF HEALTH

**WELL AND BORING
RECORD**Entry Date
Update Date 09/07/2011
Received Date 01/02/2004

Minnesota Statutes Chapter 103I

Well Name MCKEE, SCOTT		Well Depth 500 ft.		Depth Completed 500 ft.		Date Well Completed 09/19/2003	
Township Range Dir Section Subsections Elevation 105 10 W 35 BBBABC Elevation Method		1249 ft. CALC FROM 2- FOOT COUNTY DEM		Drilling Method Non-specified Rotary			
Well Address RR 1 BOX 971 UTICA MN 55979		Drilling Fluid Foam		Well Hydrofractured? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No From Ft. to Ft.			
Geological Material		Color		Hardness		From To	
DRIFT		BROWN		SOFT		0 12	
LIMESTONE 20'		TAN		MEDIUM		12 32	
SANDSTONE 100'		WHITE		SOFT		32 132	
LIMESTONE 40'		TAN		MEDIUM		132 412	
SANDSTONE 90'		BROWN		SOFT		412 500	
Use Domestic		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/>					
Yes <input type="checkbox"/> No Above/Below ft.							
Casing Diameter		Weight		Hole Diameter			
8 in. to 12 ft.		lbs./ft.		12 in. to 12 ft.			
4 in. to 452 ft.		lbs./ft.		8 in. to 452 ft.			
Open Hole from 452 ft. to 500 ft.							
Screen NO Make Type							
Diameter		Slot/Gauze		Length		Set Between	
Static Water Level 204 ft. from Land surface Date Measured 08/26/2003							
PUMPING LEVEL (below land surface) 214 ft. after 2 hrs. pumping 15 g.p.m.							
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)							
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Grout Material: Neat Cement from to 452 ft. 7 yds.							
Nearest Known Source of Contamination 50 feet direction type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Pump <input type="checkbox"/> Not Installed Date Installed 08/27/2003 Manufacturer's name AERMOTOR Model number S12-150 HP 1.5 Volts 230 Length of drop Pipe 252 ft. Capacity 12 g.p.m. Type Submersible Material							
Abandoned Wells Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Well Contractor Certification Thein Well Co. 55079 SANDERS, T. License Business Name Lic. Or Reg. No. Name of Driller							
First Bedrock Platteville		Aquifer Jordan		Depth to Bedrock 12 ft.			
Last Strat Jordan							
County Well Index Online Report				695896		Printed 9/16/2011 HE-01205-07	



Map Document A - Existing Conditions

- Phase I
- Phase II
- Drainage Flow Line

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.

McGhie Betts Environmental Services, Inc.

Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax. 507.289.7333
email: mbi@mcghiebetts.com

**Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W
Winona County**

Scale: 1" = 100'
When printed on original paper size 24"x36"

Date: 7.20.2012 Map By: BMO

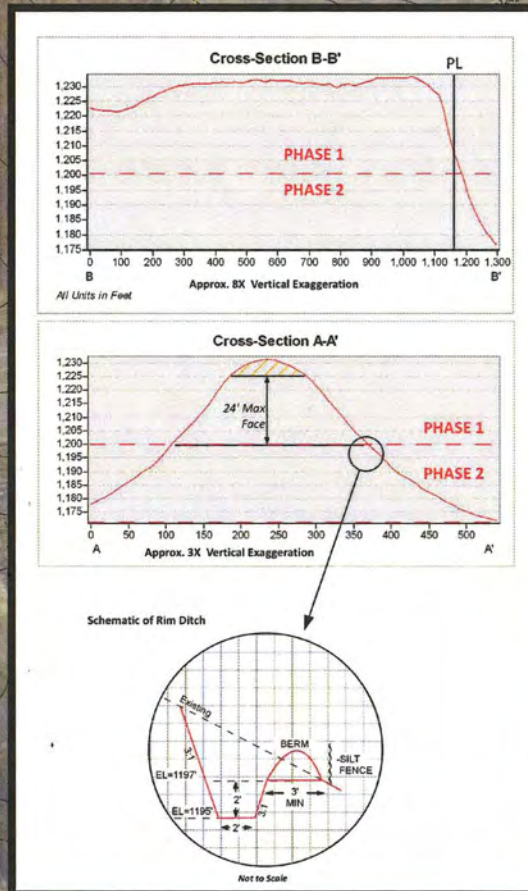
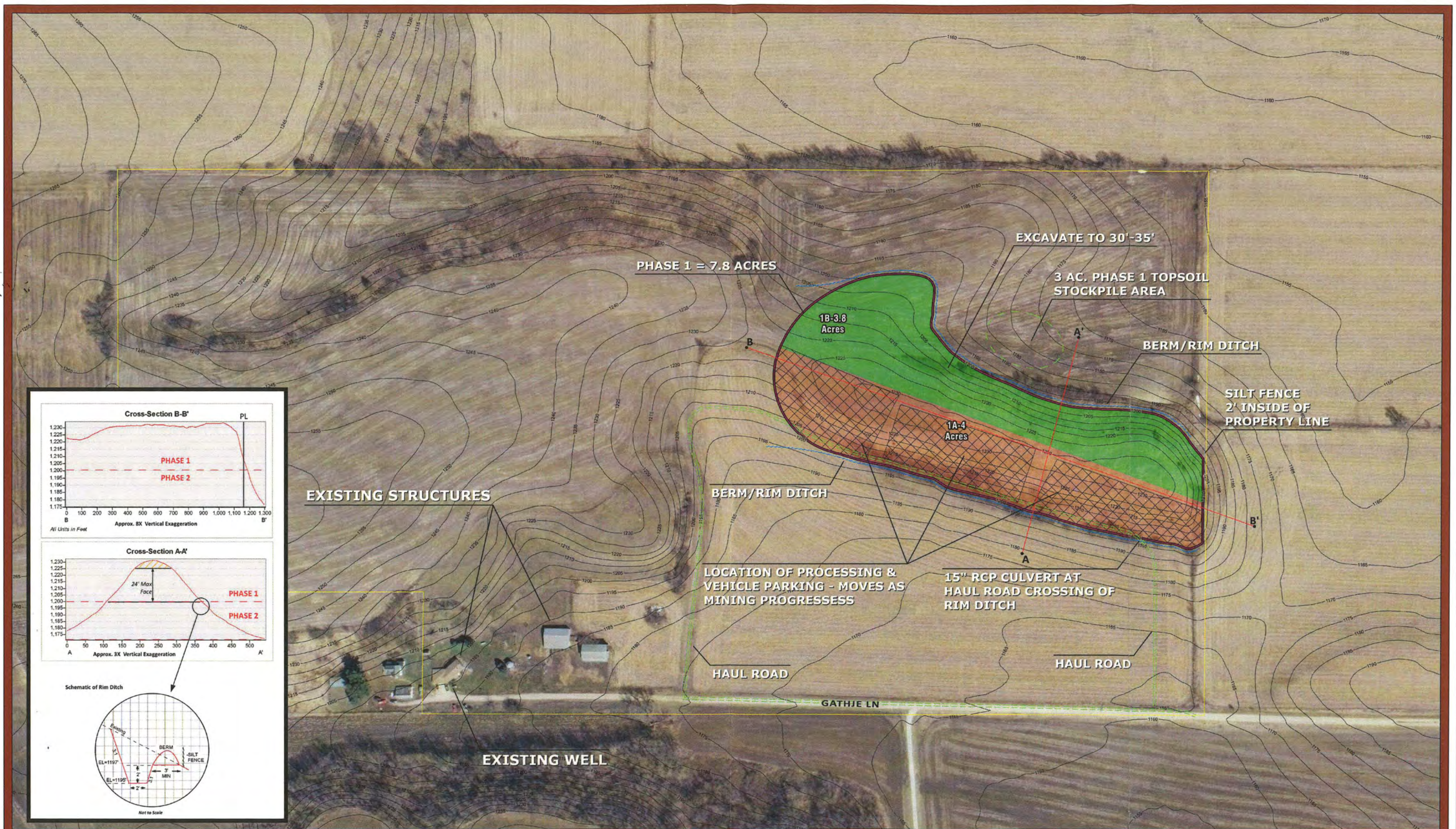
MAP LEGEND

- Existing Well
- 5 Foot Contour Interval
- Phase 1 Boundary
- Phase 2 Boundary (19.07ac)
- Nisbit Property

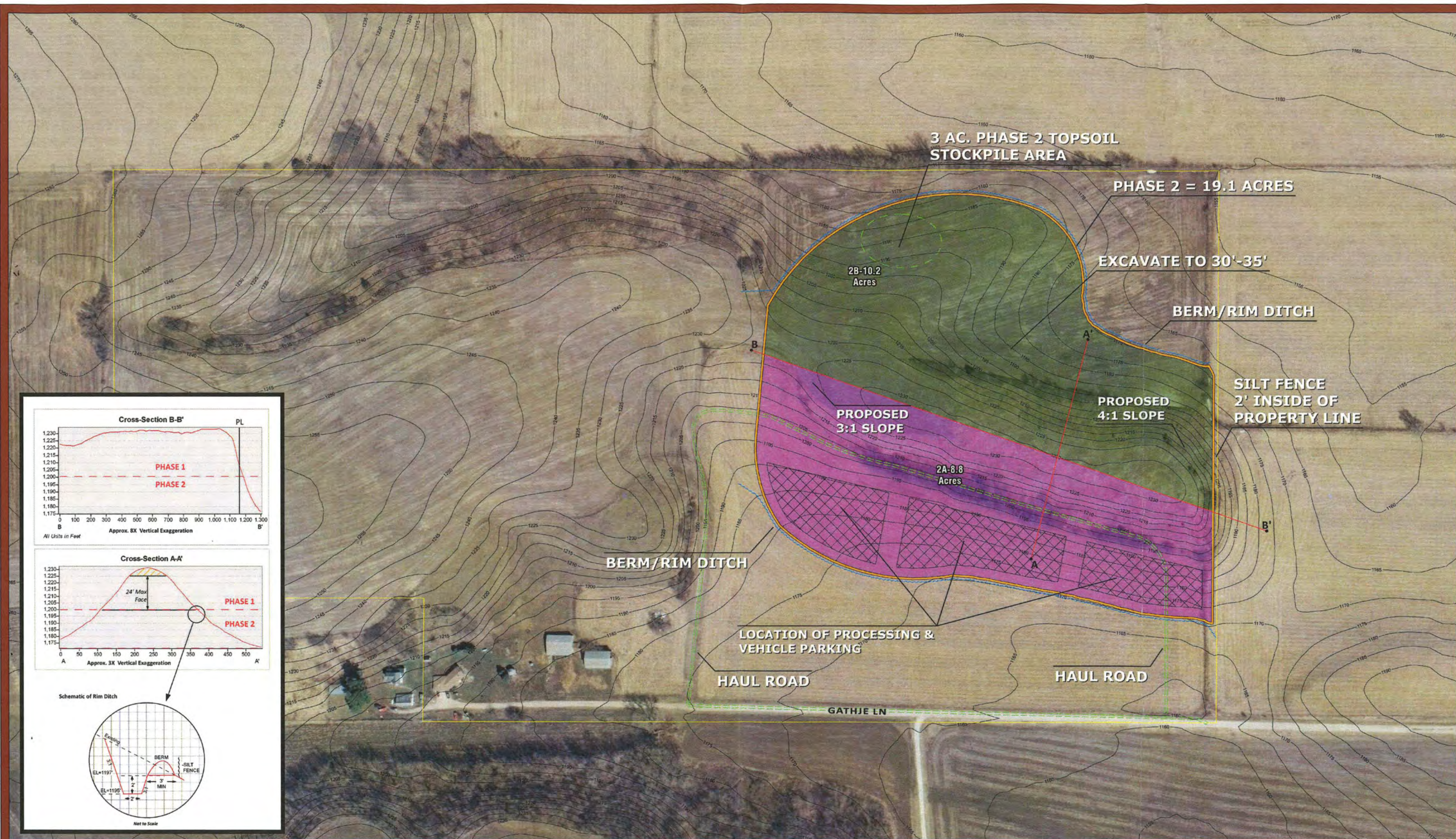
0 100 200 Feet

PROJECT LOCATION

T105N R10W SECTION 35



<p>Map Document B1 - Phase 1 Proposed Operations</p>	<p>Land Surveying Urban-Land Planning Consulting - Civil Engineering 1648 Third Ave. S.E.</p> <p>McGhie & Betts Environmental Services, Inc.</p> <p>Geotechnical Engineering Construction Material Testing Landscape Architecture Tel. 507.289.3919 Fax. 507.289.7333 email: mbi@mcgchiebetts.com</p>	<p>Sand Mine Phase 1 Nisbit Property Saratoga Township SW1/4 of the NE 1/4 S35 T105N R10W Winona County</p> <p>Scale: 1" = 100' Date: 5/28/2013</p> <p>Ref Scale: 1:1,200 Map By: BMO</p>	<p>MAP LEGEND</p> <ul style="list-style-type: none"> Haul Road 5 Foot Contour Interval Rim Ditch & Berm Phase 1 Boundary (7.8 ac) Nisbit Property Vehical Parking & Storage Area <p>0 100 200 Feet</p>	<p>PROJECT LOCATION</p> <p>T105N R10W SECTION 35</p>
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Map Document B2 - Phase 2 Proposed Operations

- Phase II
- HAUL ROAD

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.



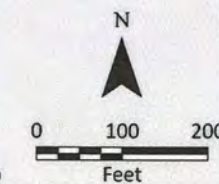
Geotechnical Engineering
Construction Material Testing
Landscape Architecture
Tel. 507.289.3919
Fax 507.289.7333
email: mbi@mcghiebetts.com

Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW 1/4 of the NE 1/4 S35
T105N R10W
Winona County

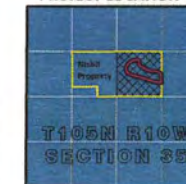
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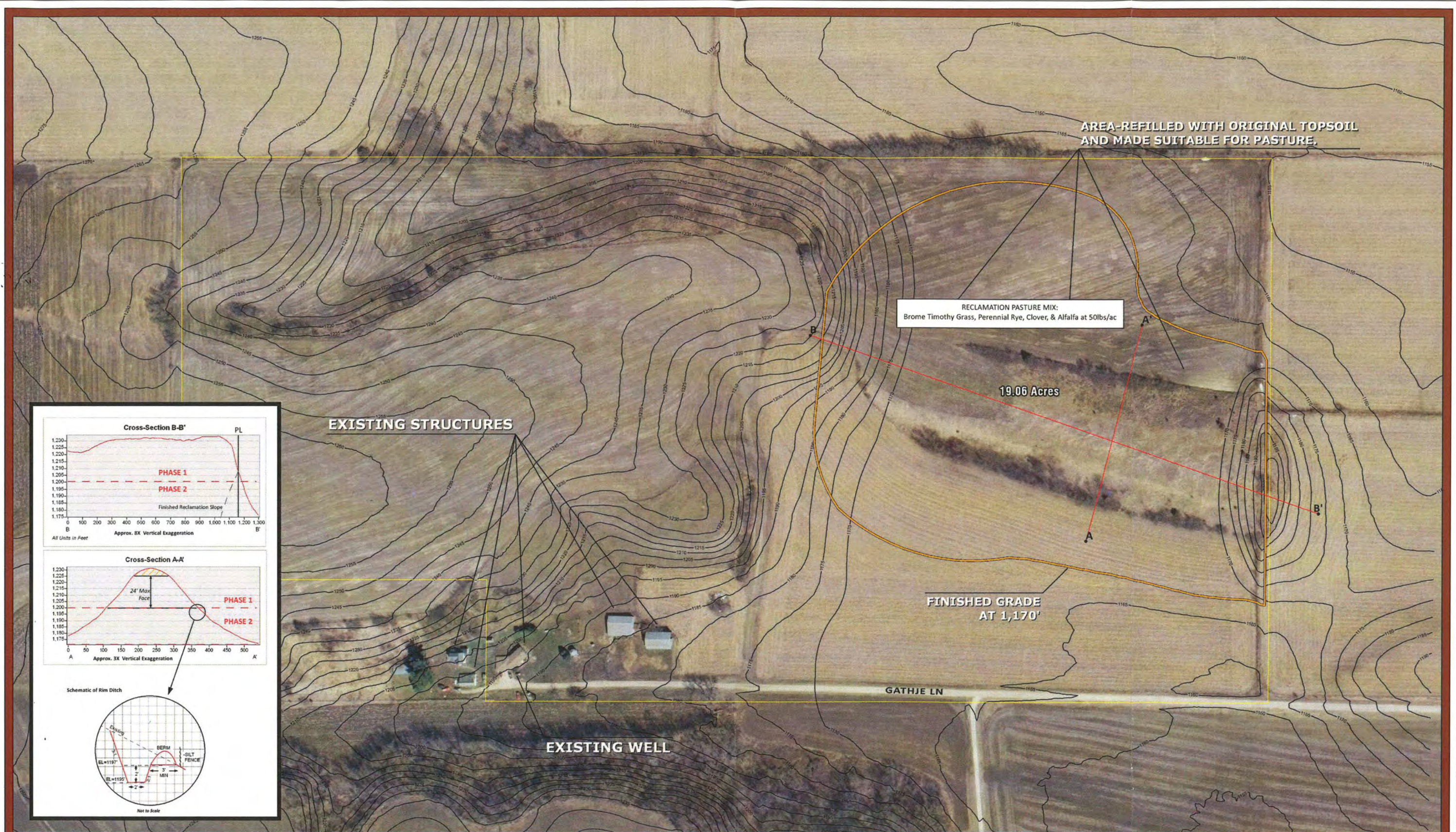
MAP LEGEND

- Haul Road
- 5 Foot Contour Interval
- Rim Ditch & Berm
- Phase 1 Boundary (19.07ac)
- Nisbit Property
- Vehical Parking & Storage Area



PROJECT LOCATION

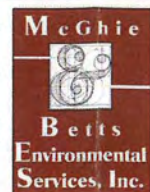




Map Document C - Final Reclamation Plan

- Final Grade Elevation 1,170' (+/- 5')

Land Surveying
Urban-Land Planning
Consulting - Civil Engineering
1648 Third Ave. S.E.



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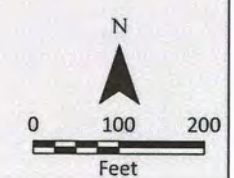
Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W
Winona County

Scale: 1" = 100'
Date: 7/20/2012

Ref Scale: 1:1,200
Map By: BMO

MAP LEGEND

- Nisbit Property
- 5 Foot Contour Interval
- Phase 1 Boundary (19.07ac)



PROJECT LOCATION



BEDROCK GEOLOGY

By
John H. Mossler and Paul R. Book

1984

INTRODUCTION

The solid rock masses that lie beneath or at the land surface are the major reservoirs for water supply in Winona County, and are increasingly the major source of aggregate for construction. Concern for public health has led to general awareness of the need to protect ground-water supplies from contamination. The wise use of natural resources is important also as a matter of economic common sense. If wells must be very deep because sources of water near the surface are contaminated, the wells will cost more than if they were shallow. If aggregate must be transported long distances, it also will cost more than if it were available where it is needed. Thus information on bedrock conditions must be part of any plan for efficient management of natural resources.

The interpretive maps on Plates 5 through 8 of this atlas show aspects of the bedrock geology combined with information on other geologic or hydrogeologic conditions that bear on the problems of resource management in Winona County. These plates are intended to assist citizens and county officials who are not trained geologists. The bedrock geologic map is a valuable basic tool, which can be used to prepare additional interpretive maps if a need arises in the future.

THE GEOLOGIC MAP

The map on this plate shows the bedrock units that are either exposed or are covered only by a thin mantle of unconsolidated surficial deposits. The cross sections and block diagram illustrate the relationship of these units to the three-dimensional geology.

On the cross sections, the rock formations would be the same as the horizontal. The exaggeration, which is needed in order to show the thin formations, also exaggerates their regional dip or downward slope toward the west-southwest. The actual dip is about 15 feet per mile or about one sixth of a degree. This is most evident on sections B-B' and C-C' where even with the

vertical exaggeration, the bedrock appears almost flat-lying. At the scale of the cross sections, it is impossible to show the thin mantle of unconsolidated surficial deposits that overlies the bedrock outside the valleys. However, valley fill deposits in some places are quite thick. For example, municipal wells in the city of Winona have been drilled through about 150 feet of sand and gravel before encountering Paleozoic bedrock. Where the valley fill is thick enough, it is shown on the cross sections—but is not colored—in order to accentuate the bedrock topography. The surficial materials, which include residual formed by weathering of the bedrock formations, are described on Plate 3 of this atlas.

HISTORY AND STRUCTURE

All of the bedrock units shown on the map are of Paleozoic age. Younger Paleozoic rocks and much younger rocks of Cretaceous age occur elsewhere in southeastern Minnesota, but are not known in Winona County. The oldest known bedrock in the county lies beneath the Paleozoic sequence and is shown only on the geologic column, block diagram, and cross sections. It is a granitic gneiss which has been penetrated by a few water wells in Winona and Homer Townships. No radiometric dating has been performed on this gneiss, but it is much older than the Paleozoic rocks, and probably formed between 2,500 million years (m.y.) and 650 m.y. ago. No information is available to describe the geologic events that occurred between the formation of this gneiss and the deposition of the Paleozoic rocks.

In much of early and middle Paleozoic time, the area that is now Winona County lay beneath a shallow ocean. From Late Cambrian (about 525 m.y. ago) until at least Middle Ordovician time (about 460 m.y. ago), many thin but widespread layers of sandstone, shale, and limestone or dolomite accumulated as sediments in this sea. Coarse-grained sandstone was deposited as beaches and offshore sand bars. Very fine grained sandstone, shale, and siltstone formed in quiet shallow

water on nearshore tidal flats (Lochman-Balk, 1971), or less commonly, in deep water offshore. Most of the Upper Cambrian and Lower Ordovician carbonate rocks—limestone and dolomite—are believed to have formed in nearshore tidal flats under stronger waves and currents. The fossil-bearing Middle Ordovician carbonate rocks probably were deposited as limy muds in deeper water farther from shore. By this time, the source areas to the west and north, which provided sediment for the underlying sandstone, shale, and siltstone, had been inundated (Witske, 1980). Ojkanag and Match (1982) describe these rocks and their origin in nontectonic terms.

With the exception of the two lowest formations, all of the Paleozoic units shown on this plate can be seen somewhere in Winona County. Road cuts like those along I-90 west of Dakota, Garvin Heights Road, and Minnesota Highway 14 at Stockton Hill expose some of the most complete sequences of Paleozoic sedimentary strata found anywhere in the state. Many bedrock formations may be recognized by their colors. The characteristic orange-yellow of the iron-stained Jordan Sandstone may be observed along the walls of stream valleys, and the grayish-yellow Onondaga Dolomite forms a blocky-appearing cap rock to many bluffs. The green color displayed by the lower part of the Franconia Formation stands in sharp contrast to the white or light gray of the Ironston Sandstone.

The sedimentary rocks differ in their resistance to weathering and erosion, as indicated by the weathering profile on the lithology part of the geologic column. The units which cover large areas of the map are the most resistant rocks, and are formations of limestone and dolomite which cap plateaus and escarpments. The soft sandstone and shale formations, which are reflected on the map as narrow ribbons of color, are easily eroded and occur as the first bedrock chiefly in the walls of valleys and escarpments.

The youngest of the Paleozoic rocks, the Galena Formation, caps a bedrock plateau that lies farthest down in Saratoga and St. Charles Townships (section B-B'), and progressively older rocks form the first

bedrock up into the Mississippi Valley. The escarpments between the Galena and Plattville plateaus and between the Plattville and the Prairie du Chien Group have eroded toward the southwest or in the general direction of the regional dip. Prior to erosion, the Galena Formation was present in the eastern part of the county. Along the Mississippi River it stood about 200 feet higher in elevation than in Saratoga Township. Retreat of the Galena and Plattville plateaus has exposed the Onondaga Dolomite to erosion. Its escarpment is being eroded by stream drainage and eventually will also retreat toward the southwest.

The bedrock formations are locally warped into broad, gentle swells and swales. The town of Witoka is located over the best known of these structures—a small dome arched upward about 100 feet (section A-A'; Thiel, 1944). However, most local bedrock structures are of such low relief that they are difficult to show, even with the exaggerated vertical scale of the cross sections.

The directions of joints or fractures in the bedrock appear to have influenced or controlled the directions of the stream valleys in the county. The corrosive action of slightly acid ground water in carbonate bedrock enlarges the joints and dissolves cavities in the bedrock. This solution weathering is discussed on Plate 5. Faults are fractures along which movement has occurred. The only known fault in the NE1/4, sec. 18, Dresden Township (Winchell, 1884; Hejz and West, 1982). It exhibits about 15 feet of vertical displacement of the Paleozoic rocks. The age of this faulting is not known, but it must have occurred after the rocks of the Prairie du Chien Group were deposited. Faulting may be associated with local structures, such as the Witoka dome, but this cannot be documented with available data.

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volume: Minnesota Geological Survey, p. 459-473. Hejz, A.V., and West, W.W., 1982. Outlying mineral occurrences related to the Upper Mississippi Valley Mineral District, Wisconsin, Iowa, Illinois and Minnesota. *Economic Geology*, v. 77, p. 1803-1809. Lochman-Balk, C., 1971. Cambrian of the craton of the United States. In Holland, C.H., ed., *The Cambrian of the New World*. New York: Wiley Interscience Series, p. 79-167.

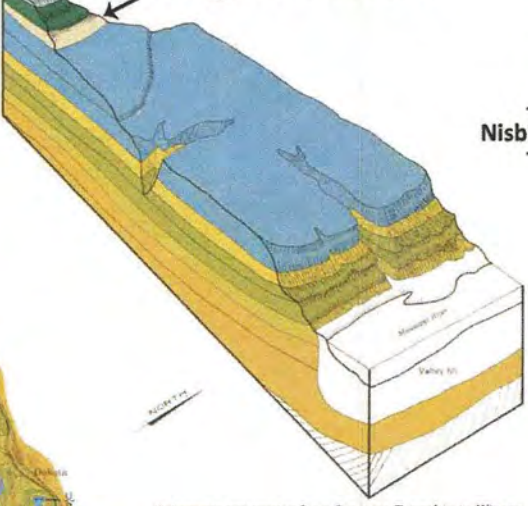
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Sloan, R.E., and Austin, G.S., 1966. *Geologic Map of Minnesota*. St. Paul Sheet: Minnesota Geological Survey, scale 1:250,000. Thiel, G.A., 1944. The geology and underground waters of southern Minnesota. Minnesota Geological Survey Bulletin 31, 506 p.

Webers, G.F., 1972. Paleogeology of the Cambrian and Ordovician strata of Minnesota. In Sims, P.K., and Moray, G.B., eds., *Geology of Minnesota: A centennial volume*. Minnesota Geological Survey, p. 474-484. Winchell, N.H., 1884. The geology of Winona County. Geological and Natural History Survey of Minnesota. Final Report, v. 1, p. 236-267.

Witske, B.L., 1980. Middle and Upper Ordovician paleogeography of the region bordering the Transcontinental Arch, in Fouch, T.D., and Magathan, E.R., eds., *Paleozoic paleogeography of the west-central United States*. Society of Economic Paleontologists and Mineralogists, Rocky Mountain Section, p. 1-18.

Setting of Nisbit Site



Nisbit Mine

MAP SYMBOLS

Contact, approximately located; generally concealed
Fault, approximately located; U, upthrown side; D, downthrown side

SYSTEM SERIES	GROUP OR FORMATION NAME	SYM-BOL	LITHOLOGY	THICK-NESS (feet)	DESCRIPTION
MIDDLE ORDOVICIAN	GALENA FORMATION	Qp	Shale and thin interbeds of limestone. Many shale partings in basal 15-20 feet	60	
	DECORAH SHALE	Qd	Shale and thin interbeds of limestone. Commonly fossiliferous	45	
	PLATTVILLE Fm	Qp	Fine-grained fossiliferous limestone. Sandy shale	20	
	GLENWOOD Fm	Qp	Fine-grained fossiliferous limestone. Sandy shale	4	
LOWER ORDOVICIAN	ST. PETER SANDSTONE	Qp	Fine- to medium-grained, poorly cemented, quartzite sandstone: basal contact minor erosional surface. Upper surface commonly iron crusted. Generally massive and unbedded	90 to 100	
	SHAKOPEE FORMATION	Qp	Thin bedded and medium bedded dolomite with thin sandstone and shale beds. Basal 20 to 30 feet is fine-grained quartzite sandstone. Local red iron staining. Basal contact minor erosional surface	90 to 115	
	ONEOTA DOLOMITE	Qp	Thick bedded to massive dolomite. Some sandy dolomite in basal 10 to 20 feet. Vugs filled with coarse calcite in upper part. Minor chert nodules. Upper part near contact with Shakopee commonly brecciated	160 to 180	
	JORDAN SANDSTONE	Qp	Sandstone. Top 30 feet is thin bedded and well cemented by calcite. Middle part is medium- to coarse-grained quartzite sandstone; generally uncemented and iron stained in outcrop. Basal 35 to 40 feet is very fine to fine-grained sandstone	100 to 120	
UPPER CAMBRIAN	ST. LAWRENCE FORMATION	Qp	Thin bedded dolomite-siltstone. Minor shale partings	50 to 75	
	FRANCONIA FORMATION	Qp	Thin bedded, dolomite-cemented glauconitic sandstone. Very fine to fine grained. Contains minor dolomite beds near base and shale partings throughout	140 to 180	
	IRONTON & GALESVILLE SANDSTONES	Qp	Ironton: Poorly sorted, silty, fine- to medium-grained quartzite sandstone with minor glauconitic. Galeville: Fine- to medium-grained, well-sorted quartzite sandstone	90 to 120	
	EAU CLAIRE FORMATION	Qp	Very fine to fine-grained sandstone and siltstone. Some glauconitic. Interbedded shale	90 to 125	
PRECAMBRIAN	MT. SIMON SANDSTONE	Qp	Fine- to very coarse grained, poorly cemented sandstone. Contains pebbles in basal 20 to 40 feet. Sandstone generally moderately to well sorted. Greenish-gray shale mottled with grayish-red in basal third of formation. Basal contact major erosional surface	290 to 350	
			Blotchy granitic gneiss in eastern part. Poorly known in west		

¹St. Lawrence and Franconia Formations unbedded on map. Symbol: Qp
²Eau Claire Formation and Mt. Simon Sandstone unbedded on map. Symbol: Qp
³Precambrian shown only on sections

- LIMESTONE
- DOLOMITE
- SANDSTONE
- SILTSTONE
- SHALE
- GNISS
- Oolites
- Glauconite
- Iron stain
- Phosphate pellets
- Algal stromatolites
- Fossiliferous
- Worm bored
- Pebbles
- Flat pebble conglomerate
- Cross bedded
- Ripple cross-laminations
- Dolomitic
- Calcareous

4. An independent Traffic Study prepared by Wenck & Associates.

Traffic Impact Analysis for Nisbit Sand Mine

Winona County, MN

Wenck File #2911-01

Prepared for:

TOM ROWEKAMP

DRAFT

Prepared by:

WENCK ASSOCIATES, INC.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
(763) 479-4200

July 19, 2012



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3	Weekday A.M. and P.M. Peak Hour Traffic Volumes.....	9

1.0 Executive Summary

The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.

- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.

2.0 Purpose and Background

The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection. **Figure 1** shows the project location.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Figure 2 shows the proposed haul route for the project. Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.

Traffic Impact Analysis for Nisbit Sand Mine

Winona County, MN

Wenck File #2911-01

Prepared for:

TOM ROWEKAMP

DRAFT

Prepared by:

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July 19, 2012



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1.0 Executive Summary

The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.

- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.

2.0 Purpose and Background

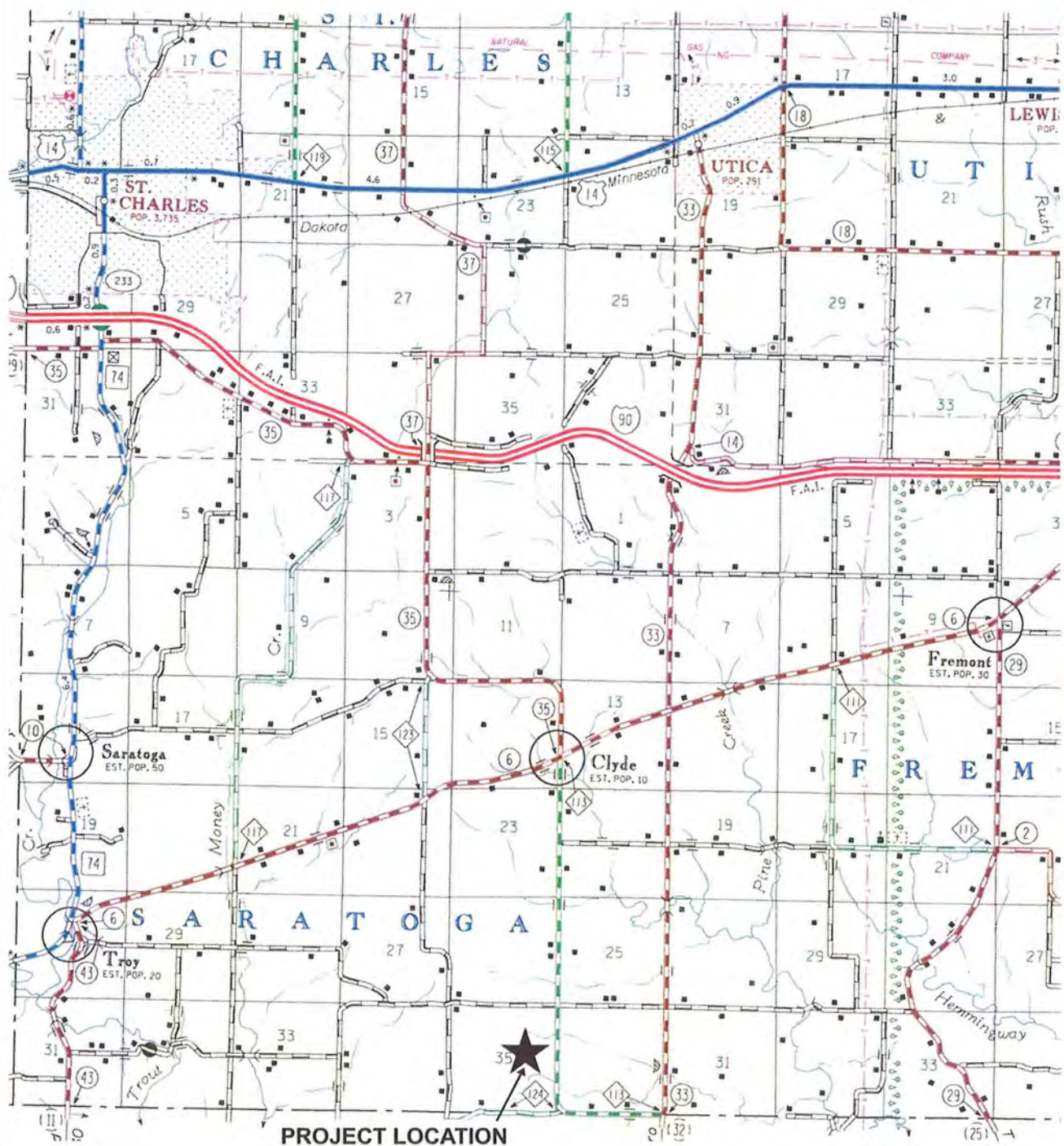
The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection. **Figure 1** shows the project location.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Figure 2 shows the proposed haul route for the project. Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.



PROJECT LOCATION

APPROXIMATE SCALE





3.0 Existing Conditions

The subject site is presently used for farming. CSAH 33 is a two lane rural section roadway which runs north and south. CR 113, CSAH 6, and CSAH 14 are two lane rural section roadways which run east and west and intersect with CSAH 33. T.H. 14 is a two lane rural section roadway which intersects with CSAH 33 in Utica. All of the subject roads have a speed limit of 55 mph. Existing geometrics and traffic control at the subject intersections are described below:

- *CR 113 and proposed access.* This three-legged intersection is uncontrolled. The northbound approach provides one lane shared by left turn and through movements. The southbound approach provides one lane shared by right turn and through movements. The eastbound approach currently serves as a field access.
- *CSAH 33 and CR 113.* This three-legged intersection is controlled by a stop sign on the eastbound CR 113 approach. The northbound approach provides one lane shared by left turn and through movements. The southbound approach provides one lane shared by right turn and through movements. The eastbound approach has one lane shared by right and left turn movements.
- *CSAH 33 and CSAH 6.* This four-legged intersection is controlled by stop signs on the northbound and southbound CSAH 33 approaches. All approaches provide one lane shared by left turn/through/right turn movements.
- *CSAH 33 and CSAH 14.* This three-legged intersection is controlled by a stop sign on the westbound CSAH 14 approach. The northbound approach provides one lane shared by right turn and through movements. The southbound approach provides one lane shared by left turn and through movements. The westbound approach has one lane shared by right and left turn movements.
- *TH 14 and CSAH 33.* This four-legged intersection is controlled by stop signs on the northbound and southbound approaches. The northbound CSAH 33 approach provides one lane shared by left turn/through/right turn movements. The southbound approach is a minor private driveway. The eastbound TH 14 approach provides one left turn/through lane and one dedicated right turn lane. The westbound TH 14 approach provides one left turn/through lane and one through/ right turn bypass lane.

Weekday turning movement counts were recorded on June 28, July 10, and July 11, 2012 during the weekday a.m. (7:00-9:00 a.m.) and p.m. (4:00-6:00 p.m.) peak periods. Daily traffic volume data was recorded at three locations on CSAH 33 during the week of July 9, 2012. This data is presented later in the report.

4.0 Traffic Forecasts

As indicated earlier, the proposed project is expected to be operating later this year. Traffic forecasts and analyses have been completed for the year 2014 in order to account for the proposed project and other potential projects in the area. Weekday a.m. and p.m. peak hour traffic forecasts were developed for the subject intersections for the 2012, 2014 No-Build, and 2014 Build scenarios. Each of these scenarios is described below.

- *Existing (2012).* Weekday a.m. and p.m. peak hour traffic volumes for this scenario were established based on peak period traffic counts.
- *2014 No-Build.* To account for natural background traffic growth, existing volumes at the subject intersections were increased by 1.0 percent per year. Review of historic count data shows that volumes have actually decreased in the recent past. To be conservative, we have chosen to include growth at 1.0 percent per year.

In addition to the background growth, trips generated by proposed Yoder and Dabelstein sand mines were also added. Information on the number of trips for these mines was obtained from County staff. Trips from these mines will use CSAH 6 and will travel through the CSAH 33/CSAH 6 intersection.

- *2014 Build.* Volumes due to the proposed project were added to the 2014 No-Build volumes to establish 2014 Build volumes.

Trip Generation

The expected number of trips is based on the maximum number of truckloads produced by the mine. As described earlier, the mine is expected to generate a maximum of 140 truckloads of sand per day and an average 80 truckloads per day. We have based the traffic forecasts on the maximum loads per day to account for the worst case scenario.

Mining operations are proposed to occur from 7 a.m. to 6 p.m. This equates to an average of 13 loads per hour. Each truck must leave the site and return to the site, resulting in 13 entering truck trips and 13 exiting truck trips per hour. Over the course of an entire day the mine will generate 140 entering and 140 exiting truck trips.

Traffic Volumes

The trips generated by the mine were assigned to the roadway system according to the proposed haul route shown in Figure 2. The resultant a.m. and p.m. peak hour volumes are shown in Figure 3,

Daily traffic volume data was also included in the traffic forecasts. The existing and 2014 daily traffic volumes on CSAH 33 are shown in Table 1.

Table 1
Weekday Daily Traffic Volumes on CSAH 33

Location	2012	2014 No-Build	2014 Build
Between CR 113 and CSAH 6	325	330	610
Between CSAH 6 and CSAH 14	405	415	695
Between CSAH 14 and TH 14	575	585	855

WEEKDAY PM PEAK HOUR



FIGURE 3

WEEKDAY AM AND PM PEAK HOUR VOLUMES

5.0 Traffic Analyses

Intersection Level of Service Analysis

Traffic analyses were completed for the study intersections for the 2012, 2014 No-Build, and 2014 Build conditions during the weekday a.m. and p.m. peak hours using Synchro analysis software. Existing geometrics presented earlier were used for the initial analyses for the subject intersections.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.
- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection. For most agencies in Minnesota, level of service D represents the minimal acceptable level of service for regular daily operations.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized

intersection at this level.

- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The forecasted traffic volumes for each scenario were analyzed using the existing geometry and intersection control. The LOS results for the study intersections are discussed below.

CR 113 and proposed access. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CR 113. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 6. During the weekday a.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better. During the weekday p.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 14. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

TH 14 and CSAH 33. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS B or better under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

Sight Distance Review

The available sight distances along the proposed haul route were reviewed to determine if any issues exist. Depending on the location, either the intersection sight distance or the stopping sight distance was reviewed. Information contained in the American Association of State Highway and Transportation Officials (AASHTO) publication "A Policy on Geometric Design of Highways and Streets" was used for the sight distance review.

Intersection sight distance is provided to allow drivers to perceive the presence of potentially conflicting vehicles when entering an intersection. Stopping sight distance is the length of roadway ahead that is visible to the driver. Existing sight distance information was measured at each intersection analyzed along the haul route. This information was compared to the requirements as listed in the AASHTO publication. The results of this review are shown below.

CR 113 and proposed access. Loaded trucks exiting the site will turn right onto CR 113 to travel south and east to CSAH 33. At this location, drivers must be able to see vehicles arriving from the north. The sight distance looking to the north is approximately 1,580 feet. The intersection sight distance requirement for a truck turning right from a stopped condition is 849 feet. Therefore adequate sight distance is provided at this location.

Empty trucks entering the site will turn left from CR 113 onto the access drive. Trucks traveling north on CR 113 have clear sight of the access from approximately 800 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location.

CSAH 33 and CR 113. Loaded trucks will turn left onto CSAH 33 from CR 113. At this location, drivers must be able to see vehicles arriving from the north and the south. The sight distance looking to the north and looking to the south is approximately 600 feet. The intersection sight distance requirement for a truck turning left from a stopped condition is 930 feet. Therefore the sight distance at this location is less than the required distance.

AASHTO provides additional guidance for low volume roads in the publication "Guidelines for Geometric Design of Very Low-Volume Local Road ($ADT \leq 400$)". Since the average daily traffic (ADT) volume at this location is approximately 325, this document was reviewed for further guidance. This document states that under ideal conditions the requirement listed in the Policy on Geometric Design of Highways and Streets should be met. However, under constrained conditions, the distance should be at least equal to the stopping sight distance as listed in the Low Volume Road document. This requirement is listed at 405 feet. Both the sight distances of 600 feet exceed this requirement.

Due to the very low volumes at this location, physical improvements to the roadway to increase the sight distance are not justified. Based on the existing conditions at this location and the

number of trucks turning left, we recommend additional advanced warning on CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed on both northbound and southbound CSAH 33 to warn motorists of trucks entering the roadway. The recommended sign legend will have the legend "Trucks Entering Ahead, will be black on orange, and will be 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

Empty trucks will turn right from CSAH 33 onto CR 113. Trucks traveling south on CSAH 33 have clear sight of the access from approximately 600 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location.

CSAH 33 and CSAH 6. Loaded trucks will cross over CSAH 6 to continue traveling north on CSAH 33. At this location, drivers must stop and be able to see vehicles arriving from the east and west. The sight distance looking to the east and looking to the west is approximately 700 feet. The intersection sight distance requirement for a truck crossing from a stopped condition is 849 feet. Therefore the sight distance at this location is less than the required distance.

Empty trucks will also cross CSAH 6 and continue south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

Due to the very low volumes at this location, physical improvements to the roadway to increase the sight distance are not justified. Based on the existing conditions at this location and the number of trucks crossing, we recommend additional advanced warning on CSAH 6. While the mine is operational and trucks are hauling, additional signs should be installed on both eastbound and westbound CSAH 6 to warn motorists of trucks crossing the roadway. The standard sign for this situation is sign number W8-6 as described in the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD). The sign will be black on orange and 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

CSAH 33 and CSAH 14. Loaded trucks will pass through this intersection to continue traveling north on CSAH 33. Vehicles on CSAH 14 are required to stop at this location. At this location, drivers on CSAH 14 must stop and be able to see vehicles arriving from the north and south. The sight distance looking to the north is approximately 1,200 feet and looking to the south is approximately 1,350 feet. The intersection sight distance requirement for a passenger vehicle turning left a stopped condition is 606 feet. Therefore adequate sight distance is provided at this location.

Empty trucks will also pass through this intersection to continue traveling south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

A worst case scenario would require a truck on CSAH 33 to come to a stop at this location. The required stopping sight distance in the northbound direction is 520 feet due to the downgrade. In the southbound direction the required stopping sight distance is 495 feet. The available sight distances in both directions are greater than these requirements.

TH 14 and CSAH 33. Loaded trucks will turn right onto TH 14 to travel east to Winona. At this location, drivers must stop and be able to see vehicles arriving from the west. The sight distance looking to the west is greater than ½ mile (2,640 feet). The intersection sight distance requirement for a truck turning right from a stopped condition is 849 feet. Therefore adequate sight distance is provided at this location.

Empty trucks entering the site will turn left from TH 14 onto CSAH 33. Trucks traveling west on TH 14 have clear sight of the intersection from approximately 1,600 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location. In addition, a westbound bypass lane exists at this intersection, which will assist in the overall intersection operations.

6.0 Conclusions

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.
- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.

- 5. Letters of Authorities including**
 - a. Agreement between Nisbit's and IT Sands dated May 29, 2012**
 - b. Letter from Ryan and Grinde, LTD certifying mineral rights for the Nisbit's**

AGREEMENT

This agreement dated this 21 day of May, 2012 is by and between David Nisbit and Sherry Nisbit, husband and wife (hereinafter "Nisbit") and IT Sand LLC, a Minnesota Limited Liability Company (hereinafter "LLC")


Whereas, Nisbit is the owner of the Southwest quarter of the Northeast Quarter (SW/4 of the NE/4) of Section Thirty-Five (35), Township One Hundred five (105) North, Range Ten (10) West, Winona County, Minnesota; and

Whereas, LLC wishes to excavate, remove and purchase sand from approximately 19 acres located within the Southwest Quarter of the Northeast Quarter (SW/4 of NE/4) of said Section Thirty-five (35);

Whereas, Winona County requires submittal of Proof of Authority signed and notarized by each party authorizing said agent to act on the owner's behalf in seeking Conditional Use Permits.


Now therefore, Nisbit has agreed to allow LLC to seek a Winona County Conditional Use Permit to excavate, remove and purchase sand from a portion of the said parcel and furthermore to excavate, remove and purchase sand from a portion of the land in accordance with all permits and approvals and based upon all other payments and conditions as agreed under the mining contract.

IT Sand LLC

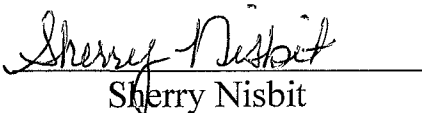


David Nisbit

By:

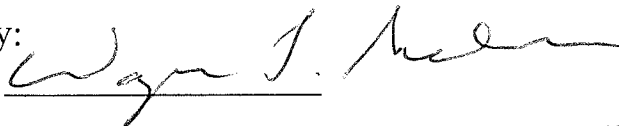


Its: CEO

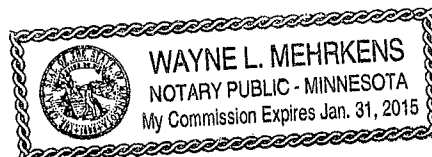


Sherry Nisbit

Notary:



5-27-12



Sincerely,
Ryan & Grinde, Ltd.



Wayne L. Mehrkens
Attorney at Law

WLM/rjh

cc: David & Sherry Nisbit

RYAN & GRINDE, LTD.
ATTORNEYS AT LAW

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6/7/2012

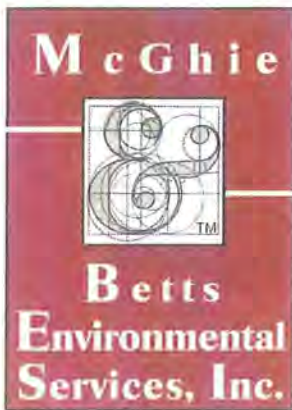
Winona County
Winona County Planning & Environmental Services
177 Main Street
Winona MN 55987

Re: David & Sherry Nisbit

Dear Sir or Madam:

I represent David and Sherry Nisbit and have examined the Abstract of Title No. 19857 to the SW¼ of the NE¼ and the SE¼ of NW¼ of Section 35, Township 105 North, Range 10 West excepting therefrom that part of the SE¼ of NW¼ of said Section 35 described as follows: Commencing for a point of beginning at the Southwest corner of said SE¼ of the NW¼; thence East along the South line of said SE¼ of the NW¼ a distance of 758 feet; thence North parallel with the West line of said SE¼ of the NW¼ a distance of 287 feet to a point; thence West parallel with the South line of said SE¼ of the NW¼ a distance of 758 feet to the West line of said SE¼ of the NW¼; thence South along the West line of said SE¼ of the NW¼ a distance of 287 feet to the point of beginning.

The Nisbit's have entered into an agreement regarding the excavation and removal of frac sand from their property. My understanding is that the County is concerned about the potential for other individuals owning the mineral rights to the property. This abstract is certified through August 29, 2005 at 7:00 a.m. The Nisbit's acquired the property through Warranty Deed on February 5, 1998, recorded on February 6, 1998 as Document No. 404321. There are no documents contained in the abstract through the date of certification either severing the mineral rights from the fee title or reserving the mineral rights by any of the previous grantors. If you need additional information, please advise.



Rochester
Minnesota

Environmental Site
Investigations, Management
& Design

Asbestos, Lead, & Other
Hazardous Materials

Wetland Delineation
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Indoor Air Quality

Geological Hazards

UST & Spills

Environmental
Assessment Worksheet
& Impact Statements

VIC (Voluntary Investigation
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May 28, 2013

Mr. Wayne Valentine, Chairman
and
Winona County Board of Commissioners
177 Main St
Winona, MN 55987

Via email.

Re: Nisbit mine Conditional use permit (CUP)

Dear Chairman Valentine and Commissioners:

In accordance with the authorization of David Nisbit and Tom Rowekamp we are submitting this letter and supporting information requesting that the Conditional Use Permit application for the David Nisbit mine be placed on the June 4 agenda. Mr. Rowekamp is now facing a critical demand for dairy bedding sand due to the recent depletion of the Potter pit in Utica Township and he is hopeful that the County Board will follow the recommendation of the Planning Commission and grant the CUP with the proposed conditions.

Mr. Rowekamp has visited with the Planning Staff to discuss the phasing adjustments we proposed to minimize wind erosion and changes to the seed mixes that were proposed by the Minnesota Department of Natural Resources. In addition we have proposed a counter offer for the Winona County Road Use Fee. We have detailed all these elements below.

Phasing:

The original phasing and stages of the Nisbit mine proposed two Phases based on depth. Within each Phase the staging moved the working face for Phase I from east to west and the stages for Phase II moving from west to east. We have proposed changing the staging as a means to minimize wind erosion of the working area.

The purposed Phase and staging keeps the Phase limits but changes the staging to first mine Phase I along the south side as stage 1 and then mining the north side as stage 2 while performing temporary restoration of stage 1. (See attached Figures). Phase 2 is also the same but similarly the staging will mine the south half completely before moving to the north half. Below are the steps proposed for the new staging:

1. Land clearing and development of the berm and swale around Phase I, stage 1, stockpiling overburden on the northwest corner of stage 2.
2. Mine Phase 1 stage 1 developing a 24-foot tall east-west trending, south facing working face. This configuration allows the NW wind to blow over the working face area and the SW winds to blow against the working face, both features minimize the wind erosion.
3. Temporary restoration of Phase 1, stage 1 by placing overburden soils and re-seeding outside of the areas used for roads and operations with MnDOT seed mix 240.

4. Land clearing of Phase 1, stage 2, using the overburden to create a perimeter berm and stockpile remaining materials for future restoration.
5. Mining of Phase I stage 2.
6. Temporary restoration of Phase I stage 2 with seed mix MnDOT 240.
7. Land clearing of Phase 2 stage 1 moving overburden to perimeter berms and stockpiles on the south.
8. Mine Phase 2. Stage 1 leaving an east-west trending, south facing working face.
9. Final restoration of Phase 2 stage 1 using MnDOT seed mixes 330 and 340.
10. Land clearing for Phase 2, stage 2
11. Mining Phase 2, stage 2
12. Final restoration using MnDOT seed mixes 330 and 340. .

Seeding:

We concur with the DNR comments for the EAW recommended alternative seed mixes for the final restoration.

The temporary restoration for Phase I stage 1 and 2 and Phase 1 stage 1 will use MnDOT seed mix #240 that is appropriate for stabilization. The final restoration will utilize seed mixes MnDOT 330 and 340 native prairie mixes for sandy/dry soils. The new seeding plan is designed to create sand prairie grassland as the final restoration.

Road Use Agreement:

In accordance with the proposed Winona County Conditional Use Permit the applicant is required to enter into a road use agreement for the County Roads designed to assess and recoup the cost of any road damage. Various methods of defining the costs to an applicant have been reviewed by the Local Road Research Board (LRRB) (see attached).

Proposals for road use fees have ranged from having no additional fees because truckers pay taxes for public roads that are designed, operated and maintained to support commerce, to the State Aggregate Material Removal Production Tax (MS 298.75) that allow an aggregate fee of \$0.15/ton (MS 298.75 Subd 2) to be split between local jurisdictions (MS 298.75 Subd 7) to the County Engineers proposal of requiring \$0.225/ton-mile for travel on Winona County Roads. All of the fee proposals single out industrial silica sand mining even though other haulers also cause road damage without having to apply a fee.

In the Winona County Engineer's presentation to the County Board Mr. Kramer cited the LRRB outline for recognizing and assessing the costs for road damage. The LRRB described four methods to define the fees.

1. per-use fees
2. blanket haul route fees
3. calculating the charge based on Equivalent Single Axle Loads (ESAL's)
4. Pre- and post construction assessments the County Engineer has proposed using the ESAL calculator.

The County Engineer has proposed relying on the third option, calculating a charge based on EASL's, a predictive model that the applicant does not feel takes into adequate consideration the existing condition of the roads or the other road users who do not have to pay added fees. Because the CUP requires a road use agreement the applicant has been advised to make a fee proposal to the County.

The applicant is proposing an alternative method that combines the pre-and post-construction assessments and an obligation to pay the actual costs of road damage during the life of the mine, plus adding a fee of \$0.60/ton paid to the County to cover the future costs for road re-construction. This proposal keeps the roads serviceable during the mine at the expense of the mine operator plus pays a blanket haul route fee that is four times the amount specified in the State Aggregate Production Tax.

We are asking that the County Board accept our proposed fee arrangement so that an agreement with Winona County can be completed once a Conditional Use Permit is issued for the Nisbit mine.

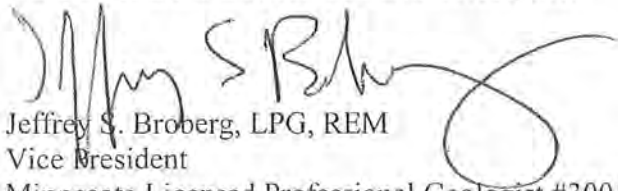
Conclusion:

On behalf of David and Sherry Nisbit and Tom Rowekamp we are asking that the County Board place the Nisbit CUP on the agenda for the June 4 meeting. We are also asking that the County Board accept the recommendation of the Planning Commission to approve the permit with the proposed Conditions, subject to the changes we have proposed in this letter.

Thank you for your consideration during this arduous process.

Sincerely:

McGhie & Betts Environmental Services, Inc.



Jeffrey S. Broberg, LPG, REM

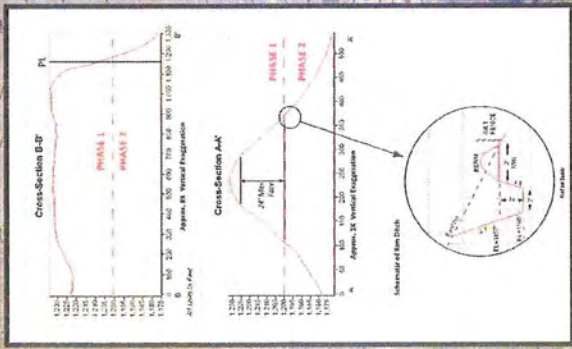
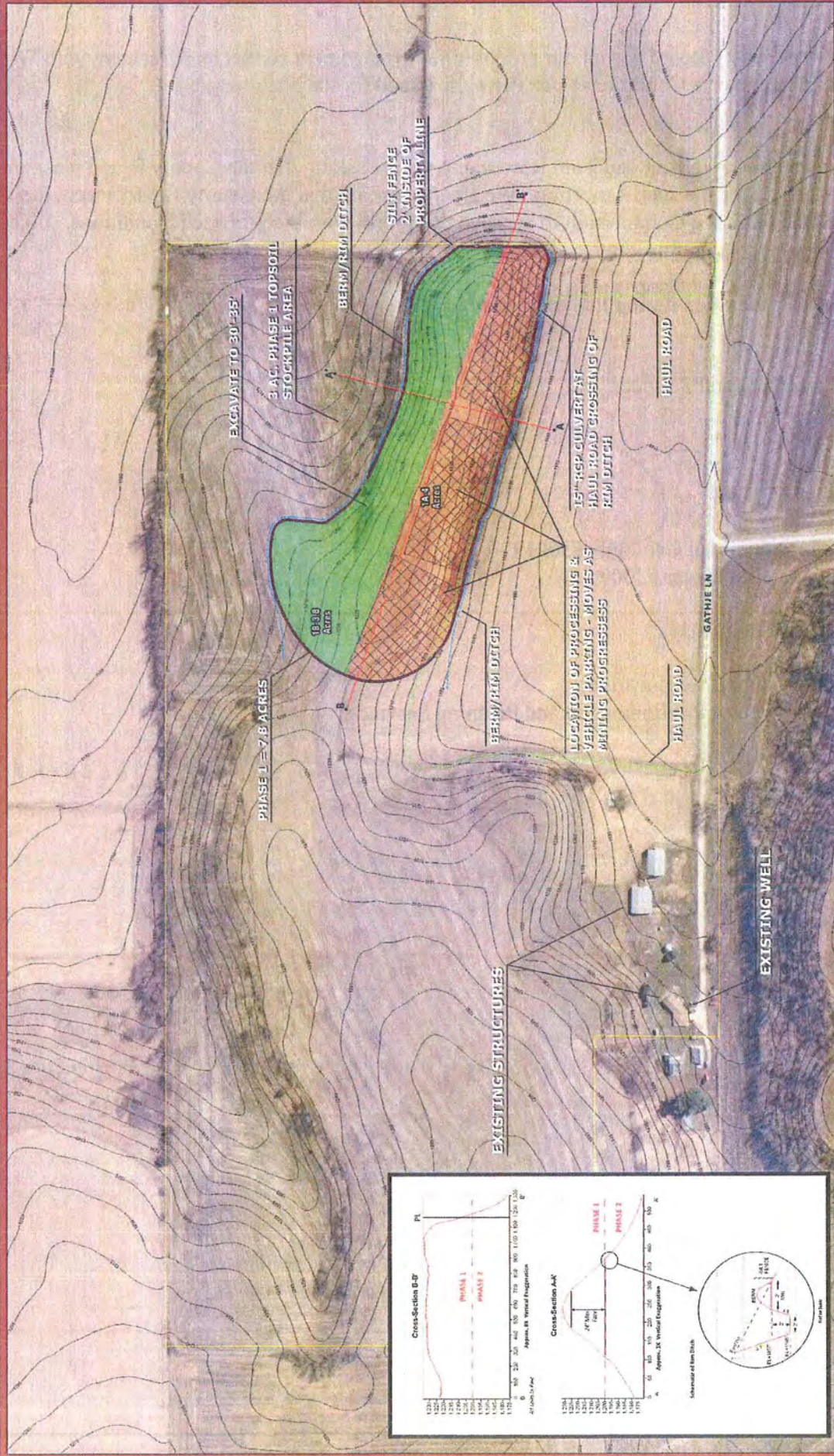
Vice President

Minnesota Licensed Professional Geologist #30019

Registered Environmental Manager #3009

Attachments: Phase and stage maps

Cc: Duane Hebert, County Administrator
Jason Gilman, Director Environmental and Planning Services.



MAP LEGEND

- Haul Road
- 5 Foot Contour Interval
- Phase 1 Boundary (7.2 ac)
- Nisbit Property
- Vehicle Parking & Storage Area

PROJECT LOCATION

Scale 1" = 100'

Map No. 0803

North Arrow

Scale 0 100 200 Feet

Map Title Sand Mine Phase 1

Client Nisbit Property

Location Saratoga Township, SW 1/4 of the NE 1/4 S35, T105N R10W, Winona County

Scale 1" = 100'

Map No. 0803

Map Legend

- Haul Road
- 5 Foot Contour Interval
- Phase 1 Boundary (7.2 ac)
- Nisbit Property
- Vehicle Parking & Storage Area

Map Title Sand Mine Phase 1

Client Nisbit Property

Location Saratoga Township, SW 1/4 of the NE 1/4 S35, T105N R10W, Winona County

Scale 1" = 100'

Map No. 0803

Map Legend

- Haul Road
- 5 Foot Contour Interval
- Phase 1 Boundary (7.2 ac)
- Nisbit Property
- Vehicle Parking & Storage Area

Map Title Sand Mine Phase 1

Client Nisbit Property

Location Saratoga Township, SW 1/4 of the NE 1/4 S35, T105N R10W, Winona County

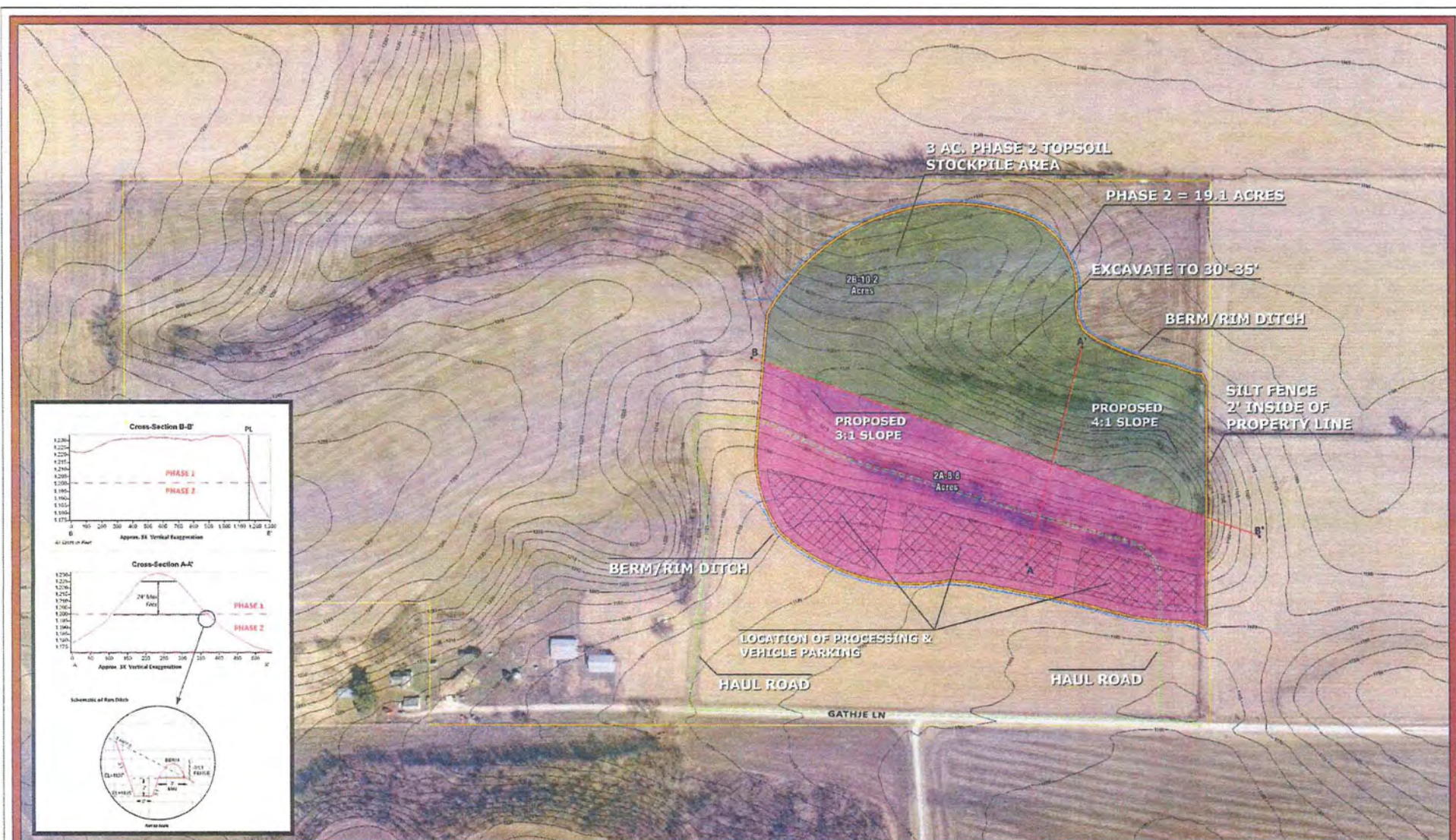
Scale 1" = 100'

Map No. 0803

Map Legend

- Haul Road
- 5 Foot Contour Interval
- Phase 1 Boundary (7.2 ac)
- Nisbit Property
- Vehicle Parking & Storage Area

Map Document B1 - Phase 1 Proposed Operations



Map Document B2 - Phase 2 Proposed Operations

Phase II

HAUL ROAD

Land Surveying
Urban-Land Planning
Consulting - Civil
Engineering
1649 Third Ave. S.E.



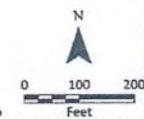
Geotechnical
Engineering
Construction
Material Testing
Landscape
Architecture
Tel. 507 281 1919
Fax. 507 281 7333
email: info@mcgchiebets.com

Sand Mine Phase I
Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W
Winona County
Scale: 1" = 100'
Date: 5/28/13

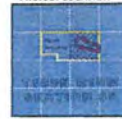
Ref Scale: 1:1250
Map By: DMR

MAP LEGEND

- Haul Road
- 5 Foot Contour Interval
- Rim Ditch & Berm
- Phase 1 Boundary (19.07ac)
- Nisbit Property
- Vehicle Parking & Storage Area



PROJECT LOCATION

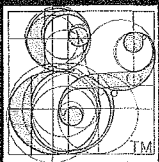


Fugitive Dust Control Plan

IT Sands, LLC
Utica, MN
Winona County

MBESI#: Y7987/Y12429

M c G h i e



Betts
Environmental
Services, Inc.

March 2013

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APPENDIX 1 – IT Sand, LLC Nisbit Mine – Phase 1 Fugitive Dust Emission Sources

1.0 INTRODUCTION

I.T. Sand LLC (IT Sand) has proposed this plan in accordance with best management practices from the Mine Safety and Health Administration (MSHA) industry standards. The Nisbit Mine is a small scale short duration project that will mine and process material at a rate less than 150 tons/hour, below the threshold requiring a State Air Permit from the Minnesota Pollution Control Agency.

This plan has been developed to control emissions from drilling and blasting, backhoe operation, bulldozing, outdoor sand piles, outdoor material handling, crushing, truck loading, truck hauling and employee vehicle traffic at the proposed mine site. Compliance with the control of particulate emissions will be maintained by IT Sand through regular observations of fugitive dust conditions attributable to IT Sand's activities and application of reasonable mitigation measures. At daily intervals, and upon receiving a complaint, IT Sand will investigate fugitive dust conditions. IT Sand's observation of fugitive dust conditions and valid dust complaints are to be addressed by reasonable and appropriate mitigation measures. IT Sand shall record its observations and mitigation measures, as well as any complaints received and mitigation measures taken in response to such complaints.

The designated on-site contact for purposes of compliance with this Plan is listed below:

Mr. Ivie Popplewell
Operations Manager
IT Sand LLC
Phone: (507) 458-2696

It is assumed that the mining and fugitive particulate emissions control season is approximately March 15th through November 21st of each calendar year, and also during non-freezing weather conditions during the remainder of the calendar year.

2.0 FUGITIVE PARTICULATE EMISSIONS SOURCES

Sources of fugitive particulate emissions at the mine and processing facility include drilling and blasting, backhoe and bulldozer operation, rock breaking, outdoor sand storage piles, uncontrolled material handling and transfer, crushing, and vehicle traffic on the unpaved roads. Fugitive dust will be controlled in order to prevent significant exposure of particulate matter to the general public. The sources of fugitive particulate emissions are described in this section.

2.1 Drilling and Blasting

In situations where the sand-bearing geological formation at the mine is covered with limestone and shale rock overburden is tightly cemented, it may be necessary to utilize drilling and blasting to make the sand accessible and more amendable to removal. Blasting, using an explosive agent, may be conducted during the mining season in accordance with the limitations in the Conditional Use Permit (CUP). Fugitive emissions will be generated for short periods of time during the drilling and blasting activities.

2.2 Backhoe and Bulldozing Operations

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction.

2.3 Rock Breaking

It may be necessary for IT Sand to utilize a rock crusher in order to break up the large chunks of rock at the mine prior to loading and hauling sand from the facility. The rock crusher will be mobile and can be moved by a front-end loader and moved as necessary around the current phase of the mine. Fugitive emissions will be generated during the operation of the rock breaking activities. The equipment utilized will have shield and covers to contain the dust. Water mist equipment will be utilized when warranted.

2.4 Sand Storage Piles

There are three outdoor sand and rock storage piles at the Nisbit mine site. The excavated sand from the mine can be stockpiled in a storage pile located at the mine. This stockpile will contain approximately 20,000 cubic yards of raw materials which is fed into a pre-screening and crushing unit. The pre-screening and crushing unit generates two small stockpiles (roughly 3,500 cubic yards each) which are the piles we will be loading off of for transport to other locations for further processing.

2.5 Uncontrolled Material Handling and Transfer

Material handling and transfer operations with the potential to generate fugitive particulate emissions include transfer to sand via front-end loaders and the conveyance of sand from one piece of equipment to the next (covered conveyors, belts, feeders, etc.). Because the natural moisture content of the sand will be approximately 2 percent, fugitive emissions from the transfer points are anticipated to be very minimal based on information outlined in *US Environmental Protection Agency's AP-42, Compilation of Air Pollutant Emission Factors, Chapter 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing* which discusses the processing of wet and damp sand.

2.6 Jaw Crusher Equipment

The sand deposit being mined is composed of agglomerated grains of sand. The majority of this material is broken down to individual grains of sand during blasting, excavation or by the feeder. IT Sand may utilize a shielded jaw crusher to further deagglomerate this material. The crusher may generate fugitive particulate emissions; although significant emissions are not anticipated based on the natural moisture content of the material and the shielding on the equipment.

2.7 On-Site Vehicle Traffic Traveling on Unpaved Roads

All roads at the facility will be unpaved crushed rock and recycled bituminous. These roads include the haul road from the mine to CR 113, the front-end loader routes, operational areas, the product loadout and the employee traffic road.

Included in Appendix 1 is a site-layout illustrating the various sources of fugitive emissions as described above.

3.0 CONTROL MEASURES FOR FUGITIVE PARTICULATE EMISSIONS

The primary control measures for fugitive particulate emissions from various IT Sands fugitive dust sources are described in this section.

3.1 Drilling and Blasting

IT Sand will conduct short duration drilling and blasting periodically during the mining season. Drilling will be conducted with drill rigs equipped with a wet suppressor that wets the drill cuttings. Blasting activities will be instantaneous and will generate a relatively small source of fugitive emissions.

3.1.1 Emission Control

For fugitive dust control during blasting, the space in the shot hole between the explosive and the top of the hole will be filled with clay earth stemming material. Stemming material is a soil material used to backfill a hole for the purpose of containing the explosive energy. The stemming material also acts to minimize fugitive emissions from the blast. The drilling equipment used at the mine will be equipped with a wet suppression system or other equivalent control. Additionally, the natural moisture content of the sand will aid in minimizing fugitive emissions.

3.2 Backhoe and Bulldozer Operation

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction. Emissions from these operations are not expected to be significant.

3.2.1 Emission Control

The natural moisture content of the sand and/or overburden serves as the best control for backhoe and bulldozer operations. If necessary, additional dust control will occur through use of watering techniques.

3.3 Rock Breaking

IT Sands may utilize a rock breaker in order to break up the large chunks of rock at the mine prior to processing in the facility. The rock breaker will be mobile equipment that can be moved with a front-end loader. This equipment will be utilized and moved as necessary around the current phase of the mine. Fugitive emissions from this operation are not expected to be significant.

3.3.1 Emission Control

The natural moisture content of the sand services as the best control for rock breaking operations. If necessary, additional dust control will occur through the use of watering techniques.

3.4 Sand Storage Piles

IT Sands stores sand in outdoor piles throughout the year. Sand is transferred to and from the storage piles by front-end loaders and enclosed elevators. The natural moisture content of the three piles is greater than two percent moisture. If these sand piles should drop below 2 percent moisture the piles will be watered down to ensure moisture content stays above 2 percent. Wind erosion of soil surrounding the sites and the wind erosion of the temporary stockpiles is anticipated to be the largest source of fugitive emissions from the site.

3.4.1 Emission Control

Wind erosion is minimized when the exterior of the pile is kept damp. The natural moisture content of the sand will aid in reducing fugitive dust emissions. Additionally, it is estimated that there are over 105 days that are naturally defined “wet” (an average number of days with precipitation greater than or equal to 0.25 mm or 0.01 inches based on precipitation data) at the location of the mine. During exceptionally dry periods or upon any significant amounts of fugitive dust, the sand piles will be watered to minimize the effect of wind erosion. An exception will be made for freezing conditions that would present a safety hazard to workers or vehicles.

In accordance with MPCA procedures, IT Sands will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. Visible emissions do not signal non-compliance with applicable requirements, but visible emissions over 10 percent will trigger additional watering of the piles.

3.5 Material Handling and Transfer

Materials will be transported from the mine and storage piles via shielded and covered feeders, belts, conveyors, etc. Material handling and transfer points are not anticipated to result in significant emissions as the natural sand moisture content will be 2 percent or greater.

3.5.1 Emission Control

The natural moisture content of the sand serves as the best control for material handling operations. If required for opacity limitations, additional dust control will occur through use of water or suitable chemicals.

Additionally, as a preventative measure, IT Sands will clean up spills of commodities on the facility property to reduce fugitive particulate emissions. It should also be noted that 40 CFR Part 60, Subpart OOO (NSPS OOO) applies to the conveyors and other transfer equipment following the crusher and therefore will be subject to opacity limits as defined by the rule.

3.6 Jaw Crusher

Before being processed in the facility cemented sand that was not disaggregated by the blasting or excavation will be passed through a feeder then a jaw crusher. The crusher, operating at a rate under 145 tons/hour will be a source limited fugitive emissions. Shielding and covers on the equipment will be permanent fixtures on the equipment. Water misting will be used as necessary.

3.6.1 Emissions Control

The crusher will process sand at or near the moisture content at which it was mined. Additionally, the crusher will only deagglomerated the sand. No actual “crushing” of the sand grains will occur. Therefore, no new “dry” surfaces will be exposed during the process. Although it is anticipated that the natural moisture content of the material will be sufficient to prevent fugitive dust emissions, a water spray system to control fugitive dust emissions during loading, conveying, and crushing to minimize visible emissions will be utilized, if necessary.

It should also be noted that NSPS OOO applies to jaw crusher that processes more than 150 tons/hour, and therefore rates of processing exceeding 150 tons/ hour will be subject to opacity limits as defined by the rule.

3.7 On-Site Vehicle Traffic Traveling on Unpaved Roads

All roads at the facility will be unpaved and the surfaces of the roads are composed of sand. Truck and heavy equipment traffic over these surfaces is the main sources of fugitive dust from the unpaved roads. Three vehicle routes contribute to the fugitive emissions. The facility will utilize tarp covered haul trucks to transfer sand from the mine to the processing plant. The route of the haul truck out of the mine will be dependant on the current phase of the mine. There will also be two main front-end loaders at the mine, along with an employee and product loadout route into and out of the mine.

3.7.1 Emission Control

In order to reduce emissions from unpaved haul roads that connect to CR113, IT Sand has proposed the application of water to control these emissions from the site. This is a standard method for controlling air emissions from these types of sources and requires watering every 3 hours during dry periods.

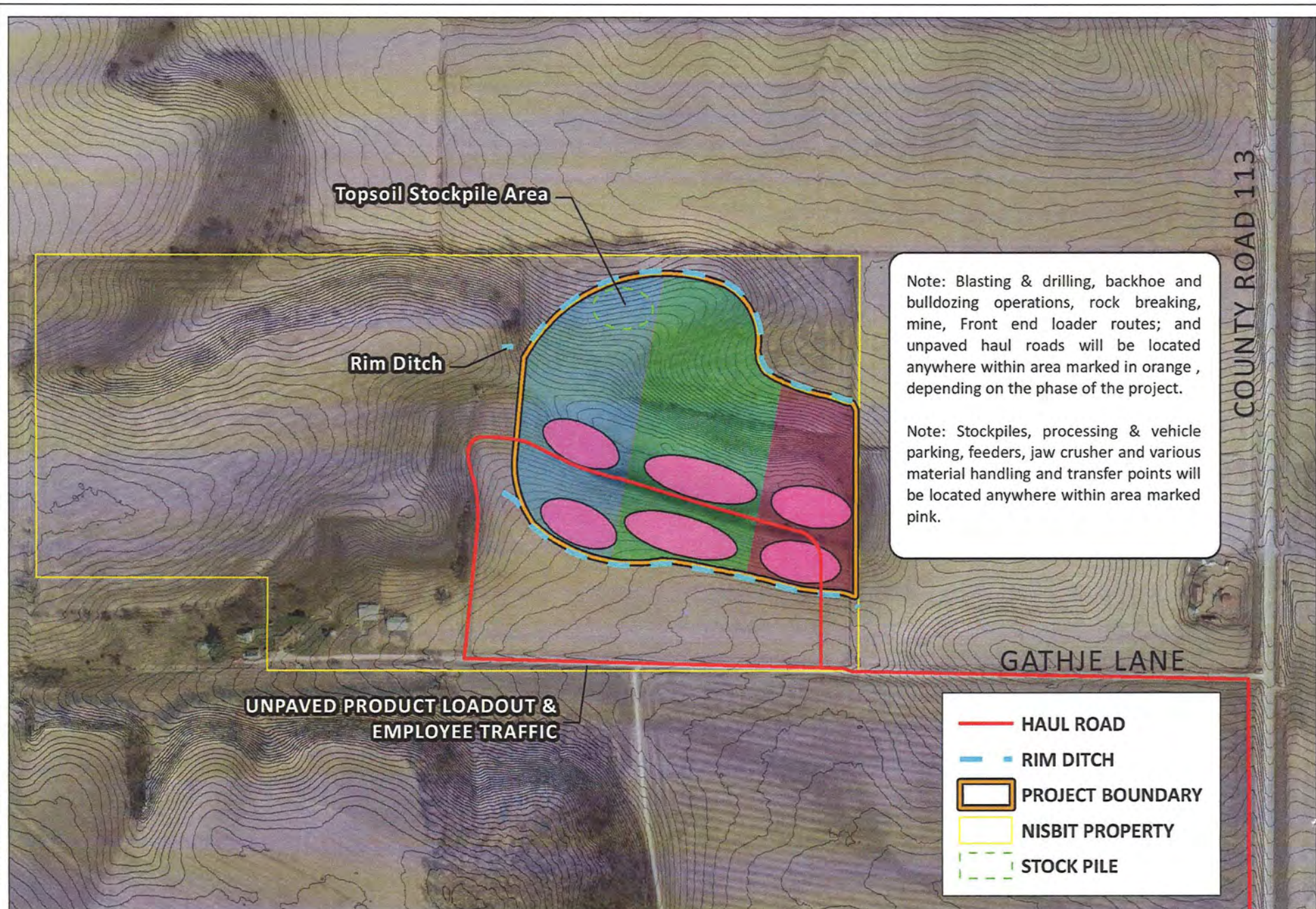
The control efficiency of watering is dependant on the vehicle traffic on the route, the intensity of the application of the water and the frequency of the watering. In order to achieve the appropriate control efficiencies for permitting purposes, it will be necessary for the facility to water the main haul truck route and the front-end loader routes at the mine and the processing facility three or four times per day. The product loadout and employee traffic route will need to be watered once per week. All routes have been proposed at an application intensity of 0.10 gallon per square foot. It is also proposed that any precipitation of greater than 0.16 inches will substitute for one day of watering. This precipitation will be measured using local national weather service data or an on-site rainfall gauge. In addition, in accordance with MPCA procedures, IT Sand will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. If visible emissions are observed, the facility will investigate the condition and take appropriate corrective actions to reduce the visible emissions. Visible emissions do not signal non-compliance with applicable requirements, but visible emissions over 10% will trigger additional watering of the roads. The observation of fugitive emissions could trigger additional watering - over and above the levels identified above.

To demonstrate compliance with this procedure, IT Sand will be required to maintain records of watering frequency and intensity. IT Sand will keep daily records of water truck use and documentation of meteorological conditions. As noted above, watering will not occur on “wet” days (>0.16 inches of precipitation) unless visible emissions from the roads are observed to be above 10% by the visible emissions reader or on days that unpaved roads are not being used (e.g. occasional and seasonal mine closures).

4.0 RECORDKEEPING

IT Sand will maintain records to demonstrate compliance with this fugitive dust control plan. Mitigation measures will be taken as needed in order to prevent avoidable amounts of particulate matter from becoming airborne.

If fugitive dust complaints are received, IT Sand will investigate the merit of the complaint, and take appropriate and reasonable measures as soon as practical. IT Sand will keep a record of complaints received and mitigation measures taken.



APPENDIX 1 - IT SAND, LLC NISIBIT MINE FUGITIVE DUST EMISSION SOURCES

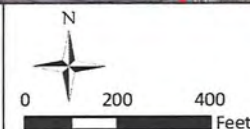
GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards
Environmental
Assessment Worksheet
& Impact Statements

McGhee
B E E S
Environmental
Services, Inc.

Environmental Site
Investigations, Management
& Design
Indoor Air Quality
Landscape
Architecture
1648 Third Ave. S.E.
Tulsa, OK 74103
Tel: 507.288.3919
Fax: 507.288.1353
email: whill@mcgheehs.com

T105N R10W
SW1/4 of the NE 1/4 S35
Saratoga Township
Winona County, Minnesota

Date: 3/18/2013 Scale: 1" = 400'





MEMORANDUM

1648 Third Avenue SE, Rochester, MN 55904
Ph. 507-289-3919 Fx. 507-289-7333

To: Mr. Tom Rowekamp
From: Mr. Jeffrey S. Broberg
Date: July 10, 2013
Re: Potential Air Emissions and Air Quality Permits

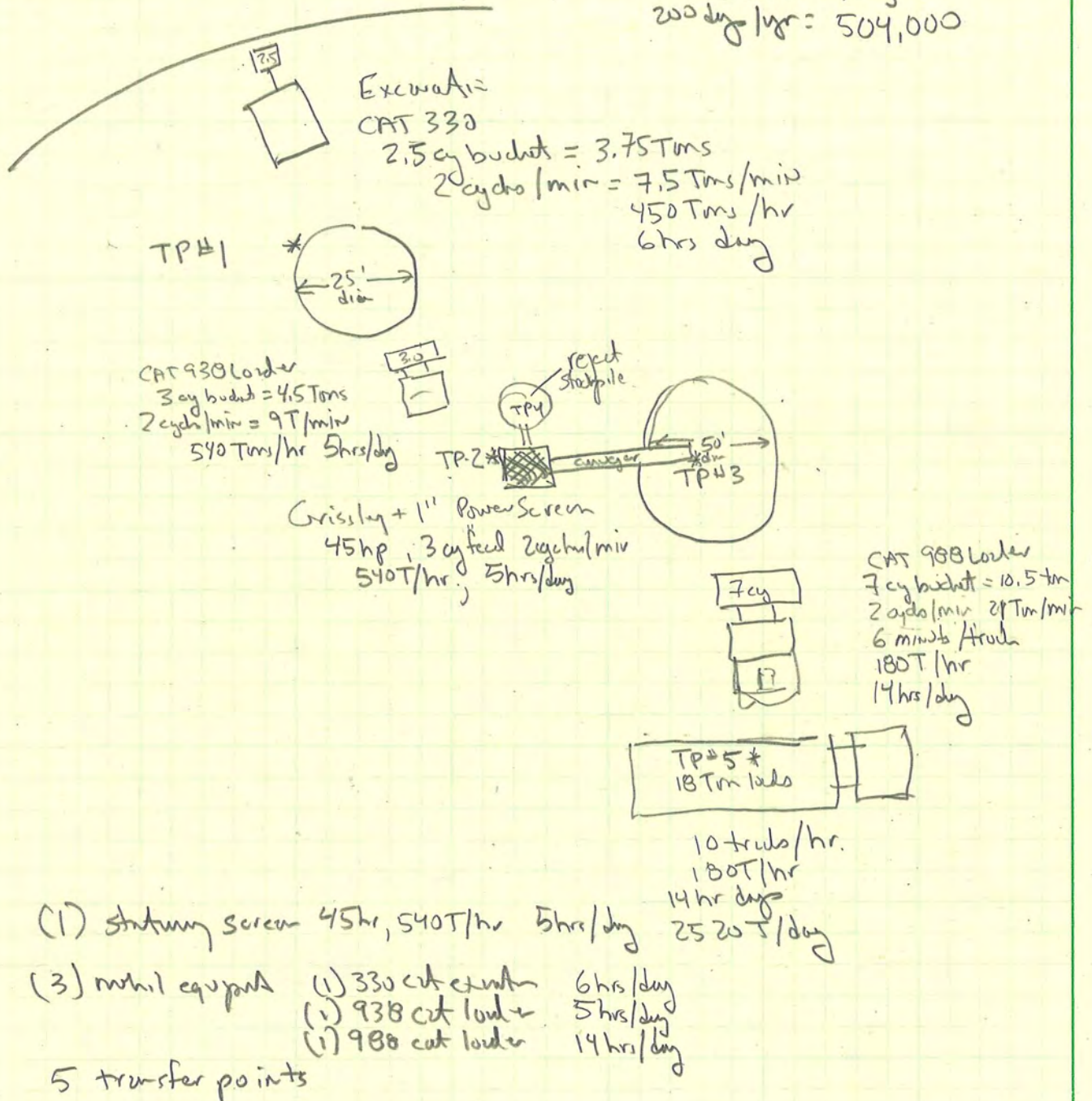
We have made an assessment of the need for the Nisbit Mine to procure an Air Emission Permit from the Minnesota Pollution Control Agency and have concluded that based on the MPCA calculator for "potential to Emit" that the Nisbit mine operation fall below the minimum threshold for requiring a permit. We have attached the worksheets.

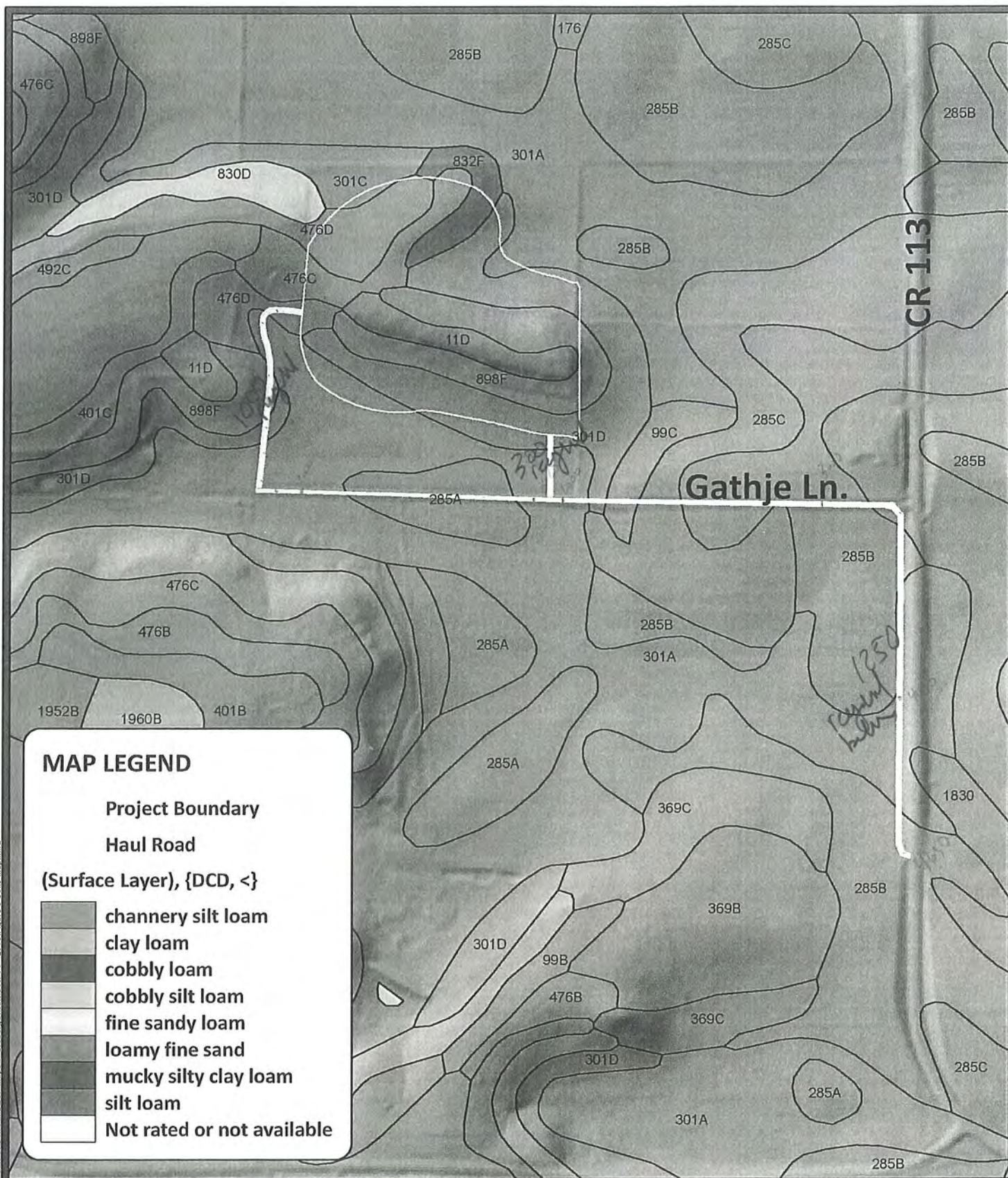
Numerous factors are taken into consideration starting with a flow-chart or model of how the mine operations will be conducted, the size and type of equipment employed, material handling practices and wind erosion factors. We have attached the model that employs one backhoe (CAT 330), two loaders (CAT 928 and CAT 988) and a power screen with a 3 cubic yard feeder bin powered by a 45 horse power diesel engine. The operations would be loading 10 trucks and hour that would drive over 0.5 miles of unpaved roads (all the mine rods will be oiled recycled bituminous) and would haul out 200 days a year totaling 28,000 trips.

The Potential to Emit (PTE) calculator takes the approach that the mine will operate 24 hours a day, 7 days a week for the entire year, which of course is not allowed by the Conditional Use Permit which restricts operation to 14 hours a day Monday-Friday with 5 hours on Saturday and limits the number of truck per day that can leave the mine. Even though the calculator uses the maximum potential the emission thresholds are well below the thresholds required for a permit. Using the Calculator Nisbit would have an annual PTE of particulate matter of 67.53 tons, less than the 100 ton emissions that require a permit and would emit 18.91 tons/year of PM₁₀ (Permit limit 25 ton/year) and 225 tons/year greenhouse gas (permit limit 100,000 tons/year).

The calculator also assesses actual emissions where Nisbit would have 7.51 ton/year PM (permit limit 50 ton/year), 2.71 ton/year PM₁₀ (permit limit 50 ton/year) and 25.74 ton/year GHG (permit limit 50,000 ton/year)

2520 T/day
200 days/yr = 504,000





SOILS MAP FIGURE 5

Map By: B M O

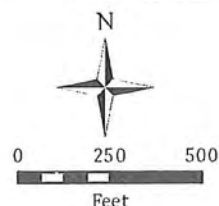
Map Scale: 1" = 500'

Date: Monday, June 10, 2013

GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards
Environmental
Assessment Worksheet
& Impact Statements



Environmental Site
Investigations, Mgt
& Design
Indoor Air Quality
Landscape
Architecture
1648 Third Ave S.E.
Tel 509 289 3919
Fax 509 289 3333
email mbr@mcghiebetts.com



Total Air Emissions

Updated July 2011

Potential to Emit (PTE)							
Pollutant		Handling ton/year	Fugitives ton/year	Generator ton/year	Engine (Crusher) ton/year	Total PTE ton/year	Permit Threshold ton/year
PM	Particulate matter	6.30	60.80	0.43	0.00	67.53	100
PM ₁₀	Particulate matter less than 10 microns	2.19	16.29	0.43	0.00	18.91	25
SO _x	Sulfur oxide compounds			0.40	0.00	0.40	50
NO _x	Nitrogen oxide compounds			6.11	0.00	6.11	100
VOC	Volatile organic compounds			0.50	0.00	0.50	100
CO	Carbon monoxide			1.32	0.00	1.32	100
GHG (CO ₂ e)	Green House Gases (Carbon Dioxide equivalents)			225.45	0.00	225.45	100,000

If the total PTE for any of these pollutants exceeds the listed threshold OR if a federal rule (see below) applies, you need a permit.

Actual Emissions							
Pollutant		Handling ton/year	Fugitives ton/year	Generator ton/year	Engine (Crusher) ton/year	Total Actuals ton/year	Option D Permit Limits ton/year
PM	Particulate matter	7.06	0.41	0.05	0.00	7.51	50
PM ₁₀	Particulate matter less than 10 microns	2.47	0.19	0.05	0.00	2.71	50
SO _x	Sulfur oxide compounds			0.05	0.00	0.05	50
NO _x	Nitrogen oxide compounds			0.70	0.00	0.70	50
VOC	Volatile organic compounds			0.06	0.00	0.06	50
CO	Carbon monoxide			0.15	0.00	0.15	50
GHG (CO ₂ e)	Green House Gases (Carbon Dioxide equivalents)			25.74	0	25.74	50,000

Federal rules	
Does 40 CFR pt 60, Subp. OOO apply (Standards of Performance for Nonmetallic Mineral Processors)?	Yes
This standard applies if your fixed plant is larger than 25 tons/hour or your portable plant is larger than 150 tons/hour, and your plant or equipment was constructed, reconstructed, or modified after August 31, 1983.	
Does 40 CFR pt 60, Subp. IIII apply (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)?	Yes
This standard applies if you use a stationary diesel engine that was purchased or modified after July 11, 2005. Keep in mind that portable engines are considered stationary if they are used at a single location for more than a year or, for seasonal operations, at a single location for an entire operating season. This rule does not apply to diesel engines that propel motor vehicles.	
Does 40 CFR pt 60, Subp. JJJJ apply (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)?	Yes
This standard applies if you use a stationary gasoline engine that was purchased or modified after June 12, 2006. Keep in mind that portable engines are considered stationary if they are used at a single location for more than a year or, for seasonal operations, at a single location for an entire operating season. This rule does not apply to gasoline engines that propel motor vehicles.	
Does 40 CFR pt 60, Subp. Kb apply (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels))?	Yes
This standard applies if you have a storage tank or container at your site that was constructed, reconstructed, or modified after July 23, 1984, has capacity is about 19,800 gallons or more, and stores volatile organic liquids (including petroleum products such as fuel).	
Does 40 CFT pt 60, Subp. UUU apply (Standards of Performance for Calciners and Dryers in Mineral Industries)?	Yes
This standard applies if you use a dryer or calciner that was purchased, modified, or reconstructed after April 23, 1986. Note that if this standard applies to you (ie, you are using a dryer or calciner), you must apply for an individual air permit.	

Air Emissions from Material Handling

Crusher throughput =		tons/hour
Throughput (potential) =	504,000	tons/year
# of transfer points =	5	
Throughput (actual) =	504,000	tons/year

Emissions of Particulate Matter (PM)						
Emission Source	Source Classification Code	a Emission Factor lbs/ton	b Transfer Points	c Potential Throughput tons/year <small>[crusher throughput * 8760 days in a year]</small>	d Potential to Emit lbs/year <small>[a * b * potential throughput]</small>	e Actual Emissions lbs/year <small>[a * b * actual throughput]</small>
	0	0.00	0.0000	0.00	0.00	0.00
	0	0.00	0.0000	0.00	0.00	0.00
	0	0.00	0	0.00	0.00	0.00
	0	0.00	0.0000	0.00	0.00	0.00
Screening ²	3-05-020-02, 03	0.025	1.00	504,000	12600.00	12600.00
	0	0.00	0.00	-	0.00	0.00
Conveyor Transfer Point ²	3-05-020-06	0.0030	1	-	0.00	1512.00
Total PM (lbs)					12600.00	14112.00
Total PM (tons)					6.30	7.06

Emissions of Particulate Matter less than 10 microns (PM ₁₀)						
Emission Source	Source Classification Code	a Emission Factor lbs/ton	b Transfer Points	c Potential Throughput tons/year <small>[crusher throughput * 8760 days in a year]</small>	d Potential to Emit lbs/year <small>[a * b * potential throughput]</small>	e Actual Emissions lbs/year <small>[a * b * actual throughput]</small>
			n/a	-	0.00	0.00
			n/a	-	0.00	0.00
			n/a	-	0.00	0.00
			n/a	-	0.00	0.00
Screening ²	3-05-020-02, 03	0.0087	n/a	504,000	4384.80	4384.80
			n/a	-	0.00	0.00
Conveyor Transfer Point ²	3-05-020-06	0.00110	1	-	0.00	554.40
Total PM ₁₀ (lbs)					4384.80	4939.20
Total PM ₁₀ (tons)					2.19	2.47

¹Emission factor from AP-42 11.19.2-2 (1/95)

²Emission factor from AP-42 11.19.2-2 (8/04)

Air Emissions from Fugitive Particulate

Throughput (potential) =	504,000	tons/year
Throughput (actual) =		tons/year
Throughput (actual hauled) =		tons/year

Unpaved road

Source: AP-42 13.2.2 (11/2006)

k = PM particle size multiplier	4.9		
k ₁₀ = PM ₁₀ particle size multiplier	1.5		
s = silt content of road (%)	6		
W = mean vehicle weight (ton)	31.0		
V _{potential} = # vehicle trips / yr	28,000		
V _{actual} = # vehicle trips / yr	0		
M = miles of unpaved roads	0.5		
Potential Vehicle Miles Traveled (VMT) = V _{potential} × M		14000	
Actual Vehicle Miles Traveled (VMT) = V _{actual} × M		0	
PM emission factor (lb/VMT) = $k(s / 12)^{0.7} (W / 3)^{0.45}$		8.63	
PM ₁₀ emission factor (lb/VMT) = $k_{10}(s / 12)^{0.9} (W / 3)^{0.45}$		2.30	

	Vehicle 1	Vehicle 2	
	80%	15%	% of total trips
	20	15	Empty weight (tons)
	40	30	Full weight (tons)

Materials handling

Source: AP-42 13.2.4 (11/2006)

k = PM particle size multiplier	0.74	
k ₁₀ = PM ₁₀ particle size multiplier	0.35	
U = mean wind speed (mph)	10	
M = material moisture content (%)	5	
PM emission factor (lb/ton) = $k(0.0032)((U/5)^{1.3}/(M/2)^{1.4})$		0.0016
PM ₁₀ emission factor (lb/ton) = $k_{10}(0.0032)((U/5)^{1.3}/(M/2)^{1.4})$		0.0008

Wind erosion of ground pile

Fugitive

s = silt content of material (%)

p = # of days w/ >=0.01" precip/yr

f = % time wind speeds exceed 12 mph at mean pile height

d = # days pile is present

a = acres of pile base

1
108
30

PM emission factor (lb/day/acre)=1.7(s/1.5)((365-p)/235)(f/15)

2.48

PM₁₀ emission factor = emission factor PM/2

1.24

d*acre = d * a

0

Totals					
a	b	c	d	e	f
Source	Emission Factor	Potential Activity	Potential Emissions	Actual Activity	Actual Emissions
			b x c / 2000		b x e / 2000
Unpaved road	(lb/VMT)	(Vehicle miles traveled)	(ton/year)	(Vehicle miles traveled)	(ton/year)
PM	8.63	14000	60.39	0.00	0.00
PM10	2.30	14000	16.09	0.00	0.00
Material handling	(lb/ton)	(tons)		(tons)	
PM	0.00	504,000	0.41	0.00	0.41
PM10	0.00	504,000	0.19	0.00	0.19
Ground pile	(lb/d*acre)	(d*acre)		(d*acre)	
PM	2.48	0	0.00	0.00	0.00
PM10	1.24	0	0.00	0.00	0.00
Total					
PM			60.80		0.41
PM10			16.29		0.19

Generator

Air Emissions from Generator

Potential to Emit and Actual Emissions Calculations

Facility Name

Engine and Fuel Type

Engine Use (routine operation or emergency (non peak-shaving))

Enter Rated Mechanical Output (hp)

You do not need to enter the sulfur content of the fuel

Enter total number hours operated (to determine actual emissions)

IT Sands misbit Mine	
reciprocating - diesel	▼
routine	▼
45	
NA	% Sulfur
1000	

Emissions						
b Pollutant	c Emission Factor (lb/hp*hr)	d Emission Rate (lb/hr) [c*rated mech output]	e Hours for PTE Calculation (hr/yr)	f Potential to Emit (ton/yr) [d*e/2000]	g Actual Hours Operated (hour/yr)	h Actual Emissions (tonsyr) [d*g/2000]
PM	0.0022	0.099	8760	0.43	1000	0.05
PM10	0.0022	0.099	8760	0.43	1000	0.05
SOx	0.00205	0.092	8760	0.40	1000	0.05
NOx	0.031	1.395	8760	6.11	1000	0.70
VOC	0.002514	0.113	8760	0.50	1000	0.06
CO	0.00668	0.301	8760	1.32	1000	0.15
Lead						
GHG Total (CO ₂ e)	see calculation below		8760	225.45	1000	25.74

Green House Gas (GHG) Emissions (CO ₂ e)							
Pollutant	b Global Warming Potential ¹	c Emission Factor (lb/hp*hr)	d Emission Rate (lb/hr) [c*rated mech output]	e Hours for PTE Calculation (hr/yr)	f Potential To Emit (ton/yr) [b*d*e/2000]	g Actual Hours Operated (hour/yr)	h Actual Emissions (tonsyr) [b*d*g/2000]
CO ₂	1	1.14	51.3	8760	224.69	1000	25.65
CH ₄	21	0.0000463	0.0020835	8760	0.19	1000	0.02
N ₂ O	310	0.00000924	0.0004158	8760	0.56	1000	0.06
Green House Gas Total (CO ₂ e)					225.45	GHG Total (CO ₂ e)	25.74

¹Global Warming Potential from MPCA form EC-17.

GHG = Green House Gas

CO₂e = carbon dioxide equivalents

Engine (Crusher)

Air Emissions from Crusher Engine

Potential to Emit and Actual Emissions Calculations

Facility Name

Engine and Fuel Type

Engine Use (routine operation or emergency (non peak-shaving))

Enter Rated Mechanical Output (hp)

You do not need to enter the sulfur content of the fuel

Enter total number hours operated (to determine actual emissions)

IT Sands nisbit Mine

reciprocating - diesel

routine

NA

% Sulfur

1000

Emissions

b Pollutant	c Emission Factor (lb/hp*hr)	d Emission Rate (lb/hr) [c*rated mech output]	e Hours for PTE Calculation (hr/yr)	f Potential to Emit (ton/yr) [d*e/2000]	g Actual Hours Operated (hour/yr)	h Actual Emissions (tonsyr) [d*g/2000]
PM	0.0022	0.000	8760	0.00	1000	0.00
PM10	0.0022	0.000	8760	0.00	1000	0.00
SOx	0.00205	0.000	8760	0.00	1000	0.00
NOx	0.031	0.000	8760	0.00	1000	0.00
VOC	0.002514	0.000	8760	0.00	1000	0.00
CO	0.00668	0.000	8760	0.00	1000	0.00
Lead						
GHG Total (CO ₂ e)	see calculation below		8760	0.00	1000	0.00

Green House Gas (GHG) Emissions (CO₂e)

Pollutant	b Global Warming Potential ¹	c Emission Factor (lb/hp*hr)	d Emission Rate (lb/hr) [c*rated mech output]	e Hours for PTE Calculation (hr/yr)	f Potential To Emit (ton/yr) [b*d*e/2000]	g Actual Hours Operated (hour/yr)	h Actual Emissions (tonsyr) [b*d*g/2000]
CO ₂	1	1.14	0	8760	0.00	1000	0.00
CH ₄	21	0.0000463	0	8760	0.00	1000	0.00
N ₂ O	310	0.00000924	0	8760	0.00	1000	0.00
Green House Gas Total (CO ₂ e)					0.00	GHG Total (CO ₂ e)	0.00

¹Global Warming Potential from MPCA form EC-17.

GHG = Green House Gas

CO₂e = carbon dioxide equivalents

If applying for a Registration Permit Option D, use the following with EC-03 35) Ambient Air Impact Table

		35a	35b	35c	35d	35e	35f	35g	36
Pollutant and averaging time		Maximum uncontrolled emissions lb/hour	Pollution control efficiency %	Maximum controlled emissions lb/hr	Maximum controlled emissions grams/sec [35c / 7.94]	1-hour Ambient air impact at 1 gram/sec µg/m ³	Averaging time scaling factor	Ambient air impact for stated averaging time µg/m ³ [35d x 35e x 35f]	Target levels µg/m ⁴
PM10	24-hr			0.00	0.00		0.4	-	150
PM2.5	24-hr			0.00	0.00		0.4	-	35
SO2	1-hr			0.00	0.00		1	-	196
NO2	1-hr			0.00	0.00		1	-	188
CO	1-hr			0.00	0.00		1	-	35,000
CO	8-hr			0.00	0.00		0.7	-	10,000

Emission Factors

Updated April 2012

Pollutant	RECIPROCATING ENGINES (<600HP) DIESEL (lb/hp*hr)	RECIPROCATING ENGINES (>=600HP) DIESEL (lb/hp*hr) ¹	TURBINE ENGINES (electrical generation) NATURAL GAS (lb/MMBtu fuel input) ¹	RECIPROCATING GASOLINE (lb/hp*hr)	RECIPROCATING Natural Gas 4-Stroke Rich-Burn (lb/MMBtu)	RECIPROCATING Natural Gas 4-Stroke Lean-Burn (lb/MMBtu)
source	AP42 Chpt 3.3 (10/96)	AP42 Chpt 3.4 (10/96)	AP42 Chpt 3.1 (4/00)	AP42 Chpt 3.3 (10/96)	AP42 Chpt 3.2 (7/00)	AP42 Chpt 3.2 (7/00)
PM	0.0022	0.0007	0.0066	0.000721	0.00991	0.00991
PM10	0.0022	0.0007	0.0066	0.000721	0.0095	0.000771
SOx	0.00205	0.00809	0.94	0.000591	0.000588	0.000588
NOx	0.031	0.024	0.32	0.011	2.21	4.08
VOC	0.002514	0.000705	0.0021	0.021591	0.0296	0.118
CO	0.00668	0.0055	0.082	0.00696	3.72	0.317
CO ₂	1.14	1.14	116.89	1.08	116.89	116.89
source	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.
CH ₄	0.0000463	0.0000463	0.0022	0.0000463	0.0022	0.0022
source	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.	74 FR 209 (30 Oct 2009), pp. 56409-56410.
N ₂ O	0.00000924	0.00000924	0.00022	0.00000924	0.00022	0.00022

¹SOx emission factor given is multiplied by the sulfur content in the fuel (in percent) in the Engine (n) tabs.

Engine and Fuel Types

reciprocating - diesel
 reciprocating - gasoline
 turbine - natural gas
 recip - nat gas rich burn
 recip - nat gas lean burn

Engine Use

routine
 emergency

LAT LOADER



WINONA COUNTY ROAD USE AND MAINTENANCE AGREEMENT

This WINONA COUNTY ROAD USE AND MAINTENANCE AGREEMENT (hereinafter referred to as "Agreement") is made and entered into by and between Winona County, a body corporate and politic existing under the laws of the State of Minnesota, (hereinafter referred to as the "County"), and the mining operator doing business with the owner/applicant, (insert name of owner/applicant) of the conditional use permit (hereinafter "CUP"), (name of mining company), a (insert corporate structure) (Address) (hereinafter referred to as the "Operator"). Each of the Operator and the County are sometimes referred to herein individually as a "Party" and collectively as the "Parties". The term "Operator's Representatives" shall include the Operator's contractors, sub-contractors, agents, employees, suppliers and designees.

RECITALS

WHEREAS, the Operator is in the business of mining and production of silica sand, and is in the process of constructing, developing, operating, maintaining and reclaiming a non-metallic mining facility (the "Project") in Winona County, Minnesota, for the owner/applicant (insert name), and the owner/applicant (insert name) submitted an application for a non-metallic Silica Sand Mining CUP for the Project with the County through its Planning and Environmental Services Department in accordance with the Winona County Zoning Ordinance (WCZO), and

WHEREAS, the Owner/Applicant's CUP was approved by the County Board on June 4, 2013 (note for future use of this Agreement as a template for other projects, this date is specific to the Nisbit project), subject to multiple conditions including operating subject to a Road Use Maintenance Agreement referred to in Condition 19 of the CUP, and

WHEREAS, in connection with the construction, development, operation, maintenance and reclamation of the Project, the Parties desire to address certain issues relating to the roads owned, operated and maintained by the County (collectively, the "County Roads") over which it will be necessary for Operator and Operator's Representatives to, among other things, transport heavy equipment and certain locally sourced materials, including, but not limited to, silica sand, over certain County Roads, which may in certain cases be in excess of the design limits of the County Roads, and

WHEREAS, the County Board approved on April 24, 2012, the use of a Road Impact Fee of \$0.219 per ton per mile for infrastructure dependent conditional uses having a combination of heavy vehicle weights and annual traffic intensity such as for silica sand mining operations as determined by the County Planning Commission and the County Board that create a disproportionate impact on the County roads due to the unique volume and intensity of anticipated truckloads of silica sand being transported over County roads; that said fee was established to equitably apportion the expense of the road impact and excessive burden beyond normal and anticipated road wear and tear beyond that of a pavement design for 500 vehicles per day, (ii) 20-year road design, (iii) with traffic growing to 550 vehicles per day during the 20 years, that industry may have on County roads, so as not to place an undue burden of County taxpayers; that said fee shall be paid by the Operator to the County; that said fee shall be adjusted annually on January 1 for inflation based on the Engineering News Record Construction Cost

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Index; that said fees collected will be used exclusively for the purpose intended, to repair and replace the directly effected County roads for road impact and excessive burden beyond normal and anticipated road wear and tear as detailed above. The directly effected County roads are those which it will be necessary for Operator and Operator's Representatives to, among other things, transport heavy equipment and certain locally sourced materials, including, but not limited to, silica sand, over certain County Roads, which may in certain cases may be in excess of the design limits of the County Roads and by other infrastructure dependent industries from which said fees are collected, and not comingled with any other County funds, and shall be refunded on a prorated basis to the Operator should it be determined that the funds are over and above the amount needed for the intended purpose;

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WHEREAS, the road impact fee is based upon a 2012 construction cost of \$232,000 per mile to reclaim and pave an asphalt roadway. The single vehicle computation is based upon an Equivalent Single Axle Load (ESAL). One ESAL is recognized to cause a quantifiable and standardized amount of damage to the pavement structure equivalent to one pass of a single 18,000 pound, dual-tire axle with all four tires inflated to 110 psi. The road pavement damage calculation and resulting impact fee is based upon (i) a pavement design for 500 vehicles per day, (ii) 20-year road design, (iii) with traffic growing to 550 vehicles per day during the 20 years, (iv) 20-year design ESALs of 110,529, (v) \$2.099 per ESAL per mile, (vi) 23 tons per load on 80,000 pound gross-weight trucks that are 2.4 ESALs, and (vii) \$0.219 per ton per mile (in 2012 dollars). The January 1, 2013 inflationary adjustment is \$0.2253 per ton per mile, and

WHEREAS, Operator and County wish to set forth their understanding and agreement as to the road issues relating to the construction, development, operation, maintenance and reclamation of the Project, and

WHEREAS, this Agreement shall apply to those County Roads included in the Operator's haul route and, subject to Section 4.B. herein, any other County Road(s) used by Operator or Operator's Representatives in direct support of the construction, development, operation, maintenance and reclamation of the Project. A graphic of the Operator's haul route is attached as Appendix A to this Agreement and is incorporated by reference to this Agreement. The Operator's haul route is as follows: Starting at the site driveway onto County Highway 113 at a location approximately 1380 feet south of Gathje Lane, then on County Highway 113 south and east to County State-Aid Highway (CSAH) 33, then on CSAH 33 north to Highway 14, for a total of 10.31 miles. The segment of County Road 113 that is part of the haul route and that is a borderline road with Fillmore County shall be fully included in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises and covenants herein set forth, the parties, intending to be legally bound, agree as follows:

Section 1. Term of Agreement.

This Agreement shall commence upon the last date listed in the signature page at the end of this Agreement (the "Effective Date") and shall continue in full force and effect until owner/applicant's Silica Sand Mining CUP has expired, has been terminated, or until Operator has fully discontinued its construction, development, operation, maintenance and reclamation of the Project and any and all transportation activities related thereto on the County Roads listed in the haul route, whichever occurs first.

Section 2.

Responsibilities of Operator.

Operator, in respect of the Project constructed, developed, operated, maintained and reclaimed by it, acknowledges and agrees the Project may require County to undertake the following activities in order to preserve County Roads and that the Operator shall be financially responsible for the costs of said activities to the extent provided for under the terms of this Agreement through payment of the Road Impact Fee:

A. **Exceptional Maintenance Costs.**

Operator shall be responsible for all itemized exceptional maintenance costs, above normal maintenance requirements, that are attributable to damage to County Roads from the hauling of products and equipment related to the Project. County shall inform Operator if it has a good faith basis to believe any exceptional maintenance costs become necessary and provide a good faith estimate of costs to Operator prior to commencing work. Exceptional maintenance includes but is not limited to cleaning of tracked or spilled materials, repair of surfaces damaged by turning or braking trucks, replacement of shouldering material blown away by Operator's trucks, and potholes predominately caused by the Operator's trucks. Pavement degradation over time and the need for earlier repaving due to the Operator's truck traffic is covered by the Road Impact Fee and is not exceptional maintenance.

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County will invoice the Operator for exceptional maintenance costs incurred as the work is completed. Operator shall have thirty (30) days from the date of invoicing to make payment to County. Alternatively, the County, acting through the County Highway Engineer, may authorize the Operator to perform specific exceptional maintenance in lieu of paying the County to perform said maintenance.

B. **Road Impact Fee.**

In order to compensate County for the projected costs of repairing and replacing road pavement damaged as a result of Operator's use, Operator shall pay to the County a Road Impact Fee of \$0.2253 per ton per mile (2013 inflationary adjustment). This fee shall be adjusted for inflation

annually on January 1 based on the Engineering News Record Construction Cost Index.

The Road Impact Fee shall apply to net tons of material hauled over the Operator's haul route in the primary hauling direction. Return of empty trucks or backhauling a fraction of the primary haul (rejected materials) will not be counted if the return route follows the reverse route of the primary hauling direction.

Documented loads of sand for agricultural bedding purposes will not be subject to the Road Impact Fee.

C. Weighing of Trucks.

The Operator will prepare a haul ticket for each loaded truck leaving the Project mine site, recording the net amount of mined sand being hauled by each truck. The Operator will retain all of the haul tickets for a period of at least 5 years. The Winona County Zoning Administrator or County Highway Engineer will be entitled to inspect and audit all of the accumulated haul tickets at any time.

D. Quarterly Reports to the County.

The Operator will use the accumulated haul tickets to prepare quarterly reports to the County providing:

- a) An Excel compatible electronic spreadsheet with chronological listings for each respective load indicating (as a minimum) the date, truck ID, and net weight.
- b) The total number of trucks leaving the Project mine site for the quarter, and
- c) The total amount (in tonnage) of material hauled from the Project mine site.
- d) If applicable, documentation of the loads used for agricultural bedding purposes including the information listed above plus the destination farm(s) for the respective loads.

The quarterly reports will be delivered to the Winona County Engineer on April 15 (for the 1st quarter), July 15 (for the 2nd quarter), October 15 (for the 3rd quarter), and January 15 (for the 4th quarter) of each and every year, reporting hauling activity for the immediately preceding quarter.

E. Payment of Road Impact Fee.

The County will use the information contained in the Operator's quarterly reports to determine the amount of the Road Impact Fee payable by the Operator to the County for each quarter, and will invoice the Operator for said fee. The Operator will pay said fee to the County within 30 days of receipt of each such invoice.

Section 3.

Responsibilities of County.

The County, in accordance with County Policy and the terms of this Agreement, agrees to:

- A. Review for approval all access points to the County Road system by giving consideration to sight distances, drainage and proximity to other entrances, in a reasonable manner, and in accordance with accepted engineering practices;
- B. Review for approval permits for all utility encroachments on County rights-of-way in a reasonable manner, and in accordance with accepted engineering practices;
- C. Coordinate with Operator and Operator's Representatives so as to minimize the impact of their use of the County Road system;
- E. Coordinate with the Operator regarding the necessity to close any of the County Roads on the haul route, such as for repairs or reconstruction. In the event such closure is necessary, the County shall coordinate with the Operator a reasonable detour. The Road Impact Fee during the detour shall be the same as if the normal haul route (including the closed County Road) was used, even if the detoured haul route results in use of additional miles of County Roads.

Section 4.

Road Inventory.

- A. Routing and Access Approval.

This Agreement applies only to the County Roads listed on the haul route. If conditions or circumstances change and Operator desires to change haul routes, it must first request authorization from the County and follow all required and applicable WCZO procedures for changes in a CUP. All expenses for additional haul routes are not part of this Agreement and shall be negotiated by the Operator and County in a separate agreement in the event any changes are requested and approved by the County.

- B. Incidental Use

The Parties recognize that the Project traffic may, either through mistake or with the consent of County, use County Roads other than those listed on the haul route. Repairs for verified damage caused by Operator or Operator's Representatives during such mistaken or permitted use shall be treated as exceptional maintenance under Section 2.A. above.

Section 5.

Emergency Actions.

In the event Operator or Operator's Representatives have caused damage to County Roads of a magnitude sufficiently great to create a hazard to the motoring public, which in County's opinion warrants an immediate repair or County Road closing, County may unilaterally close those County Road(s) affected and make or authorize repair, with the reasonable, documented costs thereof paid for by Operator.

Both Parties acknowledge that while County is the Jurisdictional Authority for those County Roads listed in Exhibit B, certain emergency situations may arise that fall under law enforcement, fire district or emergency management control. In such situations the road may be closed to traffic, including traffic from the Project, outside the control of County. County shall not be responsible for any harm to Operator, Operator's Representatives or the Project that may result from County Road closings that occur due to such emergencies.

Section 6.

Indemnification/Hold Harmless and Liability Insurance Provisions.

- A. Indemnification by Operator. Operator hereby releases and agrees to indemnify and hold harmless County and its respective officers, employees, elected or appointed officials, and agents, (hereinafter collectively "County Releasees") from any and all third party actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands arising directly or indirectly from any personal injury, death or property damage arising out of the use by Operator or Operator's Representatives of any County Road subject to this Agreement.

- I. Limitations of Liability. In no event shall County or any of their Board, officers, elected or appointed officials, agents, or employees be liable (in contract or in tort, involving negligence, strict liability, or otherwise) to any other party or their contractors, suppliers, employees, members and shareholders for indirect, incidental, consequential or punitive damages resulting from the performance, non-performance or delay in performance under this Agreement.

Required Insurance. Operator shall at all times throughout the term of this Agreement maintain in full force and effect commercial general liability insurance, naming County, its Board, officers, elected or appointed officials, agents and employees as an additional insured, in the aggregate amount equal to Two Million Dollars (\$2,000,000). Operator may utilize any combination of primary and/or excess insurance to satisfy this requirement.

Section 7.

Remedies and Enforcement.

Deleted: and their respective heirs, executors, administrators, successors and assigns

Deleted: from any and all third party actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands against County Releasees arising out of or relating to the performance by Operator of its obligations under this Agreement. More particularly, but without in any way limiting the foregoing, Operator hereby releases County Releasees and agrees to indemnify and hold harmless County Releasees

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Each of the Parties hereto covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any party (the "Defaulting Party"), which default is not caused by the party seeking to enforce said provisions (the "Non-Defaulting Party") and after notice and reasonable opportunity to cure has been provided to the Defaulting Party, then in such an event, the Non-Defaulting Party shall have the right of specific performance. The remedy of specific performance and injunctive relief shall not be exclusive of any other remedy available at law or in equity.

Section 8.

Due Authorization.

Operator hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Operator. County hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of County.

Section 9.

Savings/Severability.

It is mutually agreed by the Parties that in the event any provision of this Agreement is determined by any court of law of competent jurisdiction to be unconstitutional, invalid, illegal or unenforceable in any respect, it is the intention of the parties that such unconstitutionality, invalidity, illegality or unenforceability shall not affect the other provisions, and the Agreement shall be construed as if such unconstitutional, invalid, illegal or unenforceable provision had never been contained in this Agreement.

Section 10.

Entire Agreement.

This Agreement and the exhibits attached thereto and public records associated with the Agreement constitute the entire agreement among the Parties hereto with respect to the subject matter hereof, and supersede any prior understandings or written or oral agreements between the parties with respect to the subject matter of this Agreement. No amendment, modification, cancellation or alteration of the terms of this Agreement shall be binding on any party hereto unless the same is in writing, dated subsequent to the date hereof and is duly authorized and executed by the Parties hereto.

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Section 11.

Designated Representative.

Operator designates (fill in name) _____ as Agent with primary responsibility for the performance of this Agreement. In the event this Agent is replaced by another for any reason, Operator will designate another Agent within seven (7) calendar days and provide notice

to County of replacement pursuant to the procedure set forth in Section 14, Notices.

Section 12. Notices.

All notices to be given under the terms of this Agreement shall be in writing and signed by the person serving the notice and shall be sent via registered or certified mail, return receipt requested, postage prepaid, or hand delivered to the addresses of the parties listed below. Notice shall be deemed to have been received on the date of receipt as shown on the return receipt or other written evidence of receipt.

FOR COUNTY: David Kramer
Winona County Highway Engineer
5300 Highway 61 West
Winona, Minnesota 55987

FOR OPERATOR: (fill in name and address)

FOR OWNER/APPLICANT(S): (fill in name and address)

Section 13. Assignability/Consent.

This Agreement shall be binding on the Parties hereto, their respective heirs, devisees and successors. Except as otherwise provided herein, or except as may be hereafter determined by the Parties, Operator may not sell, assign or transfer its interest in this Agreement, or any of its rights, duties or obligations hereunder, without the prior written consent of County. Whenever the consent or the approval of County is required herein, County shall not unreasonably withhold, delay or deny such consent or approval.

Section 14. Force Majeure.

The performance of this Agreement shall be subject to events of force majeure. Neither party shall be held responsible for delay or failure to perform when such delay or failure is due to any of the following uncontrollable circumstances unless the act or occurrence could have been foreseen and reasonable action could have been taken to prevent the delay of failure : fire flood, epidemic, strikes, war, acts of God, unusually severe weather, acts of public authorities, or delays or defaults caused by public carriers; provided the defaulting party gives notice as soon as possible to the other party of the inability to perform.

Section 15. Modification

No modification of this Agreement or of any covenant, condition or limitation herein contained shall be valid unless in writing and duly executed by the party to be charged therewith. No evidence of any modification shall be offered or received in evidence in any proceeding arising between the Parties hereto out of or affecting this Agreement, or the rights or obligations of the Parties hereunder, unless such modification is in writing and duly executed. The parties further agree that the provisions of this Section 15 will not be waived unless herein set forth.

Section 16. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopier shall be as effective as delivery of a manually signed counterpart to this Agreement.

Section 17. Choice of Law and Forum Selection.

This Agreement shall be governed by, and construed, interpreted and enforced in accordance with the laws of the State of Minnesota. The Parties agree, for any claim or suit or other dispute relating to this Agreement that cannot be mutually resolved, the venue shall be in the District Court of Winona County, a court of competent jurisdiction within the State of Minnesota, and the parties further agree to submit themselves to the jurisdiction of said court, to the exclusion of any other judicial district that may have jurisdiction over such a dispute according to any law.

Section 18. Default Termination.

In the event Operator shall default in any of the covenants, agreements, commitments, conditions or obligations herein contained, and any such default shall continue unremedied for a period of ~~thirty~~ (30) calendar days after written notice thereof to Operator, County may, at its option and in addition to all other rights and remedies which it may have at law or in equity against Operator, including expressly the specific enforcement hereof, forthwith have the cumulative right to immediately terminate this Agreement and all rights of Operator under this Agreement.

Deleted: en

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Section 19. Waiver of Terms and Conditions.

The failure of County to enforce or insist upon compliance with any of the terms or conditions of this Agreement shall not constitute a general waiver or relinquishment of any such terms or conditions, but the same shall be and remain at all times in full force and effect.

Section 20. Compliance with Applicable Laws.

Operator shall become familiar with, and shall at all times comply with and observe all federal, state and local laws, ordinances and regulations which in any manner affect the conduct or performance of Operator and its agents and employees of the terms and obligations under this Agreement.

Section 21. Captions.

The captions contained in this Agreement are for informational purposes only and shall not in any way affect the substantive terms or conditions of this Agreement.

Section 22. Cooperation.

The Parties agree to cooperate with each other in addressing any unforeseen or extraordinary events caused by Operator's activity that would result in significant impacts to the County Roads. The parties further agree to cooperate with each other in addressing any unforeseen impact to Operator's ability to utilize the haul route or any alternative route provided for in this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first written above.

OPERATOR:

_____.

By: _____

Its _____

Date: _____

OWNER(S)/APPLICANT(S) OF CONDITIONAL USE PERMIT

Date: _____

Date: _____

COUNTY:

By: Wayne Valentine
Chair, Winona County Board of Commissioners
Date: _____

By: Duane Hebert
County Administrator
Date: _____

Appendix A:

(attach graphic of haul route and label as Appendix A)

WORKING DRAFT-For Review Purposes Only

Winona County Highway Department
5300 Highway 61 West
Winona, MN 55987

507-457-8840
507-454-3699 (FAX)

ACCESS DRIVEWAY APPLICATION

An access permit must be obtained from the Winona County Highway Department prior to constructing, improving, or changing the use of access, either temporary or permanent, on a county state-aid highway or county road under the jurisdiction of Winona County.

Mine Operator: Tom Rowe Kamp, I.T. Sands LLC

Owner or Applicant Thomas Campbell Telephone No. (507) 932-4028

Address 11763 County Road 6

City St. Charles State MN Zip 55972

Location of Drive 3 miles ^{OR 1280 FT} S. of feet N (S) E - W of County Road 6 GATHSE LN. ^(JW)

On the N - S - E (W) side of County Road No. 113 in Section 35 Saratoga Township.

To aid in locating the proposed driveway, the applicant should place a stake, with a flag attached, on the right of way line at the center of the proposed driveway. CHANGE OF USE FIELD TO COMMERCIAL (JW)

Purpose of Drive: Residence Field Entrance X Farm/Commercial X Public Road

Proposed Driveway top width (driving surface plus shoulders if any, see width "W" in Driveway Detail diagram on back of application) 32 Number of present driveways to the property? 1

Has a County Building Permit been obtained? Yes No None Required X

I hereby make application to construct or modify the access driveway above in accordance with the specifications stated below and as shown on the detail drawings on page two of this form.

Signature [Signature] Date 6-12-13

SPECIFICATIONS

- The owner is responsible for the cost of all culverts, aprons, fill material and surfacing for the driveway, and for maintenance of the driveway and culvert from the road shoulder to the right-of-way line.
- Where a culvert is needed, the county will determine the size and length of the culvert. Minimum size is 18 inches.
- Only new culverts meeting Minnesota Department of Transportation Standard Specifications for Construction shall be installed. 6:1 safety aprons/ends are required on all culverts.
 - Corrugated steel pipe (AASHTO M 36M) may be used. Metal aprons are required.
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 - Reinforced concrete pipe is required under new public road approaches where a culvert is needed.
- All approaches shall have side slopes of 6:1 or flatter. No headwalls, landscaping walls, large rock, etc. are allowed.
- Driveway top width (driving surface plus shoulders) shall be 16 to 32 feet wide.
- The centerline of the driveway, 20 feet from the shoulder of the road, shall be at least 6 inches lower than the shoulder.
- All accesses shall intersect with the road at 90 degrees, for a distance of not less than 20 feet from the shoulder of the road for private driveways, and for a distance of not less than 50 feet from the shoulder of the county road for public roads.

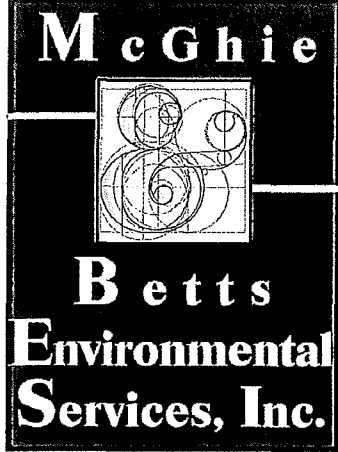
The following information is to be completed by Winona County.

Culvert diameter 18 inches and length 62 feet, plus two 6:1 safety aprons.

Approved [Signature] Date 6-13-2013
Winona County Highway Engineer

 Original to Applicant Copy to Road File Copy to Planning & Zoning

FACSIMILE TRANSMISSION COVER SHEET



Rochester
Minnesota

Environmental Site
Investigations, Management
& Design

Asbestos, Lead, & Other
Hazardous Materials

Wetland Delineation
& Permitting

Indoor Air Quality

Geological Hazards

UST & Spills

Environmental
Assessment Worksheet
& Impact Statements

VIC (Voluntary Investigation
& Clean Up)

1648 Third Avenue S.E.
Rochester, MN 55904

Tel. 507.289.3919
Fax. 507.289.7333

e-mail: mbi@mcghiebetts.com

Established 1990

ATTN: Jeff Duncan
COMPANY: Winona County Highway Department
FAX NUMBER: 507 289 7333 TIME SENT: 9:45Am
PHONE NUMBER: 507 289 3919 DATE SENT: June 13, 2013
TOTAL # OF PAGES WITH COVER SHEET: 2
ORIGINAL WILL BE MAILED: YES ☒ NO

RE: Nisbit Mine Access Driveway Application
FROM: Nicole Lehman

If you do not receive the number of pages indicated or if you have problems with the transmission, please call 507-289-3919.

MESSAGE:

Jeff, Tom has flagged the proposed driveway. Please call me to confirm receipt of this application.
Please let me know if you have any questions.

Thank you
Nicole Lehman

This telefaxed information is intended only for the use of the individual or entity to which it is addressed and contains information that is private, privileged and confidential. If the reader of this message is not the intended recipient, the employer, employee or agent responsible to deliver it to the intended recipient, you are hereby notified that dissemination, distribution or copying of this communication by any means or in any manner is strictly prohibited. If you have received this fax in error, please notify us immediately by telephone and return the original message to us by mail at the above address.

Winona County Highway Department
5300 Highway 61 West
Winona, MN 55987

507-457-8840
507-454-3699 (FAX)

ACCESS DRIVEWAY APPLICATION

An access permit must be obtained from the Winona County Highway Department prior to constructing, improving, or changing the use of access, either temporary or permanent, on a county state-aid highway or county road under the jurisdiction of Winona County.

Mine Operator: Tom Rowe Kamp, IT Sands LLC

Owner or Applicant Thomas Campbell Telephone No. (507) 932-4028

Address 11763 County Road 6

City St. Charles State MN Zip 55972

Location of Drive 3 miles feet N (S) E - W of County Road 6

On the N - S - E (W) side of County Road No. 113 in Section 35, Saratoga Township.

To aid in locating the proposed driveway, the applicant should place a stake, with a flag attached, on the right of way line at the center of the proposed driveway.

Purpose of Drive: Residence _____ Field Entrance X Farm/Commercial _____ Public Road _____

Proposed Driveway top width (driving surface plus shoulders if any, see width "W" in Driveway Detail diagram on back of application) 32 Number of present driveways to the property? 1

Has a County Building Permit been obtained? Yes _____ No _____ None Required X.

I hereby make application to construct or modify the access driveway above in accordance with the specifications stated below and as shown on the detail drawings on page two of this form.

Signature [Signature] Date 6-12-13

SPECIFICATIONS

1. The owner is responsible for the cost of all culverts, aprons, fill material and surfacing for the driveway, and for maintenance of the driveway and culvert from the road shoulder to the right-of-way line.
2. Where a culvert is needed, the county will determine the size and length of the culvert. Minimum size is 18 inches.
3. Only new culverts meeting Minnesota Department of Transportation Standard Specifications for Construction shall be installed. 6:1 safety aprons/ends are required on all culverts.
 - a. Corrugated steel pipe (AASHTO M 36M) may be used. Metal aprons are required.
 - b. Corrugated polyethylene pipe (AASHTO M294) dual wall with smooth interior may be used. Polyethylene pipe shall have granular material compacted in 6-inch lifts along the pipe from the bottom to the midpoint, and shall have a minimum 12 inches of material (including aggregate and/or pavement) over the pipe. Metal aprons are required.
 - c. Reinforced concrete pipe is required under new public road approaches where a culvert is needed.
4. All approaches shall have side slopes of 6:1 or flatter. No headwalls, landscaping walls, large rock, etc. are allowed.
5. Driveway top width (driving surface plus shoulders) shall be 16 to 32 feet wide.
6. The centerline of the driveway, 20 feet from the shoulder of the road, shall be at least 6 inches lower than the shoulder.
7. All accesses shall intersect with the road at 90 degrees, for a distance of not less than 20 feet from the shoulder of the road for private driveways, and for a distance of not less than 50 feet from the shoulder of the county road for public roads.

The following information is to be completed by Winona County.

Culvert diameter _____ inches and length _____ feet, plus two 6:1 safety aprons.

Approved _____ Date _____
Winona County Highway Engineer

_____ Original to Applicant _____ Copy to Road File _____ Copy to Planning & Zoning

Don -

\$0.00

Jeff Duncan 507 457-

Winona County Highway Department
5300 Highway 61 West
Winona, MN 55987

mark is lathe infield

Jeff Duncan will check before approved.

507-457-8840
507-454-3699 (FAX)

Mark area w lathe

ACCESS DRIVEWAY APPLICATION

Duncan

An access permit must be obtained from the Winona County Highway Department prior to constructing, improving, or changing the use of access, either temporary or permanent, on a county state-aid highway or county road under the jurisdiction of Winona County.

Owner or Applicant Dave Nisbit Tom Campbell Telephone No. _____

Address 14444 Bathje Lane

City Utica State MN Zip _____

Location of Drive At existing drive feet N - S - E - W of _____

On the N - S - E - W side of County Road No. 113 in Section _____, _____ Township.

To aid in locating the proposed driveway, the applicant should place a stake, with a flag attached, on the right of way line at the center of the proposed driveway.

Purpose of Drive: Residence _____ Field Entrance ☒ Farm/Commercial _____ Public Road _____

Proposed Driveway top width (driving surface plus shoulders if any, see width "W" in Driveway Detail diagram on back of application) 32 Number of present driveways to the property? 1

Has a County Building Permit been obtained? Yes _____ No _____ None Required ☒

I hereby make application to construct or modify the access driveway above in accordance with the specifications stated below and as shown on the detail drawings on page two of this form.

Signature _____ Date _____

SPECIFICATIONS

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The following information is to be completed by Winona County.

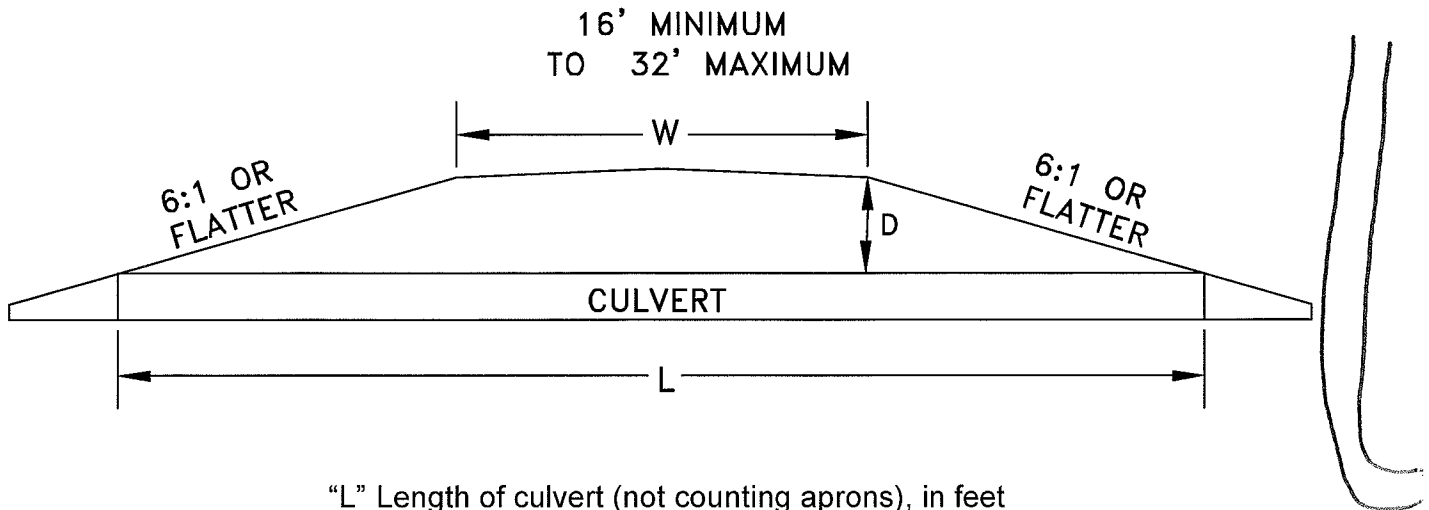
Culvert diameter _____ inches and length _____ feet, plus two 6:1 safety aprons.

Approved _____ Date _____

Winona County Highway Engineer

____ Original to Applicant ____ Copy to Road File ____ Copy to Planning & Zoning

WINONA COUNTY DRIVEWAY DETAILS

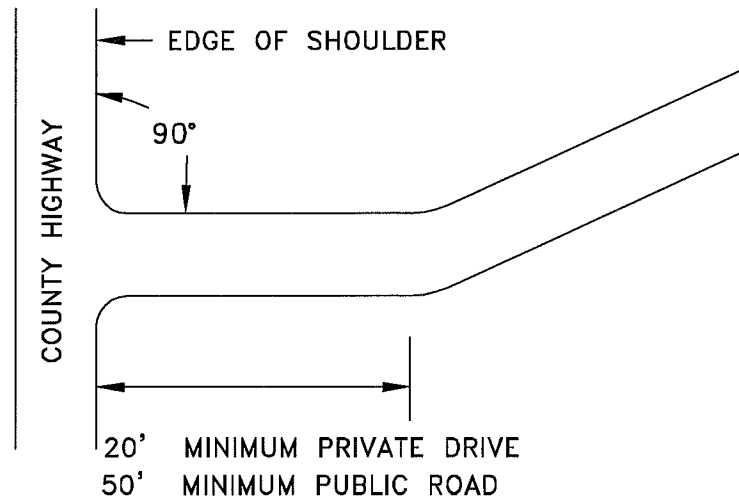


"L" Length of culvert (not counting aprons), in feet
 $L = D \times 12 + W$

"D" Depth over culvert, in feet	"W" Driveway top width (driving surface plus shoulders), in feet								
	16	18	20	22	24	26	28	30	32
6	88	90	92	94	96	98	100	102	104
5	76	78	80	82	84	86	88	90	92
4	64	66	68	70	72	74	76	78	80
3	52	54	56	58	60	62	64	66	68
2	40	42	44	46	48	50	52	54	56
1	28	30	32	34	36	38	40	42	44

Perpendicular Approach for Angled Driveways

32' entry



Winona County Highway Department
5300 Highway 61 West
Winona, MN 55987

507-457-8840
507-454-3699 (FAX)

ACCESS DRIVEWAY APPLICATION

An access permit must be obtained from the Winona County Highway Department prior to constructing, improving, or changing the use of access, either temporary or permanent, on a county state-aid highway or county road under the jurisdiction of Winona County.

Mine Operator: Tom Rowe Kamp, IT Sands LLC

Owner or Applicant Thomas Campbell Telephone No. (507) 932-4028

Address 11763 County Road 6

City St. Charles State MN Zip 55972

Location of Drive 3 miles feet N (S) E - W of County Road 6

On the N - S - E - (W) side of County Road No. 113 in Section 35, Saratoga Township.

To aid in locating the proposed driveway, the applicant should place a stake, with a flag attached, on the right of way line at the center of the proposed driveway.

Purpose of Drive: Residence _____ Field Entrance X Farm/Commercial _____ Public Road _____

Proposed Driveway top width (driving surface plus shoulders if any, see width "W" in Driveway Detail diagram on back of application) 32 Number of present driveways to the property? 1

Has a County Building Permit been obtained? Yes _____ No _____ None Required X.

I hereby make application to construct or modify the access driveway above in accordance with the specifications stated below and as shown on the detail drawings on page two of this form.

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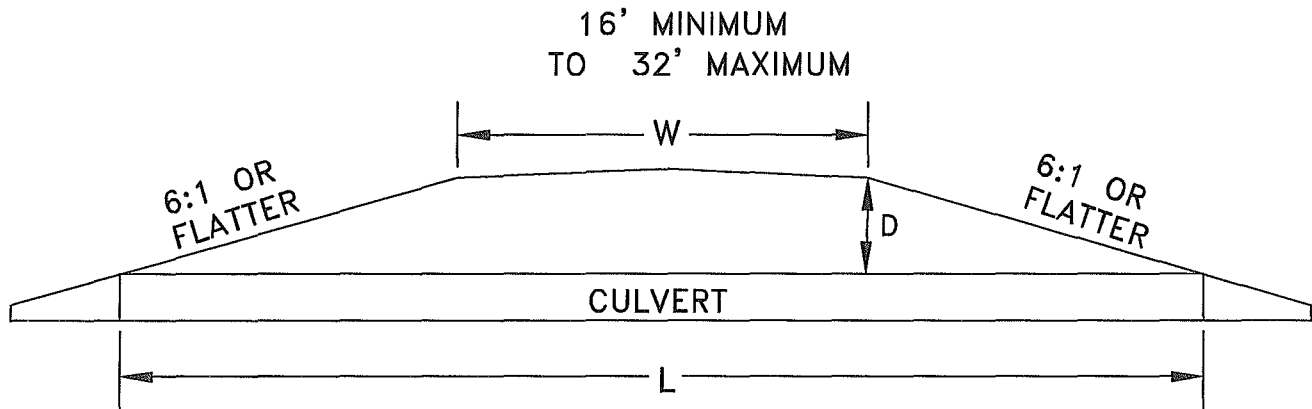
Culvert diameter _____ inches and length _____ feet, plus two 6:1 safety aprons.

Approved _____ Date _____

Winona County Highway Engineer

_____ Original to Applicant _____ Copy to Road File _____ Copy to Planning & Zoning

WINONA COUNTY DRIVEWAY DETAILS

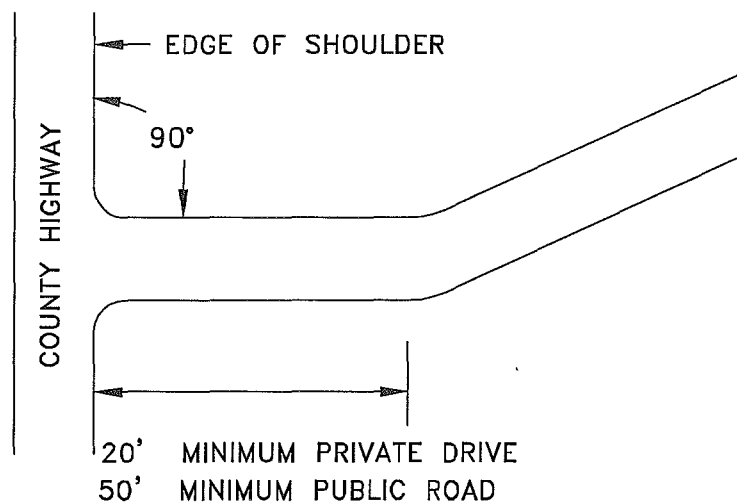


"L" Length of culvert (not counting aprons), in feet

$$L = D \cdot 12 + W$$

"D" Depth over culvert, in feet	"W" Driveway top width (driving surface plus shoulders), in feet								
	16	18	20	22	24	26	28	30	32
6	88	90	92	94	96	98	100	102	104
5	76	78	80	82	84	86	88	90	92
4	64	66	68	70	72	74	76	78	80
3	52	54	56	58	60	62	64	66	68
2	40	42	44	46	48	50	52	54	56
1	28	30	32	34	36	38	40	42	44

Perpendicular Approach for Angled Driveways



Condition # 25 - Reporting Vehicle Weights
Conditional Use Permit
Nisbit Mine

Owner/Applicant shall be required to identify a method of positive controls regarding the weight of vehicles leaving the mine and method to insure vehicles do not exceed the weight limits of the roads and bridges upon which they travel, and obtain approval by the County Highway Engineer on the methods and frequency of inspection used. Controls such as scales and regular reporting on vehicle weights shall be implemented with minimum quarterly reporting to the County Highway Department in conjunction with road use agreement reporting requirements.

Sand will be hauled from the mine using 80,000 # gross weight vehicle trucks. A computerized scale system will be installed in the front-end loader to monitor daily truck weights. Scales will be inspected daily and logged. Verification of the scaling system will be available at any time.

43.89 GENERAL PROVISIONS

- (a) **When Required:** A Transportation Impact Analysis and Road Use Agreement shall be required for any development subject to a site plan or CUP after 1/1/2013 which will generate 200 or more heavy commercial vehicle trips per day at maximum daily operating capacity. An analysis shall be required for projects where heavy commercial vehicles from the operation would contribute more than 20% of the traffic on any local street. These provisions shall not prevent the City from requesting a Transportation Impact Analysis be complete for projects outside the City of Winona which will have any of the aforementioned impacts on non-truck route roads in the City of Winona.
- (b) **Jurisdiction:** The City Engineer shall have the final authority for determining the need and adequacy of Transportation Impact Analyses and Road Use Agreements. The City Engineer may waive the requirement for a Transportation Impact Analysis and/or Road Use Agreement.
- (c) **Applicability:** A Transportation Impact Analysis shall apply to roads used for transporting materials in heavy commercial vehicles, extending from the site access to a truck route unless waived by the City Engineer.
- (d) **Application:** No development application subject to a Transportation Impact Analysis or Road Use Agreement shall be considered complete unless accompanied by an appropriate traffic study except if a waiver has been granted.
- (e) **Findings:** A Transportation Impact Analysis shall find the following:
 - (1) The traffic generated by the proposed use can be safely accommodated on proposed haul routes and will not need to be upgraded or improved in order to handle the additional traffic generated by the use; or
 - (2) A Road Use Agreement is recommended specifying responsibility for improving and maintaining roads including remediation of damaged roads and specification of designated haul routes.

43.90 TRANSPORTATION IMPACT ANALYSES

- (a) **Contents:** A Transportation Impact Analysis shall contain the following information at a minimum:
 - (1) An analysis of existing traffic on road segments and intersections from site access to a truck route.
 - (2) Traffic forecasts for road segments and intersections from site access to a truck route. Such forecasts shall be based on the maximum trips per day.

- (2) Responsibility for exceptional maintenance attributable to the use, estimated based on Minnesota Local Road Research Board (LRRB) Pavement Impacts of Large Traffic Generators methodology;
- (3) Responsibility for clean-up of spillage and public road dust control along haul routes;
- (4) Establishment of financial accounts to address costs associated with upgrading and exceptional maintenance costs;
- (5) Delineation of a haul route between site access and a truck route;
- (6) Schedules of operation and hauling, including construction operations;
- (7) Methods to verify and report type, number, and weight of truck loads;
- (8) Emergency conditions creating a need for immediate road repairs or road closing;
- (9) Required insurance; and
- (10) Remedies and enforcement measures.
ORD. 3924 2/19/2013

Traffic Impact Analysis for Nisbit Sand Mine

Winona County, MN

Wenck File #2911-01

Prepared for:

TOM ROWEKAMP

Prepared by:

WENCK ASSOCIATES, INC.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
(763) 479-4200

July 23, 2012



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1.0 Executive Summary

The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.
- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on

CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.

2.0 Purpose and Background

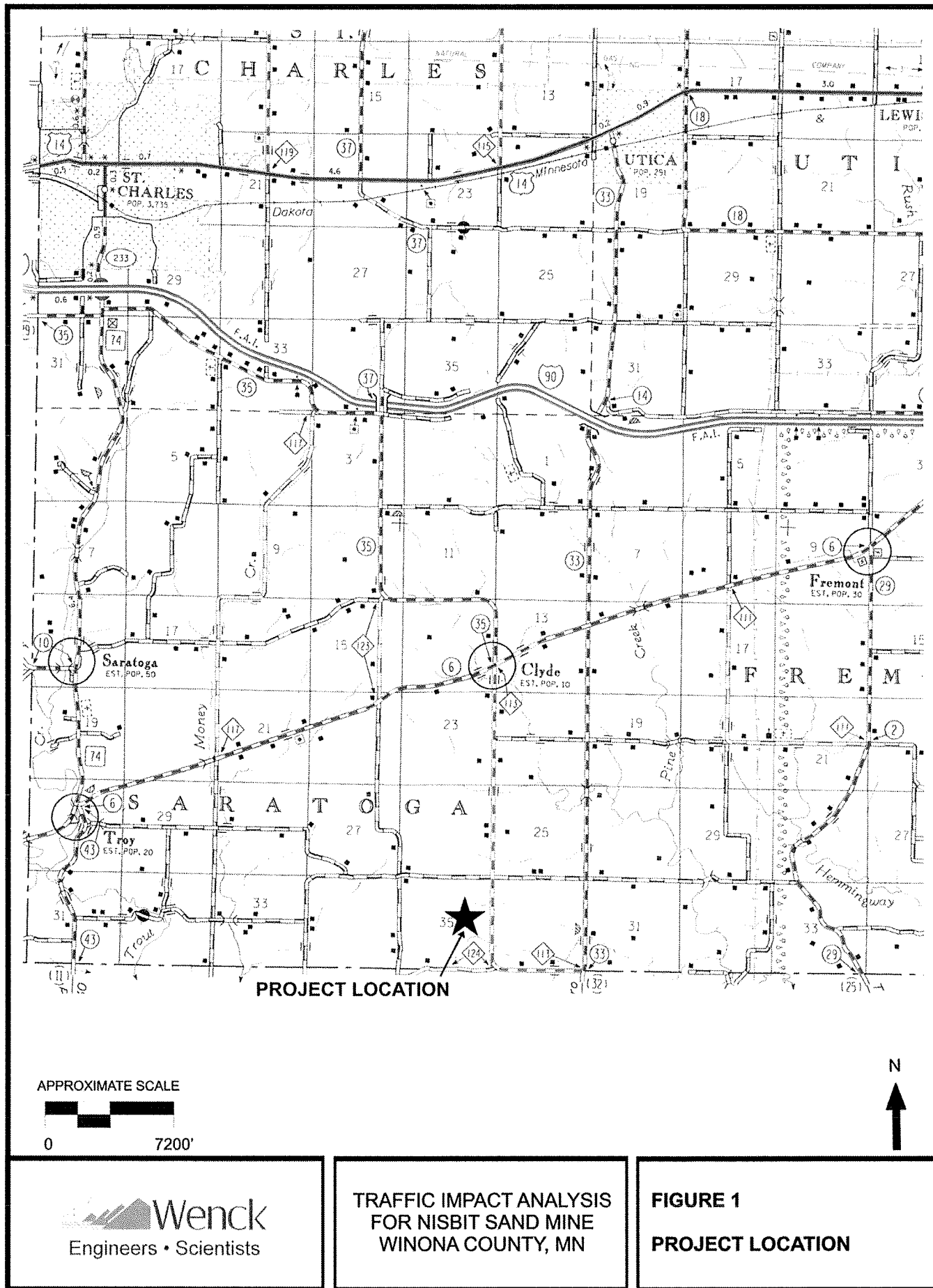
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- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection. **Figure 1** shows the project location.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Figure 2 shows the proposed haul route for the project. Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.





3.0 Existing Conditions

The subject site is presently used for farming. CSAH 33 is a two lane rural section roadway which runs north and south. CR 113, CSAH 6, and CSAH 14 are two lane rural section roadways which run east and west and intersect with CSAH 33. T.H. 14 is a two lane rural section roadway which intersects with CSAH 33 in Utica. All of the subject roads have a speed limit of 55 mph. Existing geometrics and traffic control at the subject intersections are described below:

- *CR 113 and proposed access.* This three-legged intersection is uncontrolled. The northbound approach provides one lane shared by left turn and through movements. The southbound approach provides one lane shared by right turn and through movements. The eastbound approach currently serves as a field access.
- *CSAH 33 and CR 113.* This three-legged intersection is controlled by a stop sign on the eastbound CR 113 approach. The northbound approach provides one lane shared by left turn and through movements. The southbound approach provides one lane shared by right turn and through movements. The eastbound approach has one lane shared by right and left turn movements.
- *CSAH 33 and CSAH 6.* This four-legged intersection is controlled by stop signs on the northbound and southbound CSAH 33 approaches. All approaches provide one lane shared by left turn/through/right turn movements.
- *CSAH 33 and CSAH 14.* This three-legged intersection is controlled by a stop sign on the westbound CSAH 14 approach. The northbound approach provides one lane shared by right turn and through movements. The southbound approach provides one lane shared by left turn and through movements. The westbound approach has one lane shared by right and left turn movements.
- *TH 14 and CSAH 33.* This four-legged intersection is controlled by stop signs on the northbound and southbound approaches. The northbound CSAH 33 approach provides one lane shared by left turn/through/right turn movements. The southbound approach is a minor private driveway. The eastbound TH 14 approach provides one left turn/through lane and one dedicated right turn lane. The westbound TH 14 approach provides one left turn/through lane and one through/ right turn bypass lane.

Weekday turning movement counts were recorded on June 28, July 10, and July 11, 2012 during the weekday a.m. (7:00-9:00 a.m.) and p.m. (4:00-6:00 p.m.) peak periods. Daily traffic volume data was recorded at three locations on CSAH 33 during the week of July 9, 2012. This data is presented later in the report.

4.0 Traffic Forecasts

As indicated earlier, the proposed project is expected to be operating later this year. Traffic forecasts and analyses have been completed for the year 2014 in order to account for the proposed project and other potential projects in the area. Weekday a.m. and p.m. peak hour traffic forecasts were developed for the subject intersections for the 2012, 2014 No-Build, and 2014 Build scenarios. Each of these scenarios is described below.

- *Existing (2012).* Weekday a.m. and p.m. peak hour traffic volumes for this scenario were established based on peak period traffic counts.
- *2014 No-Build.* To account for natural background traffic growth, existing volumes at the subject intersections were increased by 1.0 percent per year. Review of historic count data shows that volumes have actually decreased in the recent past. To be conservative, we have chosen to include growth at 1.0 percent per year.

In addition to the background growth, trips generated by proposed Yoder and Dabelstein sand mines were also added. Information on the number of trips for these mines was obtained from County staff. Trips from these mines will use CSAH 6 and will travel through the CSAH 33/CSAH 6 intersection.

- *2014 Build.* Volumes due to the proposed project were added to the 2014 No-Build volumes to establish 2014 Build volumes.

Trip Generation

The expected number of trips is based on the maximum number of truckloads produced by the mine. As described earlier, the mine is expected to generate a maximum of 140 truckloads of sand per day and an average 80 truckloads per day. We have based the traffic forecasts on the maximum loads per day to account for the worst case scenario.

Mining operations are proposed to occur from 7 a.m. to 6 p.m. This equates to an average of 13 loads per hour. Each truck must leave the site and return to the site, resulting in 13 entering truck trips and 13 exiting truck trips per hour. Over the course of an entire day the mine will generate 140 entering and 140 exiting truck trips.

Traffic Volumes

The trips generated by the mine were assigned to the roadway system according to the proposed haul route shown in Figure 2. The resultant a.m. and p.m. peak hour volumes are shown in Figure 3.

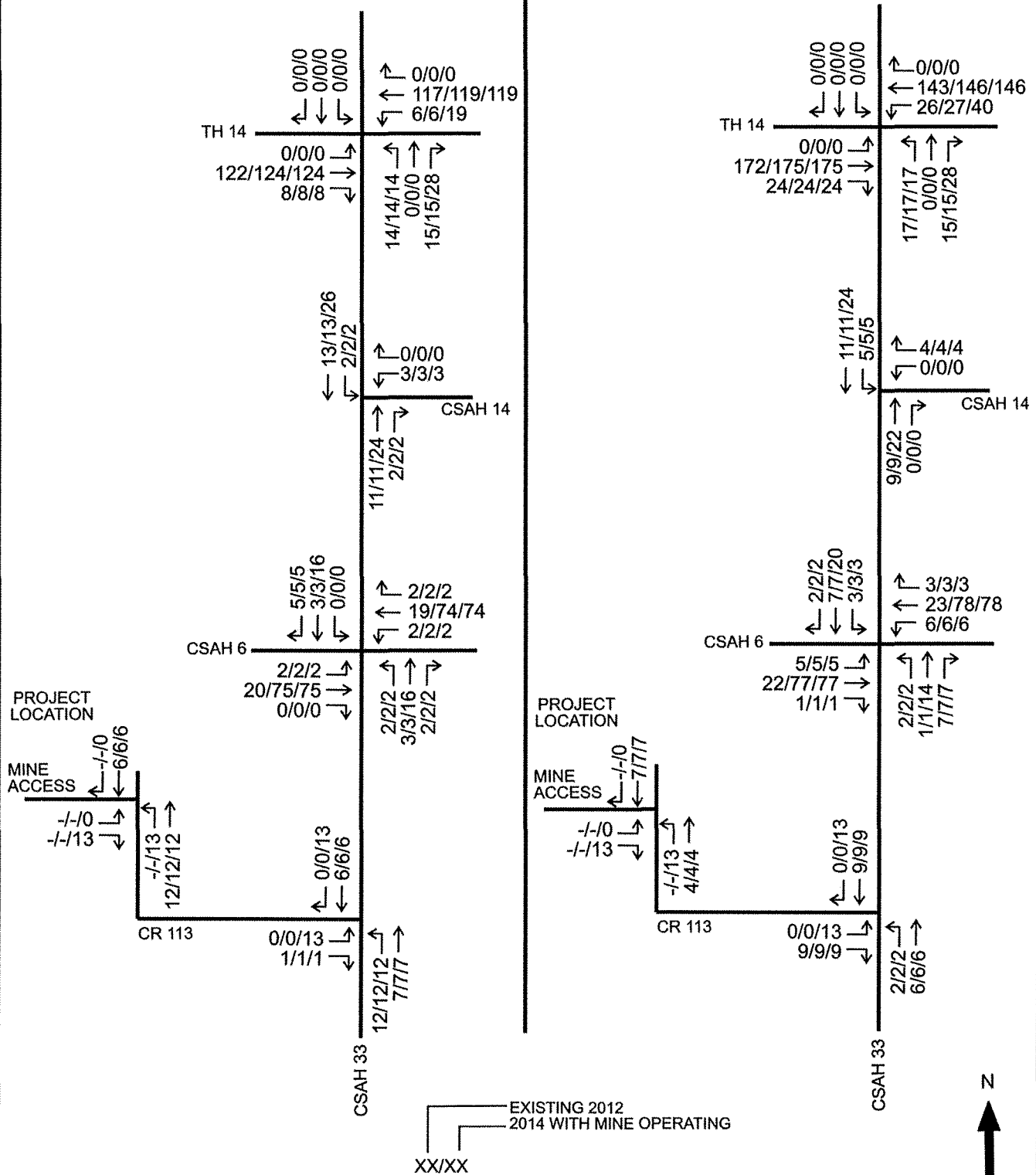
Daily traffic volume data was also included in the traffic forecasts. The existing and 2014 daily traffic volumes on CSAH 33 are shown in Table 1.

Table 1
Weekday Daily Traffic Volumes on CSAH 33

Location	2012	2014 No-Build	2014 Build
Between CR 113 and CSAH 6	325	330	610
Between CSAH 6 and CSAH 14	405	415	695
Between CSAH 14 and TH 14	575	585	855

WEEKDAY AM PEAK HOUR

WEEKDAY PM PEAK HOUR



5.0 Traffic Analyses

Intersection Level of Service Analysis

Traffic analyses were completed for the study intersections for the 2012, 2014 No-Build, and 2014 Build conditions during the weekday a.m. and p.m. peak hours using Synchro analysis software. Existing geometrics presented earlier were used for the initial analyses for the subject intersections.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.
- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection. For most agencies in Minnesota, level of service D represents the minimal acceptable level of service for regular daily operations.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.

- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The forecasted traffic volumes for each scenario were analyzed using the existing geometry and intersection control. The LOS results for the study intersections are discussed below.

CR 113 and proposed access. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CR 113. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 6. During the weekday a.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better. During the weekday p.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 14. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

TH 14 and CSAH 33. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS B or better under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

Sight Distance Review

The available sight distances along the proposed haul route were reviewed to determine if any issues exist. Depending on the location, either the intersection sight distance or the stopping sight distance was reviewed. Information contained in the American Association of State Highway and Transportation Officials (AASHTO) publication “A Policy on Geometric Design of Highways and Streets” was used for the sight distance review.

Intersection sight distance is provided to allow drivers to perceive the presence of potentially conflicting vehicles when entering an intersection. Stopping sight distance is the length of roadway ahead that is visible to the driver. Existing sight distance information was measured at each intersection analyzed along the haul route. This information was compared to the requirements as listed in the AASHTO publication. The results of this review are shown below.

CR 113 and proposed access. Loaded trucks exiting the site will turn right onto CR 113 to travel south and east to CSAH 33. At this location, drivers must be able to see vehicles arriving from the north. The sight distance looking to the north is approximately 1,580 feet. The intersection sight distance requirement for a truck turning right from a stopped condition is 849 feet. Therefore adequate sight distance is provided at this location.

Empty trucks entering the site will turn left from CR 113 onto the access drive. Trucks traveling north on CR 113 have clear sight of the access from approximately 800 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location.

CSAH 33 and CR 113. Loaded trucks will turn left onto CSAH 33 from CR 113. At this location, drivers must be able to see vehicles arriving from the north and the south. The sight distance looking to the north and looking to the south is approximately 600 feet. The intersection sight distance requirement for a truck turning left from a stopped condition is 930 feet. Therefore the sight distance at this location is less than the required distance.

AASHTO provides additional guidance for low volume roads in the publication “Guidelines for Geometric Design of Very Low-Volume Local Road ($ADT \leq 400$)”. Since the average daily traffic (ADT) volume at this location is approximately 325, this document was reviewed for further guidance. This document states that under ideal conditions the requirement listed in the Policy on Geometric Design of Highways and Streets should be met. However, under constrained conditions, the distance should be at least equal to the stopping sight distance as listed in the Low Volume Road document. This requirement is listed at 405 feet. Both the sight distances of 600 feet exceed this requirement.

Due to the very low volumes at this location, physical improvements to the roadway to increase the sight distance are not justified. Based on the existing conditions at this location and the number of trucks turning left, we recommend additional advanced warning on CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed on both northbound and southbound CSAH 33 to warn motorists of trucks entering the roadway. The recommended sign legend will have the legend “Trucks Entering Ahead, will be black on orange,

and will be 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

Empty trucks will turn right from CSAH 33 onto CR 113. Trucks traveling south on CSAH 33 have clear sight of the access from approximately 600 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location.

CSAH 33 and CSAH 6. Loaded trucks will cross over CSAH 6 to continue traveling north on CSAH 33. At this location, drivers must stop and be able to see vehicles arriving from the east and west. The sight distance looking to the east and looking to the west is approximately 700 feet. The intersection sight distance requirement for a truck crossing from a stopped condition is 849 feet. Therefore the sight distance at this location is less than the required distance.

Empty trucks will also cross CSAH 6 and continue south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

Due to the very low volumes at this location, physical improvements to the roadway to increase the sight distance are not justified. Based on the existing conditions at this location and the number of trucks crossing, we recommend additional advanced warning on CSAH 6. While the mine is operational and trucks are hauling, additional signs should be installed on both eastbound and westbound CSAH 6 to warn motorists of trucks crossing the roadway. The standard sign for this situation is sign number W8-6 as described in the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD). The sign will be black on orange and 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

CSAH 33 and CSAH 14. Loaded trucks will pass through this intersection to continue traveling north on CSAH 33. Vehicles on CSAH 14 are required to stop at this location. At this location, drivers on CSAH 14 must stop and be able to see vehicles arriving from the north and south. The sight distance looking to the north is approximately 1,200 feet and looking to the south is approximately 1,350 feet. The intersection sight distance requirement for a passenger vehicle turning left a stopped condition is 606 feet. Therefore adequate sight distance is provided at this location.

Empty trucks will also pass through this intersection to continue traveling south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

A worst case scenario would require a truck on CSAH 33 to come to a stop at this location. The required stopping sight distance in the northbound direction is 520 feet due to the downgrade. In the southbound direction the required stopping sight distance is 495 feet. The available sight distances in both directions are greater than these requirements.

TH 14 and CSAH 33. Loaded trucks will turn right onto TH 14 to travel east to Winona. At this location, drivers must stop and be able to see vehicles arriving from the west. The sight distance looking to the west is greater than ½ mile (2,640 feet). The intersection sight distance

requirement for a truck turning right from a stopped condition is 849 feet. Therefore adequate sight distance is provided at this location.

Empty trucks entering the site will turn left from TH 14 onto CSAH 33. Trucks traveling west on TH 14 have clear sight of the intersection from approximately 1,600 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location. In addition, a westbound bypass lane exists at this intersection, which will assist in the overall intersection operations.

6.0 Conclusions

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.
- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.

WINONA COUNTY BOARD OF COMMISSIONERS

WINONA COUNTY, MINNESOTA

**IN THE MATTER OF WHETHER
THERE IS A NEED FOR AN ENVIRONMENTAL
IMPACT STATEMENT (EIS) REGARDING THE
DAVID NISBIT QUARRY CONDITIONAL USE PERMIT
APPLICATION TO EXTRACT INDUSTRIAL SAND**

**FINDINGS OF FACT,
CONCLUSIONS, AND
NEGATIVE DECLARATION**

The above-named matter came for consideration before the Winona County Board of Commissioners (the Board) at its regular meeting on April 2, 2013, in its capacity as the designated Responsible Government Unit (RGU) for a determination as to whether an Environmental Impact Statement (EIS) should be prepared on the David Nisbit quarry conditional use permit application to extract industrial sand (Nisbit sand mine).

Based upon its consideration of the entire record in this matter which included the preparation of an Environmental Assessment Worksheet (EAW) (including exhibits and appendices) which was ordered by the Board in response to a citizen petition for one to be completed, the written comments received on the EAW after its publication in the State of Minnesota's Environmental Quality Board (EQB) Monitor, the County's response to the written comments, and comments received at a public hearing on the EAW held on March 21, 2013, and the recommendation of the Winona County Planning Commission (WCPC), the Board makes the following:

FINDINGS OF FACT

1. Winona County was notified by the EQB on August 30, 2013 that a citizens' petition had been filed with the State of Minnesota requesting that an EAW be prepared for the Nisbit sand mine. The EQB designated Winona County the RGU for determining whether an EIS was needed for the Nisbit sand mine.
2. On October 2, 2013, the Board determined an EAW should be prepared for the Nisbit sand mine.
3. On December 11, 2013, preliminary data for the EAW was submitted to Winona County from the Nisbit sand mine proposer.
4. On January 15, 2013, Winona County submitted the EAW to the EQB. The EQB published the EAW in the EQB Monitor on January 21, 2013.
5. Public and state agency comments on the EAW were received by Winona County through February 20, 2013. Winona County prepared and made written responses to the comments part of the public record in this matter.
6. The Board directed that a public hearing for the purpose of receiving additional comment on the EAW be held before the WCPC on March 21, 2013. The WCPC, upon a review of the entire record on comments submitted in response to the EQB Monitor publication of the EAW, response to the comments, and the comments received at the March 21, 2013, immediately

- following the public hearing, on a 5-3 vote for a negative declaration on the need for an EIS, recommended to the Board that an EIS not be required.
7. At its April 2, 2013 Regular Meeting, the Board took up the matter of whether an EIS should be required for the Nisbit sand mine, a 19.1 acre silica sand mine site in Saratoga Township, Winona County, on property owned by Mr. David Nisbit.
 8. Minnesota Rule 4410.170, Subparts 1 through 9 articulates the legal requirements the RGU must follow for making the decision on the need for EIS. The Winona County Zoning Ordinance (WCZO) incorporates both the Minnesota Statutes 116D and Minnesota Rules 4410 by reference, and detail very specific decision-making provisions and criteria for the Board as the EQB-designated RGU to follow. Referencing Chapter 7, WCZO, Environmental Review.
 9. Based on the entire record before it, the Board finds it has sufficient information to proceed with the EIS determination decision, taking into consideration Minnesota Rule 4410.1700, Subpart 2a. which reads in part: "Insufficient information. If the RGU determines that information necessary to a reasoned decision about the potential for, or significance of, one or more possible environmental impacts is lacking, but could be reasonably obtained, the RGU shall either: A. make a positive declaration and include within the scope of the EIS appropriate studies to obtain the lacking; or B. postpone the decision on the need for an EIS..." Minn. R. 4410.1700, Subp. 2a. (2011).
 10. Minnesota Rule 4410.1700, Subp. 3. Reads:
Form and basis for decision. The RGU's decision shall be either a negative declaration or a positive declaration. The RGU shall base its decision regarding the need for an EIS on the information gathered during the EAW process and the comments received on the EAW. Minn. R. 4410.1700, Subp. 3 (2011).
 11. The Board finds that the record before it, which includes the Nisbit sand mine EAW, the 54 written comments received in response to the publication of the EAW in the EQB Monitor, the County's response to those comments, and the public comments received at the March 21, 2013 public hearing on the EAW before the WCPC, and the record of the WCPC 5-3 vote adopting a negative declaration on the need for an EIS on the Nisbit sand mine, provide sufficient information for it to make a reasoned decision about the potential for, or significance of, one or more possible environmental impacts of the proposed Nisbit sand mine.
 12. Minnesota Rule 4410.1700, Subp. 6. reads:
Standard. In deciding whether a project has the potential for significant environmental effects the RGU shall compare the impacts that may be reasonably expected to occur from the project with the criteria in this part. Minn. R. 4410.1700, Subpart 2a. (2011).
 13. Minnesota Rule 4410.1700, Subp. 7. spells out the criteria the Board as the RGU considered in making its decision. That criteria is:
Criteria. In deciding whether a project has the potential for significant environmental effects, the following factors shall be considered:
A. type, extent, and reversibility of environmental effects;
B. cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the

degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;

C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project; and

D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

Minn. R. 4410.1700, Subp. 7. (2011).

14. At the beginning of the Board's consideration of the Nisbit sand mine matter at its April 2, 2013 meeting, Commissioner Steve Jacob made the motion for a negative declaration, namely that an EIS was not needed for the Nisbit sand mine project. Commissioner Marcia Ward seconded the motion and the Board proceeded to discuss the motion addressing the criteria to be considered under Minnesota Rules 4410.1700, Subp. 7. The Board's findings on those criteria are addressed below in the order the criteria are listed in the Minnesota Rules 4410.1700, Subp. 7:
15. *A. Type, extent, and reversibility of environmental effects:* the Board in addressing this criteria took into consideration the EAW Worksheet/Data Submittal/ Exhibits/Appendices, Written Comment, Response to Written Comment, Public Hearing Testimony (at the discretion of the local jurisdiction), Considerations raised in the EAW Worksheet and Written Responses. The areas covered by these documents and submissions on this particular criteria included: Cumulative Potential Effects, Operational Concerns, Public Health and Sociological Effects, Air Quality, Water Resources, Zoning and Compatible Land Use, Reclamation, Aesthetics/ Quality of Life/ Community Character, Transportation, Natural and Ecological Resources, Potential Spills and Contaminants, Nuisances, Economic Impacts, Property Impacts, Considerations related to mitigating measures, EAW Worksheet/ Data Submittal, Mine Operations Plan, Mine Stormwater Plan, Mine Fugitive Dust Plan.
16. Commissioner Jacob stated that as an individual mine, the Nisbit sand mine would have no significant environmental effects. Commissioner Ward noted the small size of the mine (19.1 acre site) as a factor to consider as to the type, extent, and reversibility of environmental effects of the Nisbit sand mine project. She also noted that this was a scoop and load type of mining operation that would have minimal impact on the environment and the reclamation/restoration plans would be positive for the environment. She cautioned, however, that her position on the Nisbit sand mine was not a rubber stamp for the industry as a whole. Each project, if any are proposed in the future, would be scrutinized.
17. *B. Cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;* the Board in addressing this criteria took into consideration the

EAW Worksheet/ Data Submittal (see page 50, #29), the Written Comment Record, the Minnesota Pollution Control Agency's (MPUC) Letters of February 20, 2013 and March 22, 2013, the Minnesota Department of Natural Resources (DNR) Letter of February 20, 2013, and the EQB's Report On Silica Sand, March 20, 2013.

18. The Board finds that some things may be learned from the 19.1 acre Nisbit sand mine project as much remains not well understood as to the cumulative impacts of silica sand mining on the environment. As discussed in EQB's recent report on silica sand, "the cumulative impacts to water quality (and quantity) of multiple silica sand mines in close proximity are not well understood. Monitoring wells should be required at mines to measure groundwater elevations, flow directions and water quality." EQB Report on Silica Sand at page 29. Regarding water quantity, the EQB Report states that "[d]epth to groundwater has not been fully documented in southeastern Minnesota." Report at page 61. Continuing on, the EQB Report found that "[t]he cumulative impacts to water quantity of multiple silica sand mines in close proximity are not well understood. Monitoring wells should be required at mines to measure groundwater elevations, flow directions and water quality." Report at 61. Also in the report, the EQB stated that "Long Term Effects in Karst Regions: More information is needed on the long-term implications for groundwater of mines in karst-prone regions of the state. The MDNR, University of Minnesota, and Minnesota Geological Survey are actively researching karst and groundwater in Minnesota and should be consulted regarding additional mining-related research needs/opportunities." Report at 61.
19. Minnesota Rule 4410.0200, Subp. 11a. defines "cumulative potential effects" as:

"The effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects. Significant cumulative potential effects can result from individually minor projects taking place over a period of time. In analyzing the contributions of past projects to cumulative potential effects, it is sufficient to consider the current aggregate effects of past actions. It is not required to list or analyze the impacts of individual past actions, unless such information is necessary to describe the cumulative potential effects. In determining if a basis of expectation has been laid for a project, an RGU must determine whether a project is reasonably likely to occur and, if so, whether sufficiently detailed information is available about the project to contribute to the understanding of cumulative potential effects. In making these determinations, the RGU must consider: whether any applications for permits have been filed with any units of government; whether detailed plans and specifications have been prepared for the project; whether future development is indicated by adopted comprehensive plans or zoning or other ordinances; whether future development is indicated by historic or forecasted trends; and any other factors determined to be relevant by the RGU." Minn. R. 4410.0200, Subp. 11a. (2011).
20. The Minnesota Supreme Court held that "a 'cumulative potential effects' inquiry under Minn. R. 4410.1700, subp. 7, requires a Responsible Governmental Unit to inquire whether a proposed project, which may not individually have the potential to cause significant environmental

effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources." *Citizens Advocating Responsible Development (CARD) v. Kandiyohi County Board of Commissioners*, 713 N. W. 2d 817 at 821 (2006).

21. The Board finds that the Nisbit sand mine is a small and isolated 19.1 acre site, not associated with any other silica sand mining and/or processing projects that have been proposed and considered by the Board in the past. The only other silica sand mining projects that were actually filed for consideration of conditional use permit (CUP) applications before the Board were the Yoder and Dabelstein sand mining sites (which have a joint proposer who is Minnesota Sands LLC) which are now the subject of an EIS for which the EQB is the RGU. When those sites could be in actual operation, if at all, is purely speculative at this point given the lengthy time the EIS will require. The Nisbit sand mine project was originally filed for a CUP application in 2011. Two other separate silica sand mining project proposals were also submitted for CUP applications around the same time. The Board then instituted a moratorium to study the matter of silica sand mining and develop a significant and material list of conditions under which silica sand mining and processing CUP applicants would have to meet in order to be granted a CUP. After the moratorium was lifted in May 2012, only the Nisbit sand mine project re-filed the CUP application among those original three applicants. The Yoder and Dabelstein applications were new applications, first filed after the moratorium. Currently, the Nisbit, Yoder and Dabelstein sand mine projects are the only silica sand mining projects under some form of review. A silica sand processing plant proposed to be located near the city of St. Charles in Winona County has never been formally filed for review before any governmental body in Winona County and its future development is purely speculation. Commissioner Ward stated that the extent to which the industry will expand is purely speculative.
22. The Board finds that the extent of known speculation on silica sand mining sites in Winona County and general geographic area is contained in a map submitted by G-Cubed Engineering to the County Planning and Zoning Department in March, 2013. This map is attached hereto as Appendix A. The Board finds that there are challenges associated with a cumulative potential effects analysis of the silica sand industry in Winona County because conducting an accurate cumulative potential effects analysis relates to the uncertainty of the ultimate industry extent in Winona County given the regulatory and market constraints. Although the map contained in Appendix A above notes speculative sites, none have been permitted to date and some may be tied to the financial viability of the larger processing investment in the region, which is itself, subject to pure speculation.
23. The Board finds that this uncertainty makes a cumulative effects analysis speculative for issues such as ultimate traffic volumes and resulting congestion or safety issues, the extent of disturbance to natural ecosystems, the cumulative demand for water use for dust suppression or processing and other issues identified in the EAW worksheet.
24. The Board finds that the EAW worksheet (page 50, #29) states a comprehensive list of potential cumulative effects that may occur as a result of mining proliferation in the County and general geographic area. The Board recognizes that the extent to which these effects occur will be

largely dependent upon the ultimate extent of the industry in the geographic region. However, the potential cumulative effect of the Nisbit sand mine project is limited in scope to 19.1 acres and limited in the duration of its operation to 3 years. Commissioner Ward remarked that the Nisbit sand mine applicant has been responsible with their plans to mitigate impact, and therefore, there are no anticipated cumulative potential effects for this mine project.

25. *C. The extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project;* the Board in addressing this criteria took into consideration the Proposed/Preliminary Winona County Conditional Use Permit Sand Mining Application Packet, and the EAW Worksheet List of Applicable Permits (see #8, page 13.)
26. The Board finds that the WCZO and the County's silica sand mining and processing CUP application requirements developed during the moratorium and put into place by the Board and applicable to all silica sand mining and processing CUP applicants will provide sufficient, material, and effective mitigation measures. The County's Silica Sand Mining and Processing Application Packet, which is attached hereto as Appendix B, is a 45 page document which details all aspects of environmental and road use impacts and contains 34 conditions a silica sand mine CUP applicant must address regarding all aspect of environmental and road impact of a silica sand mining and/or processing operation. Both Commissioners Jacob and Ward noted this in their remarks during the Board's discussion of the need for an EIS in this matter.
27. *D. The extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs;* the Board in addressing this criteria took into consideration the EQB's March 20, 2013 determination to conduct an EIS for Minnesota Sands interests and the Finding of Fact submitted by the EQB staff dated March 8, 2013. The Board finds that it will have the ability to react to new information as it becomes available through the permitting authority. One option that may be very effective at controlling the environmental effects of the Nisbit sand mine operation is the use of a time-limited CUP, which would then be subject to review of the WCPC and the Board.
28. Minnesota Rule 4410.1700, Subp. 9. Reads:
"Connected actions and phased actions. Connected actions and phased actions shall be considered a single project for purposes of the determination of need for an EIS. "
Minn. R. 4410.1700, Subp. 9 (2011).
29. Minnesota Rule 4410.0200, Subp. 60. Reads: "Phased action" means two or more projects to be undertaken by the same proposer that a RGU determines: A. will have environmental effects on the same geographic area; and B. are substantially certain to be undertaken sequentially over a limited period of time.

Minn. R. 4410.0200, Subp. 60 (2011)
30. The Board finds that the Nisbit sand mine is a single project whose proposer has no other silica sand projects under consideration or anticipated (unlike the Minnesota Sands, LLC, that is the joint proposer of both the Yoder and Dabelstein projects previously mentioned and which are

now the subject of an EIS). Therefore, the Nisbit project, on its face, does not meet the definition of a connected action or a phased action arising out of a single project.

CONCLUSIONS

1. The Winona County Board of Commissioners was designated the RGU by the EQB to decide the need for an EIS in this matter.
2. The Winona County Board of Commissioners has jurisdiction over the subject matter of this proceeding pursuant to Minnesota Statutes Chapter 116D, Minnesota Rules 4410, and the Winona County Zoning Ordinance, Chapter 7, which incorporates by reference Minnesota Chapter 116D and Minnesota Rules 4410.
3. The question as to whether there is a need for an EIS for the Nisbit sand mine was properly brought to the Winona County Board of Commissioners.
4. The Winona County Board of Commissioners concludes that the Nisbit sand mine matter is more appropriately determined at the local level and is a matter of local control.
5. As an individual, single project, small scale mine, the Nisbit sand mine does not have the potential for significant environmental effects.
6. The Nisbit sand mine does not have the potential to contribute to significant environmental effects because of the disclosures about air, water, emissions, dust, transportation, land use, and restoration.
7. The Winona County Zoning Ordinance and the 34 proposed conditions of approval for the Conditional Use Permit for silica sand mining and processing (Appendix B) adequately address and mitigate for significant environmental effects.

NEGATIVE DECLARATION

1. On voice vote, motion carried 3 (Commissioners Ward, Jacob, and Valentine) to 2 (Commissioners Pomeroy and Olson) in favor of a negative declaration (not requiring an EIS for the David Nisbit Quarry Conditional Use Permit to Extract Industrial Sand). Attached as Appendix C, are the minutes of the April 2, 2013 Winona County Board meeting.

I certify that the above negative declaration was adopted by the Board of Commissioners of the County
of Winona on 04-02-2013, 2013.

SIGNED:

Wayne T. Valentine
Wayne Valentine

Chair - Winona County Board of Commissioners
Title

04-09-2013
Date

WITNESSETH:

Dan K. Hoff
Signature

Winona County Administrator
Title

April 9th, 2013
Date



Winona, MN

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Nisbit Mining EAW

- **Important Notice 3-15-13:**

Below you will find the EAW documents regarding the Public Comments recently received by Winona County.

- [3-15-13 Planning Commission/County Board Cover Memo](#)
- [2-14-13 Winona County Attorney Office EIS Determination Memo](#)
- [12-10-12 Winona County Attorney Discretionary EIS's & Cumulative Potential Effects](#)
- [3-15-13 Winona County Planning Nisbit EAW Comment List](#)
- [3-15-13 Winona County Planning Nisbit EAW Comment Response List](#)
- [2-26-13 Nisbit EAW Public Comments Received \(10mb pdf\)](#)

- **Important Notice 1-15-13:**

Winona County has submitted an EAW for the following project:

A 19.1 acre quarry is proposed on the 74.09-acre David & Sherry Nisbit property, 14444 Gathje Lane, Utica, MN. Extraction and transport of industrial silica sand is intended. An additional 1.36 acre driveway on the site and adjacent Tom Campbell property is proposed for access from CR 113.

This EAW will be published in the EQB Monitor in the January 21, 2013 edition. Written Comment will be accepted by the RGU (Winona County) until the 30 day comment deadline February 20, 2013.

Written Comments may be made to the following addresses and contacts:

Winona County Planning and Environmental Services Department
 177 Main Street
 Winona, MN 55987
 507-457-6335
 Jason Gilman, Director (jgilman@co.winona.mn.us)

- **Nisbit EAW/EQB Documents**

- [1-16-13 Nisbit EAW Press Release \(250kb pdf\)](#)
- [1-16-13 Nisbit EAW \(1mb pdf\)](#)
- [1-16-13 Nisbit EAW Signature Page \(1mb pdf\)](#)
- [1-16-13 Nisbit EAW Figures \(4mb pdf\)](#)
- [1-16-13 Nisbit EAW Appendix \(1mb pdf\)](#)

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March 14, 2013

Memo

To: Winona County Planning Commission

From: Jason Gilman, Director of Planning and Environmental Services

C: Winona County Board, Karin Sonneman, Duane Hebert

RE: EAW Review and determination for the Nisbit Quarry

Dear Commissioners:

Minnesota's Environmental Rules require a Responsible Government Unit (The County), take action on an EAW within 30 days of the end of the official written comment period which ended February 20, 2013, however, written correspondence from Daniel Nisbit's consultant McGhie and Betts, dated February 8, 2013 permitted the County to consider the EAW at its regular Planning Commission meeting March 21, 2013.

You are tasked pursuant Chapter 7 of the Winona County Zoning Ordinance with providing the County Board a recommendation on whether or not potential environmental impacts may warrant further investigation and the need for an Environmental Impact Statement (EIS).

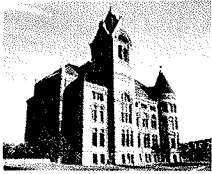
In order to assist you in this decision, enclosed is the complete record of the EAW along with written comments received and an index of comments, response to written comments by the Planning Department and an opinion from the Winona County Attorney on case law relative to these decisions as well as letters from agencies on the EQB's distribution list.

It is important to note that Minnesota's Environmental Rules require the project proposer to pay for the costs of an EIS if ordered.

It is also important to point out that the EAW is merely a brief document outlining the possible environmental issues to be considered and is not intended to be a full study of each issue.

An EIS, if ordered, will study issues in greater detail, providing guidance on potential impacts.

Note: Minnesota's Environmental Rules allow for a 30 day appeal process (MN Stats. 116D.04) after an RGU has rendered its decision and that decision published. Judicial review of the decision occurs in the State District Court.



OFFICE OF THE WINONA COUNTY ATTORNEY

MEMORANDUM

February 14, 2013

To: Jason Gilman, Planning and Environmental Services Director
Duane Hebert, County Administrator

From: Karin Sonneman, Winona County Attorney

Introduction:

In preparation for the Planning Commission's review of the proposed Yoder and Dabelstein silica sand mining projects EAWs comments and the Winona County Board's decision as the designated Responsible Government Unit (RGU) on whether an Environmental Impact Statement (EIS) is needed for the projects, you requested an opinion from my office regarding the applicable Minnesota law that must be considered in the decision-making process.

Beginning in October of 2011, our office has previously provided various legal memorandums in response to requests by your Department to assist the Planning Commission and County Board in the past on the law as it applies in general on the applicable laws (statutes, rules, and ordinances) governing conditional use permit review and land use and environmental law on silica sand extraction and processing. Please refer to those memorandums for guidance as well.

This memorandum, however, will focus on the specific question as to the applicable law for the Planning Commission to make a recommendation to the County Board, and ultimately the Winona County Board to apply in making the determination whether or not an EIS is necessary for the proposed Yoder and Dabelstein silica sand mining projects which have been the subject of a joint EAW comment process on the two projects proposed to be mined by the same company. The sites of the proposed mines are not contiguous to each other, but are nearby to one another.

Executive Summary:

Minnesota law under Minnesota Statutes 116D-Environmental Policy, Minnesota Rules 4410-Environmental Quality Board (EQB) - Environmental Review and the Winona County Zoning Ordinance (WCZO), the latter which incorporates both the Minnesota Statutes 116D and Minnesota Rules 4410 by reference, detail very specific decision-making provisions and criteria

for the Winona County Board as the EQB-designated Responsible Government Unit (RGU) to follow in determining whether or not an EIS is needed for the proposed Yoder and Dabelstein silica sand mining projects.

A 2006 Minnesota Supreme Court case that interprets Minnesota Statutes 116D and Minnesota rules 4410, *Citizens Advocating Responsible Development (CARD) vs. Kandiyohi County Board of Commissioners* (referred herein as the “CARD case”), provides a detailed and required roadmap for any RGU to follow regarding criteria and factors that must be considered in making an EIS determination. In the CARD case, the Minnesota Supreme Court held that the Kandiyohi County Board acted arbitrary and capriciously when it determined that an EIS was not needed for two proposed gravel pit projects because the Board’s decision that the projects would result in no cumulative impact on the environment was not supported by substantial evidence. The case was remanded by the Court back to the County Board to restart the EIS determination process and apply the appropriate legal standards.

The Court stated that [t]he Minnesota Environmental Policy Act (MEPA) requires that governmental agencies contemplating taking action (e.g. issuing a conditional use permit) on a proposed project must first consider the project’s environmental consequences. Minn. Stat. Section 116D.04 subds. 1a (d), 2a (2004) [see opinion for other citations and footnotes on this point]. Chapter 4410 of the Minnesota Rules contains the rules for environmental review enacted by the Environmental Quality Board (EQB) pursuant to Minn. Statutes Section 116D.04.” CARD case at 823.

The Court held that [a] ‘cumulative potential effects’ inquiry under Minn. R. 4410.1700, subp. 7, requires a Responsible Governmental Unit to inquire whether a proposed project, which may not individually have the potential to cause significant environmental effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources.” CARD case at 821.

The CARD case sets forth the standard of review and emphasizes the thoughtful, deliberative record that must be made regarding the cumulative potential effects inquiry to support a decision that any government body designated as an RGU makes in determining whether or not there is a need for an EIS. In following the legal requirements of EIS decision-making as codified in the WCZO, Minnesota Statutes 116D, Minnesota Rules 4410, and expounded upon in detail in the CARD case, the Winona County Board, as the designated RGU in the proposed Yoder and Dabelstein silica sand mining projects, must take into consideration all of the comments received, but because of the emphasis placed on the cumulative potential effects inquiry by the CARD case, particular attention and deliberation should be paid to those comments that address the projects’ potential for cumulative environmental effects.

Primary Applicable Law:

Minnesota Statutes Chapter 116D- Environmental Policy
Minnesota Rules Chapter 4410-Environmental Quality Board (EQB) - Environmental Review
Winona County Zoning Ordinance

Minnesota Supreme Court Case Law:

Citizens Advocating Responsible Development (CARD) v.

Kandiyohi County Board of Commissioners, 713 N. W. 2d 817 (2006)

Legal Analysis

Under Winona County's Zoning Ordinance (WCZO), a conditional use permit (CUP) is required for "all extraction pits and land alteration operations." WCZO, Chapter 9.10. The Yoder and Dabelstein silica sand mining projects applied for CUPs after the County's silica sand moratorium ended. The applicants volunteered to have EAWs prepared on the projects. The EQB designated Winona County as the Responsible Government Authority (RGU) for the environmental review process pursuant to Minnesota Rules Chapter 4410. The EAWs were duly published in the EQB Monitor soliciting comments on the EAWs.

Numerous comments have been received, including letters from the Commissioner of the Minnesota Department of Health (MDH) and the Commissioner of the Minnesota Pollution Control Agency (MPCA). While not required by law to do so, but to provide a final opportunity for public comment and gather any additional input before it makes its decision, the County Board also scheduled a February 21, 2013 Public Hearing before the Planning Commission and the Board on the need for an EIS on the projects. Pursuant to these same provisions of the WCZO and Minnesota law and rules named immediately above, the County Board must make a decision on the need for an EIS for the proposed projects and is scheduled to do so at its March 5, 2013 regular meeting.

WCZO Chapter 7.3.4.c states that [t]he Planning Commission shall make recommendations to the County regarding potential environmental impacts that may warrant further investigation before the project is commenced and the need for an EIS on the proposed project.

WCZO Chapter 7.3.4.d states that "[t]he Board shall base its decision on the need for an EIS and the proposed scope of an EIS on the information gathered during the EAW process and on the comments received on the EAW. Pursuant to Minnesota Rules 4410.1700, in deciding whether a project has the potential for significant environmental effects, the following factors shall be considered:

- I. Type, extent and reversibility of environmental effects.
- II. Cumulative potential effects of related or anticipated future projects.
- III. The extent to which environmental effects can be anticipated and controlled as a result of other environmental studies undertaken by public agencies or the project proposer, or of EISs previously prepared on similar projects."

Quoting directly from WCZO Chapter 7.3.4.d.

WCZO Chapter 7.3.4.d does not include the entire criteria the Board must consider under Minnesota Rules 4410.170, Subp. 7, when acting as the designated RGU, to decide whether the

project has the potential for significant environmental effects. Minnesota Rules 4410.1700, Subp. 7 reads as follows:

“Criteria. In deciding whether a project has the potential for significant environmental effects, the following factors shall be considered:

- A. type, extent and reversibility of environmental effects;
- B. cumulative potential effects. The RGU shall consider the following factors; whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;
- C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project; and
- D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.”

Subp. 9 is also important as it states that “[c]onnected actions and phased actions shall be considered a single project for purposes of the determination of need for an EIS.

It is instructive and informative to review Minnesota Rules 4410.2000 which describes projects requiring an EIS:

“4410.2000 PROJECTS REQUIRING AN EIS.

Subpart 1. Purpose of EIS. The purpose of an EIS is to provide information for governmental units, the proposer of the project, and other persons to evaluate proposed projects which have the potential for significant environmental effects, to consider alternatives to the proposed projects, and to explore methods for reducing adverse environmental effects.

Subp. 2. Mandatory EIS categories. An EIS shall be prepared for any project that meets or exceeds the thresholds of any of the EIS categories listed in part 4410.4400.

Subp. 3. Discretionary EIS. An EIS shall be prepared:

- A. when the RGU determines that, based on the EAW and any comments or additional information received during the EAW comment period, the proposed project has the potential for significant environmental effects; or

B. When the RGU and proposer of the project agree that an EIS should be prepared.

Subp. 4. Connected actions and phased actions. Multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when determining the need for an EIS and in preparing the EIS. In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EIS, a supplemental EIS must be completed before approval and construction of each subsequent project component or stage. The supplemental EIS must address the impacts associated with the particular project component or stage that were not addressed in the initial EIS. For proposed projects such as highways, streets, pipelines, utility lines, or systems where the proposed project is related to a large existing or planned network, for which a governmental unit has determined environmental review is needed, the RGU shall treat the present proposal as the total proposal or select only some of the future elements for present consideration in the threshold determination and EIS. These selections must be logical in relation to the design of the total system or network and must not be made merely to divide a large system into exempted segments. When review of the total of a project is separated under this subpart, the components or stages addressed in each EIS or supplement must include at least all components or stages for which permits or approvals are being sought from the RGU or other governmental units.

Subp. 5. Related actions EIS. An RGU may prepare a single EIS for independent projects with potential cumulative environmental impacts on the same geographic area if the RGU determines that review can be accomplished in a more effective or efficient manner through a related actions EIS. A project must not be included in a related actions EIS if its inclusion would unreasonably delay review of the project compared to review of the project through an independent EIS.”

Statutory Authority:

Minnesota Statutes 116D.04; 116D.045

Minnesota Rules 4410 clearly state that “[t]he scope of these rules applies to all government actions” (4410.0300, Subp.2) and the purpose of the environmental review which is provided under 4410.0300, Subp. 3 is as follows:

“The Minnesota Environmental Policy Act recognizes that the restoration and maintenance of environmental quality is critically important to our welfare. The act also recognizes that human activity has a profound and often adverse impact on the environment.

A first step in achieving a more harmonious relationship between human activity and the environment is understanding the impact which a proposed project will have on the environment. The purpose of parts 4410.0200 to 4410.6500 is to aid in providing that understanding through the preparation and public review of environmental documents. Environmental documents shall contain information that addresses the significant

environmental issues of a proposed action. This information shall be available to governmental units and citizens early in the decision making process.

Environmental documents shall not be used to justify a decision, nor shall indications of adverse environmental effects necessarily require that a project be disapproved. Environmental documents shall be used as guides in issuing, amending, and denying permits and carrying out other responsibilities of governmental units to avoid or minimize adverse environmental effects and to restore and enhance environmental quality.

The objective of the environmental review process as codified in the Minnesota Rule in parts 4410.0200 to 4410.6500 is designed to:

- A. provide usable information to the project proposer, governmental decision makers and the public concerning the primary environmental effects of a proposed project;
- B. provide the public with systematic access to decision makers, which will help to maintain public awareness of environmental concerns and encourage accountability in public and private decision making;
- C. delegate authority and responsibility for environmental review to the governmental unit most closely involved in the project;
- D. reduce delay and uncertainty in the environmental review process; and
- E. eliminate duplication.

While these objectives are important to consider in the context of the overall decision-making process, it is the factors listed in Minnesota Rules 4410.1700, subpart 7 which is the section on the “Decision on Need for EIS” which *must* be taken into account regarding the determination of the need for an EIS.

Further, there is a recognized legal basis for the environmental review of multiple individual mining sites viewed in the aggregate and their “potential cumulative effects.” This inquiry is relevant to whether an EIS would be appropriate. Minnesota Statute § 116D.04, subdivision 2a, states that “where there is *potential for significant environmental effects* resulting from any major governmental action, the action shall be preceded by a detailed EIS prepared by the responsible governmental unit (RGU).” The question then turns on – what constitutes the potential for significant environmental effects? With regard to the consideration of a discretionary EIS, the Minnesota Rules provide that “the RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures

specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project.”¹

While the statutory definitions are far from providing a bright-line rule for when discretionary EIS’s are appropriate, they are instructive in light of a situation like Winona County’s, where there is the possibility of many projects all operating at the same time in a relatively close proximity. The cumulative potential effects inquiry requires the RGU making an EIS determination to consider whether a proposed project, while standing alone may not have the potential to cause significant environmental effects, could nonetheless have significant effects when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources.² Minnesota courts have emphasized the preventative function (of cumulative environmental harm) of EIS’s in this kind of situation. “The very purpose of an EIS, however, is to determine the potential for significant environmental effects *before* they occur.”³

The determination of a discretionary EIS involves an analysis of “cumulative potential effects.” This analysis often appears in closely-tied context to the language of “potential for significant environmental effects,” but it is important to understand how the law has treated many of these similar-sounding phrases separately in past cases. The cumulative potential effects analysis is relevant only to discretionary EIS determinations, as it is not mentioned under the Minnesota Rule for a mandatory EIS (4410.4400), which is pronounced in terms of specific numerical standards (i.e. 160 acres of excavation).

The rule that relates to making a discretionary EIS determination (4410.1700) states that “an EIS shall be ordered for projects that have the potential for significant environmental effects.” On its face, the language appears to be mandatory, however it is determining what constitutes the *potential for significant environmental effects* that makes it quite discretionary. That phrase originates from Minnesota Statute § 116D.04, which specifically states that “where there is potential for significant environmental effects resulting from any major governmental action, the action shall be preceded by a detailed environmental impact statement prepared by the responsible governmental unit.” The statute is referenced in all major cases where an EIS was a central issue. 116D.04 also recognizes that the scope of an EIS’s purpose goes beyond considerations that are purely environmental; the “environmental impact statement shall also analyze those economic, employment and sociological effects that cannot be avoided should the action be implemented.”

Minnesota Rule 4410.1700, Subp. 7. B. states that with regard to cumulative potential effects, “the RGU shall consider the following factors: whether the cumulative potential effect is

¹ Minn. R. 4410.1700, subp. 7(B).

² Citizens Advocating Responsible Development v. Kandiyohi County Board of Commissioners, 713 N.W.2d 817, 829-30 (Minn. 2006).

³ Trout Unlimited, Inc. v. Minnesota Dept. of Agriculture, 528 N.W.2d 903, 909 (Minn. App. 1995).

significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project.”

In the seminal 2006 Minnesota Supreme Court case interpreting the environmental review standards codified in Minnesota Statutes 116D and Minnesota rules 4410, *Citizens Advocating Responsible Development (CARD) v. Kandiyohi County Board of Commissioners*, the Court held that [a] ‘cumulative potential effects’ inquiry under Minn. R. 4410.1700, subp. 7, requires a Responsible Governmental Unit to inquire whether a proposed project, which may not individually have the potential to cause significant environmental effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources.” *CARD v. Kandiyohi County Board of Commissioners*, 713 N. W. 2d 817 at 821 (2006).

The CARD case involved an aggregate mining company that was proposing two new gravel pit projects within Kandiyohi County, a county with a significant existing gravel mining industry in operation. The county board denied the company’s first CUP application for one of the gravel pits following the recommendation of its planning commission. Upon receipt of a second CUP application, the county board, acting as the RGU, required that the mining company complete an EAW before a CUP would be granted. Concerns were expressed from citizens, the DNR and the MPCA relating to a variety of environmental issues during the comment period of the EAW. The county board’s minutes did not contain any discussion of an EIS determination, but in a supplemental submittal by the county it concluded that in order to show “a cumulative negative impact, there must be a reason to believe that each project in itself will at least have a significant negative impact to the environment.”

The county board declined to order an EIS, the mining company’s CUP’s were granted, and a citizens group (CARD) subsequently filed suit in district court under § 116D.04. CARD claimed that the county had failed to adequately consider the significant environmental effects raised by the citizens (and to some extent the DNR and MPCA) relating to groundwater, erosion, air pollution and a lack of mitigating measures. The district court reversed the decision made by the county board and required an EIS. The court of appeals then reversed the district court. Finally, the Minnesota Supreme Court reversed the court of appeals decision, because it found that the county’s EIS determination fell short in one required area – it failed to appropriately consider the cumulative potential effects of related or anticipated future projects. The Supreme Court remanded the matter back to the county to conduct a new EIS determination process in accord with its opinion.

The real guiding light that the Supreme Court provided in the CARD case is in the three points of criteria stated previously that must be part of an RGU’s inquiry and decision-making.

The Court found that a “project-specific cumulative potential effects analysis” is limited geographically to the projects in the surrounding area that might reasonably be expected to affect the same natural resources. Whereas, the “generic EIS cumulative impact analysis” is not limited to the geographic area of surrounding projects – it is meant to be far-reaching and examine entire industries and their potential effects (i.e. the lumber industry). To this extent, the Court separated the *cumulative potential effects* analysis as relevant only to discretionary “project-specific” EIS’s (where the county board is the RGU), from the *cumulative impact* analysis as relevant only to generic EIS’s (where the EQB is the default RGU).

The CARD Court stressed the importance of the RGU taking a holistic approach to the cumulative potential effects analysis, which requires that consideration be given to a project in conjunction with other projects nearby that are currently in existence and/or are reasonably expected to be in the future; not just as a single, independent project in a vacuum. The Court concluded that the Kandiyohi County Board’s “assertion that in order for a group of projects in the aggregate to have a significant environmental impact they must each individually have a significant impact is an arbitrary and capricious basis for an RGU decision.” Over a decade before the CARD case, a Minnesota appellate court emphasized the preventative function of EIS in *Trout Unlimited, Inc. v. Minnesota Dept. of Agriculture*; “the very purpose of an EIS, however, is to determine the potential for significant environmental effects *before* they occur.”

Minnesota Rules 4410.0200, Subp. 11a. defines “cumulative potential effects” as:

“The effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects. Significant cumulative potential effects can result from individually minor projects taking place over a period of time. In analyzing the contributions of past projects to cumulative potential effects, it is sufficient to consider the current aggregate effects of past actions. It is not required to list or analyze the impacts of individual past actions, unless such information is necessary to describe the cumulative potential effects. In determining if a basis of expectation has been laid for a project, an RGU must determine whether a project is reasonably likely to occur and, if so, whether sufficiently detailed information is available about the project to contribute to the understanding of cumulative potential effects. In making these determinations, the RGU must consider: whether any applications for permits have been filed with any units of government; whether detailed plans and specifications have been prepared for the project; whether future development is indicated by adopted comprehensive plans or zoning or other ordinances; whether future development is indicated by historic or forecasted trends; and any other factors determined to be relevant by the RGU.”

4410.0200, Subpart 11a.

Conclusion:

Several aspects of silica sand mining and processing, as they relate to potential environmental impact, are distinguishable from many historical EIS determinations. Perhaps most apparent is the fact that the evaluation of environmental impact with regard to silica sand mining and processing cannot be consolidated into a single mine operator, processor, or entity. Rather, consideration must be given to the *cumulative potential effects* of many independent mines, processing facilities, and transport vehicles operating in the aggregate within a relatively close geographical proximity.

Winona County has expressly conditioned the approval of any silica sand mining conditional use permit (CUP) on the acceptability of environmental standards at the County's discretion. The application packet puts each prospective applicant on notice that every sand mining and processing application is subject to environmental review, and the conditions of a CUP state that the applicant must prepare an Environmental Assessment Worksheet (EAW) at the discretion of the Planning Commission. For the proposed Yoder and Dabelstein silica sand mining projects the proposers of the projects volunteered for the EAWs to be done. Those EAWs were published in the EQB Monitor and comments have been received and are under review. The question now is whether or not an EIS is needed for the projects.

In Winona County, the possibility of many silica sand mining and processing projects operating at the same time in a relatively close proximity, the *cumulative potential effects* inquiry is especially relevant and one which under the law and the CARD case analysis, is a critical part of the County Board's decision-making responsibilities. The cumulative potential effects inquiry requires the RGU making an EIS determination to consider whether a proposed project, while standing alone may not have the potential to cause significant environmental effects, could nonetheless have significant effects when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources.⁴

The Minnesota Supreme Court in the CARD case remanded to the Kandiyohi County Board the matter of whether an EIS was needed directing the Board "to conduct a new EIS determination process in accordance with the standards set forth in" the Court's opinion because the Court concluded that the Board had not "appropriately consider[ed] one of the required criteria-the cumulative potential effects of related or anticipated future projects..." CARD at 838.

The CARD case sets forth the standard of review and emphasizes the thoughtful, deliberative record that must be made regarding the cumulative potential effects inquiry to support a decision that any government body designated as an RGU makes in determining

⁴ Citizens Advocating Responsible Development v. Kandiyohi County Board of Commissioners, 713 N.W.2d 817, 829-30 (Minn. 2006).

whether or not there is a need for an EIS. In following the legal requirements of EIS decision-making as codified in the WCZO, Minnesota Statutes 116D, Minnesota Rules 4410, and expounded upon in detail in the CARD case, the Winona County Board, as the designated RGU in the proposed Yoder and Dabelstein silica sand mining projects, must take into consideration all of the comments received, but because of the emphasis placed on the cumulative potential effects inquiry by the CARD case, particular attention and deliberation should be paid to those comments that address the projects' potential for cumulative environmental effects.

Memo

Discretionary EIS's & Cumulative Potential Effects

To: Jason Gilman, Eric Johnson, Karin Sonneman

From: Nelson Rhodus

Dated: December 10, 2012

The determination of a discretionary EIS involves an analysis of “cumulative potential effects.” This analysis often appears in closely-tied context to the language of “potential for significant environmental effects,” but it is important to understand how the law has treated many of these similar-sounding phrases separately in past cases. The cumulative potential effects analysis is relevant only to discretionary EIS determinations, as it is not mentioned under the Minnesota Rule for a mandatory EIS (4410.4400), which is pronounced in terms of specific numerical standards (i.e. 160 acres of excavation). The MPCA letter dated 11/14/2012 states that “a cumulative potential effects analysis is applicable and must be conducted for the EAW to be complete.” It is important to understand that the cumulative potential effects analysis is something entirely separate and distinct from a mandatory EIS determination, because it relates to a discretionary call on the part of the RGU.

The rule that relates to making a discretionary EIS determination (4410.1700) states that “an EIS shall be ordered for projects that have the potential for significant environmental effects.” On its face, the language appears to be mandatory, however it is determining what constitutes the *potential for significant environmental effects* that makes it quite discretionary. That phrase originates from Minnesota Statute § 116D.04, which specifically states that “where there is potential for significant environmental effects resulting from any major governmental action, the action shall be preceded by a detailed environmental impact statement prepared by the responsible governmental unit.” The statute is referenced in all major cases where an EIS was a central issue. 116D.04 also recognizes that the scope of an EIS’s purpose goes beyond considerations that are purely environmental; the “environmental impact statement shall also analyze those economic, employment and sociological effects that cannot be avoided should the action be implemented.”

Minnesota Rule 4410.1700 states that with regard to cumulative potential effects, “the RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project.”

The MPCA letter states: “The RGU must inquire whether a proposed project, which may not individually have the potential to cause significant environmental effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resources.” That language is taken basically verbatim from the 2006 Minnesota Supreme Court case, *Citizens Advocating Responsible Development v. Kandiyohi County Board of Commissioners*. Commonly referred to as the “CARD” case, it is essentially the leading case in establishing the standard for EIS determinations involving a cumulative potential effects analysis.

The CARD case involved an aggregate mining company that was proposing two new gravel pit projects within Kandiyohi County, a county with a significant existing gravel mining industry in operation. The county board denied the company’s first CUP application for one of the gravel pits following the recommendation of its planning commission. Upon receipt of a second CUP application, the county board, acting as the RGU, required that the mining company complete an EAW before a CUP would be granted. Concerns were expressed from citizens, the DNR and the MPCA relating to a variety of environmental issues during the comment period of the EAW. The county board’s minutes did not contain any discussion of an EIS determination, but in a supplemental submittal by the county it concluded that in order to show “a cumulative negative impact, there must be a reason to believe that each project in itself will at least have a significant negative impact to the environment.”

The county board declined to order an EIS, the mining company’s CUP’s were granted, and a citizens group (CARD) subsequently filed suit in district court under § 116D.04. CARD claimed that the county had failed to adequately consider the significant environmental effects raised by the citizens (and to some extent the DNR and MPCA) relating to groundwater, erosion, air pollution and a lack of mitigating measures. The district court reversed the decision made by the county board and required an EIS. The court of appeals then reversed the district court. Finally, the Minnesota Supreme Court reversed the court of appeals decision, because it found that the county’s EIS determination fell short in one required area – it failed to appropriately consider the cumulative potential effects of related or anticipated future projects. The Supreme Court remanded the matter back to the county to conduct a new EIS determination process in accord with its opinion.

The real guiding light that the Supreme Court provided in the CARD case is in the three points of criteria mentioned in the MPCA letter. The Court found that a “project-specific cumulative potential effects analysis” is limited geographically to the projects in the surrounding area that might reasonably be expected to affect the same natural resources. Whereas, the “generic EIS cumulative impact analysis” is not limited to the geographic area of surrounding projects – it is meant to be far-reaching and examine entire industries and their potential effects (i.e. the lumber industry). To this extent, the Court separated the *cumulative potential effects* analysis as relevant only to discretionary “project-specific” EIS’s (where the county board is the RGU), from the

cumulative impact analysis as relevant only to generic EIS's (where the EQB is the default RGU). Indeed, each of these are provided with separate definitions under the rules.

The Court stressed the importance of the RGU taking a holistic approach to the cumulative potential effects analysis, which requires that consideration be given to a project in conjunction with other projects nearby that are currently in existence and/or are reasonably expected to be in the future; not just as a single, independent project in a vacuum. The Court concluded that Kandiyohi county board's "assertion that in order for a group of projects in the aggregate to have a significant environmental impact they must each individually have a significant impact is an arbitrary and capricious basis for an RGU decision." Over a decade before the CARD case, a Minnesota appellate court emphasized the preventative function of EIS in *Trout Unlimited, Inc. v. Minnesota Dept. of Agriculture*; "the very purpose of an EIS, however, is to determine the potential for significant environmental effects *before* they occur."

The Minnesota Rules define "cumulative potential effects" as:

"The effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects. Significant cumulative potential effects can result from individually minor projects taking place over a period of time. In analyzing the contributions of past projects to cumulative potential effects, it is sufficient to consider the current aggregate effects of past actions. It is not required to list or analyze the impacts of individual past actions, unless such information is necessary to describe the cumulative potential effects. In determining if a basis of expectation has been laid for a project, an RGU must determine whether a project is reasonably likely to occur and, if so, whether sufficiently detailed information is available about the project to contribute to the understanding of cumulative potential effects. In making these determinations, the RGU must consider: whether any applications for permits have been filed with any units of government; whether detailed plans and specifications have been prepared for the project; whether future development is indicated by adopted comprehensive plans or zoning or other ordinances; whether future development is indicated by historic or forecasted trends; and any other factors determined to be relevant by the RGU."

4410.0200, Subpart 11a.

WINONA COUNTY

David & Sherry Nisbit Quarry Proposal
Environmental Assessment Worksheet

WRITTEN COMMENT INDEX

February 28, 2013

In order to organize and provide adequate comment on the significant record of written comment received for the David & Sherry Nisbit Quarry EAW, Winona County staff has assigned a reference number to each written comment received along with a list of concerns and issues contained in each correspondence. All letters were read in their entirety and significant environmental concerns summarized herein. It is important to note that various letters may contain nuances related to specific issues which we have attempted to summarize.

The following is a summary of comments received intended only for indexing and referencing to assist in organizing the response document.

The following written comments were received for the David & Sherry Nisbit EAW:

Comment #	Author	Comments
1	Glen Groth (Farm Bureau)	Supports responsible mining Supports income generating potential of sand mining
2.	Maurice & Ruth Shea	Sand mining is good business Helps price of land Benefits school district
3.	MPCA	Requests an EIS be conducted More detail regarding erosion and sediment control Project magnitude / size Surface water runoff concerns Cumulative Potential Effects Concerns Insufficient information Dust Control Techniques Crystalline silica dust-health concerns
4.	DNR	Concerns about sediment control features Concerns with reclamation Post mining land use concerns

		<p>Insufficient information</p> <p>Dust suppression water source</p> <p>Concerns with chemical composition of dust suppression treatments</p> <p>Cumulative Potential Affects concerns</p>
5.	MN Dept. of Health	<p>Cumulative Potential Affects concerns</p> <p>Recommend an EIS – related actions</p> <p>No increased risk for groundwater contamination or sinkholes due to mining</p> <p>Insufficient information</p> <p>Air Quality Concerns</p> <p>Airborne Particulate Exposure concerns</p> <p>Micron size of particulate concerns</p> <p>Concern about length of exposure time to dust</p> <p>Air monitoring needs-not much information</p> <p>Traffic safety concerns</p> <p>Traffic increased particulate matter-health Impacts</p> <p>Traffic impact on emergency response/delays</p> <p>Connected and phased actions concerns</p> <p>Health Impact Assessment recommended</p>
6.	Karen Lee Graves	<p>Opposes Nisbit sand mine</p>
7.	Carole Madland	<p>Concerned about contamination of water systems</p> <p>Concerned about air quality</p>
8.	Marie Kovcesi	<p>Traffic safety concerns-increased conflicts</p> <p>Cumulative Potential Affects concerns</p> <p>Insufficient information - mine activities</p>
9.	Fred Troendle	<p>Cumulative Potential Affects concerns</p> <p>Supports EIS</p> <p>Air Quality Concerns</p> <p>Airborne Particulate Exposure concerns</p> <p>Micron size of particulate concerns</p> <p>Concern about length of exposure time to dust</p> <p>Transportation concerns</p> <p>EAW inadequate to answer all concerns</p> <p>Requests independent environmental review</p>

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| 10. | Renee Ready | <p>EIS required – Connected Action</p> <p>Cumulative Potential Affects concerns</p> <p>Concerns with increased truck traffic</p> <p>Diesel emissions concerns-health impact</p> <p>Concerns with truck noise</p> <p>Concern about scenic degradation</p> <p>Dust suppression water source concerns</p> <p>Impact on tourism</p> <p>Quality of life concerns</p> <p>Concerned with health effects</p> <p>Accountability concerns</p> |
| 11. | Vincent Ready | <p>EIS required – Connected Action</p> <p>Cumulative Potential Affects concerns</p> <p>Concerns with increased truck traffic</p> <p>Diesel emissions concerns-health impact</p> <p>Concerns with truck noise</p> <p>Concern about scenic degradation</p> <p>Dust suppression water source concerns</p> <p>Impact on tourism</p> <p>Quality of life concerns</p> <p>Concerned with health effects</p> <p>Accountability concerns</p> |
| 12. | Bill Rowekamp | <p>Supports Nisbit mine</p> <p>Feels concerns adequately addressed in CUP</p> <p>Sand benefits to Ag. Industry</p> |
| 13. | Debbie Fort | <p>Cumulative effects need to be studied by an EIS</p> <p>Air, land, water, roads, wildlife, quality of life</p> <p>Beauty of area impacts need to be further studied.</p> <p>Traffic congestion and safety concerns</p> <p>Vehicle emissions concerns</p> <p>Community character concerns</p> <p>Crystalline silica dust-health concerns</p> <p>Dust suppression water source concerns</p> <p>Concerned with sinkhole potential</p> <p>Concerned about chemical spills</p> <p>Groundwater concerns - aquifer and well susceptibility from pollution and contaminants</p> |

14.	Harold Fort	EIS needed Cumulative Potential Affects concerns
15.	Jim Gurley	EIS is needed due to significant environmental Impact Concerns with inconsistency of EAW Cumulative traffic impacts Blasting concerns regarding existing wells, sinkhole formation, monitoring of blasting, fugitive dust and airborne particulate Insufficient information - mine activities Dust suppression water source concerns Truck traffic – haul routes Contaminated water impacts Blasting impact on aquifers Property value concerns Impacts on fish habitats Impacts on ecologically sensitive resources Concerned about displacement of wildlife Concerned with dust suppression water contaminating ground water Concerns with chemicals used in dust suppression Concerns with ambient air quality Health concerns Cumulative Potential Affects concerns
16.	Land Stewardship Project	EIS Needed Cumulative potential affects concerns Truck traffic impacts Concerned with mine duration and reclamation timeframe Dust suppression water source concerns Insufficient information - mine activities Air quality concerns due to crystalline silica and diesel exhaust Groundwater quality concern in a karst region Quality of life concerns from impact of noise and visual impacts Concerned about cropland destruction & ag. community

		Concerned with habitat destruction
17.	Sierra Club – Northstar Chapter	<ul style="list-style-type: none"> Dust & air quality concerns Health impact on local residents Increased traffic and noise Stormwater runoff concerns Concerned with erosion control management Sinkhole potential Groundwater contamination concerns EIS needed Concern about spills Monitoring needed for groundwater quality Ecological damage concerns Impact on ag. industry concerns Water quality – financial guarantee Reclamation concerns Human health effects of silica dust concerns
18.	Robert Hively-Johnson	Environmental and health issues
19.	Janis Martin	<ul style="list-style-type: none"> Concerned with traffic safety Traffic impact analysis deficiencies Impact on tourism concerns Truck traffic conflicts with agricultural implements Road maintenance concerns Cumulative effect of truck traffic concerns
20.	Brent Greden	Supports proposed mine operation
21.	Nathan Lien	<ul style="list-style-type: none"> EIS needed Impact on tourism concerns Concerned about cropland destruction EAW inconsistencies Traffic impact of trucks hauling water for dust suppression Concerned with volume of dust suppression water needed Cumulative traffic impacts Vehicle emission concerns Chemicals in return/reject sands concerns

22.	Doug Nopar	Truck traffic concerns Inadequate road impact analysis EIS is needed Concerned with financial ability to follow through with reclamation
23.	Cherie Hales	EIS is needed Cumulative impact of truck traffic Concerned with mines operation timeline Source of dust suppression water concerns
24.	Tonya Van Tol	Air quality concerns Water quality concerns Concerns - aesthetic and topographic changes EIS needed
25.	Keith & Linda Wilson	Traffic concerns with haul route Air quality concerns due to crystalline silica Blasting concerns relating to sinkhole formation Groundwater and aquifer contamination Cumulative potential affects concerns EIS is needed Quality of life concerns
26.	Collin & Barb Johnson	Cumulative effects concerns Reclamation / future land use concern Traffic impact on road system Concerned with loss in property value Insufficient information – biodiversity info. Noise, dust and traffic nuisance concerns Neighbor comfort and welfare impact concerns Concern about water use/impacts Concern about fugitive dust/ambient air Concern about groundwater contamination Concern about sinkhole impacts Traffic congestion concerns Diesel emission concerns Fugitive dust-crystalline silica concerns Concern about health impacts to neighbors Noise, odors and dust nuisance concerns Visual/ aesthetic impacts concerns Comprehensive Plan compatibility concerns

		EIS needed
27.	Sandra Troendle	<p>EIS needed</p> <p>Truck impact concerns</p> <p>Cumulative affects concerns</p> <p>Silica dust concerns</p> <p>Concern about monitoring and measurement</p> <p>Concern about windborne dust</p> <p>Concern about stockpile management</p> <p>Concerned with source of dust control water</p> <p>Concern about enforcement demands</p>
28.	Trish Johnson	<p>EIS needed</p> <p>Air quality concerns</p> <p>Water quality concerns</p> <p>Noise impacts</p> <p>Degradation of landscape</p> <p>Traffic concerns</p> <p>Quality of life concerns</p>
29.	Leslie Hittner	<p>Air quality concerns</p> <p>Groundwater contamination concerns</p> <p>aesthetic concerns</p> <p>EIS needed</p>
30.	Louise Popplewell	Good for local economy and jobs
31.	MNDOT	<p>EAW is acceptable</p> <p>Traffic report did good job including level of service and sight distance analysis</p>
32.	Steven Schild	<p>EIS needed</p> <p>Cumulative affects concerns</p> <p>Quality of life concerns</p> <p>Traffic – safety concerns</p>
33.	Bruce Larson	EIS needed
34.	Marilyn Christie	<p>Chemicals in return residual sand concern</p> <p>Concerned with source of dust control water</p> <p>Traffic – safety, haul routes</p> <p>Hours of operation concern</p>

		EIS needed
35.	Wayne L Feyereisn	Air quality concerns Groundwater monitoring concerns Water quality concerns Concerned about fuel and oil spills Traffic impact concerns Diesel emissions concerns Crystalline silica concerns Reclamation adequacy concerns Cumulative effects concerns EIS is needed
36.	Kathy Griffin	Supports Nisbit sand mine Embraces innovation and benefits to economy
37.	Elizabeth Lommen	EIS is needed Cumulative impacts from traffic Inconsistent information in EAW - reclamation Concerned with source of dust control water
38.	Jerry Heim & Darline Freeman	Inconsistent information in EAW - reclamation Sinkhole vulnerability concerns EIS needed Cumulative effects
39.	Douglas Hull	Supports Nisbit sand mine
40.	James Pelowski	Community character concerns Air quality/health concerns Accountability/financial responsibility concerns Water quality concerns
41.	Amy Berends	Careful overall review needed
42.	Richard Fischer	Supports economic benefits of sand mine
43.	Anonymous	Traffic concerns
44.	George Gilbert	Supports sand mining
45.	Bert Mohs	Traffic concerns – volume of trucks

		Traffic concerns – truck speeds
46.	Winona County SWCD D. Buck	<p>Concern about topsoil adequacy in reclamation</p> <p>Post mining land use concerns</p> <p>Erosion control concerns</p> <p>Wildlife/habitat degradation concerns</p> <p>Water availability concerns for dust control</p> <p>Concerned about chloride use- dust suppression</p> <p>Concern about sinkhole susceptibility post Mining</p> <p>Neighboring wells need monitoring</p> <p>Concerns with EBI accuracy</p> <p>Cumulative potential affects concerns</p> <p>Concern about reject sand return</p> <p>Compatibility with Winona County Comprehensive Plan</p>
47.	Richard Mikrut	<p>Supports economic benefits of sand industry</p> <p>Minimal impact on roads</p> <p>Sand dust not likely to be airborne</p>
48.	Laurie Sell	<p>Silica dust health concerns</p> <p>Transportation concerns-noise, dust</p> <p>Congestion</p> <p>Degradation of community character</p> <p>Air quality concerns</p> <p>Water quality impacts concerns</p> <p>Cumulative affects concerns</p> <p>Truck concerns</p>
49.	Scott Doblar	<p>Supports an EIS</p> <p>Concern about chemicals in return sand</p> <p>Concern about water supply</p>
50.	Jan & John Ruggeberg	<p>Accountability concerns</p> <p>EIS needed</p>
51.	Jan Beyer	<p>EIS needed</p> <p>Quality of life concerns</p>
52.	Rose Gurley	<p>EIS needed</p> <p>Quality of life concerns</p>

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| 53. | Dale Schauer | Cumulative affects
Truck traffic
EIS needed
Quality of life concerns |
| 54. | Sue Ramthun | Truck traffic
Sand, dust, air concerns
Water table aquifer contamination concerns
Degradation of landscape
Cumulative impact
EIS needed |

WINONA COUNTY

David & Sherry Nisbit Quarry Proposal
Environmental Assessment Worksheet

RESPONSE TO WRITTEN COMMENT

March 13, 2013

In order to organize and provide adequate comment on the significant record of written comment received for the David & Sherry Nisbit Quarry EAW, Winona County staff has assigned a reference number to each written comment received along with a list of concerns and issues contained in each correspondence. This reference number is listed after each comment contained herein to reference those pertinent concerns in each letter.

Duplicate letters from the same author have been consolidated. Comments that have no relevance to the EIS determination are referenced in the 'Comment Noted' section and are still provided to the Commission for reference.

General Procedural Comments

-More analysis is needed (Comments; 21)

Response: Comment Noted

-Careful review taking into account all sides is needed (Comments; 41)

Response: Comment Noted

-Independent review requested (Comments; 9)

Response: Comment Noted

-Insufficient information was provided (Comments; 3, 4, 5, 8, 15, 16, 26)

Response: While the EAW is considered a brief on the potential for significant environmental impact, it does not fully study each issue to the point of a definite conclusion. The data submittals provided by the applicant represented the best information available at the time of EAW submittal. Additionally, it is important to consider the expertise offered in the written comment record.

-Inconsistency in EAW/Reclamation & Operation (Comments; 15, 21, 38)

Response: Comment Noted

-Concern with financial ability to complete reclamation (Comments; 22)

Response: See EAW pg. 19 proposed condition to approval # 32. A financial guarantee is proposed as follows regarding reclamation:

110% of the estimated cost of reclamation for a period equal to the life of the quarry plus 2 years. Performance bonds for reclamation may only cover the areas of disturbance for the duration of mining activity and may 'roll' with disturbance activity accordingly in order to minimize financial burden on the applicant.

Requests for an EIS

-Commenter recommends/requests/supports an EIS or thinks an EIS is required (Comments; 3,4,9,10,11, 14,15,16,17,21,22,23,24,25,26,27,28,29,32,33,34,35,37,38,49,50,51,52,53,54)

Response: The need for an EIS will be determined by the RGU's elected body based on the potential for significant environmental impact. This decision will involve consideration of the EAW content, written comment from agencies and the general public, and staff and legal materials.

-Cumulative Potential Effects / Phased and/or Connected Actions (Comments; 3,4,9,10,11, 14,15,16,17,21,22,23,24,25,26,27,28,29,32,33,34,35,37,38,49,50,51,52,53,54)

Response: EAW, page 49, #29 and written comment letters from MPCA dated February 20, 2013 and MDH dated February 20, 2013.

- EAW inadequate to answer all concerns (Comments; 9)

Response: While the EAW is considered a brief on the potential for significant environmental impact, it does not fully study each issue to the point of a definite conclusion.

Comments on Operations Concerns

-Hours of Operation (Comments; 34)

Response: Maximum allowable hours of operation are established by the Winona County Zoning Ordinance Performance Standards chapter 9.10.3 for Extraction Pits and Land Alterations: 6AM to 10PM, however, this standard may be considered as part of a conditional use permit if more restrictive standards are warranted.

-Blasting concerns - impact on wells/aquifer & sinkholes (Comments; 15, 25)

Response: Comments Noted. Pg. 10 of the EAW states "Vibration monitoring shall be done as necessary at adjacent homes and structures within ¼ mile of the proposed blast area."

Regarding well impacts; An RGU may consider as part of the conditional use permit process documentation of existing wells and structures and monitoring to record any potential future impact on these structures or wells from mining operations.

Duration of mining /timeline for reclamation completion (Comments; 15, 16, 23, 37, 38)

Response: Comment Noted. The applicants have estimated that industrial sand exported for use in the oil and gas industry will take 20 – 24 months over a three year period. After that the proposer indicates a small area will be left open and sand will continue to be extracted for local uses.

-Concern about adequacy of enforcement/resources (Comments; 27)

Response: While Winona County provides a large variety of enforcement and permit administration needs for the County, this is a new industry and is therefore difficult to anticipate needs, however, to the largest extent possible, the Conditional Use permitting process provides remedies for enforcement needs, such as performance bonds and administrative guidance.

-Accountability / financial responsibility (Comments; 10, 11, 17, 22, 40, 50)

Response: Comment Noted. The RGU/County has proposed the use of performance bonds to protect the County from adverse economic impact.

See EAW pg. 19 proposed conditions to approval of Conditional Use Permit.

Financial Guarantees:

32) Performance Guarantees Required. Performance bonds shall be required subject to Board approval for the following:

110% of the estimated cost of reclamation for a period equal to the life of the quarry plus 2 years. Performance bonds for reclamation may only cover the areas of disturbance for the duration of mining activity and may 'roll' with disturbance activity accordingly in order to minimize financial burden on the applicant.

110% of the estimated cost of the roadway maintenance agreement requirements for a period of 5 years.

A performance surety shall be provided in the amount of \$1,000 per acre for the total proposed site disturbance. The surety shall be used to reimburse the County for any monies, labor, or material expended to bring the operation into compliance with the conditions of the permit.

Comments on Potential Health / Sociological Effects

-Air Quality/ General Health Effects (Comments; 3,5,7,9,10,11,13,15,16,17,18,24,25,26,27,28,29,35,40, 48,54)

Response: The Minnesota Department of Health has cautioned on the health risks associated with silica dust but has acknowledged that no data is available on the levels of respirable silica generated by frac sand mining or processing and that no data is available for ambient air conditions having possible lower concentrations of silica dust, noting it is the subject of on-going research. (See MDH Publication—Frac Sand Mining in Minnesota, September, 2012 and Letter of Written Response, February 20, 2013).

-Does not appear to be an increased / anticipated risk of groundwater contamination & water related health concerns (Comments; 5)

Response: Comment Noted. See MN Department of Health's Feb. 20, 2013 letter.

-Carcinogens and cancer related health effects (Comments; 3,5,7,9,10,11,13,15,16,17,18,24,25,26,27, 28,29,35,40,48,54)

Response: The Minnesota Department of Health written comment letter dated February 20, 2013 indicates the potential risks associated with airborne crystalline silica, noting there is disease risk associated with both levels and duration of exposure, whereby the onset of disease may not appear until

long after the exposure has ceased. However, the letter acknowledges the lack of ambient air standards available regarding off-site air exposures from sand mining, transport and processing.

-Cumulative Effects (Comments; 3,4,5,8,9,10,11,13,14,15,16,25,26,27,32,35,38,46,48,53,54)

Response: See EAW page 50, #29 and written response letters from MPCA, February 20 and MDH, February 20, 2013.

-Health Impact Assessment Recommended (Comments; 5)

Response: Comment Noted

Comments on Air Quality

-Concern about vehicle/ diesel emissions (Comments; 10, 11, 13, 16, 21, 26, 35)

Response: Adherence to federal occupational health requirements is indicated, while the acknowledgement that no ambient air standard or study of potential impact for off-site emissions is available. As indicated in the EAW, Emissions from vehicles and equipment are controlled by the manufacturer in accordance with SEPA regulations and federal fuel standards. All equipment and trucks will be compliant with current federal air emission, efficiency and fuel use standards.

-Concern about carcinogens-fugitive dust (Comments; 15, 26)

Response: The Minnesota Department of Health written comment letter dated February 20, 2013 indicates the potential risks associated with airborne crystalline silica, noting there is disease risk associated with both levels and duration of exposure, whereby the onset of disease may not appear until long after the exposure has ceased. However, the letter acknowledges the lack of information available regarding ambient air exposures from sand mining and processing.

-Silica sand and Silicosis Concerns (Comments; 3, 5, 7, 9, 10, 11, 13, 15, 16, 17, 18, 24, 25, 26, 27, 28, 29, 35, 40, 48, 54)

Response: The Minnesota Department of Health written comment letter dated February 20, 2013 indicates the potential risks associated with airborne crystalline silica, noting there is disease risk associated with both levels and duration of exposure, whereby the onset of disease may not appear until long after the exposure has ceased. However, the letter acknowledges the lack of information available regarding ambient air exposures from sand mining and processing.

-Concerned about dust suppression techniques (Comments; 3, 4, 15, 46)

Response: The Minnesota Pollution Control Agency written response dated February 20, 2013 includes resources for alternatives to oil for dust suppression and water quality considerations for fugitive dust control surface treatments at industrial facilities that will need to be considered.

-Dust control monitoring (Comments; 5, 15, 27)

Response: See EAW Page 15 proposed condition #4; Air quality monitoring is being considered as a condition to approval "in cases where residential homes exist within 1,320 feet of a proposed mining site, the owner/applicant shall be responsible for the costs of air quality monitoring by a professional selected by the County." The EAW discusses air quality monitoring in #23 on pg. 45; No air quality monitoring is

expected by the operator at this time since the closest applicable home to the mine is 1500 ft. from the mine which is outside of the area where air quality monitoring is currently being recommended.

Comments on Water Resources

-Water usage concerns – dust suppression water(Comments; 3, 4,10,11,13,15,16,21,23,26,27,34,37,46)

Response: See EAW, page 31 #13; Water used for dust control will be hauled in tanker trucks after having been purchased from an existing permitted public water supply. The project does not propose use of water from wells on the property. It will not require connection or changes to any public water supply or appropriations of any ground or surface water. The proposer has not yet indicated which existing permitted public water supply the water will be purchased from, however, existing state law regulates water appropriations if needs exceed established thresholds.

Water contamination concerns (Comments;7,13,15,16,17,24,25,26,28,29,35,40,48,54,)

Response: See EAW pages 21-26, #'s 17-20.

According to a letter received from the Winona County SWCD Director, according to the geologic atlas for Winona County, the current rating for susceptibility of the groundwater system to pollution is moderate and moderate to high. The rating for post mining conditions must be evaluated.

-Monitoring for groundwater quality (Comments; 17, 35, 46)

Response: Per the EAW the proposer indicates; Groundwater monitoring wells are not being proposed due to the following factors: The project will not be drilling new wells or using water for processing or washing, the mining operation is not using or applying hazardous materials, the primary risk to the groundwater is via leaks and spills from diesel and gas fueling, motor oil, and to a lesser degree hydraulic fluid, the mining will be down to the 1,170 foot elevation, approximately 140+ feet above the water table. Over 45 feet of St. Peter Sandstone will remain beneath the site. The proposers do propose to test water in an existing well near the site prior to mining and after mining with any contaminants that can be contributed to the mine will be mitigated by the mine operator.

The preliminary proposed conditions to a potential Conditional Use Permit do include a provision for water quality monitoring within 1320 ft. of the mine. The details on how monitoring may occur is subject to review and approval by the Winona County Board.

-Erosion Control and Stormwater Drainage Concerns (Comments; 3, 4, 17, 46)

Response: See EAW page 33-55, #16 & #17.

While the EAW is considered a brief on the potential for significant environmental impact, it does not fully study each issue to the point of a definite conclusion. The data submittals provided by the applicant represented the best information available at the time of EAW submittal. Additionally, it is important to consider the expertise offered in the written comment record. More detail on stormwater pollution prevention will be included with the Storm Water Pollution Prevention Plan which is required as part of the Minnesota Pollution Control Agency Permit (MPCA) Non Metallic Mining Operations General Permit.

-Sinkhole Creation/ Formation Concerns (Comments; 5, 13, 15, 17, 26, 38, 46)

Response: See EAW page 36, #19; The sinkhole probability as defined by the Minnesota Geological Survey shows the site is within an area of —low to moderate probability for karst features (See Figure —Karst Inventory Map). This classification is defined as an area that has only widely scattered individual sinkholes or isolated clusters of 2 to 3 sinkholes where the average sinkhole density is less than one

sinkhole per square mile. No karst features, sinkholes or caves are known to exist on the site and there are no mapped sinkholes within approximately 1.3 miles of the property, however, the absence of sinkholes does not mean karst conditions are not present.

According to the applicant, the upper 70-80 feet of the St Peter Sandstone is not prone to sinkhole formation and sinkhole formation can be most easily avoided by preventing the concentration of water in ponds.

Contrasting opinions in the data submittal and written comment record indicate uncertainty about the potential effects of removal of the material being proposed in conjunction with the use of heavy equipment, blasting, and other land alterations on the potential for sinkhole formation and the potential for increasing contamination risk to the aquifer that neighboring properties rely on. See University of Minnesota Letter of Written Comment, February 6, 2013.

Comments on Zoning/ Compatible Land Use

-Concern about land use plan compatibility and removal of prime farm land (Comments; 17, 21, 26, 46)

Response: See EAW page 49, #27; Winona County's Comprehensive Plan's Goals and Policies (p. 17, Development Goals and Policies) indicates the promotion of protection and preservation of agricultural lands by limiting non-agricultural development in agricultural areas. Extraction of mineral resources has been a historic land use attributable to agricultural areas and therefore aggregate mining is consistent with the Winona County Comprehensive Plan recommendations in agricultural areas, however, industrial mining on a broader scale must be considered when altering land use patterns, specifically the removal of prime agricultural lands from crop production or pastures. This will be an important consideration of post-mining reclamation.

Comments on Reclamation Plan

-Concern about reclamation & post mining agricultural uses (Comments; 4, 26, 35, 46)

Response: Comments noted. The mine operator proposes to establish perennial grasses and forbs for cover employing a final grading plan that takes into account the natural setting and erosion mitigation. The landowners and mine operators are not proposing to restore the area to agricultural production; however, if future parties who own or operate the land after the CUP has expired seek to crop the land they must contact the NRCS/SWCD office for assistance on the proper procedures for returning the site to row crop production. Factors to be addressed for returning the reclamation area to row crop production are soil depth, topsoil depth and color, organic content of soils, nutrient content of soil and drainage upstream, within and downstream of reclamation area.

According to the DNR's Feb. 20, 2013 written comments; a more detailed reclamation plan should be completed.

-Concern about adequacy of topsoil quality and amount/cover/ stability (Comments; 4, 26, 35, 46)

Response: Comment Noted, See EAW Page 7 and 8.

Comments on Aesthetics/ Quality of Life/ Community Character

-Concern about quality of life impacts (Comments; 10, 11, 13, 16, 25, 26, 28, 32, 51, 52, 53)

Response: Comment Noted

-Concern about degradation of landscape beauty/aesthetic (Comments; 10, 11, 13, 16, 24, 26, 28, 29, 54)

Response: See EAW Page 34, #26; Due to visibility from surrounding roadways and properties, it is expected that current viewsheds will be affected by mining operations.

-Comments on Transportation Issues

EAW is acceptable - Traffic report was good (Comments; 31)

Response: Comment Noted. See MN DOT's February 19, 2013 letter.

-Concern about trucks dust / particulate matter (Comments; 5)

Response: Comment Noted. MDH has indicated that trucks emit particulate matter and chemicals and recommend truck routes are reviewed to prevent exposure of sensitive populations to pollutants.

-Concern about incomplete Traffic Impact Analysis (Comments; 19, 22,)

Response: Comment Noted. An updated TIA may need to be done depending on final haul routes. See MN DOT's letter of written comment.

-Concern about conflict between trucks & school bus / emergency response vehicles (Comments; 5, 15, 25, 34)

Response: See MN DOT's Letter of Written Comment. An analysis of staggering truck activity to specific time intervals has been suggested by MDH in their letter of written comment to minimize impacts on County and City roads and school bus schedules.

-Concern about safety along trucking routes and intersections (Comments; 5, 8, 10, 11, 13, 19, 32, 34,)

Response: Comment Noted. See MN DOT's Letter of Written Comment.

-Concern with volume of trucks, Burden on Communities, noise concerns (Comments; 10, 11, 13, 16, 17, 26, 28, 40, 48,)

Response: Comment Noted. It is important to note that road capacities, level of service and general comfort and welfare of the population may have contrasting thresholds and therefore consideration may need to be given to all three standards.

-Concern about traffic impacts to infrastructure (Comments; 15, 16, 19, 21, 22, 23, 26, 27, 28, 35, 37, 43, 53, 54)

Response: See EAW, page 36, #28; The —Silica Sand Mining in Wisconsin report of the Wisconsin DNR, January 2012, acknowledges that —vehicular traffic on local roads will have an impact on the service life and condition of the roads and that the degree of road deterioration will depend on the amount of traffic, the type of vehicles and the design of the road. Winona County anticipates the use of a road impact exaction, required as part of the conditional use permit process for County Highways in order to address this impact.

-Concern about volume of trucks / congestion (Comments; 10, 11, 15, 16, 17, 19, 21, 22, 23, 26, 27, 28, 35, 37, 43, 45, 48, 53, 54)

Response: See MN DOT's letter of written comment; No road segments are forecasted to reach capacity with the additional truck traffic.

-Concern about negative effects on agricultural industry due to traffic (Comments; 19)

Response: Comment Noted

Comments on Natural/ Ecological Resources

-Concern about impacts on fisheries (Comments; 15)

Response: An MPCA Nonmetallic Mining Stormwater Discharge Permit through the National Pollution Discharge Elimination System (NPDES) / State Disposal System (SDS) Program will be required. The site is not within one mile of a trout stream or outstanding resource value waters; therefore the standard stormwater pollution control measures will be required for all site operations.

Impacts on ecologically sensitive resources (Comments; 15, 17)

Response: See EAW, page 24; In order to assess biodiversity three maps were referenced including the Priority Areas of Native Biodiversity in Southeastern Minnesota (2007), the Winona County Biological Survey and the Minnesota Land Cover Database. The Priority Areas of Native Biodiversity in Southeastern Minnesota (1997) and the Winona County Biological Survey (1997) show no areas of significant native plants present on the site. The Priority Areas of Native Biodiversity in Southeastern Minnesota map shows the woods on the adjoining property to the south outside of the project site as having scores "below minimum biodiversity significance." In addition the MNDNR Natural Heritage Information System (NHIS) database was queried to determine if any state-listed endangered, threatened, special concern species, or rare plant communities, or other sensitive ecological resources have been documented within one-mile of the site. Based on their query, the database does not show any known occurrences of rare features in the area.

-Concern about destruction of wildlife habitat (Comments; 13, 15, 46)

Response: See EAW, page 23; based on their vegetative site evaluation the proposers have determined Wildlife resources and habitats on or near the site are limited to those associated with the species inhabiting the agricultural cropland, fence rows, and isolated pastures. The proposers have acknowledged that there will be temporary impacts to wildlife during construction and mining phases. Any wildlife present within the agricultural cropland of the site will be displaced to the surrounding cropland. Following reclamation the proposer expects the area to have more diversity and be a more welcoming area for biodiversity.

-Concern about effectiveness of Environmental Benefits Index (EBI) in SE MN (Comments; 46)

Response: Comment Noted. See Winona County SWCD's Feb. 12, 2013 letter.

Comments on Potential Spills / Contaminants

-Concern about chemical spills / diesel fuel and oil (Comments; 13, 35)

Response: See EAW pg. 39. Excavation will require the use of heavy equipment and truck hauling along with the use of fuels, lubricants and hydraulic fluids. Mobile transport vendors will be used to replenish and maintain heavy equipment and trucks. In the event that a spill does occur, mitigation measures including spill containment and emergency preparedness materials such as absorbent materials and pads will be kept on-site during construction and mining operations. Additionally contaminated soils will be immediately excavated and containerized for proper disposal.

-Concern about sand spills (Comments; 17)

Response: Comment Noted.

-Concern about contaminants in reject material (Comments; 21, 34, 46, 49)

Response: According to the proposer, backfill will not leave mine site and will not contain contaminants. The mine has not proposed to accept reject return sand.

Comments on Nuisances

-Concern about dust nuisance (Comments; 17, 26, 48, 54)

Response: See EAW, page 46 & 47, #24.

-Concern about ambient noise nuisances (Comments; 10, 11, 16, 17, 26, 28, 48)

Response: See EAW, page 45, #24; The applicant acknowledges and recognizes the requirement to adhere to the Winona Zoning Code and Minnesota Noise Rules MR7030 for Class 3 noise areas (agricultural and related activities) that prescribes standards for day and night that —are constant with speech, sleep, annoyance and hearing conservation requirements for receivers. The noise levels for this activity would be measured at the property line and would be:

Daytime and nighttime: L10 (10% of the time in a one hour survey) = 80 dB

Daytime and nighttime: L50 (50% of the time in a one hour survey) = 75 dB

-Odor Concerns (Comments; 26)

Response: Comment Noted. See EAW, page 45, #24.

Comments on Negative Economic Impacts

-Concern about negative impact on tourism (Comments; 10, 11, 19, 21)

Response: Comment Noted.

-Concern about negative impacts on the agricultural industry (Comments; 17)

Response: Comment Noted. No comprehensive economic study has been conducted. Public concerns in this regard have ranged from water impacts, nuisances, and traffic congestion as potentially affecting the ag industry.

Comments on Property Impacts

-Concern about negative impacts to property values (Comments; 15, 26)

Response: Comment Noted. The Winona County Planning and Environmental Services Department requested an opinion from the Winona County Assessor on the impact to property values along haul routes. Due to the nature of comparable sales data which is used to make determinations of loss of value and the transient nature of hauling, there is no current conclusive evidence of property value impact, however, it is acknowledged that homes along busy thoroughfares exhibit a lesser value than homes removed. There are known instances of mining operations at larger scales compensating for property value impacts or buy-outs.

-Concern about seismology impacts (Comments; 15)

Response: See EAW, page 5; Blasting may be necessary to remove the cap rock off the ridge. If blasting is found to be necessary the owner and operator will retain professional and licensed blasting contractors who operate in accordance with all federal, state, county and township regulations. No explosives will be stored on the site. The blasting contractor will notify all adjoining neighbors in advance of the blast alerting them to the time and duration of the event and vibration monitoring shall be done as necessary at the adjacent homes and structures within ¼ mile of the proposed blast. A 24-hour notification will be given to adjacent property owners and local government units. Professional and licensed blasting contractors will follow standard operating procedures to reduce dust control that includes reducing the size of the charge, time and sequence of blasts and monitoring the wind speed and direction.

General Comment opposing Nisbit sand mine

-General Comment opposing Nisbit sand mine (Comments; 6)

Response: Comment Noted

Comments in support of sand mining

Supports Nisbit sand mine (Comments; 1, 12, 20, 36, 39, 44)

Response: Comment Noted

Supports economic benefits of sand mining (Comments; 1, 2, 30, 31, 36, 42, 47)

Response: Comment Noted

Feels concerns adequately addressed in CUP (Comments; 12)

Response: Comment Noted

Sand benefits Agricultural Industry (Comments; 12)

Response: Comment Noted

Minimal impact on roads (Comments; 47)

Response: Comment Noted

Sand dust not likely to be airborne (Comments; 47)

Response: Comment Noted

①

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 10:31 AM
To: Lew Overhaug
Subject: FW: Winona County Farm Bureau Position on Frac Sand Mining
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Glen Groth [mailto:winonafarmbureau@gmail.com]

Sent: Thursday, February 21, 2013 10:18 AM

To: Duane Hebert; Greg Olson; Jason Gilman; jimpomeroy@hbc.com; Marcia Ward; Wayne Valentine; Steve Jacob

Subject: Winona County Farm Bureau Position on Frac Sand Mining

To the Winona County Board of Commissioners, Winona County Planning Director, Winona County Administrator,

The issue of Frac Sand mining is the biggest topic facing Winona County right now. Recognizing this, the members of Winona County Farm Bureau took up this issue at our annual meeting last September. After discussion amongst the 50+ Farm Bureau members in attendance we adopted the following as our official policy on sand mining:

"We support responsible mining of any natural resource from the land. For example, dirt, rock, lime, silica sand, etc."

Winona County Farm Bureau members believe that we do not have to chose between economic development and quality of life. Winona County farmers and landowners should have the ability to utilize the resources on their land to generate income. Responsible mining means that measures are taken to minimize impacts on other landowners and Winona County taxpayers.

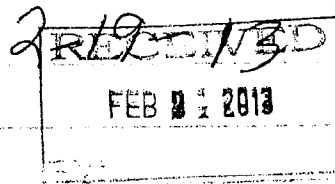
As the largest farm organization in the county the Winona County Farm Bureau Board of Directors felt it important to make county administration and the board aware of our position on the issue of Frac Sand mining before tonight's public hearing. Please forward this message to the Winona County Planning Commission.

Thank you for your consideration,

Glen Groth
Winona County Farm Bureau President.

(2)

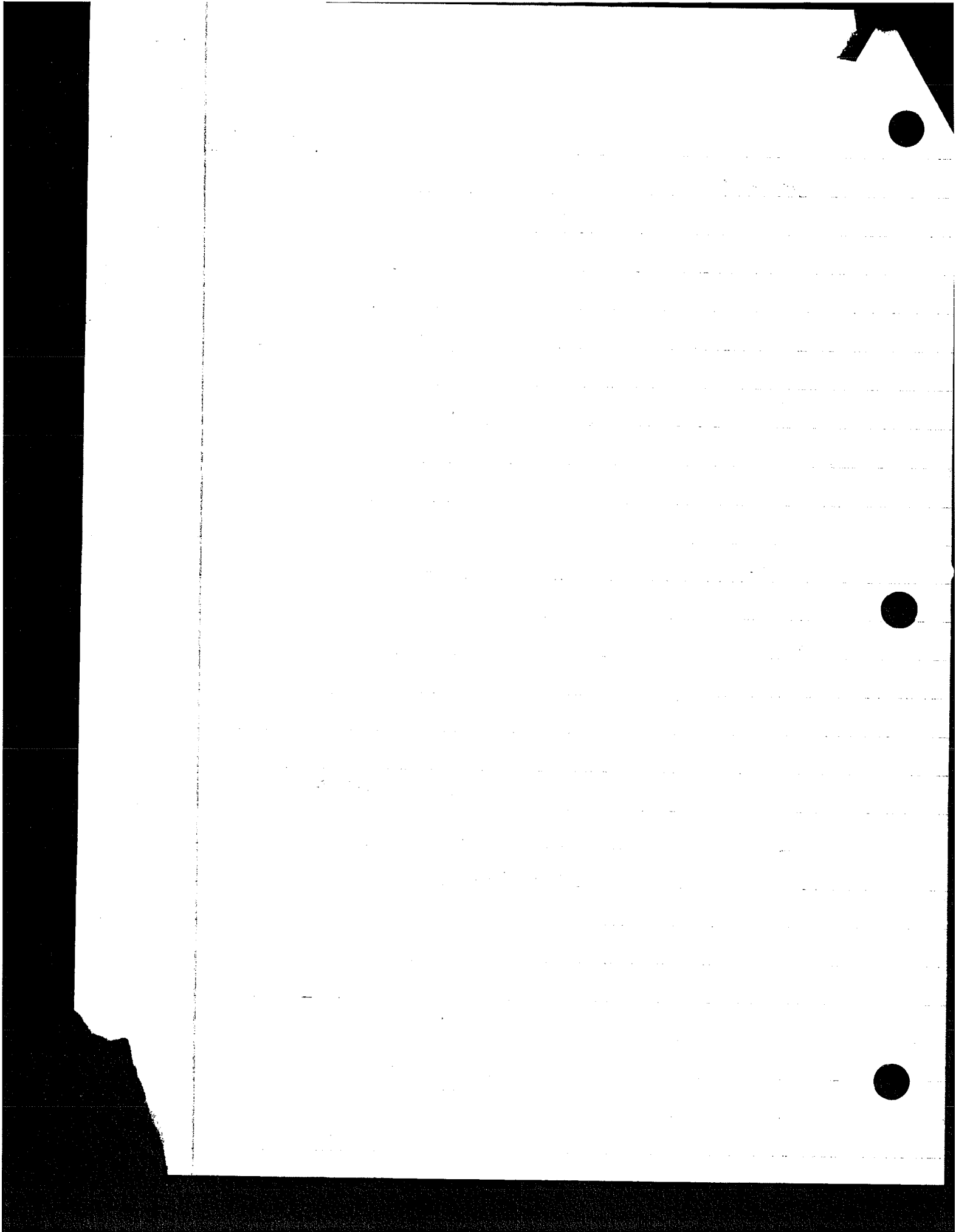
Dear Jason Gilman



I would like say I am
in favor of rock sand
mining I think it would
be good for the City & School
district help Businesses and
help the Price of fuel.

I have served 6 years Township Board
and 10 years on schoolboard and
I am a Farmer in Winona Co.

Maurice & Ruth Shea
11091 Fenske Drive
St Charles Minn
507-932-4287





Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

February 20, 2013

FEB 20 2013

Mr. Jason Gilman
Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987

RE: Nisbit Mine Environmental Assessment Worksheet

Dear Mr. Gilman:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Nisbit Mine project in Winona County. This project is a sand mining project located in the same environmentally relevant area as other proposed mining operations, including the Dabelstein Quarry and Yoder Quarry in Winona County and the Alice Dabelstein Quarry, the Boyum Quarry and the Kessler Quarry in Fillmore County. In light of the cumulative potential effects between the Nisbit Mine and other proposed mining operations, the Minnesota Pollution Control Agency (MPCA) recommends that these projects be considered together in one environmental review process such as a Related Actions Environmental Impact Statement (EIS), that is, a single EIS for independent projects with potential cumulative environmental impacts on the same geographic area. (Minn. R. 4410.2000, subp. 5).

Cumulative Potential Effects

The EAW (Item 29) accurately relates the specific requirements for the assessment of cumulative potential environmental effects in environmental review processes. As noted above, the EAW also identifies a number of other proposed or potential sand mining projects within the same environmentally relevant area in Winona and Fillmore counties. The types of cumulative potential effects that may reasonably be expected to occur from these projects are also identified; however, the additional information and analysis necessary to assess cumulative potential effects is not presented. As noted in our previous comment letter on the Dabelstein Quarry and Yoder Quarry EAWs, dated February 4, 2013, a cumulative potential effects analysis is required by Environmental Quality Board Rules (Minn. R. ch. 4410) as part of the environmental review. This analysis would consider how individual projects, some of which may be minor, may incrementally affect resources in the same environmentally relevant area. The preparation of a Related Actions EIS would offer the opportunity to obtain this information and to provide the requisite analysis.

With respect to the project-specific impacts addressed in the EAW, the MPCA staff has the following comments for your consideration.

Project Magnitude (Item 7)

The EAW indicates that the proposed Nisbit Mine will occupy 19.1 acres of a 74.09 acre property, a much larger area of land than the area proposed to be mined. While the EAW indicates that future stages of the project, including development on other property, are not likely, further explanation would be appropriate to ensure that it is clear that the mined area will not exceed 19.1 acres during its existence.

Permits and Approvals Required (Item 8) and Stationary Source Air Emissions (Item 23)

The EAW does not identify the need for an air emissions permit under Item 8, nor does Item 23 (Stationary Source Air Emissions) explain why an air emissions permit is not required. However, the EAW does mention crushing operations. If crushing operations will occur at a rate of 150 or more tons per hour, federal regulations will require an air emissions permit. Please contact Troy Johnson at 651-757-2169 if more information is needed.

Physical Impacts on Water Resources (Item 12)

The EAW states there is intermittent site runoff during snowmelt and rainfall events exceeding two inches; however, it was not clear where management of the runoff is addressed in the best management practices (BMPs). Clarification is needed on how this issue will be addressed.

Erosion and Sedimentation (Item 16)

Please note that the Nonmetallic Mining & Associated Activities National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit (MNG 49 Permit) requires street sweeping if BMPs are not adequate. It is important to address vehicle tracking of sediment onto paved surfaces.

Water Quality – Surface Water Runoff (Item 17)

For facilities that are eligible for the MNG 49 Permit (formerly the "Construction Sand and Gravel, Rock Quarry and Hot Mix Asphalt Production Facilities General Permit"), a separate General Permit for Construction Stormwater Activity is not required. However, the applicant may choose to be covered by the General Permit for Industrial Stormwater Activity (MNR10000) if the project does not involve dewatering, multiple sites, or the performance of other activities covered under the MNG 49 Permit. In that case, the initial construction phase must be covered by the General Permit for Construction Stormwater Activity. For further information regarding the MNG 49 Permit please call Elise Doucette at 651-757-2316.

Odors, Noise and Dust (Item 24)

The EAW identifies the possible use of oil for dust suppression on haul roads. The MPCA website has two dust control guidance documents:

- o Alternatives to Used Oil for Dust Suppression, located at:
<http://www.pca.state.mn.us/index.php/view-document.html?gid=9072> and
- o Fugitive Dust-Control Surface Treatments at Industrial Facilities: Water Quality Considerations, located at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=11595>.

Please note that only allowable oil types (i.e., not used oil) should be used as noted in the above guidance documents.

Water Quality – Surface Water Runoff (Item 17)

Please note that a Stormwater Pollution Prevention Plan (SWPPP) must include all items addressed in Ch. 1 Parts 6.5, 6.6, 6.9 and 6.11 of the MNG 49 Permit to be in compliance.

This section of the EAW states "During mining the 3 to 5 acre active mining areas will be devoid of vegetation or any biologic veneer in the soil or bedrock and will infiltrate all stormwater, except during excessive rainfall

Mr. Jason Gilman
Page 3
February 20, 2013

events of more than 2"-3" rain per hour." More detailed information is needed regarding what will be done to control erosion/offsite discharges when one of these excessive rainfall events does occur.

Summary of Issues (Item 31)

The brief discussion in this section regarding potential health impacts related to airborne crystalline silica is potentially misleading. Elevated exposures to respirable crystalline silica have long been known to be of concern in occupational settings. Therefore, the majority of the research and data assessing the toxicity of respirable crystalline silica is located in the occupational health literature. In the occupational health field, the respirable fraction of particulate matter is defined as four microns and below (PM4). The MPCA with agreement from the Minnesota Department of Health applies an inhalation health benchmark developed by the California Environmental Protection Agency of three micrograms per cubic meter of respirable crystalline silica in the PM4 size range. This value is a risk guideline and not a federal or state standard and is therefore, used to inform environmental review and permitting. While environmental exposures to crystalline silica may not be a significant concern to the general public, exposures of potential concern may be more likely if populations are close to large sources of uncontrolled emissions. (Reference Wisconsin Department of Natural Resources Report to the Natural Resources Board: Silica Study, August 2011). Several silica sand sites in Wisconsin have started monitoring for silica sand particles in the size range that are potentially associated with health impacts. This data may be available for analysis during the time required to develop an EIS. The preparation of an EIS is an appropriate means to evaluate this issue in the context of all the projects.

Conclusion/Summary

We appreciate the opportunity to review this project. The mission of the MPCA is to work with Minnesotans to protect, conserve and improve the environment and quality of life. To this end, additional analysis and study of all proposed projects, including cumulative potential effects analysis and more thorough analysis of impacts related transportation and processing is needed to fully understand these impacts and develop responsible plans for the proposed mining activities. The Agency continues its willingness to support and assist Winona County by providing additional technical assistance for future, more comprehensive review of the proposed projects. This additional review and analysis will increase the clarity of the potential short and long term impacts.

Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW please contact me at 651-757-2181.

Sincerely,



Craig Affeldt
Supervisor
Environmental Review Unit
Resource Management and Assistance Division

CA:jab

cc: Bob Finley, MPCA, Mankato
Tom Rowekamp, IT Sands, LLC
Bob Patton, EQB Executive Director

4

Minnesota Department of Natural Resources

Division of Ecological and Water Resources
1200 Warner Road
St. Paul, MN 55106
651-259-5738



February 20, 2013

Transmitted Via E-mail

Jason Gilman, AICP
Winona County Planning and Environmental Services Director
177 Main Street
Winona, Minnesota 55987
(507) 457-6337
JGilman@co.winona.mn.us

RE: Nisbit Mine Environmental Assessment Worksheet (EAW)

Dear Mr. Gilman:

The Minnesota Department of Natural Resources (DNR) Central Region has reviewed the EAW for the Nisbit Mine project located in Saratoga Township, Winona County. The DNR offers the following comments for your consideration.

Please provide volume estimates for mining material removed from this site. It is noted that the proposer plans to transport materials to an offsite permitted washing and processing facility located in the City of Winona. The site was identified by the proposer as the Brant Valley load out and sand washing facility. The RGU noted that this facility is already at capacity. The DNR requests that the facility location be confirmed and that it be determined that the acceptance of this material at this facility is in accordance with DNR Waters Appropriation regulation.

As discussed under *The Operations Methods – Mining Sequence* section. The proposer plans to install berms and sediment control features prior to mining activities. It would be useful to include the berm design and sediment control features/layout in the EAW to determine if the proposed erosion and surface water mitigation is appropriate and conforms to best management practices and design.

The document incorrectly refers to reclamation work as "restoration." Reclamation work often falls short of restoration in the fullest sense, i.e., a copy of the natural ecosystem is not achieved. Restoration brings a site back to its original state, complete with the land features and ecological functions that existed prior to disturbance.

The DNR recommends a reclamation plan be completed in addition to Figure 9 provided in the EAW. The slopes, depth and soil profiles of the final land configuration (following mining activities) should be taken into consideration for reclamation. Soil compaction should be limited to the extent possible during reclamation activities. Further details on topsoil requirements would facilitate appropriate soil replacement.

The reclamation plan should include a vegetation monitoring plan that would evaluate seedling establishment. The final site description includes plans to reclaim the site to sand prairie grassland (MnDOT Seed Mix #240). This is a non-native turf grass that, while appropriate for a stabilization seeding, is not suited to grassland establishment. MnDOT seed mixes 330 (native prairie mix for sandy/dry soils, short-height) and 340 (native prairie mix for sandy/dry soils, mid-height) may be more appropriate options for consideration.

The EAW referred to a field assessment that was completed in June 2012 by McGhie and Betts Environmental Services, Inc. The field assessment was used to determine vegetative composition and values of the project areas. The DNR is requests a copy of the report.

The proposers indicated that water used for dust suppression will be brought in by tanker truck after having been purchased from an existing permitting public water supply. Please identify the location of the off-site wells that will be used as the water source.

The EAW also indicates that chloride and/or other treatments may be used on the haul roads for dust suppression. Information on amounts of chemicals and/or treatments and their potential effects to natural resources should be discussed in the EAW.

Item 29 Cumulative potential effects. It is acknowledged in the EAW that adjacent lands have silica sand resources and that there are other silica sand quarries or processing facilities (in various stages of development) in the vicinity of the proposed project. The EAW should also include a more thorough description of these potential cumulative effects and their related actions. A thorough discussion on cumulative potential effects would be helpful for the County (other counties) in future decision making.

Thank you for the opportunity to review the EAW for this proposed project. We look forward to receiving your Record of Decision and response to comments. Minnesota Rules part 4410.1700, subparts 4 and 5, require you to send us your Record of Decisions within five days of deciding on these actions.

If you have any questions about these comments, please call me by phone at 651-259-5738, or by e-mail at melissa.doperalski@state.mn.us.

Sincerely,



Melissa Doperalski
Regional Environmental Assessment Ecologist

CC: Steve Hirsch, Randall Doneen, Bernice Cramblit, Liz Harper, Bill Huber, Scot Johnson, Heather Arends, Jeff Green, Don Nelson, Jaime Edwards, Kevin Stauffer, Steve Klotz, Lisa Joyal, Joe Richter, Regional Environmental Assessment Team (DNR)
Craig Affeldt (MPCA)
Bob Patton (EQB)

5



FEB 20 2013

Protecting, maintaining and improving the health of all Minnesotans

February 20, 2013

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona, MN 55987

Dear Mr. Gilman,

Thank you for providing the Minnesota Department of Health (MDH) with the opportunity to comment on the Environmental Assessment Worksheet (EAW) for the Nisbit Mine project. MDH recommends that Winona County consider including this project in the Related Actions Environmental Impact Statement (EIS) recommended in our letter dated February 6, 2013 regarding the Dabelstein and Yoder mines, in order to fully assess the potential cumulative impacts of this and other silica sand mining projects in the Saratoga Township area.

Groundwater Quality

The excavation at the Nisbit Mine is planned to remove a ridge of St. Peter Sandstone to an elevation of 1,170 feet mean sea level (msl). The project would remove approximately 45 to 50 feet of St. Peter Sandstone, leaving approximately 140 feet of unsaturated bedrock (including approximately 40-45 feet of St. Peter Sandstone) above the regional groundwater surface. The base of the excavated area, as shown in Figure 9 of the EAW, would be at the same elevation as the surrounding topography. No "pit" in the bedrock will remain after mining operations cease to create a focused pathway for groundwater infiltration. As a result, once the site is reclaimed and vegetation re-established there does not appear to be any greater risk for karst development or groundwater contamination in the area of the former mine than in the areas of similar elevation surrounding it. Based on this information, MDH does not anticipate any water-related health concerns associated with this project. MDH supports the recommendations of the EAW that the mine area be restored as grassland to eliminate the need for fertilizers and pesticides, further reducing the potential for water quality impacts in this area. MDH also recommends that a cross-section(s) be provided to better illustrate the site topography before and after mining activities.

Air Quality

Silica exists in two forms: amorphous and crystalline. The toxicity of crystalline silica to humans has been well characterized. In occupational settings where exposures tend to be higher than ambient exposures, silica is capable of causing a number of diseases. The best known disease is silicosis (silicotic nodules and fibrotic scarring of the lung), but exposure to crystalline silica is associated with other health concerns. Silica exposure contributes to other diseases of the lung

including emphysema, chronic obstructive pulmonary disease, tuberculosis, and lung cancer. Silica exposure has also been associated with several diseases of the renal and immune systems.

When discussing the toxicity of silica, the real concern is with respirable crystalline silica particles with a diameter of 4 micrometers (4 μm or 4 microns) or smaller. Particulate matter 4 microns or smaller is referred to as PM₄. Particles this small are invisible to the naked eye. PM₁₀ (particulate matter 10 microns or smaller) is respirable but the fraction of PM₁₀ larger than 4 microns only reaches upper levels of the respiratory system. Particles 4 microns or smaller can travel much deeper in the lungs and reach the lower respiratory surfaces (alveoli) where the changes that produce silicosis take place. Disease risk is related to both the levels and duration of silica exposure and the onset of disease may occur long after the exposure has ceased.

The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) has used information from occupational studies to develop a chronic reference exposure limit for silica in ambient air of 3 $\mu\text{g}/\text{m}^3$. The MPCA has requested that MDH develop an exposure limit for respirable crystalline silica in air. MDH staff are currently developing this exposure limit, which should be available mid-2013. In the interim MDH has suggested that the MPCA use the OEHHA value of 3 $\mu\text{g}/\text{m}^3$ for screening purposes.

MDH has little to no information on the levels of respirable silica generated by frac sand mining or processing. MDH has not been provided with any information on the ambient levels of silica that result from frac sand mining operations. MDH is aware of air monitoring plans for ambient crystalline silica associated with several frac sand mining facilities in Wisconsin and these results could be applicable to assessing potential risks posed by proposed facilities in Minnesota.

Truck traffic

Trucking from the Nisbit mine, estimated to be 280 truck trips per day, will put significant burden on the streets used for hauling the silica sand and the surrounding community. Increased truck traffic has potential to increase vehicular and pedestrian injuries. Additionally, trucks emit PM and chemicals that with acute or long-term exposure can exacerbate respiratory and cardiovascular disease, and can increase the risk of asthma, allergic diseases, bronchitis, impaired respiratory function, pneumonia, cardiopulmonary diseases and cancer. Reviewing truck routes to prevent exposure of sensitive populations to pollutants, such as schools or assisted living facilities, is recommended. Truck routes can be changed to alleviate the risk of exposing sensitive populations to these risks. Emergency routes also should be reviewed to ensure that increased truck traffic does not interfere with timely responses of emergency vehicles such as ambulances and fire trucks.

Connected/Phased Actions

As stated in Minnesota Rule 4410.4400, Subpart 1, an EIS must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 25. Multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when comparing the project or projects to the thresholds of this part. Minnesota Rule 4410.4400, Subpart 9, item B states that any EIS is required for sand mining or extraction that will excavate 160 or more acres of land to a mean depth of ten feet or more during the mine's existence. Additionally, Minnesota Rule 4410.2000 states that independent projects with potential cumulative environmental impacts on the same geographic area are considered related actions that require the preparation of an EIS. The proposed Campbell Quarry in Saratoga Township and

the proposed Alice Dabelstein Quarry, Dabelstein and Yoder mines, and the Boyum Quarry and Kessler Quarry in Fillmore County are all within 5 miles of the Nisbit mine and have a combined project size of over 160 acres. In addition, Minnesota Proppant, LLC, began work in 2012 on a draft EAW for a sand processing facility in St. Charles and an associated sand slurry pipeline that would transport sand from several, if not all, of the quarries listed above, as described in the Yoder and Dabelstein EAWs. Although the Nisbit Mine is being proposed by different operator, the essential activities at this mine are the same as at the other mines listed above and could add to the potential for air quality impacts to the area. As a result, MDH believes these projects are related actions that require a thorough analysis in an EIS. Analysis of these projects as related actions will result in a more comprehensive, and accurate, assessment of the potential health impacts associated with increased truck trips, air quality, and groundwater use.

Health Impact Assessment

A Health Impact Assessment (HIA) is a research and community engagement process that can be used to help ensure that people's health and concerns are being considered when decisions on infrastructure and land use projects are being made. The National Research Council defines HIA as "a structured process that uses scientific data, professional expertise, and stakeholder input to identify and evaluate public-health consequences of proposals and suggests actions that could be taken to minimize adverse health impacts and optimize beneficial ones." HIAs have been used to provide important health information to decision makers on a wide range of projects outside the typical health arena, including comprehensive plans, brownfield redevelopment, transportation projects, energy policies, and housing projects. Over 100 HIAs have been performed in the US to help improve public health. Ten HIAs have been completed in Minnesota, mostly on comprehensive plans and transportation projects.

In Colorado, an HIA was undertaken to assess health impacts associated with a hydraulic fracturing project proposed in that state. However, to date, no HIA has been used to evaluate frac sand mining in the US, but HIAs have been used to inform decision makers about additional health effects in projects that have some similarities, including oil and gas leasing, coal mine proposals, and copper, zinc and gold mining. These HIAs may review health issues that are typically included in an EIS, such as water and air quality, but they also review additional health effects that are related to the specific site and community. Some health effects considered in these HIAs include reviewing the health effects of newly built infrastructure and traffic to support mining, the influx of migrant workers, and the disturbance of food sources relied upon by subsistence cultures.

An HIA on silica sand mining could provide additional health information for policy makers in determining how to balance health and citizens' concerns with the economic benefits of silica sand mining. Ideally, the HIA would include an air monitoring study, but this requires significant time and resources. An HIA could be scaled according to available resources and still answer some of the health questions posed by the community. An HIA could provide recommendations to policy makers to support possible positive health outcomes and to mitigate or prevent possible negative health outcomes to improve the public's health and to inform zoning, permitting, monitoring, and reclamation policies. Since February 2013, MDH screens all EAW to determine whether they would benefit from an HIA. Using a standardized, pilot screening tool, MDH found that the Nisbit Mine project could benefit from a HIA.

Jason Gilman
February 20, 2013
Page 4

Summary of Recommendations:

- As noted in MPCA's letter to Winona County date February 4, 2013 and MDH's letter dated February 6, 2013, it may be appropriate for Winona County to prepare a Related Actions EIS, a single EIS for independent projects with potential cumulative environmental impacts on the same geographic area.
- A cross-section (or cross-sections) should be provided to better illustrate the topography of the site before and after mining activities.
- Project operation should include a plan to monitor for respirable crystalline silica on a regular basis.

Health starts where we live, learn, work, and play. To create and maintain healthy Minnesota communities, we have to think in terms of health in all policies. Thank you again for the opportunity to provide comments on these EAWs. Please feel free to contact Michele Ross at (651) 201-4927 or michele.ross@state.mn.us if you have any questions regarding this letter.

Sincerely,



Michele Ross
Environmental Review Coordinator
Environmental Health Division
Minnesota Department of Health
PO Box 64975
Saint Paul, MN 55164-0975

(6)

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 9:10 AM
To: Lew Overhaug
Subject: FW: fracking
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
 Planning and Environmental Services Director
Winona County
 177 Main Street
 Winona County, MN 55987
 507-457-6337
 e-mail: JGilman@Co.Winona.MN.US

**Planning and Environmental Services**

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

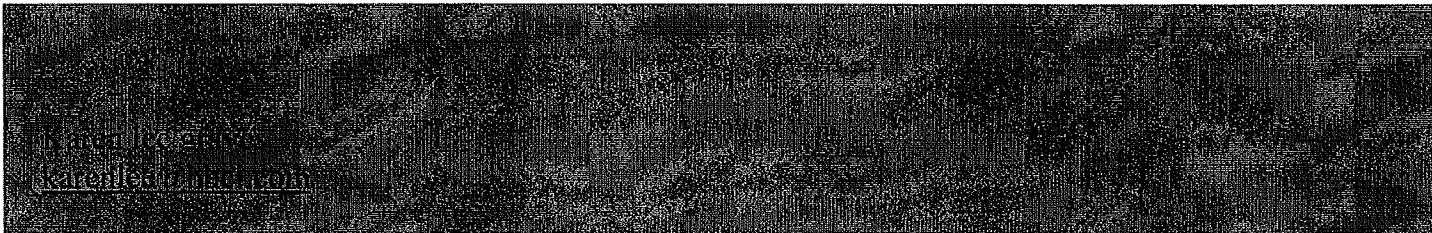
From: karenlee@hbc.com [mailto:karenlee@hbc.com]
Sent: [REDACTED] 2013 4:01 PM
To: Jason Gilman
Subject: fracking

I have sent well over ten articles about this fracking issue as well as contacted people in office locally, statewide and more. It is frustrating that this is not a ban and dried issue. NO! NO! NO!

I am a mother and grandmother five times over and I am saying no to the Nisbit fac sand mine. I and I am not alone, people are calling me and seeing programs on the news, magazines, etc. And when I said before, when foreign countries are not doing this because they know of the damage this will cause and we cannot do this in our environment.

Please listen to us! We do vote people into office we trust and hope that their main concern is the citizens who believe in them.





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7

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 8:45 AM
To: Lew Overhaug
Subject: FW: Frac Sand Mining
Attachments: oledata.mso

for the file

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Carole Madland [mailto:cmadland1947@gmail.com]
Sent: Thursday, February 21, 2013 1:43 PM
To: Jason Gilman
Subject: Frac Sand Mining

Dear Jason,

Just a quick e-mail to say I am opposed to allowing frac sand mining in the area until we have a good understanding of the impact it may have on possible contamination of water systems and air quality. Thanks,
Carole Madland

710 Main Street
Winona
507-452-7592

8

Low Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 9:11 AM
To: Low Overhaug
Subject: FW: Comments on Nisbit EAW

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: [REDACTED] [mailto:mariekov@gmail.com]
Sent: [REDACTED] 2013 4:20 PM
To: Jason Gilman
Subject: Comments on Nisbit EAW

Greetings, Mr Gilman,

I am submitting comments on the Environmental Assessment Worksheet completed recently on the Nisbit mine project.

I feel the amount of traffic generated by this mine will cause difficult driving safety in Winona and along the projected route. The EAW actually does not comment in the traffic impact analysis on traffic past the intersection of County Road 33 and Highway 14. This leaves out information on these 280 truck trips through Lewiston, Stockton and into Winona. The analysis is incomplete.

I actually will be directly impacted if these trucks travel along Highway 14 since I live in the housing area of Whispering Pines, just across from St Mary's University. We have one entrance/exit onto Highway 14 for our 35 homes and also the dormitory for St Mary's as well as group housing for St Mary's. This many trucks will limit our safe ability to enter and exit and merge with traffic on Highway 14.

In addition, the route along Highway 14 passes the intersection of Gilmore Valley Road and the entrance to Knopp Valley and its over 400 homes. This intersection has been reviewed by MN DOT after several serious (and at least one fatal) accident. The speed limit on Highway 14 is 45 mph along this stretch of highway and the trucks will be descending an approximately 6 mile hill (Stockton Hill) and this all increases the danger along this road.

Finally, the route passes the main entrance to St Mary's University with traffic from faculty and staff as well as students throughout the day. This many trucks will have a negative impact and this needs to be studied.

I am also concerned that the route lists the sight deficiency at the intersection That is also used by trucks from the Dabelstein and Yoder mines. This would have 1200 truck trips per day plus the 280 from Nisbit at the same insufficient intersection. This sounds dangerous.

It seems the EAW only considers the impact from the Nosbit mine without referring to the cumulative impact from the additional mines in that same area. These would include the dabelstine and Yoder mines but also mines in Fillmore County. Apparently all are within an area of about 10 square miles. It is unacceptable to not include analysis of cumulative impacts from the multiple mines in this area.

Finally, I am concerned that the EAW does not provide full disclosure for all activities. They included an open-ended statement that says : " NOTE: Additional activity may be warranted due to site conditions, weather condition and phasing limitations. " This is unclear what the activity really will be and the EAW must include all planned activities. The additional activities due to site conditions should have been analyzed in this EAW, along with any limitations due to phasing stages.

I appreciate the diligent work from the County for this and all mining activities in our County. I look forward to working through these particular limitations of the Nisbit EAW as well as other limitations identified by other commenters.

Sincerely,
Marie Kovecsi
133 Whispering Lane
Winona, MN 55987
507-454-4193
mariekov@gmail.com

February 17, 2013

Jason Gilman

Planning and Environmental Services Director

177 Main Street

Winona, MN 55987

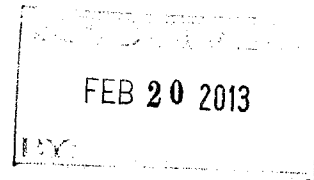
Dear Mr. Gilman,

Subject: Nisbit Mine EAW

Public comment is allowed at this time concerning the Nisbit mine. Today I wanted to take time to share with you, the Winona County Planning Commission, and the Winona County Commissioners, concerns I have with this mine and the cumulative effect of frac sand mining on Southeast Minnesota.

My background includes having been raised on a dairy, hog, and crop farm in Houston County where my father demonstrated his caring for the land through recognition by the Soil Conservation Service for 30 years of proper stewardship. Wanting to make a difference in agriculture in Southeastern Minnesota, I pursued both a Bachelor and Master degrees in Agriculture Education. I taught agriculture to high school students and farm management to farmers in St. Charles for eight years. During my time teaching in St. Charles I learned about the demise of Beaver, a thriving community in the Whitewater Valley which was literally abandoned due to inappropriate farming practices. Will significant, cumulative mining activities change our community?

My current concern surrounds the significant, potential, cumulative effect that frac sand mining will have on Winona County and Southeastern Minnesota. Planning staff, planning commission members and county commissioners are key government officials who will be making critical decisions concerning the future of our community. During the past sixteen years as a Certified Financial Planner (CFP) I see every day how important accurate, reliable information is when making long term economic decisions which impact the lives of my clients.



Clearly, a comprehensive Environmental Impact Statement (EIS) would provide an excellent tool to aid you in your decisions.

Significant, potential, cumulative impacts exist with frac sand mining activities.

Are there health risks?

The potential air pollutants of most concern from frac sand mining are airborne particles, including particles less than 10 microns in size (PM_{10}), particles less than 2.5 microns in size (typically called "fine particles" or $PM_{2.5}$), and crystalline silica, which ranges across both size categories.

The crystalline silica particle size of most concern is smaller than 4 microns; no generally accepted ambient monitoring method exists for this size. There are known health risks associated with airborne crystalline silica. However, the available information on health effects comes almost exclusively from occupational settings, where exposures are more concentrated. There are no federal or state standards for silica in ambient air.

There also are health risks associated with other airborne particles, especially $PM_{2.5}$. There are state standards for airborne particles (called Total Suspended Particles or TSP), and state and federal air quality standards for PM_{10} and for $PM_{2.5}$. However, no information is currently available that would help regulators assess if air concentrations of TSP, PM_{10} or $PM_{2.5}$ near frac mining facilities are above state or federal standards.

MPCA states in the previous three paragraphs that there is no effective method to measure harmful dust from sand operations. Before government officials approve operations that have significant, potential, cumulative impacts on citizens who live near hauling routes and mine activities an EIS should be completed.

THE NEED FOR AN ENVIRONMENTAL IMPACT STUDY (EIS)

An EIS is needed to understand the cumulative effect of frac sand mining, transportation, and processing which is likely to occur in Houston, Winona,

Olmsted, Wabasha, and Fillmore counties. Every county mentioned is considering the approval of additional sand mining operations. The cumulative effect of these operations has not been assessed in this EAW as required by question 29 and MN Rule 4410.1700 subpart 7 Item B.

Directly from the Nisbit EAW Question 29 the following is found:

What follows is a list of known or discussed projects associated with silica sand in the Winona County vicinity:

A number of processing facilities exist within or within the vicinity of the City of Winona.

A number of shipping facilities exist within the City of Winona where rail and barge access are available.

Preliminary information on a proposed processing site near the City of St. Charles indicates a 300 acre project, having an annual processing capacity of 2 million tons of sand and a trans-load rail facility.

A 36.5 acre quarry site is proposed in Saratoga Township (Dabelstein Site) and is the subject of an EAW. The mine operator is Minnesota Sands LLC.

An 84.3 acre quarry site is proposed in Saratoga Township (Yoder Site) and is the subject of an EAW. The mine operator is Minnesota Sands LLC.

Additionally, there is at least one known mine proposed in Fillmore County located in Holt Township on County Road 10 about ½ mile southwest of Highland (approx. 50 acres). Fillmore County has also indicated 3 *pre-applicants* in Pilot Mound Township, just south of the project area, in Sections 1 and 2, about a mile away from Winona County Road 33, south of CR104 and County 30. They are listed as the Alice Dabelstein quarry (approx. 50 acres and approximately 1.25 miles from the Nisbit property), the Randy Boyum quarry (approx. 50 acres and approximately 1 mile from the Nisbit property) and the Kessler Quarry (approx. 30 acres and approximately 1 mile from the Yoder property). The mine operator for these sites is Minnesota Sands LLC according to information from Fillmore County.

Lastly, a Minnesota Sands LLC, public relations employee indicated in a Winona Post newspaper article from October, 2012, that the company had nine leases in three different counties.

As required in question 29 the cumulative potential effects of these projects is not addressed. The Nibit EAW does not meet this requirement.

The citizens of Winona County and Southeastern Minnesota need you to call for an EIS. This EAW has failed to provide enough information to protect the citizens of Winona County and Southeastern Minnesota.

Lastly, when you call for an Environmental Impact Statement with it needs to come funding to hire an independent Environmental Engineer in order to provide appropriate unbiased information to you the decision makers. Jason Gilman has shared with me that no one on the Winona County staff is trained or certified as

an Environmental Engineer. Please allow me to be extremely clear, the Regulating Government Unit (RGU), Winona County has no one on staff nor at this point have they contracted with any independent engineers to evaluate this sand project and its likely significant potential cumulative effect. A critical person necessary for you to reach an effective decision is a trained, certified unbiased professional Environmental Engineer. Thanks in advance for following the guidelines of the Environmental Awareness Worksheet and calling for an Environmental Impact Statement.

Respectively submitted,

Fred Troendle, CFP

Certified Financial Planner

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 9:11 AM
To: Lew Overhaug
Subject: FW:
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
 Planning and Environmental Services Director
Winona County
 177 Main Street
 Winona County, MN 55987
 507-457-6337
 e-mail: JGilman@Co.Winona.MN.US

**Planning and Environmental Services**

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: ~~vincent ready~~ [mailto:vincentready@hotmail.com]
Sent: ~~Wednesday, February 20, 2013~~ 4:19 PM
To: Jason Gilman
Subject:

Dear Mr Gilman,

My name is Renee Ready, and I live in Saratoga township. I have lived here most of my adult life and am currently a special education teacher. I routinely use local roads to drive on and conduct business. We own our own water source which is a drilled well on our property.

I am writing to you regarding my concerns over the EAW published by a mine proposer in Saratoga township. Specifically the EAW concerning what is known as the Nisbit Quarry. There are other mine proposals in our township to be developed roughly along the same timeline and because they add up to an appreciable enterprise over a hundred acres I believe that they should be the subject of an environmental impact statement (EIS). There are a number of mines being proposed in my township and the cumulative effect of these mines is seriously concerning to myself and my neighbors. I am very concerned about truck traffic caused by the business of mining. Estimated at 240 trips per day for the Nisbit mine. Although the proposer wants to be disassociated from the other mines the amount of traffic would be a radical change to our way of life. Not only the heavy trucks but the diesel exhaust and noise.

The best management practices alluded to in the EAW are not satisfactory. No explanation of how much water for wetting. Where the water comes from. How I am to be protected from their activity with silica dust. What monitoring is proposed to alleviate our concerns.

I have travelled in Wisconsin where there is similar mining activity by the company EOG and others that are referred to in the EAW. Please be assured that this activity around Maiden Rock and along the river towns' mines would not attract tours. No one would be driving through these areas on their way to a place like Lanesboro. There is silica dust on the roadways and on the structures within miles of the mines. The best management practices were not designed to contain this high level of activity with silica mining.

I have raised my children here and built a house here. This is a farming community. These proposers are profiting at the

expense of my environment and diminishing my ability to enjoy my home and land. Their proposal involves an estimated twenty years of mining activity from 6 AM to 10 PM with hundreds of truck trips a day. I view this as a very significant change to our environment and I see no positive outcome for our county residents. I am concerned about our quality of life, health effects, damage to our countryside and I would certainly think that a more thorough study is in order (EIS). I believe that Rowekamp trucking or any other mining companies should be strictly accountable prior to engaging in such a huge project.

Thank you in advance for considering this process,
If you could let me know that you received this, I would appreciate it.
Thank you

Vincent Ready
11048 Cox Dr
St Charles Mn 55972

507 932 4713

11

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 21, 2013 9:11 AM
To: Lew Overhaug
Subject: FW: Nisbit EAW
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: [REDACTED] [mailto:vincentready@hotmail.com]
Sent: Wednesday, February 20, 2013 4:12 PM
To: Jason Gilman
Subject: Nisbit EAW

Mr Gilman,

My name is Vincent Ready, and I farm in Saratoga township. I have lived here most of my adult life and am currently actively farming. We raise cattle and Clydesdale horses. Most of my livestock activities involve commerce within Winona County. I routinely use CR 6 to transport hay and livestock. We own our own water source which is a drilled well on our property.

I am writing to you regarding my concerns over the EAW published by a mine proposer in Saratoga township. Specifically the EAW concerning what is known as the Nisbit Quarry. There are other mine proposals in our township to be developed roughly along the same timeline and because they add up to an appreciable enterprise over a hundred acres I believe that they should be the subject of an environmental impact statement (EIS). There are a number of mines being proposed in my township and the cumulative effect of these mines is seriously concerning to myself and my neighbors.

I am very concerned about truck traffic caused by the business of mining. Estimated at 240 trips per day for the Nisbit mine. Although the proposer wants to be disassociated from the other mines the amount of traffic would be a radical change to our way of life. Not only the heavy trucks but the diesel exhaust and noise.

In item 25, the proposer has glibly identified this area as having no scenic views or vistas. I am amazed at the audacity. There are currently tours travelling through our township of people who wish to view our country side. The tours originate in Lanesboro. They would be surprised at the very least to read this. We may not be a national park but we are entrusted with beautiful woods, pastures and fields that are found desirable and enjoyed by a large number of Minnesota residents. I will gladly furnish photographic evidence of the sites taken from the adjacent roads. I would invite the county commissioners to drive past what Mr Griffin refers to as pastureland and scrub land.

I have travelled in Wisconsin where there is similar mining activity by the company EOG and others that are referred to in the EAW. Please be assured that this activity around Maiden Rock and along the river towns' mines would not attract

tours. No one would be driving through these areas on their way to a place like Lanesboro. There is silica dust on the roadways and on the structures within miles of the mines. The best management practices were not designed to contain this high level of activity with silica mining.

I have raised my children here and farmed here and built a house here. This is a farming community. These proposers are profiting at the expense of my environment and diminishing my ability to enjoy my home and land. Their proposal involves an estimated twenty years of mining activity from 6 AM to 10 PM with hundreds of truck trips a day. I view this as a very significant change to our environment and I see no positive outcome for our county residents. I am concerned about our quality of life, health effects, damage to our countryside and I would certainly think that a more thorough study is in order (EIS). I believe that Rowekamp trucking or any other mining companies should be strictly accountable prior to engaging in such a huge project.

Thank you in advance for considering this process,
If you could let me know that you received this, I would appreciate it.
Thank you

Vincent Ready
11048 Cox Dr
St Charles Mn 55972

507 932 4713

RECEIVED

FEB 20 2013

Winona County

(12)

Dear Jason

I'm writing this comment letter in support of the Nisbit mine. I have been following the permitting process for this mine and from what I have learned I see no problem with this site. I attended a meeting in Lewiston a few months ago where there were a couple of people giving information on sand mining and answering questions. One of the people is a

professor from Winona that studies geology, and the other person was from either MPCA or DNR. Either way, they were educated people.

What I heard them say was there are good and bad sites for mining sand. If it's close to a feature where mining could cause a problem and it can't be mitigated then that site should not be opened. There are no such features at the Nisbit site that will cause any environmental problems. All relevant concerns have been addressed with the conditions that have been put on the permit.

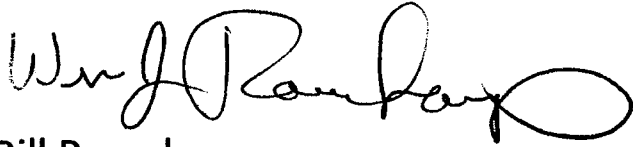
As you know, I'm a dairy farmer. One product that is very important to many dairy farmers in Winona County is sand that we bed or cows with. There is nothing better for cow comfort and health than giving her a nice bed of sand to lay in. The mine that we are getting our sand from now is about to end. As I understand, there will be 2 grades of sand coming from the

Nisbit mine and there should be abundant sand that can be used for bedding.

The County and your department have done an excellent job in putting this permit together. All concerns have been addressed. The Nisbit mine should go forward. They have agreed to all conditions and the impacts are minimal and have been addressed. As a land owner, Nisbits have the right to use their land as they see fit, as long as they follow the rules and that is what they have done.

This mine has been fully studied and needs no further review.

Thank You

A handwritten signature in black ink, appearing to read "Bill Rowekamp", with a large, stylized loop at the end.

Bill Rowekamp

RECEIVED

FEB 20 2013

Winona County

February 17, 2013

Jason Gilman
Planning & Zoning Services Center
177 Main Street
Winona, MN 55987

RE: Comments on EAW for Nisbit frac sand mine

Dear Mr. Gilman:

As a St. Charles resident and taxpayer I am writing to comment on the EAW for the proposed Nisbit mine. I believe this project clearly has the potential for significant environmental and cumulative effects and that an Environmental Impact Statement (EIS) is needed and should be required.

Project Magnitude---The Nisbit mine is clearly part of the proposed Dabelstein and Yoder mines and should be reviewed TOGETHER in a single environmental review. These mines along with the strong likelihood that it will attract more mines from five neighboring counties and the washing/processing plant proposed just outside of St. Charles are ALL clearly a part of related projects. There is great potential for significant environmental and cumulative effects. An Environmental Impact Statement (EIS) is needed and should be required. Remember, Stuart Hagen, MN Proppant's lead investor, was quoted in the Saturday, Sept. 30th, 2012 Star & Tribune news article boasting that the proposed washing/processing plant just outside of St. Charles 'would be the largest in the country for sure"! The impact on the environment from these mines and related projects will be tremendous! We must have accurate, independent, scientific information obtained by an EIS. I believe this is critical. We can not afford statewide or county oversight at the expense of consistent standards. The EIS is needed to reveal the full damaging impacts of these complete projects on our air, land, water, roads, wildlife, property values, quality of life, and the unique beauty of our area here in southeastern Minnesota!

Air Quality---The ambient airborne silica dust is a very real and concerning health issue. We need to further our knowledge of the threats this industry will have on our health.

Dust Control---The mines and transportation sites themselves will have huge amounts of silica dust around them. How will that be controlled? Who will control the situation, when will they deem it necessary to water down the stockpiles? Where will that water come from? How will it get to the stockpiles? There are many questions that seem to be glossed over and not answered satisfactorily.

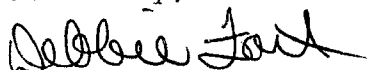
Water Quality---What steps are taken in case of any chemical spills? Occurrences in WI and other states leave me concerned. Especially concerning to me is that the sites are located in areas of moderate to high sinkhole probability. Robbing the land of its natural ground-

cover will make the aquifer and nearby wells more susceptible to pollution and contaminants. Depressions in the ground could channel elsewhere and lead to sinkholes and disruption of wells. The streams and aquifers do not know the boundaries between townships and counties. Problems in one sand mine could eventually lead to several problems that would trickle down a lot of wells and into our groundwater. Mining removes the natural groundcover and filtering of the water will be disrupted. The potential for environmental and cumulative effects from this should require an EIS.

Truck traffic---With the added truck traffic (already proposed at 1,200 daily truck trips from the other mines) there will be substantial damage to the roads, traffic hazards and health issues from vehicle emissions of the trucks. Also concerning issues are the trucks that go right by the high school with young, inexperienced students and two churches where preschool classes are held by one and both have many church-related activities at various times and days.

Cumulative Potential Effects---There are too many unknowns of important issues that need to be followed up and studied thoroughly. If our air, water, land, and quality of life are impacted we need to know! Our elected and appointed officials are responsible to protect our health, safety, welfare, and quality of life. I feel that these are in jeopardy. Let's learn from our WE neighbors and do our research BEFORE it is too late. Please support my request for an EIS. It is necessary and it is the right thing to do for everyone. Thank-you for your time.

Sincerely,



Debbie Fort
1901 Whitewater Ave.
St.Charles, Mn 55972

RECEIVED

FEB 20 2013

Winona County

14

February 19, 2013

Jason Gilman
Planning & Zoning Services Center
177 Main Street
Winona, MN 55987

RE: Comments on EAW for Nisbit frac sand mine

Dear Mr. Gilman:

I am a St. Charles resident, taxpayer, and have owned my own business here in St. Charles for 46 years!

With all of the information that is now available on frac sand and frac sand mining it clearly shows that an Environmental Impact Study (EIS) should be required on this (Nisbit) mine the same as the others.

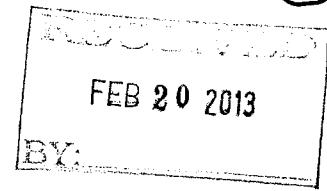
It is becoming a substantial health issue that we cannot in any way just let it go through. The cumulative effect which we may not know or have the answer to at this time cannot be overlooked.

There are too many examples of pollution from the past that we cannot go back and fix - we cannot let this become another!

Sincerely,

Harold (Skip) Fort
1901 Whitewater Ave.
St. Charles, MN 55972

15



To: Jason Gilman
Winona County Planning & Environmental Services Director
177 Main Street Winona, MN 55987

RE: Comments on Nisbit EAW

Dear Mr. Gilman:

I am writing with my comments on the Environmental Assessment Worksheet (EAW) for the proposed Nisbit frac sand mine.

I believe that this project has the potential for significant environmental impact and impact on health, and is part of related activities with cumulative impacts as defined in MN Rules 4410.0200. Therefore, an Environmental Impact Statement (EIS) must be conducted.

A major problem with this EAW is the prevalence of **inconsistent statements throughout the document**. The following are examples of such inconsistencies:

Page 5 of the EAW reads, "The mine will not require construction of any well, ponds or permanent structures for storage of equipment or materials." But then page 7 says, "Measures will be taken continuously to keep any drainage internal within the mine boundary, a strategy assisted by the sandy, highly permeable substrate. The perimeter berm and swales will be incorporated to direct flow into proposed sediment traps." These statements are not consistent. Those two statements do not make sense -- they are inconsistent with each other. In order to provide consistent and correct information on the operations plans and the potential for environmental, economic and impacts to health, an EIS must be conducted.

On page 7, it says "Although Stage 2A and 2B are greater than 5-acres no more than 5 acres will be open in any phase per year." This does not make sense. It is inconsistent -- again, therefore, an EIS must be conducted.

"Priority Areas of Native Biodiversity in Southeastern Minnesota (1997)" whereas the same assessment is referred to as having occurred in 2007 in the same section. This is on page 24. There are two different years cited for the assessment. This inconsistency is yet one more reason an EIS needs to be done.

On page 30, it says "The proposer will construct a berm/rim-ditch around the perimeter of the mining site that is then surrounded by silt fencing. Stormwater runoff generated at the site will be contained within the mining limits (Figure 6 and 7). Other forms of BMPs such as grassed swales and/or diversion berms will be used as necessary." But on page 26 it says, "Stream diversions, outfall structures, diking or impounding of surface water and dewatering will not occur." These contradict each other. Another case where an EIS must, according to law, be

done.

Another contradiction comes with these two statements: On page 30 it says, "The quality of the topsoil placed shall be analyzed to determine if and how much fertilizer may be needed to establish new turf on the sandy restored soils." But then page 39 says, "farm chemicals, fertilizers and hazardous materials will not be used, so the threat to groundwater contamination is low." Will fertilizers be used? This is impossible to tell from this part of the EAW. This area is particularly susceptible to the absorption of pollutants into the groundwater. So whether fertilizers will be used, and what effect that might have on groundwater, are things an EIS must be conducted for.

This EAW does not adequately address **cumulative impacts** of this mine with other mines proposed in the immediate vicinity of it. It states (page 9) that "No road segments are forecasted to reach capacity with the additional truck traffic from the Nisbit mine." This statement of projected traffic impact is only for the Nisbit mine. What about all the cumulative truck traffic from proposed frac sand mines in the three-county area? (including Houston and Fillmore). The only way these cumulative impacts will be understood and studied is thru an EIS.

There are incorrect statements in this EAW. An example: "According to the Winona County Zoning Ordinance Performance Standards (Section 9.10.3, Item 6) and recommended Conditional Use Permit conditions the proposed mining may take place Monday through Friday between the hours of 7 AM and 10 PM CST (13 hours/day)" from page 9. This is not correct on its face. If the mine operates 7 AM to 10 PM then that is 15 hours a day, not 13 as the EAW says. An EIS is needed to figure out the effects based on the proposed 15 hours /day of operation.

The impacts from blasting. The EAW says, "Mining and on-site processing activities will include earth excavating, blasting, screening, crushing, and loading materials. Blasting may be necessary to remove the Platteville Limestone cap rock off the ridge and to loosen any well cemented sandstone at the top of the St. Peter sand at the beginning of the mine operations. Vibration monitoring shall be done as necessary at adjacent homes and structures within 1/4 mile of the proposed blast area" (page 9). But what will this do to the existing wells? What about sinkholes that could be formed? What about monitoring? Also there's no plan for controlling fugitive dust and airborne particulate matter when blasting occurs. All of these are potential harmful impacts that require an EIS.

The Nisbit EAW is sometimes quite vague. "Additional activities may be warranted due to site conditions, weather conditions or phasing limitations." What "additional activities? An EIS is needed in order to identify these and their potential effects.

Many other questions go unanswered with this EAW. Page 12 talks about water, but it doesn't say what quantity will be needed for the operation, or where it will come from. Not to mention what it will do to the aquifers. It does not identify how much the tanker trucks will weigh, and

which haul routes for getting water to the mine. What will contaminated water potentially do to the area's water? We need an EIS to clarify all these issues.

An EIS is needed to get a better handle on property values. The EAW reads, "According to the applicant three factors make it improbable that property values will be negatively impacted," but all that is cited is opinion by the mine people, not facts or data. That is not an "analysis." An EIS must look at other areas where property values have been affected by strip mines similar to these.

An area with great potential for environmental harm is trout habitat. Page 23 says, "Based on the sandy nature of the Nisbit site and surrounding land and the long distance to any perennial streams there are no fish habitats that will be impacted by mining activities." P. 29 states, "The applicant estimates that infiltration to the groundwater could occur from the surface through the underlying sandstone and dolomite in a matter of 2 to 3 days." How are cold-water springs, important to trout habitat, going to be affected? How will blasting and other activities affect the formation of sinkholes and perhaps changing the direction of underground aquifers? These are also important for fish habitat. To understand the projected impacts of sand mining activities on fish habitats, we must have an EIS be completed.

Another example of **sheer opinion or conjecture** is this: "Wildlife observed by the applicants consultant, Jeff Broberg, at and near the site includes: whitetail deer, raccoons, skunks, wild turkeys, pheasants and a variety of other small birds and mammals, however, it is the consultants opinion that the site is not a significant breeding or wintering ground for wildlife." There has been no plant or animal assessment of the area. What other species (mammals, insects, plants birds, reptiles, etc) are at the site? How will the ecosystem – the ecological communities -- be impacted by this mine? A scientific inventory of all the species there needs to be done, and an EIS is required for that.

Blasting is planned to occur. And the EAW says, "Any wildlife present within the agricultural cropland of the site will be displaced to the surrounding cropland." (page 23). This displacement—when will the wildlife be displaced? Before blasting? Or while it is going on? This is another instance of an incomplete EAW.

The EAW makes claims that it doesn't back up with facts. "The proposer states that the exact volume of topsoil available for restoration is estimated from soil borings and test pits to be 40 to 60 acre feet." But there is no evidence submitted to back this up. An EIS is needed.

Many, many questions about water go unanswered with this EAW It says "Water used on the site will come from existing public water supplies and will be hauled in tankers." And, "Water used for dust control will be hauled in tanker trucks after having been purchased from an existing permitted public water supply." What's the source of the water? Where does the water go after it's been on the site? Will that affect groundwater, and if so, how? What is the effect on

the aquifers? How much do the tanker trucks carrying water weigh? Once the overburden is removed, how will they keep the contaminated water from going straight into the groundwater? All of these questions make it obvious that there is the potential with this site of environmental harm, and thus – by law – an EIS must be conducted.

The EAW doesn't say what the haul roads will be treated with. How will the chemicals used to treat them affect groundwater? An EIS is clearly needed. Page 35 addresses equipment and trucks, but no analysis is given to understand the number of these transport vehicles ("transport vendors"). How much do they weigh? How will they affect the roads or the groundwater? Only an EIS can establish these.

Sinkholes: blasting can encourage sinkhole formation, and there are sinkholes in this vicinity. An EIS is required.

"Waste sand is not considered a hazardous material subject to special rules or regulations for disposal" – from page 40 – is **incorrect**, because silica causes cancer and silicosis.. Before this project can move forward, there needs to be standards for ambient air quality for silica exposure. The potential for grave environmental and human health effects is there, and calls therefore for an EIS.

Blasting is not mentioned in the EAW's list of things that will potentially create dust! This is odd. Of course, how blasting will affect the environment must be studied by an EIS.

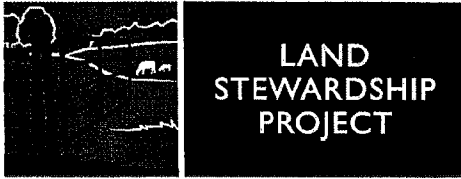
The EAW admits that there are cumulative effects "yet to be determined." This is yet one more reason an EIS is required.

The many cumulative effects and questions that need to be looked at, as well as all the indications of potential harm, as well as the confusing and contradictory presentation of this EAW – all show the potential for harm that an EIS must be done in order to comply with state law.

Sincerely,

Jim Gurley
22505 Betty Jane Drive
Winona MN 55987

c.c. Winona County Commissioners Marcia Ward, Greg Olson, James Pomeroy, Steve Jacob,
Wayne Valentine



LEWISTON OFFICE
180 E Main Street, Box 130
Lewiston, MN 55952
Phone: 507-523-3366

landstewardshipproject.org

Wednesday, February 20, 2013

Mr. Jason Gilman
Planning & Environmental Services Director
Winona County
177 Main Street
Winona, MN 55987

Dear Mr. Gilman,

On behalf of the Land Stewardship Project, I submit the following comments on the Environmental Assessment Worksheet (EAW) for the proposed Nisbit frac sand mine. **An Environmental Impact Statement (EIS) should be required on the Nisbit mine because it has the potential for significant cumulative environmental effects in combination with other proposed frac sand mining, processing, and transportation activity in the immediate area.** The lack of analysis of these cumulative effects is one of several deficiencies in the Nisbit EAW.

Lack of Analysis of Cumulative Effects

The answer to Question 29 in the EAW is not sufficient. It merely lists other proposed sand mining, processing, and transportation activities in the area and briefly mentions categories of potential cumulative impacts, without actually providing any real analysis of them. Much of this section of the EAW is identical to the corresponding sections in the Yoder and Dabelstein mine EAWs. The cumulative effects analysis in those EAWs was found by the MPCA and many other commenters to be extremely deficient.

The Nisbit mine is one of seven proposed frac sand mines in a two-mile by five-mile area in Saratoga Township and neighboring Pilot Mound Township, Fillmore County. An EIS must be done to analyze the potential cumulative effects of all of these mines, as well as proposed sand processing and transportation activities. The separate ownership of the Nisbit mine from these other mines is entirely irrelevant to the question of cumulative potential environmental effects. The cumulative effects of all sand mining proposals in the same limited geographic area must be analyzed regardless of their ownership.

Insufficient Analysis of Truck Traffic Impacts

The traffic impact analysis included in the EAW is inadequate, as it only considers

the small portion of the route from the mine to the County Rd 33 and Hwy 14 intersection in Utica. No analysis has been done on traffic impacts along the rest of the route through Lewiston and Stockton and into Winona to the processing site on Goodview Road. The EAW also does not sufficiently analyze the cumulative impact of traffic from this mine, other proposed mines in Saratoga Township, and other mines in Fillmore and Houston Counties which also propose to haul sand to the City of Winona.

The traffic impact analysis does point out that there are sight distance deficiencies at the intersection of County Rd 33 and County Rd 6. This presents a serious safety concern, as this intersection could see 280 truck trips per day generated by the Nisbit mine along County Rd. 33 and 1200 truck trips per day generated by the Yoder and Dabelstein mines along County Rd 6, according to truck numbers stated in those mines' EAWs. Potential impacts of traffic using these two roads from additional proposed mines in the immediate area also need to be studied.

Inconsistent Information on Duration of Mining Activities

The EAW contains contradictory information on how long the mine would operate and when reclamation would be completed. In general the EAW states that the mine would operate for three years, but in some places (such as page 3) it states that frac sand would be sold for three years and operations for other purposes may continue for an unspecified length of time. The proposers must disclose more information about the duration of proposed operations and the proposed timeline for completion of final mine reclamation.

Lack of Disclosure of Water Use

The EAW states (page 12 and elsewhere) that water for dust control will be purchased locally and hauled to the site in tanker trucks. The exact source of this water, and the amount proposed to be used, have not been disclosed in the EAW. The proposers must disclose this information so that the full impacts on local water resources (particularly the cumulative impacts in combination with water use at other proposed frac sand mines and processing sites) can be studied.

Incomplete Disclosure of Planned Activities

The project description in the EAW contains the statement "NOTE: Additional activities may be warranted due to site conditions, weather conditions, and phasing limitations" (page 11). This open-ended statement is entirely unacceptable for environmental review purposes. The proposers must disclose all planned activities so that potential environmental impacts can be studied.

Conclusion

An EIS should be required to examine the potential cumulative effects in the above mentioned categories of the Nisbit mine along with other proposed mines, as well as potential cumulative effects on air quality due to crystalline silica and diesel exhaust, cumulative effects on groundwater quality due to industrial-scale mining in a karst region, cumulative effects of industrial-scale mining on rural residents (including health, safety, and quality of life issues such as noise and visual impacts), cumulative effects of cropland destruction on the current and future agricultural community, and cumulative effects of wildlife habitat destruction.

Again, these cumulative potential effects must be studied regardless of whether the Nisbit mine shares any common ownership with any other proposed mines or processing or transportation facilities.

I look forward to receiving your response to these comments.

Sincerely,

Johanna Rupprecht
Policy Organizer
Land Stewardship Project

Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987
507-457-6335

February 20, 2013

RE: Nisbit Mining EAW

Thank you for providing this opportunity to comment on the Nisbit Mining Environmental Assessment Worksheet (EAW). The comments herein are submitted on behalf of the Sierra Club North Star Chapter. The Sierra Club is a non-profit environmental organization with several thousand members in Minnesota. We participate in the administrative process to encourage environmental health and sustainability, long term wildlife and habitat protection and biodiversity goals.

There are many concerns associated with the safety of this project, including; excessive dust, degradation of air quality, effects to the health of local residents, increased traffic and noise, damage caused by storm water runoff, spills and leaks from ditches and berms, erosion, risk of sinkholes, and risk of groundwater contamination due to the rapid infiltration of the surrounding soils. An Environmental Impact Statement (EIS) should be prepared to more fully address these issues.

Minnesota is experiencing a large expansion of silica sand mining and processing operations, and public unease over these operations is significant and growing. Minnesota citizens and Sierra Club members are becoming increasingly concerned that new silica sand mining, processing and transportation will result in irreversible damage to our environment and natural resources. Looking at the events that have taken place in Wisconsin there is fear that Minnesota is headed in the same direction. Wisconsin has seen a steady increase in the silica sand mine industry. There have been two large spills at sand mines; both owned by Minnesota companies. The first spill happened at a mine and processing facility near Grantsburg, only 100 feet from the St. Croix National Scenic Riverway. It resulted in five continuous days of silica sand and water leaking from a holding pond through a failed berm into a sensitive wetland area. The second spill occurred in Blair where heavy rains resulted in silica sand being washed downhill onto neighboring properties and into a wetland. These spills were reported by citizens, not the companies, which raises the important question of whether we can trust these mining companies to protect our precious natural resources.

Citizens are worried that silica sand mining may have very significant and adverse consequences on Minnesota's communities and ecosystems, including: inadequate permitting processes, water contamination and depletion, air pollution, toxic air emissions from continuous and long term diesel truck traffic, loss of species habitat, destruction of productive agricultural land, noise and traffic increases, damage to existing roads and community infrastructure, cumulative impacts to quality and quantity of groundwater resources, dust impacts on human, plant, and aquatic life, and threats to public health and safety including exposure to silica sand

(airborne crystalline silica) causing acute and chronic health effects. In addition, silica mining may also disrupt local economies.

How will changing the composition of the soil and subsoil, both during and after mining, affect the quality of water that reaches the water table? How will changing the time it takes for water to infiltrate down into the water table affect the quality of the water? What changes might result to the surrounding area by changing the composition of layers under the ground? There is concern that mining activities and changes to the subsurface areas will change their filtering capacities. How will the public know if the quality of water reaching the water table has been diminished as a result of this project?

The EAW states, "The application proposes to conduct a pre-mining water test (nitrates and bacteria) of the Nisbit well and a post mining nitrate and bacteria test for the Nisbit well. Impacts that are proven to occur from mining, as opposed to farming or any additional action not related to the mine, will be mitigated by the mine operator" (30). More information needs to be provided on how water will be tested in order to monitor affects caused by this project and assure that no water contamination occurs. Is testing at one well location adequate? Will other sites be tested? How will the testing show impacts caused by mining versus farming? How many tests will be conducted during and after project activities? How long will testing be required after project activities and reclamation have been completed? Risks to groundwater may occur years after the mine is closed, groundwater resources in the area need to be monitored during this time. An EIS should be prepared in order to fully study the geological conditions of the area and all possibilities for contamination of water resources.

In terms of financial guarantees, will any performance bonds be required in the event that the mine contributed to water contamination? Although the EAW assures that there will be no ill effects to any water resources, unforeseen accidents can still happen, and even the best laid plans can go awry. It would be safer to have a financial guarantee in place to assure the protection of important water resources, just in case something was to happen.

Attached with these comments is a study on environmental impacts from mining in New Mexico. This report shows some of the environmental consequences experienced in New Mexico as a result of mining. While New Mexico and Minnesota have very different climates and ecosystems, there are still many important aspects, contained in this report, which we can learn from.

Sincerely,

The Sierra Club North Star Chapter
2327 East Franklin Avenue, Suite 1
Minneapolis, MN 55406-1024

Lori Andresen
Andres01@charter.net

Annah Gardner
AJGardner@stthomas.edu

Environmental Impacts of Aggregate and Stone Mining

New Mexico Case Study

Prepared By

Steve Blodgett, M.S.

(edited by David Chambers, Jan 2004)

Center for Science in Public Participation

January 2004

1. Introduction

The primary environmental impacts from aggregate, stone, and industrial mineral mines in New Mexico are degraded air quality from stack emissions and disturbed areas on the mine and groundwater usage. Surface and groundwater quality impacts from such mines are relatively benign in New Mexico due to the semi-arid climate and lack of perennial streams. Other environmental impacts include increased traffic on new or improved or existing roads; cumulative impacts as construction materials are hauled, stockpiled, and spread on highway and building construction projects; and aesthetic degradation caused by both active and abandoned aggregate, stone, and industrial mineral mines in major viewsheds.

Aggregate and stone mining produces materials that are used in road construction (aggregate, base course, crushed rock, sand and gravel); building construction and landscaping (topsoil, fill dirt, rip rap, scoria, travertine, dimension stone); and other general construction uses. Because the economics of construction materials depend heavily on the proximity of the mine to the point of use, aggregate and stone mines are found in the highest concentrations in urban areas where most home and office construction and general highway construction occurs. However, these mines are located in every county of the state and many of the largest of the mines producing road construction materials are situated immediately adjacent to highways in order to reduce haul costs. Because haul costs (i.e., fuel, labor, and maintenance) are the single largest variable in determining the cost of material in road construction, sand and gravel mines are often opened near to a specific road project and then abandoned once the project is completed. Consequently, the majority of both active and inactive sand and gravel mines are located along interstate highways or major state and county roads.

New Mexico had more than 200 permitted aggregate, stone, and industrial mineral mines in 2001. Total employment for all industrial mineral and aggregate mines was 1710 in 2001; total combined revenues for industrial mineral and aggregate production was \$2,025,426, with 48% of that total coming from aggregate and stone mines (MMD and others, 2001, Table 1). No data are available for the areas disturbed by each of these mines but most operations range in size from one to 20 acres. Several hundred abandoned or inactive sand and gravel, aggregate, and other mines that produced construction materials are scattered across the state. Few of these mines have been formally reclaimed, although some have been naturally re-vegetated to some extent.

2. Environmental Impacts

Documenting the environmental impacts produced by aggregate, stone, and selected industrial mineral mines in New Mexico is difficult because of several complicating factors:

- Lack of regulatory data collection for most mines due to exemptions under NM Mining Act (aggregate and stone mining);
- Complications in urban areas caused by numerous sources of air pollution;
- Lack of "baseline" data that would allow comparisons of pre-mining and active mining conditions for air and water quality;
- Naturally arid climatic and soil conditions that create conditions favorable for wind and water erosion.

However, it is possible to perform qualitative analyses of the environmental impacts of aggregate, stone, and industrial mineral mining for relatively small areas.

The most recognized health hazards from these mines involve airborne particulate emissions. Total Suspended Particulates (TSPs) is a measure of all particulates emitted by a mine, while PM-10 particles represent some of the smallest particles ($<10\ \mu$ in diameter) that can stay suspended in the air for long periods and pose the greatest respiratory health hazards. Some industrial minerals, like perlite and silica flux, create extremely fine particles of silica that can cause silicosis on prolonged exposure. Gypsum mines can also produce very fine gypsum $[\text{Ca}(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}]$ dust that can irritate the lungs and mucus membranes. All other types of aggregate and sand mining involve the excavation, crushing, and screening of rocks that are predominantly Al-Mg-Fe-silicates, except for limestone and caliche, which are calcium carbonate. None of the minerals contained in these types of rocks is known to cause heavy-metals poisoning or cancer, and the potential health risks posed by TSPs from these minerals involve respiratory problems caused by chronic irritation of the lungs and mucus membranes.

Many air quality permits require that sampling be done only once every 7 days for one 24-hour period, which means that the air quality at a given mine or mill is sampled only 14% of the time. Thus, the mine is allowed to choose when these samples will be collected, which means that sampling can be avoided on extremely windy days and can usually be done under calm conditions. This selective sampling allows the permittee (the mine and/or mill) to remain in compliance with the air quality permit even though its operation may be violating terms of the permit the majority of the time. Although the mine must meet TSP standards for 24-hour, 7-day, and 30-day averages, these measurements are taken from a stack and do not include TSPs from pits, haul roads, and disturbed areas on the property.

One environmental impact that is often a problem in more temperate climates is the sediment load produced to surface water by aggregate, stone, and industrial mineral mines. In wetter areas of the United States, the sediment loading from these mines to streams, bays, lakes, and wetlands has been identified as a source of significant degradation to water supplies. Mines are required to capture surface water runoff and treat it on site, generally in settling ponds where the sediments drop out of the ponded water. However, because of the semi-arid climate in New Mexico, where annual precipitation in lower (less than 6000 feet msl) elevations ranges from 4 to

12 inches, very few perennial streams exist. Consequently, excess sedimentation in surface runoff from mines is generally not a problem except in those instances where a sand and gravel (or industrial mineral) mine is located immediately adjacent to a perennial stream. Most mines comply with water quality standards by installing silt fences or sediment basins to capture sediments on the permitted property.

Generally, aggregate and stone mines do not produce materials containing heavy metals or radionuclides. Because no current or historical aggregate or stone mines are known to have produced ARD (Acid Rock Drainage), acidic runoff containing heavy metals is not considered to be an environmental problem at these mines.

Another major environmental impact from aggregate and stone mines is groundwater use. Because mines are required to wash some materials on site and also control dust, some mines use millions of gallons of scarce groundwater to perform these tasks. Although dust control is necessary at these mines, the use of scarce potable water for dust suppression must be weighed against the increasing demands of domestic water use.

Cumulative and Associated Environmental Impacts

The most obvious environmental impact from aggregate, stone, and industrial mineral mines is degraded air quality, and associated health effects, resulting from airborne emissions from both the stack and the disturbed areas at these mines. In an arid landscape like New Mexico, the impacts of such mines on surface and groundwater quality is not likely to be significant. However, these mines should be viewed as a first step in development, whether it is highway, residential, or general construction. When one tracks a truck load of sand and gravel from its excavation, through loading and hauling, and to its ultimate use as either fill dirt, base course, cement, or some other construction use, it becomes clear that the environmental impacts of sand and gravel mining are widespread and cumulative. Below is a partial list of the potential cumulative impacts from the development of a typical sand and gravel mine:

- Dust and diesel fumes generated on the haul road to and from the mine.
- Fugitive dust blowing from the uncovered or partially covered dump trucks.
- Fugitive dust from poorly monitored crushers and out-of-compliance operations.
- Fugitive dust from piles of sand and gravel at the construction sites.
- Fugitive dust from the spreading of sand and gravel at the construction site, whether highway or building construction.
- Increased traffic (highways) or population (building construction), with a concomitant increase in air pollution from more vehicles (highways and rural roads) and more disturbed land (building construction).
- Increased air pollution from some sand and gravel mines after they are abandoned and until natural re-vegetation stabilizes the surface soil.

Each of the impacts listed above produces real-world effects that are difficult to measure. In the past, smaller populations and lower levels of development made these impacts less noticeable. But with larger populations and development that consistently outstrips the government's ability to regulate its impacts, the cumulative effects of aggregate and stone mining, especially in urban areas, contribute to the overall degradation of the environment. In rural areas these impacts are also serious for affected local communities.

A related impact from aggregate and stone mining is increased traffic congestion and safety hazards in both small rural communities and urban areas. Unlike metals or coal mines where most of the truck traffic occurs on private mine property, aggregate, stone, and industrial mineral mines create traffic on public highways. Wherever such mines are located, it is common to note traffic hazards as trucks enter and leave public highways dozens of times each day.

Another important impact of aggregate and stone mining is aesthetic degradation. The major transportation corridors of New Mexico (I-40 East-West; I-25 North-South) were built with local materials, as are all highways. Drivers on I-40 and I-25 crossing New Mexico can see hundreds of abandoned pits and dozens of active aggregate and stone mines from the highway. Sprawling urban areas like Albuquerque and Santa Fe-Española are pock-marked with huge sand and gravel pits. Although these mines made highway construction less expensive, their impacts on the scenic viewsheds across New Mexico are significant.

One final impact created by these mines could be called the "public nuisance" effect. Some operations can emit dust that disturbs neighbors. Nearby homes can be covered with a fine layer of perlite or mica dust from the mill. Mills sometimes operate at night and make enough noise to disturb neighbors as far as a mile away. The combination of bright lights to aid night operations, loud noises from crushers and screen plants, and chronic dust emissions creates a public nuisance for those people unfortunate enough to live near such operations.

3. Conclusions and Recommendations

The primary environmental impact from aggregate, stone, and industrial mineral mines in New Mexico is degraded air quality from stack emissions and disturbed areas on the mine. Surface and groundwater quality impacts from such mine are relatively benign in New Mexico due to the semi-arid climate and lack of perennial streams. Other environmental impacts include increased traffic on new or improved roads; cumulative impacts as construction materials are hauled, stockpiled, and spread on highway and building construction projects; and aesthetic degradation caused by aggregate, stone, and industrial mineral mines in major viewsheds.

Mitigating the environmental impacts of aggregate, stone, and industrial mineral mines could be improved by making some changes to existing regulations and, most importantly, by controlling development and sprawl in both urban and rural areas. The following recommendations are made to better manage environmental problems and mitigate the effects of aggregate, stone, and industrial mineral mines.

1. Deny operating permits to new operations if inactive or abandoned mines could be re-opened to provide the same resource. New operations should be permitted only if no other suitable materials are available in a given area. This would make better use of existing resources in areas where disturbance has already occurred and prevent the random and incoherent development of aggregate and stone mines.
2. Enforce existing mine and mill air quality permits strongly and consistently. This would require state inspectors and making certain "problem" mines and mills come into compliance to set an example for all operations.
3. Deny permits to mines that propose locating in areas unsuited for mining. Mines should not be allowed to operate near Native American "sacred sites," residential neighborhoods, historic rural communities, or in areas where the resulting "scar" will ruin a scenic viewshed.
4. Encourage the use of re-cycled materials like "glassphalt," "plaspalt," and used tires to replace aggregate, crushed rock, base course, sand, and gravel in highway construction. This would reduce the need to open new mines and help with the problem of overloaded landfills. Because re-cycled materials are not currently competitive with many highway construction materials, the state and federal government will likely have to subsidize the use of re-cycled materials. However, over time it is likely that re-cycled materials will become more widely used and the cost differential between road construction materials and re-cycled materials will narrow.

4. References

Hawley, J.W., 1978, *Guidebook to the Rio Grande rift in New Mexico and Colorado*: Circular 163, New Mexico Bureau of Mines & Mineral Resources, Socorro, 241 pp.

New Mexico Mining and Minerals Division, New Mexico Bureau of Mines & Geology, New Mexico Bureau of Mine Inspection, 2001, *Mines, Mills, and Quarries in New Mexico*; 46 pp.

New Mexico Environment Department Web page (www.nmenv.state.nm.us), 2003, Air Quality Bureau Web page (includes Permitting Section, Ambient Air Quality Standards, and Dispersion Modeling Section).

Lew Overhaug

From: Eric Johnson
Sent: Wednesday, February 20, 2013 8:11 AM
To: Lew Overhaug
Cc: Mike Huth; Jason Gilman
Subject: FW: Nisbit Sand Mine - Negative

FYI...

-----Original Message-----

From: Bob H-J [mailto:bobbillhj@gmail.com]
Sent: February 20, 2013 6:00 AM
To: Eric Johnson
Subject: Nisbit Sand Mine - Negative

No positives that I have heard coming out of this enterprise. For owner to realize profits, country and city (Winona) residents would have to bear burden of road maintenance, land recovery and so on, environmental and health issues notwithstanding, even if fracking itself is allowed to be continued...

Robert Hively-Johnson
Glen Echo Rd
Winona, MN55987
bobbillhj@gmail.com

Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 11:57 AM
To: Lew Overhaug
Subject: FW: Nisbit Mine - Public comment - Am sure I could not add more so put comment in negative category.
Attachments: oledata.mso

for the file

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Bob H-J [<mailto:bobbillhj@gmail.com>]
Sent: ~~February 20, 2013~~ 2013 5:55 AM
To: Jason Gilman
Subject: Nisbit Mine - Public comment - Am sure I could not add more so put comment in negative category.

As this is going, I can see no benefits for area. Cost to us will far exceed benefits, for mine operators to realize profits. Then there is the fracking itself as a separate environmental issue. No way this will be positive.

Robert Hively-Johnson
Glen Echo Rd
Winona, MN 55987
bobbillhj@gmail.com

19

Lew Overhaug

From: Eric Johnson
Sent: Wednesday, February 20, 2013 12:18 PM
To: Lew Overhaug
Cc: Mike Huth
Subject: FW: Proposed Nesbit Sand Mine

FYI..

-----Original Message-----

From: Janis [mailto:ophelia@hbcsc.net]
Sent: [REDACTED] 2013 11:36 AM
To: Jason Gilman; Eric Johnson
Subject: Proposed Nesbit Sand Mine

Mr. Gilman and Mr. Johnson,

I have grave concerns with the proposed silica sand mine on the Dan Nesbit property south of Clyde.

I live in St. Charles and work in Lanesboro, using Co Rd 113 and Co Hwy 35 for my commute. While the EAW addresses traffic at intersections, it does not address the many driveways that connect to these and other roads in the vicinity of the proposed mining activity. Because of the rolling nature of the topography, visibility between some driveways and the highways is obstructed or limited - "blind" entrances. I speak from experience. In 2011, while traveling north on Co Rd 113 not 1/4 of a mile from the proposed Nesbit mine site, a car travelling south turned immediately in front of me and we collided, totaling my vehicle and severely damaging the other. This occurred not through the fault of either driver, but because the sight lines are dangerously restricted at that point and others along the road. Imagine how much worse it could be when a sand truck collides with a car that is entering or exiting the highway. I believe that the traffic study on the EAW is incomplete; counting the number of cars at an intersection and noting the approaches to those intersections is only one area of traffic concern; addressing blind driveways is an area that requires further study.

As a regular traveler on these rural roads, I can also speak to the number of bicyclists that ride from Lanesboro to Utica, St. Charles and other locales during the summer months, for personal pleasure and for marathons. While this is not a constant event, if these large sand trucks are allowed constant access to the black topped Saratoga township roads in the vicinity of the proposed mine, bicyclists will need to be made aware that the roads they so enjoy are no longer safe to travel. There is no shoulder for a bicyclist to safely get out of the way of a multi-ton truck. These particular roads attracted motorcyclists because of their beauty, isolation, and safety. Will it be made clear to those bikers that these roads to Bluff Country are no longer friendly to them?

In the planting and harvest season, our farmers travel these roads with their oversized tractors, planters, combines and other equipment. They travel at a speed slower than the speed limit. How many sand truckers are going to be content to slow down and follow until a fully safe passing area is available? Who will be there to stop them from passing illegally? No, this isn't a new concern or one that would apply only to the trucks, but the substantially increase number of them exponentially increases the problem.

I understand that the mining operation is proposed to be a year round business. In the winter months, these black top surfaces are not among the first to be cleared after a snowfall. As a result, the ice, visibility, blowing, drifting and sticking snow, make these roads unsafe to travel. Will the county be adjusting their schedule and allocation of finances to clear these

roads? Again, this isn't a concern that's unique to the area, but with the increased truck traffic, the potential for a vehicle related incident is multiplied.

Will the mine owners be following the spring road restrictions that are placed on our rural roads? Co Rd 113 was repaired not that long ago, and while I don't have the exact date, I can say that already the roads have frost heaves and significant crack, dips and bumps simply from the current amount of traffic. The road may be "rated" to handle increased numbers, but there is a big difference between that and the reality of the surface quality that has been laid. The roads will not withstand the cumulative effect of the extra abuse that is being considered.

As I consider the impact this proposed business would have on safety, I can't accept that the EAW is a complete or accurate study of how the roads through Saratoga township are currently used or how they would be impacted.

Would I feel safe on my commute if this mine is allowed to move forward as proposed? No, I wouldn't. And that means I would have a decision to make concerning my safety and my job.

Thank you for your time in considering this matter.

Janis Martin

1600 Bluff Ave
St. Charles, MN

20

Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 12:35 PM
To: Lew Overhaug
Subject: FW: sand
Attachments: oledata.mso

for the file

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

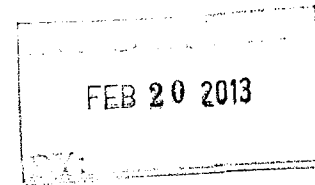
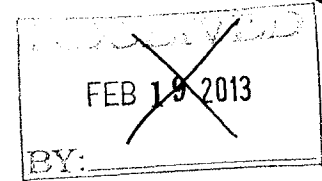


Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Brent and Polly Greden [mailto:bpg6970@hotmail.com]
Sent: Wednesday, February 20, 2013 9:36 AM
To: Jason Gilman
Subject: sand

Gilman I am writing in support of the Nisbit frac sand mine and any other mine. People should be able to make a living on their land without a few jealous people with time on their hands trying to interfere. The trucks already pay taxes and it will create more jobs! Stop covering up jealousy with "envirmental concerns!"
Brent Greden



Jason Gilman
Planning & Environmental Services Director
177 Main Street
Winona, MN 55987

RE: Comments on EAW for Nisbit frac sand mine

Dear Mr. Gilman,

I am writing to comment on the EAW documents submitted for the proposed Nisbit frac sand mine. After reviewing both documents, I have come to the conclusion that an EIS is warranted for this project. My concerns are as follows:

The rolling hills and the bluffs of SE Minnesota are a draw for tourists and their money; businesses that rely on the tourist economy could lose money from the traffic and visual impacts of this project. In many conversations with friends and family from out of state, they mention how much beauty can be found in Winona County. The loss of visual appeal caused by this mine will further exacerbate the loss of tourism.

This project will cause the loss of nearly 20 acres zoned as Agriculture/Resource Conservation. While it is noted that mining operations are permitted

In the response to Question 12, no sources are cited on page 29 where the "applicant estimates infiltration to the groundwater will take 2.5 to 3.5 days" and "applicant estimates that the infiltration in the restored area will take 12 to 16 days to reach the groundwater".

In the response to Question 12, the document states that "Water used on the site will come from existing public water supplies and will be hauled in tankers." To ensure adequate dust suppression, this could be a large number of trucks. The number of tanker trucks per day, routes taken, and the traffic impacts are not addressed in Question 21.

In response to Question 16, the document states that "Haul roads will be treated and watered or treated to control dust". The frequency and amount of water needed to control the dust is not addressed.

In the response to Question 21, only the traffic from this project is taken into account. While the proposer states "No road segments are forecasted to reach capacity with the additional truck traffic" from this single mine, the haul traffic from this mine and the 6 other proposed mines in close proximity (a radius of approx 3 miles) must be *collectively* addressed. The cumulative traffic impacts of heavy trucks with slow acceleration times and long stopping distances will be vastly different from that of one mine.

In the response to Question 22, the document states that "With a 16 hour day a maximum of 240 trucks/day haul vehicles will pass by any particular point on the haul route at a rate of 15 trucks/hour." As in my above statement, this does not take into account the collective vehicle emissions from this mine and the 6 other proposed mines in close proximity.

In the response to Question 23, the document states that the proposer will "employ water trucks for dust control during dry and windy days". Definitions for the terms "dry" and "windy" are not given. The amount of water to be used on "dry" and/or "windy" days is also not stated.

In the response to Question 23, the document refers to "numerous published studies of airborne particles", however no references are given.

The document is not clear about the return of waste sand to the mines, specifically sand that has been exposed to polyacrylamide and/or other flocculents. I have concerns about contaminated waste sand being returned to a site with a depleted natural sand filter.

I am very concerned by the amount of truck traffic that will occur on US 14 as I commute to Winona every weekday from Saint Charles. This road is a main artery into Winona from the West and has a steep grade with tight turns between Stockton and Winona. The congestion created by heavy trucks with slow acceleration times and the safety implications of long stopping distances has a large possibility to affect myself and others who use this road. Additionally, the noise created by engine braking during the Eastbound descent into Winona along US 14 could create a nuisance to the residential and educational properties along the route. If other sand mines utilize this route into Winona, this could create an even greater safety issue.

This project will have a profound impact on the health, safety, and quality of life of Winona County residents and warrants the thorough review of an EIS.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Nathan Lien". The signature is fluid and cursive, with the first name "Nathan" being more prominent than the last name "Lien".

Nathan Lien, Ph.D.
25070 County Road 119
Saint Charles, MN 55972

Cc: Winona County Commissioners Steve Jacob, Greg Olson, James Pomeroy, Wayne Valentine, Marcia Ward

Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 12:35 PM
To: Lew Overhaug
Subject: FW: Nisbit EAW comments
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

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From: Doug Nopar [<mailto:dnopar@landstewardshipproject.org>]
Sent: Wednesday, February 20, 2013 10:17 AM
To: Jason Gilman
Subject: Nisbit EAW comments

I submit the following comments regarding the Nisbit EAW.

February 20, 2013

To Jason Gilman and the Winona County Board,

I have concerns about the Nisbit mine EAW, particularly about truck traffic and truck routes, as well as reclamation. Last fall, I believe that the CUP application for this mine said that trucks would go through Lewiston, Stockton and continue on Highway 14 down into Winona. If this is still the case, this presents some serious traffic and safety problems.

The Rein mine in Fillmore County, according to that mine's EAW, suggests that trucks from that mine will be traveling on Winona County 23 and cross Highway 14 in Stockton. Nisbit trucks will be coming down 14 from Lewiston, also crossing that intersection. This needs to be further examined.

If Nisbit trucks proceed to Winona on 14, they will also encounter trucks exiting the Biesanz mine at the intersection of Seminary Rd and Highway 14, descending into Winona. Trucks from the Biesanz mine, the Nisbit mine and the Yoder and Dabelstein mines could all be turning into the Hemker wash site across from St. Mary's University.

There needs to be a more detailed traffic and road and safety analysis. The only traffic study I see in the Nisbit EAW ends in Utica.,

I write to ask that you order an Environmental Impact Statement on the Nisbit mine.

In terms of reclamation, it appears that Tom Rowekamp, this mine's principal operator and manager, has been hauling sand for a number of years, particularly to local dairy farms. There needs to be evidence provided of Mr. Rowekamp's previous sand mining reclamation efforts, including photographs and a report on the current status of those lands previously mined.

In addition, this mining company, as well as all mining applicants, also have to provide a complete list of the financiers of this project. A recent Profit and Loss Statement, and tax statement, as well as a Balance Sheet from the most recent tax year would be helpful. Without such financial disclosure, how are we, as the public, supposed to believe that they have the financial wherewithal to adhere to regulations assigned to the project, let alone carry out reclamation efforts once mining is complete.

Thank you,

Doug Nopar
507-452-2403
29440 County Rd 17
Winona, MN 55987
dnopar@hbci.com

23

Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 12:36 PM
To: Lew Overhaug
Subject: FW: Nisbit Mine

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: Cherie Hales [<mailto:chales@hbc.com>]
Sent: Wednesday, February 20, 2013 10:53 AM
To: Jason Gilman
Cc: Wayne Valentine; Jim Pomeroy; Steve Jacob; Marcia Ward; Greg Olson
Subject: Nisbit Mine

I strongly feel there needs to be an EIS done on this proposed mine.

The submitted EAW on this project fails to address the cumulative impact of truck traffic in conjunction with the proposed Yoder and Dabelstein mines, and the mines in neighboring Fillmore County.

The length of time the mine would operate and scope of operations is not clear and should be.

Water sources have not been clarified.

None of this is acceptable. A much more in depth study, an EIS needs to be done before this mine is permitted.

Cherie Hales
Wiscoy Township

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Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 12:37 PM
To: Lew Overhaug
Subject: FW: frac mine public comment

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: Tonya van Tol [mailto:tvantol@gmail.com] On Behalf Of Tonya van Tol
Sent: ~~Wednesday, February 20, 2013~~ 11:55 AM
To: Jason Gilman
Subject: frac mine public comment

Hello Mr Gilman,

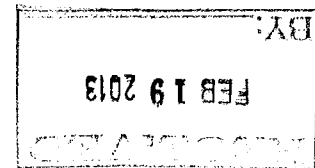
I am a concerned citizen from Winona. I would like to go on record against the Nisbit frac sand mine that is being proposed. The unknown environmental impacts very much concern me. I have two small children who I plan to raise in Winona. I understand this will create a great deal of wealth for individuals in our county and potentially create some jobs, but the overall impact for the majority of the citizens residing in this county is my top concern. There are far too many unknowns about air and water quality and how that will be affected. I do not want our land scraped away for the sand and left barren. I am asking the County Board to deny the permit and continue to do more environmental impact studies.

Thank you,
Tonya van Tol
1260 W Broadway
Winona, MN 55987

Jason Gilman
Planning and Environmental Services Director
177 Main Street
Winona, MN 55987

February 18, 2013

RE: Comments on EAW on Nisbit frac sand mine



Dear Mr. Gilman,

We are writing in regard to the EAW on the proposed Nisbit mine. We realize that there may be economic benefits to the owners of the mine and respect the rights of those pursuing this opportunity. However after reviewing the EAW we feel there are health, safety and environmental issues that need further study.

Our concerns regarding the proposed mine are as follows:

The proposed haul route of County 33 to Highway 14 into Winona has several safety issues. There is an Amish community along County Road 33 with children needing to cross the highway to go to school. There is a blind approach corner as you enter the city of Utica, with driveways on each side, and a stopped uphill approach on to Highway 14. There is no acceleration lane on highway 14 to keep the traffic flowing. This route also takes the trucks through Lewiston, the Arches, and Stockton. The downhill side coming in to Winona has a No Dynamic Braking Ordinance, which is the safest and most efficient way to slow a loaded truck. As you enter Winona the traffic from the side roads along with St Mary's College students entering and exiting on to highway 14 is a real safety concern. Furthermore, the left turn on to Goodview Road has no additional lane for traffic to go around. The safety issues of this haul route needs further study. It seems to us that the safest route would be County Road 33 to County Road 6 and then on to Interstate 90, exiting on Highway 43 into Winona.

We realize that the proposed Nisbit mine is small, 19.1 acres, in comparison to other proposed mines in the area. However, with the close proximity to the proposed Yoder and Dabelstein mines and the 4 proposed mines in Fillmore County this mine also needs to be included in further study of silica sand mining in Southeast Minnesota. The same environmental issues are present no matter how large or small the mine is.

Exposure to silica sand dust has potential health risks. Those working or living near the mine as well as along the haul route will be exposed to silica sand particulates, which have the potential to cause Silicosis emphysema, cancer, and COPD. Additional study is needed to determine the health safety for all the residents of the county.

The Karst geology of this area increases the risk for water contamination. With the blasting to open up the mine area the potential for sinkhole formation becomes greater, and along with removal of the sand to filter groundwater there will be and increased risk for well contamination. Many wells in this area share the same aquifers and we need to safeguard our water supply.

The cumulative affects of the Nisbit mine along with the proposed Yoder and Dabelstein mines and those just to the south in Fillmore County make it even more important to require an EIS. The Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Health (MDH) have called for an EIS on the proposed Yoder and Dabelstein mines. The issues are the same whether the mine is 19 acres or 80 acres. The dust from the Nisbit mine poses a health risk, and there is the possibility of water contamination due to the high risk Karst geology in this area

State law requires that an EIS must be completed if the EAW shows that a project has the potential for significant environmental effects and the cumulative effects must be taken into consideration when making this determination.

With the large number of proposed mines in this small area there is definitely potential for negative impact on our environment.

After reviewing the EAW for the Nisbit mine we are concerned about the environmental affect this will have on Winona County and the area that we call home. Our concerns include health risks from sand particulates, and potential contamination of water supply due to the Karst geology of the area. Safety along the truck route is a major concern and we feel further study is needed.

What will be done to ensure that the lives of the residents in the area will not be adversely affected? What county agency will be responsible for enforcing the requirements placed on the proposed sand mine?

We encourage you to require an EIS on this and all future silica sand mining businesses in Winona County.

Thank you for the opportunity to submit our concerns. We ask you to do everything possible to ensure the health and safety of all the residents of Winona County.

Respectfully,



Linda J. Wilson

Keith and Linda Wilson
25957 County Road 33
Utica, MN 55979

c.c. Winona County Commissioners Steve Jacobs, Greg Olson, James Pomeroy, Wayne Valentine, Marcia Ward

February 19, 2013

Jason Gilman
Planning and Environmental Services Director
177 Main Street
Winona, MN 55987

Dear Mr. Gilman

Please accept the following questions and comments regarding the Environmental Assessment Worksheet (EAW) for the proposed Nisbit quarry in Saratoga Township.

Our observations and opinions for each specific EAW question are contained in the narrative following the questions highlighted number. We have also included several questions (shown in blue text) in which we would appreciate consideration.

The Nisbit mine applicants have spent considerable time and effort trying to distance their proposal from others in the area by describing their project as being completely independent of others. We reserve considerable doubt as to their claim based on: similarities (identical wording) between many portions of this EAW and other recently submitted worksheets, and statements made by the proposer. In a 1/17/13 letter to the St. Charles Press editor, the proposer made the comment; *"He was offered at one time 10% over market value."* This was in reference to property value mitigation purportedly offered to a neighbor of another mining proposal (MN Proppant), which is supposedly "independent" of this one. If accurate, that information would certainly not have been privy to the Nisbit proposer(s) unless in some way, they are maintaining a working relationship with the MN Proppant project. The ironic and much more concerning part of that letter to the editor is that the proposers comment was completely fabricated with no basis in truth. That single act of deceit has made us question the credibility of the applicant's character and the accuracy of the information contained in this EAW. We ask that you assess it with the same caution.

Nisbit EAW

- **Question # 6** offers a description of the project. Comments referring to the proposal's access roads (pg 11 and 35) respectively state; *"The truck access road will be removed and returned to sandy prairie grassland."* and *"Since the entire site will be reclaimed, there will not be any impervious surfaces so no permanent treatment controls are required."* Those statements are contradicted in question #10 (pg 22) where it notes; *"Before mining 0.46-acres of existing agricultural land will be converted to a roadway for mine access on the west; after mining is completed this roadway will remain an impervious surface."* Will the access road(s) be returned to grassland or become a permanent impervious surface. Will the road remain for future mine expansion(s)?
- **Question # 9** mentions; *"Citizens along the described haul route from Nisbit to Winona have expressed concern that heavy truck traffic associated with industrial mining has the potential for causing a significant decrease in property values. According to the applicant three factors make it improbable that property values will be negatively*

impacted:" We question the applicants credentials to make such an assertion? In the EAW's next paragraph, the County Assessor was quoted as saying that the findings are inconclusive and that it is nearly impossible to measure value loss. The County Assessor was fairly clear in also noting; *"that homes situated near **busy** (emphasis added) roadways are known to have potential value differences than like homes in other locations"*. The definition of busy is quite subjective and without factual data from like situations in Winona County, both sides of the argument can only speculate on the potential level of loss in those home values. The applicant seems overly eager in offering an opinion on property value changes on or near the haul routes, but avoided mention of the property value loss for those living near the actual mine site where busy would be an understatement. Dr. Diane Hite, an economist from Auburn University has published widely in the area of property value impact analysis. In her work, Professor Hite has applied hedonic pricing methodology to study the effects of a gravel mine on nearby residential values. The attached graph (Attachment A) is an excerpt from her comprehensive work showing the estimated degree of property value loss in relation to the proximity of a gravel pit. Question nine addresses land use and the proposed projects compatibility with existing adjacent and nearby land uses. The applicant has already acknowledged that citizens along the haul route have expressed concern about the potential for this land use activity to cause significant decrease in property values (pg 21). That acknowledgement tells us there is a significant sense of incompatibility with the proposed project by those living near the mine or haul route, and to dismiss those concerns based on nothing more than the applicant's opinion would be an injustice to those who have invested their entire lives in their property. Whether it be through an EIS or a Winona County funded study, property value impact must be studied, addressed and made part of the conditional use permit process.

- **Question # 11** mentions that a field assessment of the site was conducted in June 2012 by McGhie and Betts Environmental Services Inc. and references a series of maps (Priority Areas of Native Biodiversity in Southeastern Minnesota, Winona County Biological Survey and Minnesota Land Cover Database). We were unable to locate either the field assessment or the maps. We also question the accuracy of the reported map content. Page 24 notes; *"..the woods on the adjoining property to the south outside of the project site as having scores, below minimum biodiversity significance."* The woods mentioned are clearly of exceptional biodiversity, which brings into question whether the applicant's summary was based on map analysis or an actual field assessment of that area.
- **Question # 11** claims; *"Following restoration the proposer expects the area to have more diversity and be a more welcome area for biodiversity."* (pg 23) Again the proposer has offered nothing more than an opinion and based it on a visual and pictorial assessment of a photographer. In referencing the publication, *A World in One Cubic Foot*, by David Liittschwager, the applicant failed to mention that those assessments were made from the middle of a 600 acre genetically engineered cornfield in Iowa where biodiversity would be expected to be near vacant. The smaller, more relevant cornfields of this area are major sources of both food and cover for nearly all wildlife species inhabiting our region. Even an untrained eye can recognize the

crossover of animal tracks into row crop fields and crop remnants that have been pulled from those fields by wildlife. The proposer notes on page 23; *"In modern corn fields the air and the ground are generally vacant of biodiversity."* That comment is simply absurd. A relevant survey of wildlife damage to row crops was performed in 2001 by the National Agricultural Statistics Service where they noted over 619 million dollars of damage was caused by wildlife in one year. If modern fields are vacant of biodiversity as the proposer indicates, shame on whoever blamed the wildlife. Incidentally, how much of the over \$90,000.00 in subsidies that the David Nisbit farm has received was a result of wildlife damage? The proposer also mentions (pg 23); *"Temporary loss of the cropland will not result in a substantial loss of biodiversity due to the existing lack of diversity in row crop lands."* This land use change will be a permanent (not temporary) loss of cropland. Finally we question the adequacy of the proposer's seed choice in maximizing biodiversity potential after reclamation. The MNDOT mix 240 (sandy roadside) seed choice noted (page 11) would better suit a roadside ditch and is probably not as effective as MNDOT 300 level seed mixtures in providing biodiversity in a native prairie setting. Will MNDOT 200 series grass mixtures provide more significant biodiversity than row crops or other seed blends?

- **Question # 13** discusses water use. The proposer states (pg 12); *"Dust control will be conducted with water, chloride and/or chloride treatments on the haul roads and water may be utilized on active working areas. Water will be purchased from a local public water supplier with existing water appropriations permits and will be hauled by tankers to the site."* It is our opinion that both the project as described in the EAW combined with like mines in the area will utilize water in amounts that will have significant effect on water resources for our region. Based on two accepted industry standards; Great Plains Sand/fugitive dust control plan (Attachment B) and the Department of Health and Human Services in the CDC and National Institute of Occupational Health and Safety Information Circular 9521, this "small" mine alone would likely need more than 3 million gallons of water annually to adequately control dust while processing sand and on haul roads. Multiply that by the number of mines in the immediate vicinity, add anticipated water needs for final processing and the sum would likely be several hundred million gallons of water that would be taken from our drinking water aquifers annually. We encourage the RGU to demand specific figures that would support the applicants anticipated water use for each activity. We also encourage the RGU to study the effects of cumulative water use from all mining activity in the area and verify appropriations by requiring the disclosure of any existing offsite well(s) that are planned for use.
- **Question # 16** states; *"The current plan will mine the ridge from west to east..."* A contradicting statement is then used on page 6 where it states; *"Phase 1 of the mine proposes to excavate in three stages from east to west..."* We would like clarification on the projects actual planned sequence.
- **Question # 17** focuses on Water Quality – Surface-water Runoff. Our concern regarding water quality is based on excerpts from the answers within EAW questions 12-18 and the cavalier approach the proposer has taken in identifying and preventing potential sources of groundwater contamination originating from mining activity. The

proposer has made it clear that the soil makeup at and near the Nisbit quarry is; *"rapidly permeable"* (pg 26) and *"highly susceptible to groundwater contamination due to rapid infiltration"* (pg 27). The proposer goes on to explain (Pg 27); *"The highly porous sand **does not** (emphasis added) treat or otherwise remove dissolved compounds, but the thickness of the sand does have a measurable effect on the amount of time that it takes for water to infiltrate to the water table."* Through the proposers own admission, it becomes clear and difficult to deny that mining activity will have significant potential to increase the likelihood for groundwater contamination due to both the intensity of heavy equipment activity and the removal of much all of the soils natural filtering ability. Likely contaminants (fuels, lubricants, hydraulic fluids and oil used for dust control on haul roads) are minimally addressed in this EAW. In the unlikely (but possible) occurrence of a chemical spill, can practical mitigation occur before irreversible contamination has occurred? The proposer offers mitigation (Pg 30); *"Impacts that are proven to occur from mining, as opposed to farming or any additional action not related to the mine, will be mitigated by the mine operator."* yet attempts to discredit and avoid the Winona County mandate to monitor wells in close proximity to the mine by stating; *"The proposer indicates that well monitoring in close proximity to the mine would not accurately differentiate water quality impacts from mining versus farming..."* (pg 30) and on page 31; *"Groundwater monitoring wells are not being proposed..."* It is unreasonable to compare three or four tractor trips working the fields annually to near constant (16 hours/day) loader activity and 80,000 plus sand truck trips per year at the mine site. The proposer acknowledges that contamination potential is high, but is unwilling to accept the responsibility of proving their actions as being or not being the cause. Winona County Proposed General Condition number 7 (pg 15) indicates; *"The mine operator/owner shall install groundwater monitoring wells adjacent to the proposed mine site where the site is within 1320 feet of residential plats or....."* With that indicated, why wouldn't this mine be mandated to install groundwater monitoring wells? As stated earlier, we question what mitigation can reasonably be done once groundwater contamination occurs. Page 29 notes; *"The proposer does not expect any negative effect on nearby water wells."* The users of those nearby water wells respect assurance not expectations. To allow the proposer to mitigate the contamination of our water resources is not acceptable at any level and if any action (mining included) presents the potential for groundwater contamination, that activity can in no way be permitted to happen. A final question we ask relating to water quality relates to something not included in this EAW. With other industrial silica sand mines, a certain percent (25%) of sand transferred off site to final processing is rejected by processing and returned to the site for reclamation. Will any sand be returned to this mine site and used in reclamation, if not where will the reject sand go?

- **Question # 19** addresses Geologic Hazards. Our concerns that mining activity will significantly increase the sinkhole/water contamination risk are shared with an entire region that relies on clean aquifers for our drinking water. We fully understand that predictability of karst involvement in groundwater contamination is quite difficult. We also fully understand and agree with the applicant (pg 39); *"Potential groundwater contaminant is high in Saratoga Township due to rapid infiltration."* We ask the RGU to

take the recommendations of credible experts extremely seriously and to use due diligence in ensuring that this (or any other) mining project does not present the potential to contaminate our groundwater.

- **Question # 21** Traffic. We would like clarification on the correct number of trucks proposed, hours of mining and hauling operations and will the Winona County mandate that limits loaded trucks to 70 daily apply? Page 8 notes; *"The mining activities propose to generate a total maximum of 280 truck trips per day (140 empty trucks in and 140 loaded trucks out)."* Page 50 then contradicts that statement by noting; *"The proposed quarry operations anticipate up to 240 truck trips per day (120 out and 120 in)."* Furthermore the Winona County Planning Departments Recommended CUP for Sand Mining Operations condition # 23 states; *"The quarry operation shall not exceed 70 loaded trucks per day during normal operations."* The applicant also noted on page 9; *"Hauling will take place Monday through Friday between the hours of 7am and 7pm CST"* but page 7 of the Traffic Plan stated; *"Mining operations are proposed to occur from 7 a.m. to 6 p.m."* and subsequently based their loads per hour figures on those time frames. Being a highly controversial and contentious issue, it is our opinion that the applicant should have been much more accurate and consistent in reporting proposed both traffic volumes and times. It is also our opinion that without clear direction and strict adherence to general condition number 23 of the, industrial sand mine operators will continue to misrepresent their trucking intentions. We also feel the industrial silica sand industry has been less than truthful regarding the final destinations of their product. The Nisbit proposal clearly lists a destination, but we ask that the RGU verify that facilities capacity to both accept and process sand. We also have concern about this EAW's lack of cumulative traffic data, specifically where on page 9 the proposer states; *"No road segments are forecasted to reach capacity with the additional truck traffic from the Nisbit mine."* What are the forecasted truck traffic volumes from all mining activity in the area, and what are the projected cumulative issues relating to safety, congestion and pollution?
- **Question # 22** addresses Vehicle-related Air Emissions. It is noted on pages 42 and 43 respectively; *"At the mine site the open atmosphere, elevation and topography of the loading areas allows for diffusion of the engine emissions and will not contribute to pockets of air with excessive pollution levels."* and *"The level of traffic generated by the mining activity is not expected to lead to any measurable decrease in air quality due to vehicle emissions."* Without a credible source and/or air dispersion modeling data to support it, these comments are subjective and misleading. The proposer offers some generic data through the Diesel Emission Quantifier but fails to consider and discuss the cumulative impacts from all mining and trucking in the area and the potential health effects related to those emissions. It's absurd to believe that there would be no decrease in air quality with the amount of increased activity in that area. The question then becomes how much of a decrease in air quality would industrial frac sand mining have on the area. As of January 30, there are 7 proposed mines in close proximity to the Nisbit quarry. Those mines would likely utilize 30-40 off-road heavy equipment vehicles operating 16 hours a day and may include over 2800 truck trips leaving or returning to the mining area. For the proposer to recite projected emission figures

based on one mine and one location on the haul route is merely a small piece of a much larger whole. A comprehensive air quality impact study of all proposed mines is needed to fully understand the effects of air emissions, both vehicle-related and from stationary sources. What are the projected air quality effects from cumulative mining activity in the area?

- **Question # 23 – Stationary Source Air Emissions.** Crystalline silica dust is an unfortunate and unavoidable by-product of frac sand mining and processing. Exposure to it is also associated with serious lung, kidney and immune system diseases. No amount of debate will change the fact that in order to eliminate the potential for significant environmental effect, you must eliminate the chance of exposure. History combined with science has not yet found an acceptable relationship between level of exposure and health for areas outside mining and processing sites, which leaves the RGU to decipher fact from the wealth of opinion coming from both sides of the controversy. In the case of environmental review however, the RGU becomes entrusted to adhere and make decision based off the core of Minnesota's environmental policy (116D.02, subd.2 (2) which in part states; "**Assure** (emphasis added) *for all people of the state, healthful, productive and aesthetically and culturally pleasing surroundings.*" In our opinion, and by the proposers own admission, their plan will not be able to control dust from encroaching on public and other private lands. We share not only the real concern for our health related to dust exposure, but also the perceived threat to our health due to the vast unknown. We (experts included) simply don't know enough to assure health and to expect a neighboring resident to live in fear for years worrying if the level of exposure their family is being submitted to will ultimately cause them or their children to suffer from cancer or other debilitating disease related to silica dust exposure is bordering on torturous. We, as the general public need assurance that our health is being protected by our elected officials, and it causes great concern when we read quotes from experts in the newspaper like; "*Dr. Hillary Carpenter from the Minnesota Department of Health said if he lived in the area, he'd be asking for more research about environmental exposure to silica sand.*" (Winona Daily News 6-21-2012) and "*We don't have a good idea about silicosis for those living nearby.*" (Dave Christianson – MN Dept. of Transportation – Post Bulletin 11-16-2012). The Nisbit mine applicants clearly have no concept of the dangerousness of the activity they propose. They have offered little to no credible, meaningful or factual information in their response, and like other answers, this one was laden with little more than proposer opinion. The applicants comment (pg 44); "*fine sand and dust does not become airborne and suspended under normal conditions.*" might sum up their attitude. It's not dusty or dangerous and there is no need to monitor it, if we assess it before we touch it. Let us remember that asbestos is also harmless under "normal" conditions. Finally page 45 notes: "*The nearest occupied home is located 1,500 feet to the south...*" and "*Therefore, no air quality monitoring is expected at this time.*" We ask not only for the RGU to consult with the Minnesota Department of Health to obtain fact based direction on potential air emissions, but to also challenge the proposers claim that there is no residence within 1500 feet of the mine boundary. It is our opinion that in figure 13 (2010 Aerial) the graphic scale (if correct) indicates

there is a house less than 1200 feet from the boundary. How much fugitive silica dust will this facility create? How much dust will leave the site? How will dust levels be monitored? What is the exact distance from the nearest non-owner occupied residence?

- **Question # 24** is in reference to Odors, Noise and Dust.

Odors – It is noted on page 45 that; *"We do not anticipate odors will occur during mining or post construction other than vehicle exhaust during heavy commute times."* That statement is a contradiction of itself and without a definition of what and when heavy commute times are, it only leaves us to assume that is the entire standard 15 hour day (7am -10pm).

Noise - This questions follow up specifically asks the proposer to; *"describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse effects. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life."* The proposer acknowledges that a relative noise impact exists (*"Heavy equipment noise, including back up beepers, will be noticeable at the site and on adjacent properties."* Pg 45), but fails to provide any factual data describing the noise or discussion of the impacts it will have on the immediate environment. Based on MN Rule (7030.0050); *"The noise area classification (NAC) is based on the land use activity at the location of the receiver and determines the noise standards applicable to that land use activity unless an exception is applied under subpart 3."* The proposer seems to completely misunderstand the fact that MPCA standards are receiver based and measuring is conducted and classified from the location of the receiver, not the property line as noted in the EAW. An EAW needs to both ascertain the potential for noise standard exceedance relative to receptors listed in the rules and assess impacts that cannot be addressed in the rules. These may include nuisance noises that may affect people below measurable levels such as impulse noises like blasting, coupling and back-up beepers. *"Noise is a pollutant"* (MPCA- Guide to Noise Control in Minnesota) and to determine the extent of that pollutant or the effects it will have on the health and welfare of the general public, actual measurements and modeling are necessary. Numbers on a chart or graph can't determine environmental effect. How that noise is perceived in the real world at the location of the receiver determines noise pollution. The Nisbit EAW fails to; offer an analysis of existing noise levels to calculate future effect; discuss sound propagation (the way sound spreads and dissipates) in relation to ground effect atmospheric effect, shielding and the topography of the area; provide distances from noise sources to receptors and describe specific decibel levels emitted from each source. The EAW also fails to mention the cumulative noise levels from all mining activity in the area or offer a predictive summation of the total effect noise will have on neighboring residences. The only predictive sound level(s) offered by the proposer is on pg 46; *"The noise levels for this activity would be measured at the property line and would be; Daytime and nighttime: L10 (10% of the time in a one hour survey) = 80dB, Daytime and nighttime: L50 (50% of the time in a one hour survey) = 75dB."* Those levels clearly exceed NAC-category 1 (residential & industrial) standards and would not only have potential for, but would severely impact the health and

welfare of the surrounding environment. Without a noise impact study or detailed modeling (which this EAW lacks), the data provided is nothing more than a compilation of the proposer's opinions and does nothing to address the potential for this facility to exceed noise standard limits relative to receptors listed in the Minnesota NAC rules. What will the exact decibel level be for each source at each receptor? Page 46 of the Nisbit EAW also states; *"The proposer indicates that the area is sparsely populated and there are few noise receptors in close proximity to the site."* There is no relevance in the differentiation between a "few noise receptors" and many receptors. As we noted about the identical quote in both the Yoder and Dabelstein EAW's, that quote in its context does nothing but imply that the rights of rural residents are less than that of those residing in more urban areas.

Dust – Concerns are noted in question 23 (Stationary Source Air Emissions)

- **Question # 26 Visual Impacts.** The proposer answered the question by marking the NO box stating the project will not create adverse visual impacts, yet the narrative notes; *"The mining site is located in a rural area and there are few residences that would be visually impacted by the mining and quarrying operation."* and *"Due to visibility from surrounding roadways and properties, it is expected that current viewsheds will be effected by mining operations."* With these acknowledgements of impact on local residences, the proposer should be required by the RGU to provide a detailed site/area plan including what the adverse impacts will be, where the visual receptors are located in relation to the mine and specific measures planned to mitigate the visual impacts for each residence. The proposer also noted on page 30; *"All reclaimed areas, other than the exposed sandstone face, will be covered..."* Where and how big will the mentioned exposed sandstone face be?
- **Question # 27** asks the proposer to discuss the compatibility of the project to existing comprehensive plans and land use regulations along with explaining how potential conflicts might be resolved. The two paragraph narrative answer provided fails to both explain how the proposed project conforms to the goals of the Winona County Comprehensive Plan (2000) and how it will operate within guidelines set by Winona County for silica sand mining and processing. The Winona County Comprehensive Plan (2000) acknowledges rural industrial growth but is clear in clarifying specific factors that determine the appropriateness of that growth. The plan supports industry that involves limited on site operation, generates little additional traffic, produces few (if any) aesthetic concerns, presents few conflicts with nearby resource uses and provides services needed by rural residences. Industrial silica sand mining in general not only lacks the above noted goals, but also threatens; the preservation of agricultural land, the conservation of our natural resources, the protection of our groundwater and the preservation of the quality of rural life we all enjoy in Winona County. The Nisbit quarry plan as proposed also lacks data to support conforming to the *"Planning Departments Recommended Conditional Use Permit Conditions of Approval for Sand Mining Operations"* (Draft 3.8.12). General condition (4) requires the owner/applicant to provide air monitoring, condition (7) limits stockpiles to no more than 9 feet in height, condition (8) requires groundwater monitoring wells, condition (22) requires a 40 foot asphalt tracking pad approaching county roads and condition (23) limits daily

loaded trucks to 70. This EAW either fails to acknowledge these Winona County mandates or blatantly proposes to exceed and/or ignore the limits set forth by the general conditions. As part of the Winona County *"Criteria to Grant Conditional Use Permit"* (5.5.4.1), specific standards are referenced in which the Planning Commission must ensure that the request has adequate evidence of compliance. Although all standards are important, we want to note three that are of particular concern to us. Standard 2 states; *"The use will be sufficiently compatible or separated by distance from adjacent land so that existing properties will not be depreciated in value and there will be no deterrence to development of vacant land."* Standard 3 states; *"The structure and site shall have an appearance that will not have an adverse effect upon adjacent residential properties."* Standard 4 states; *"The use is reasonably related to the overall needs of the County and to the existing land use."* This proposal offers no information much less assurance that adjacent properties will not be affected by industrial sand mining activities. In our opinion the failure to address these potential conflicts and outright avoidance of answering this question equates to admission that the Nisbit quarry plan lacks compatibility with both adjacent residences and the Winona County Comprehensive Plan.

- **Question # 29 – Cumulative Effects.** This question focuses on asking the proposer to identify other related projects (which was done), but to also describe and discuss the potential effects of all those projects combined. In essence, a separate assessment of the sum of all mining in the area. The proposer completely failed to offer any analysis or cumulative data of the effects relating to: traffic, water use, dust, noise or the permanent altering of Winona County landscapes. We understand that there are already eight proposed mines in the immediate area (Dabelstein R., Yoder, Nisbit, Campbell, Boyum, Dabelstein A., Kesler, and Rein). Per application records, those mines encompass well over 300 acres, will likely process over 10 million tons of sand annually and are projected to create over 2800 truck trips per day with most traffic destined for processing in Winona. It is obvious in the proposers response to this question that they are either unprepared to address cumulative effects or are unwilling to provide honest accurate data. Without a comprehensive unbiased assessment of all these mines operating in such a small area and consideration of future mining and processing facilities, it would seem implausible to make an assumption that significant environmental effect could not occur. Other than listing like proposals, has any cumulative industrial sand mining data been presented or even researched?

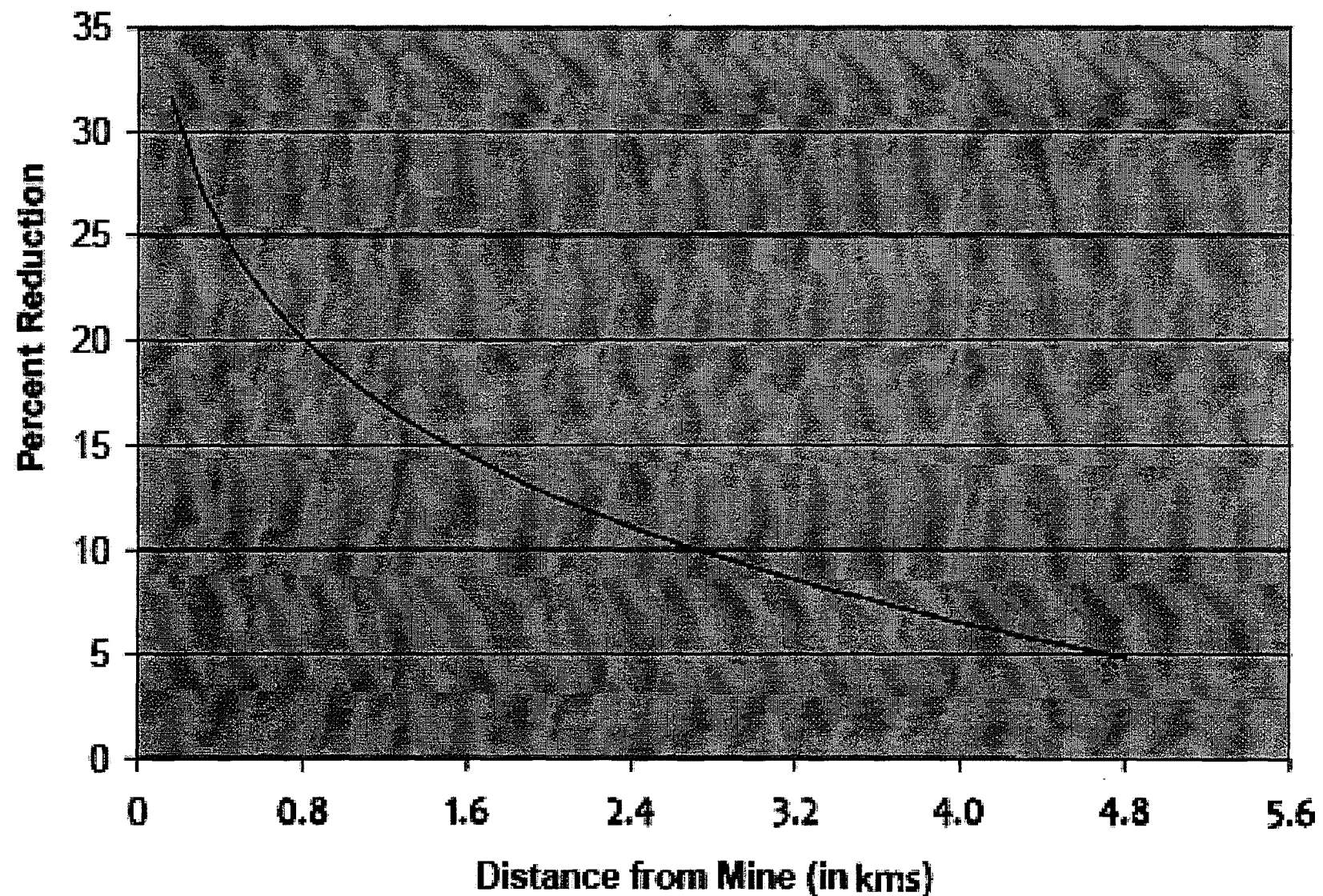
The EAW is merely a brief to determine possibility. It is nothing more than the first step in a much larger process to determine if the potential for significant environmental effect exists. If the information contained within the EAW leaves any doubt, lacks information, lacks completeness or misrepresents fact, the next step must be taken. It is our opinion that the answers to the questions asked in the Nisbit worksheet have fallen far short of completeness, honesty and satisfying the public concern for potential effect on the environment we call home. In some instances, like health effects, there is simply a lack of information available on the environmental effects from these proposed activities. In other instances like effect on property value and quality of life for those living near mining

activity, the applicant has essentially dismissed their neighbor's concerns. And in some cases like cumulative effect, the answer was not even attempted. In the end, the question of what the proposer is planning got answered, but the question of if this project has the potential for environmental effect did not. Minnesota Statute (Minn.4410.1700 subp. 1) notes; "***An EIS shall be ordered for projects that have potential for significant environmental effects.***" An Environmental Impact Statement is in no way a penalty, it is simply an avenue to answer the questions that this EAW could not. An EIS also offers assurance to the public that due diligence has been taken by the RGU in providing true evidence and not just proposer opinion relating to the environmental consequence of frac sand mining and processing actions.

Sincerely

Collin and Barb Johnson
26355 Cherokee Rd
St. Charles, MN 55972
(507) 932-5076
bcjohnson4@netzero.com

**Figure 1: Impact of Gravel Pit on Residential
Property Values:
(Percent Reduction by Distance from Mine)**



Fugitive Dust Control Plan

Great Plains Sand, LLC
Shakopee, MN

Wenck File #2771-01

Prepared for:

GREAT PLAINS SAND, LLC
15870 Johnson Memorial Drive
Jordan, MN 55352

Prepared by:

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February 2012
(Revised April 2012)



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APPENDICES

A Site Layout

1.0 Introduction

Great Plains Sand, LLC (Great Plains) submitted a State Air Permit Application to the Minnesota Pollution Control Agency on February 8, 2012 for the construction and operation of an industrial sand processing facility to be located in Shakopee, Minnesota. The application addressed operations from the mine and the processing facility.

This Plan has been developed to control emissions from drilling and blasting, backhoe operation, bulldozing, outdoor sand piles, outdoor material handling, crushing, truck loading, truck hauling and employee vehicle traffic at the proposed mine and processing facility. Compliance with the control of particulate emissions will be maintained by Great Plains through regular observations of fugitive dust conditions attributable to Great Plain's activities and application of reasonable mitigation measures. At daily intervals, and upon receiving a complaint, Great Plains will investigate fugitive dust conditions. Great Plain's observation of fugitive dust conditions and valid dust complaints are to be addressed by reasonable and appropriate mitigation measures. Great Plains shall record its observations and mitigation measures, as well as any complaints received and mitigation measures taken in response to such complaints.

The designated on-site contact for purposes of compliance with this Plan is listed below:

Mr. Doug Wermerskirchen Operations Manager Great Plains Sands, LLC Phone: (952) 917-9802

It is assumed that the fugitive particulate emissions control season is approximately March 15th through November 21st of each calendar year, and also during non-freezing weather conditions during the remainder of the calendar year.

2.0 Fugitive Particulate Emissions Sources

Sources of fugitive particulate emissions at the mine and processing facility include drilling and blasting, backhoe and bulldozer operation, rock breaking, outdoor sand storage piles, uncontrolled material handling and transfer, crushing, and vehicle traffic on the unpaved roads. Fugitive dust will be controlled in order to prevent significant exposure of particulate matter to the general public. The sources of fugitive particulate emissions are described in this section.

2.1 DRILLING AND BLASTING

In situations where the sand-bearing geological formation at the mine is tightly cemented, it may be necessary to utilize drilling and blasting to make the sand more amenable to removal. Blasting, using an explosive agent, may be conducted frequently during the mining season. Fugitive emissions will be generated during the drilling and blasting activities.

2.2 BACKHOE AND BULLDOZING OPERATIONS

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction.

2.3 ROCK BREAKING

It may be necessary for Great Plains to utilize a rock breaker in order to break up the large chunks of rock at the mine prior to processing in the facility. The rock breaker will be attached

to a front-end loader and moved as necessary around the current phase of the mine. Fugitive emissions will be generated during the operation of the rock breaking activities.

2.4 SAND STORAGE PILES

There are six outdoor sand storage piles at the Great Plains site that are labeled in Figure 1, found in Appendix A. The excavated sand from the mine can be stockpiled in a storage pile located at the mine. After being transferred to the facility, the sand can be fed directly to the grizzly or stockpiled in a surge pile of raw material located outside the building. This stockpile will contain approximately 20,000 cubic yards of raw material which is fed into a pre-screening and crushing unit. This pre-screening and crushing unit generates two small stockpiles (roughly 3,500 cubic yards each) which are fed to the wet plant. After processing, the material will be stockpiled outside using two 150' radial stackers. These stockpiles will contain approximately 100,000 cubic yards of material each, reaching heights of 40-50 feet. The maximum stockpile volumes will only be reached in the fall of the year to provide a supply of washed material to the dryer on a year round basis. By the spring, these stockpiles will be significantly depleted and then replenished again over the course of the subsequent summer and fall. Wind erosion may be a source of fugitive particulate emissions throughout the year. Fugitive particulate emissions from the sand storage piles are also potentially generated from the stacking and reclaiming of sand to and from the pile(s).

2.5 UNCONTROLLED MATERIAL HANDLING AND TRANSFER

Material handling and transfer operations with the potential to generate fugitive particulate emissions include transfer of sand via the front-end loaders and the conveyance of sand from one piece of equipment to the next (conveyors, belts, feeders, etc.). The majority of these material transfer points will occur at the mine and the processing facility prior to the dryer. Because the natural moisture content of the sand will be approximately 2%, fugitive emissions

from the transfer points are anticipated to be very minimal based on information outlined in AP-42 Chapter 11.19.2 regarding the processing of wet sand.

2.6 JAW CRUSHER EQUIPMENT

The sand deposit being mined is composed of agglomerated grains of sand. The majority of this material is broken down to individual grains of sand during blasting or by the grizzly feeder. Great Plains may utilize a jaw crusher to further deagglomerate this material. The crusher may generate fugitive particulate emissions; although significant emissions are not anticipated based on the natural moisture content of the material.

2.7 ON-SITE VEHICLE TRAFFIC TRAVELING ON UNPAVED ROADS

All roads at the facility will be unpaved. These roads include the haul road from the mine to the processing plant, the front-end loader routes at the mine and the processing plant and the product loadout and employee traffic road.

Included in Appendix A is a site-layout illustrating the various sources of fugitive emissions as described above.

3.0 Control Measures for Fugitive Particulate Emissions

The primary control measures for fugitive particulate emissions from various Great Plains fugitive dust sources are described in this section.

3.1 DRILLING AND BLASTING

Great Plains will conduct drilling and blasting up to frequently during the mining season. Blasting activities will be a relatively small source of fugitive emissions.

3.1.1 Emission Control

For fugitive dust control, the space between the explosive and the top of the drilled hole will be filled with a stemming material. Stemming material is an inactive material used to backfill a hole for the purpose of containing the explosive energy. The stemming material also acts to minimize fugitive emissions from the blast. The drilling equipment that the facility is planning to purchase comes equipped with a wet suppression system or other equivalent control. Additionally, the natural moisture content of the sand will aid in minimizing fugitive emissions.

3.2 BACKHOE AND BULLDOZER OPERATION

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction. Emissions from these operations are not expected to be significant.

3.2.1 Emission Control

The natural moisture content of the sand and/or overburden serves as the best control for backhoe and bulldozer operations. If necessary, additional dust control will occur through use of watering techniques.

3.3 ROCK BREAKING

Great Plains may utilize a rock breaker in order to break up the large chunks of rock at the mine prior to processing in the facility. The rock breaker will be attached to a front-end loader and moved as necessary around the current phase of the mine. Fugitive emissions from this operation are not expected to be significant.

3.3.1 Emission Control

The natural moisture content of the sand serves as the best control for rock breaking operations. If necessary, additional dust control will occur through use of watering techniques.

3.4 SAND STORAGE PILES

Great Plains stores sand in outdoor piles throughout the year. Sand is transferred to and from the storage piles by a front-end loader for all piles prior to the wet plant and a product stacker after the wet plant. The natural moisture content of the four storage piles prior to the wet plant is greater than two percent, while the sand dropping to the two piles post wet plant is completely saturated. Because of the saturated sand, there are negligible emissions from the stacking conveyor drop to the piles. The sand's moisture content in the piles then drain down to five percent prior to being fed into the dryer. Wind erosion is anticipated to be the largest source of fugitive emissions from the sand storage piles.

3.4.1 Emission Control

Wind erosion is minimized when the exterior or the pile is kept damp. The natural moisture content of the sand will aid in reducing fugitive dust emissions. Additionally, it is estimated that there are over 105 days that are naturally defined “wet” (an average number of days with perception greater than or equal to 0.25 mm or 0.01 inches based on precipitation data) at the location of the mine and processing facility. During exceptionally dry periods or upon any significant amounts of fugitive dust, the sand piles will be watered to minimize the effect of wind erosion. An exception will be made for freezing conditions that would present a safety hazard to workers or vehicles.

In accordance with MPCA procedures Great Plains Sands will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. Visible emissions do not signal noncompliance with applicable requirements, but visible emissions over 10% will trigger additional watering of the piles.

3.5 MATERIAL HANDLING AND TRANSFER

Material will be transported from the mine, storage piles and wet plant via feeders, belts, conveyors, etc. Material handling and transfer points as not anticipated to result in significant emissions as the natural sand moisture content will be 2 percent or greater.

3.5.1 Emission Control

The natural moisture content of the sand serves as the best control for material handling operations. If required for opacity limitations, additional dust control will occur through use of water or suitable chemicals.

Additionally, as a preventative control measure, Great Plains will clean up spills of commodities on the facility property to reduce fugitive particulate emissions. It should also be noted that 40 CFR Part 60, Subpart OOO (NSPS OOO) applies to the conveyors and other transfer equipment following the crusher and therefore will be subject to opacity limits as defined by the rule.

3.6 JAW CRUSHER

Before being processed in the facility, the incoming sand from the mine will be passed through a grizzly feeder and then a jaw crusher to process a small portion of the sand that is not deagglomerated during blasting or by the grizzly feeder. The crusher process will be a source of fugitive emissions.

3.6.1 Emission Control

The crusher will process sand at or near the moisture content at which it was mined. Additionally, the crusher will only deagglomerate the sand. No actual "crushing" of the sand grains will occur. Therefore, no new "dry" surfaces will be exposed during the process. Although it is anticipated that the natural moisture content of the material will be sufficient to prevent fugitive dust emissions, a water spray system to control fugitive dust emissions during loading, conveying, and crushing to minimize visible emissions will be utilized, if necessary.

It should also be noted that NSPS OOO applies to jaw crusher and therefore will be subject to opacity limits as defined by the rule.

3.7 ON-SITE VEHICLE TRAFFIC TRAVELING ON UNPAVED ROADS

All roads at the facility will be unpaved and the surfaces of the roads are composed of sand. Truck and heavy equipment traffic over these surfaces is the main sources of fugitive dust from the unpaved roads. There are several vehicle routes that contribute to the fugitive emissions. The facility will utilize a haul truck to transfer sand from the mine to the processing plant. The

route of the haul truck will be dependent on the current phase of the mine. There will also be two main front-end loader routes at the facility and two at the mine, along with an employee and product loadout route into and out of the facility.

3.7.1 Emission Control

In order to reduce emissions from unpaved roads, Great Plains Sand has proposed the application of water to control these emissions from the site. This is a standard method for controlling air emissions from these types of sources.

The control efficiency of watering is dependent on the vehicle traffic on the route, the intensity of the application of the water and the frequency of the watering. In order to achieve the appropriate control efficiencies for permitting purposes, it will be necessary for the facility to water the main haul truck route and the front-end loader routes at the mine and the processing facility once per day. The product loadout and employee traffic route will need to be watered once per week. All routes have been proposed at an application intensity of 0.10 gallon per square foot. It is also proposed that any precipitation of greater than 0.16 inches will substitute for one day of watering. This precipitation will be measured using local national weather service data or an on-site rainfall gauge. In addition, in accordance with MPCA procedures, Great Plains will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. If visible emissions are observed, the facility will investigate the condition and take appropriate corrective action to reduce the visible emissions. Visible emissions do not signal noncompliance with applicable requirements, but visible emissions over 10% will trigger additional watering of the roads. The observation of fugitive emissions could trigger additional watering – over and above the levels identified above.

To demonstrate compliance with this procedure, Great Plains Sand will be required to maintain records of watering frequency and intensity. Great Plains will keep daily records of water truck use and documentation of meteorological conditions. As noted above, watering will not occur on “wet” days (> 0.16 inches of precipitation) unless visible emissions from the roads are observed to be above 10% by the visible emissions reader or on days that unpaved roads are not being used (e.g., occasional and seasonal mine closures).

4.0 Recordkeeping

Great Plains will maintain records to demonstrate compliance with this fugitive dust control plan. Mitigation measures will be taken as needed in order to prevent avoidable amounts of particulate matter from becoming airborne.

If fugitive dust complaints are received, Great Plains will investigate the merit of the complaint, and take appropriate and reasonable measures as soon as practical. Great Plains will keep a record of complaints received and mitigation measures taken.

Appendix A

Site Layout

Great Plains Sand, LLC Processing
Facility - Fugitive Dust Emission
Sources

Unpaved Product Loadout and
Employee Traffic

40 x 70 Concentrate
Storage Pile

40+ Mesh Storage Pile

Wet Screen Storage Pile #1

Wet Screen Storage Pile #2

Grizzly Stockpile

NOTE: Processing Facility Front End Loader
Routes, Grizzly Feeder, Jaw Crusher and
Various Material Handling and Transfer
Points will be located anywhere within area
marked in orange.

Mine Stockpile

NOTE: Blasting and Drilling, Backhoe and
Bulldozing Operations, Rock Breaking, Mine
Front End Loader Routes, and Unpaved Haul
Roads will be located anywhere within area
marked in red depending on the phase of the
mine.

GREAT PLAINS SAND, LLC

Site Layout - Fugitive Sources

 **Wenck**
Engineers • Scientists

1802 Wooddale Drive
Suite 100
Woodbury, MN 55125

FEB 2012

GI-03 - Fig. 2

February 19, 2013
Sandra Troendle
25551 Cherokee Rd
Saint Charles, MN 55972

Jason Gilman
Planning & Environmental Services Director
177 Main Street
Winona, MN 55987

RE: Comments to EAW on Nisbit Frac Sand Mine

Dear Mr Gilman,

I am writing to comment on the Environmental Assessment Worksheet (EAW) for the proposed Nisbit frac sand mine. I believe that this project needs an Environmental Impact Statement (EIS) because it clearly has the potential for significant, cumulative environmental effects in combination with other proposed frac sand mining and processing. An EAW is only the first step to a more in-depth, comprehensive review which is needed. The proposers want you to look at their EAW as a separate entity, however with all the proposed mines in Winona and Fillmore counties, the RGU would be neglecting their responsibility if they didn't look at the cumulative effects from all the mines combined.

The mine could generate up to 280 truck trips per day between Saratoga Township and the City of Winona. The traffic impact study referred to in the EAW only considers the route from the mine along County Rd 33 to the intersection of Hwy 14 in Utica. Will a traffic analysis be required for the rest of the route through Lewiston, Stockton and into Winona?

There appears to be sight distance deficiencies at the intersection of County Rd 33 and County Rd 6. I am very concerned about safety at that corner. Not only will the Nisbit mining trucks pass that intersection but I believe the trucks coming from the Yoder and Dabelstein mines also go through that intersection – up to 1480 trucks per day. Will the intersection be modified to improve the sight distances?

Another concern to be answered is the potential harms from silica sand dust. The EAW says dust control will be applied. Who will be monitoring this? Initially under the "Proposed General Conditions" #4, the proposer talks about air quality monitoring. It is stated that monitors will be placed downwind, 100 feet apart. The wind is consistently changing directions so I'm not sure how "downwind" will be determined. Shouldn't monitored be required all the way around the mine? However, then within question #23, the proposer states that "no air quality monitoring is expected at this time". The EAW is inconsistent bringing its validity into question. Will air monitors be used and/or required? I believe they should because dust pollution is an unknown and huge health risk and if we don't monitor it, our grandchildren may pay the price?

The Minnesota Pollution Control Agency on their website under Air Pollution has posted this information:

Are there health risks?

The potential air pollutants of most concern from frac sand mining are airborne particles, including particles less than 10 microns in size (PM₁₀), particles less than 2.5 microns in size (typically called "fine particles" or PM_{2.5}), and crystalline silica, which ranges across both size categories.

The crystalline silica particle size of most concern is smaller than 4 microns; no generally accepted ambient monitoring method exists for this size. There are known health risks associated with airborne crystalline silica. However, the available information on health effects comes almost exclusively from occupational settings, where exposures are more concentrated. There are no federal or state standards for silica in ambient air.

There also are health risks associated with other airborne particles, especially PM_{2.5}. There are state standards for airborne particles (called Total Suspended Particles or TSP), and state and federal air quality standards for PM₁₀ and for PM_{2.5}. However, no information is currently available that would help regulators assess if air concentrations of TSP, PM₁₀ or PM_{2.5} near frac mining facilities are above state or federal standards.

Clearly, the Pollution Control Agency believes that being able to assess the harm to citizens is important, yet no method exists to measure that risk? As a government body the County Commissioners need to study this area further and not endanger the families living near the mining activities.

Wind is a common aspect of our weather in southeastern Minnesota. Wind in the area of a sand mine will create even more dust pollution. The EAW talks about if a stockpile is open more than 14 days and is subject to wind erosion which "blows dust around", it will be covered with topsoil, seed, and mulch. I am wondering who will be monitoring this? It is not likely that the mining company will want to spend the money to cover stockpiles this way. Will someone be stopping by the mine on a weekly basis to see how long the stockpiles are open to wind erosion? One usually does not see "seeded" stockpiles at mines.

The EAW states that water for dust control will be purchased locally and brought to the site in tanker trucks. What is the exact source of that water and how much will be needed? Will it have an impact on local water resources if cumulatively the Nisbit, Yoder and Dabelstein mines all bring water to their mines from a source within Saratoga Township?

Does the county have any plans for enforcing all the regulation on these mines? Enforcement may be the biggest problem ever once the mines are up and running. If these mines are allowed to operate and there is no enforcement of the regulations, what is the point of even having regulations? Will the county hire staff on a full time basis to continually enforce the regulations?

The cumulative effect of trucks from multiple mines in the same area needs to be addressed. Will someone be monitoring where all the trucks drive cumulatively and who lives on those roads? There has to be children living in some of those areas and will safety be an issue? MNDOT is concerned about all the truck traffic coming into Winona from all these mines – shouldn't the county require an EIS just to study the traffic and environmental impacts of the Nisbit mine as well as all the MN Sands proposed mines?

The EAW does not address the cumulative effect of the construction of any nearby transfer stations, slurry pipes and/or processing plants that it says would benefit all the mines in the area with reduced truck traffic. How can the construction of a major epicenter for sand processing and the trucks traveling to the slurry pipe and/or processing plant be ignored when it comes to cumulative effect of sand mines in the area??? Winona County would be irresponsible to not take that into consideration when studying the cumulative effect. The scope of the whole frac sand mining and processing in Winona county is very large which should require an EIS of all mines and the processing plant so that we don't regret what happens to our future generation.

In summary, I feel that an EIS is critical because there is definitely a potential for significant environmental and health effects including dust control at the sites, truck traffic, water usage and above all the safety and well-being of the general public. The cumulative effect of multiple mines and a processing plant in the county is HUGE. The county definitely needs to study future effects on health and safety factors on human life. Only an EIS will address these issues.

Sincerely,
Sandra Troendle

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Lew Overhaug

From: Jason Gilman
Sent: Wednesday, February 20, 2013 11:52 AM
To: Lew Overhaug
Subject: FW: EIS on the Nisbit mine
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Trish Johnson [mailto:trish.johnson2008@gmail.com]
Sent: ~~February 19, 2013~~ February 19, 2013 9:29 PM
To: Jason Gilman
Cc: Jim Pomeroy; Wayne Valentine; Steve Jacob; Greg Olson; Marcia Ward
Subject: EIS on the Nisbit mine

Dear Mr. Gilman,

I am writing to you as a resident of Winona county. My husband, 2 young children and I live on the east side of Stockton; our home nestled in the beautiful bluffs and woodlands of Stockton valley. We are all engaged members of this community and deeply concerned about the impacts of frac sand mining in our county. I am writing to ask you to please order an EIS for the Nisbit frac sand mine.

Our driveway is located directly on Hiway 14; the proposed road where potentially 140 semi-trucks would pass each day- twice- totaling 280 semi trucks daily. Our family is gratefully concerned about how our quality of life will change if nearly 2000 additional diesel trucks, carrying frac sand silica, pass by our home each week. We are concerned about our air, our water, the disappearance of our quietude, the degradation of the landscape and the danger of the increased traffic as we come and go from our home.

Additionally, our children (and 100 other children) attend Riverway Learning Community, a MN public charter school located on the corner of Hwy. 14 and Hwy. 61. I imagine that you can understand why we are concerned, with the above issues as well as with the nearby sand washing station located behind Shopko (and just across the hiway from our school), for all of the children who attend this school.

It's clear that the Nisbit mine has the potential for significant environmental effects and a decrease in our communities quality of life and well-being. Therefore, I am again asking that you order an EIS- a review that

would show the full impacts that this proposed development would have on our land, air, water and communities. It is the most responsible action that can be taken and one that our community is deserving of.

Thank you for your consideration and recommendation.

Respectfully,

Trish Johnson

507-410-2174

February 19, 2013

The Nisbit Sand Mine – Isolated impact or collective environmental concerns?

The Dabelstein, Yoder, and Nisbit mines are merely the beginning of a major mining transition within Winona and adjoining counties. Each EAW – prepared for the county by the future operators of the proposed mines – evaluates the environmental, infrastructure, and economic concerns essentially in isolation. From the governance perspective of the county, this industry cannot simply be treated as a collection of small businesses. The reason is simple. These small businesses will collectively have a major impact on existing infrastructure, could have adverse affects on regional air quality, will likely stress the groundwater system in SE Minnesota, and could leave the beautiful “bluff country” marred for many years – long after the mining dollars have flowed away from SE Minnesota.

Even established non-metallic mining businesses, such as Unimin, in Southern Minnesota recognize the dangers of allowing unlimited and unregulated expansion of sand mining in this area.

Mine expansion and future proposals for sand mines will continue to come to the county board’s attention. Even now, rural property owners are being approached and being asked to consider mining operations on their properties. Not everyone will say “yes” despite the temptation to do so. AS generalized Environmental Impact Study (EIS) now will save the county much work in the future and ensure that the mining activities are well-regulated and controlled in a way that is consistent with the economic, environmental, safety, and health concerns of all county residents.

The state at multiple levels is asking for an EIS. An established member of the industry has asked for an EIS. The people of Winona County are asking for an EIS. Indeed, now is the time to complete a generalized Environmental Impact Study of the impacts of sand mining in Winona County – indeed throughout Southeastern Minnesota.

-Leslie Hittner
2450 Conrad Drive
Winona, MN 55987

507-452-3481

30

RECEIVED
FEB 19 2013
BY: S. H. H. H.

SHAME - SHAME

LOUISE POAPLEWELL
WINONA



Minnesota Department of Transportation

District 6, Rochester/Owatonna
2900 48th Street NW
Rochester, MN 55901-5848

Office: 507-286-7552
Fax: 507-285-7279
mark.schoenfelder@state.mn.us

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February 19, 2013

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona, Minnesota 55987

**RE: Environmental Assessment Worksheet (EAW) including a Draft Traffic Impact
Analysis Section for Nisbit Sand Mine, Winona County
MN 74 CS 8507**

Dear Mr. Gilman:

The Minnesota Department of Transportation (MnDOT) has reviewed the EAW Nisbit Sand Mine. The property is located in Section 35, Saratoga Township in Winona County. The mining activity on the 20 acres is expected to last 3 years. Silica Sand will be mined and transported to the Brant Valley load out and sand washing facility in the city of Winona. The traffic report did a nice job by including level of service and a sight distance analysis at each intersection. MnDOT has all the information needed to complete this review and finds the EAW for the Nisbit Mine acceptable.

Thank you for providing MnDOT the opportunity to comment. If there are any questions, you may contact Debbie Persoon-Bement, Transportation Specialist, at (507) 286-7598 or Greg Pates, Principal Planner, at (507) 286-7680.

Sincerely,

Mark Schoenfelder
Planning Director

cc: Jeffrey S. Broberg, McGhie and Betts Environmental Services, Inc.
1648 Third Avenue SE, Rochester, MN 55904.
Greg Paulson, Nancy Klema, Thomas Streiff, Greg Pates, Debbie Persoon-Bement

An Equal Opportunity Employer



Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 2:51 PM
To: Lew Overhaug
Subject: FW: Concerning the Nisbit application

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: sschild@hbc.com [mailto:sschild@hbc.com]
Sent: ~~February 19, 2013~~ February 19, 2013 1:54 PM
To: Jason Gilman
Subject: Concerning the Nisbit application

Dear Mr. Gilman,

I respectfully urge Winona County to conduct an Environmental Impact Statement, because, as both the MPCA and Minnesota Department of Health recently said, frac-sand operations have the potential for significant and adverse cumulative effects in terms of the environment, traffic safety and general quality of life in and around Winona County.

Much on the subject has been said on both sides. My basic point is that it is prudent in a situation of this potential magnitude to be thorough and scrupulous before allowing activity that could have significant, negative, long-term effects for this region and the people who live here.

Thank you for your time.

Sincerely,

Steven Schild
1282 W. Broadway
Winona, MN 55987
507-454-7042

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 2:30 PM
To: Lew Overhaug
Subject: FW: Nisbit EAW
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Bruce Larson [<mailto:blarso@gmail.com>]
Sent: Tuesday, February 19, 2013 11:50 AM
To: Jason Gilman
Subject: Nisbit EAW

I feel the EAW on the Nisbit mine is entirely inadequate to determine the health and safety impacts of this operation. I strongly encourage you to require that an EIS be completed.
Really, what is the downside of being more careful in this regard.
Thank you.

Bruce Larson
1334 Woodpark Road
Winona, MN 55987

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 2:31 PM
To: Lew Overhaug
Subject: FW: Nisbet Mine
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
 Planning and Environmental Services Director
Winona County
 177 Main Street
 Winona County, MN 55987
 507-457-6337
 e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

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From: MARILYN CHRISTIE, Owner [mailto:mchristie@centurylink.net]
Sent: Tuesday, February 19, 2013 12:02 PM
To: Jason Gilman
Subject: Nisbet Mine

Dear Mr. Gilman,

I am writing to comment on the EAW for the Nisbet Mine. In review of the EAW I was encouraged to see no mention of chemically washed sand returned to the site for use in reclamation. Returned sand that contains chemicals should not be allowed as a filter layer for our water supply.

I do have concerns that there is no mention of the gallons required or the exact source of the water to be used for dust control. The traffic impact does not state the number of truck trips daily that would be required for dust control.

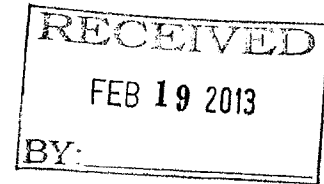
The greatest concern of mine about this project is the haul route. In selecting routes SAFETY has to be the most important criteria not distance or time of arrival. The route chosen passes directly through the heart of 3 small communities, Utica, Lewiston and Stockton. None of these have reliable means of traffic enforcement. Of a particular concern is the community of Utica where the route travels directly through the north-south residential district. Every driveway on this Utica street requires residents to back directly into the very road the trucks will be driving on. By the proposers own estimates at peak operation this proposal could generate 280 truck trips daily. In 12 hours of operation that is one truck every 2.6 minutes. If you factor in the cumulative effect of 200 more truck trips proposed to the MN Proppant Plant you have a truck every 1 1/2 minutes. It would appear SAFETY has been given no thought at all.

There is a much safer alternative route for this project and that is to travel the route chosen by the Yoder/Debelstrein sites and follow County road 6 to Interstate 90 then take 43 to 61 and back to 14 West. With four lanes of traffic flow, limited entrances and exists and higher weight limits Interstate 90 is the only logical route for the traffic demand that will be placed on roadways by the sand industry. If the proposer is not willing to alter his proposal and change his haul route to Interstate 90 I would ask that a full EIS be done Only then can a full traffic impact and safety study be achieved.

Sincerely, Bob Christie

Bob Christie
14595 Sand Hill Dr.
St.Charles MN 55972

Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987
507-457-6335
Jason Gilman, Director (jgilman@co.winona.mn.us)



Dear Jason Gilman,

Enclosed are my comments on the Nisbit Mine EAW.

In the description of the project, the subject of air quality monitoring comes up, it is mentioned that air quality at the perimeter is required within 1320 feet of a residence. Is this now a county conditional use? It is mentioned about a 3 ug/m3 limit but it is not mentioned of what. I assume this is silica but it needs clarification. There are total particulate standards and there are silica standards with the silica standard being more strict.

Water quality monitoring is said to be required only if a well is within 1320 feet. If this is for water quality, any disruption of quality will effect wells that are further away then ¼ mile and monitoring should be required irrespective of the nearest well location. It is the water in the upper water table that needs to be monitored. pH monitoring should be required along with heavy metals since sulfites exposed to sunlight will change the pH of the water and can leach any heavy metals into the ground table of water. The extent of this depends on sulfite content of the sand and overburden exposed and the amount of heavy metals currently present in the soil. It is not adequate to test for bacteria and nitrates alone.

Section 19 on Water Equality mentions the use of a mobile vendor for machine maintenance. Location of maintenance on site is critical, so if a spill does occur in can be contained. A hard surfaced area or limestone substrate area will be less permeable than over the sand formation.

In Section 21 of the EAW it is mentioned that Mn DOT has recommended a gap analysis be conducted for safely concerns but I see no comments confirming that this has been completed as part of the EAW

In Section 22 of the EAW on Vehicle Related Air Emissions. What is quoted from the greenbook is refers to air emissions in general. Diesel particulates are unique and more toxic. EPA has a guideline of an acceptable cancer level risk of 1/1 million. The current risk in Winona County is 1 in 22,418. Any increment will increase this risk. So it is of concern. The qualifier used states that the results were based on trucks built in 2009 or subsequently. If this EAW is accepted than all trucks used will have to be built subsequent to 2009 based on their modeling. Current clean diesel engines are markedly improved in their release of particulate matter compared to older vehicles. Do we have this confirmation that no truck older than 2009 is being used? Have they all been retrofit to 2013 standards as are the basis for their calculations. It needs to be part of the CUP if the estimates are based on this and this is allowed to go forward. Also it states that Ultra Low Sulfur Diesel is being used. Again there use of the quantifier

would require that this is part of the conditional use . We need to better know what the incremental increased risk is for diesel particulate exposure and this is not answered.

Stationary source air emissions starts to refer to the silica exposure. There are statements that the proposer "avoids breaking the sand grains" Since crushing happens with breaking up the sand clumps, the jaw crusher does create some of this. All sand is a mixture and contains the PM10 and below particles.

There is a description of the particle size within the soil which is of minimal health concern. There is mention of more silica small particles in the Lindstrom soils. The clay substrate of most soils keep these with any moisture from becoming airborne. The amount of silica in the air is what is important, not what it is in the sand itself, from a respirable silica concern. It is the activity on the soil with the movement of machinery as well as the jaw crusher, screening and the elevator.

It states that air quality monitoring is not necessary because the proposer lives within the boundaries. Do we exclude anyone because of a waiver? Health concerns are health concerns. We don't let employee's opt out of wearing a respirator while on the job site.

Regarding the restoration plan. It is mentioned that crushed bedrock etc are being placed back into this area of restoration. There is no mention of compaction of the soil, only of the grading of topsoil. There needs to be a plan to avoid voids to prevent settling over time with the minimal top soil replaced.

A MN DOT mixture may be acceptable for road ditches. There is a need here to restore topsoil. Prairie grasses and forbs are important for doing this. I would contend that rather than a mixture of non-native grasses and native grasses that fully native grasses should be required. Prairie Moon locally is a resource for this . Prairie Restorations Inc does these types of restorations if a company is desired to do so . There is a chance if this is taken care of properly that future generations could again farm this land. Prairie grasses have root structures that go 6 feet deep. Most non-native species have 6 inch root structure. With 2/3 of the biomass below grade native species are excellent at creating top soil. Also native species can remove 1 and ½ tons of carbon per acre. There is minimal carbon removal by non-native species.

Regarding Section 29 Cumulative Impact. This question is not answered but is skirted. It may be that the proposer cannot answer this. However this is an important component of any EAW. The best way of accomplishing this is a Generic Environmental Impact Statement. This puts the burden on the most knowledgeable people in the state to help us determine what is the net effect on diesel particulates. What is the net effect on Silica exposure and will draw up what is necessary to mitigate this with each site sharing a part of the burden. This cannot be done without more information.

Please call or contact me if more information is needed to support my EAW concerns.

Again Thank you and your staff for all the work involved in these and listening to citizen comments.

Best Regards,

Wayne L Feyereisn MD FACP

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Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 8:32 AM
To: Lew Overhaug
Subject: FW: Nisbit Sand Mine
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: kathy griffin [mailto:katehan53@yahoo.com]
Sent: Tuesday, February 19, 2013 6:58 AM
To: Jason Gilman
Subject: Nisbit Sand Mine

Dear Mr. Gilman:

I would to send you a note in support of the Nisbit Sand Mine. From what I've been reading, it sounds like the owners and their representatives have more than complied with whatever rules are governing the frac sand mines. I think that the frac sand industry is here to stay and we should not stand in the way of progress or regulate it out of existence. Why not embrace new innovation and a better economy in southeastern Minnesota instead of pushing it out.

Thank you,
Kathy J. Griffin
4325 8th St.
Winona, MN 55987

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 10:54 AM
To: Lew Overhaug
Subject: FW: Nisbit Mine EAW
Attachments: oledata.mso

for the files.

Lew:

Make sure you are keeping a complete file of this material as it comes in. It will serve us well to have this information well organized.

Thank you.

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



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From: Lommen, Elizabeth A., P.T.A. [<mailto:lommen.elizabeth@mayo.edu>]
Sent: [REDACTED] 1:46 PM
To: Jason Gilman
Cc: Jim Pomeroy; Wayne Valentine; Steve Jacob; Greg Olson; Marcia Ward
Subject: Nisbit Mine EAW

To whom it may concern,

An Environmental Impact Statement (EIS) should be required on the Nisbit mine because it has the potential for significant cumulative environmental effects in combination with other proposed frac sand mining, processing, and transportation activity in the immediate area and the EAW has no analysis of these potential cumulative effects.

The Nisbit mine could generate up to 280 truck trips per day between Saratoga Township and the City of Winona. That would mean one truck every 2.6 minutes on weekdays. The traffic impact analysis included in the EAW is inadequate. The EAW also does not sufficiently analyze the cumulative impact of traffic from this mine and other proposed mines in Saratoga Township and neighboring Pilot Mound Township, Fillmore County. Potential impacts of traffic from additional proposed mines in the immediate area also need to be studied.

The EAW contains contradictory information on how long the mine would operate and when reclamation would be completed. In some places the EAW states that the mine would operate for three years, but in other places the EAW states that frac sand would be sold for three years and operations for other purposes may continue for an unspecified length of time.

The EAW states that water for dust control will be purchased locally and brought to the site in tanker trucks. The exact source of this water and the amount to be used must be disclosed so that the impacts (especially cumulative impacts) on local water resources can be examined.

Sincerely,

Elizabeth Lommen

1303 Whispering Hills Drive

Saint Charles, MN 55972

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 10:55 AM
To: Lew Overhaug
Subject: FW: Regards Nisbit mine EIS
Attachments: oledata.mso

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Jerry Heim [mailto:jerheim@hbcsc.net]
Sent: [REDACTED] 2013 3:09 PM
To: Jason Gilman
Cc: Steve Jacobs; Jim Pomery; Greg Olson; Mena Kaehler; Marcia Ward
Subject: Regards Nisbit mine EIS

Dear Jason, Jerry and I have specific concerns about the EAW that has been submitted to you.

Our specific concerns are about the contradictory information on how long the mine would operate and when reclamation would be completed, where the water would come from for dust control, and the open-ended statement about additional activities. The water issue is of great concern to us because we live in St. Charles and feel the mining in that area can affect additional sinkholes which go to the watertable and can pollute our water supply.

For these reasons we feel that an Environmental Impact Statement should be required on the Nisbit mine. Also, the cumulative environmental effects from other proposed frac sand mining in the immediate area has the potential to increase the risk of contaminated water.

Thank you for your attention to these matters,
Jerry Heim and Darline Freeman

39

Low Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 10:57 AM
To: Low Overhaug
Subject: FW: Positive on sand mining
Attachments: oledata.mso

For the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Douglas Hull [<mailto:douglasnormanhull@yahoo.com>]
Sent: Tuesday, February 19, 2013 8:55 PM
To: Jason Gilman
Subject: Positive on sand mining

Dear Mr. Gilman,

As a resident and property owner in Winona, I wanted to voice a positive response to sand mining in our county. Sand is so innocuous, and the people that are complaining about sand mining will find something else to complain about when this issue is resolved. The small band of perpetual moaners are not a voice for the majority of Winona residents who are very busy working to provide for our families.

Thanks for your time and consideration.

Douglas N. Hull
1852 Edgewood Road
Winona, MN 55987
507-961-0189

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 8:31 AM
To: Lew Overhaug
Subject: FW: (no subject)
Attachments: oledata.mso

for the files...

Sincerely,

Jason Gilman, AICP
 Planning and Environmental Services Director
Winona County
 177 Main Street
 Winona County, MN 55987
 507-457-6337
 e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Jspelow@aol.com [<mailto:Jspelow@aol.com>]
Sent: [REDACTED] 2013 10:48 AM
To: Greg Olson; Marcia Ward; Jason Gilman
Subject: (no subject)

frac sand, a look into the future

1. Winona county can have 20 plus years of on going mining, or they can have hundreds of years of abundance, than what? Less than 1% of the residence of Winona County will benefit from the mines and 100% of residence will benefit from Mayo expansion.
2. I am a retired professional senior schedule systems analyst from IBM. My programs made vendors honest. No vendor could beat IBM for a dollar when my programs became corporate policy.
3. Mayo Clinic in Rochester, Mn. has informed of an expansion beyond \$7,000,000,000.00 This is a huge asset for SE Minn. including the city of Winona. This will go on for hundreds of years (not 20) We all in Winona county have to agree that this is for the benefit of everyone. Local mines will cripple Winona county for ever and the Mayo expansion will supply an abundance of income for ever. Think about this very serious.
4. A chemical filled toxic air is not for me. Just recently I was treated for a chemical overdose at a resort in Mexico. Their medical doctors were more than happy to treat me. I finally got released to fly home within 3 hours of return flight. All bills became the property of this 5 star resort immediately. Now for local mines extremely close to our farm, how will the mining owners (the company doing the harvesting of the mines) handle my immediate medical treatments. I personally want their contact information for the medical centers to bill them direct. I will be injured and treatment will be necessary. Air pollution will be related to my health injury. They or Winona County will pay. I ask the planning people and county commissioners to be certain what they are up against. Water problems are another issue and must be handled immediately such as delivery of drinkable water and other problems.
5. Pauline Connaughty has been very concerned of her health. She has similar health concerns of air pollution and we both ask for nothing more than our medical bills be paid immediately for injuries that we received plus be compensated for immediate miscellaneous costs arising from this injury. Be aware that any life long injuries will be taken care on a later date.
6. The original contracts are final as for ownership of the mine companies with no resale allowed. A bond must be posted to cover any and all expenses and be controlled by local government. Highway speed limits on country roads will

be enforced at 55 mph and following distance between vehicles strictly enforced at 200 feet, not 15 feet as I witnessed in Wisconsin plus an 8 hour truck driving time for each 24 hour day.
e-mails have been sent to Steve Jacob, James Pomreroy, Wayne Valentine Greg Olson , Marcia Ward, and Planning Director Jason Gilman
signed James Pelowski Saratoga township dated Feb. 14, 2013
Pauline Connaughty Saratoga township

41

Lew Overhaug

From: Jason Gilman
Sent: Tuesday, February 19, 2013 8:30 AM
To: Lew Overhaug
Subject: FW: Sand

for the file

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: Amy Berends [mailto:amyberends@gmail.com]
Sent: ~~February 15,~~ February 15, 2013 1:28 PM
To: Jason Gilman
Subject: Sand

I saw your email in this weeks press. I can imagine you get a lot of letters, emails and calls about sand mining and the mining plant. Officially I am on the fence. If the mining starts or the plant is built I trust that's because our elected officials, or those making the decisions have done so because they looked at all sides and deemed this appropriate to move forward. If it doesn't happen, again I trust the decision was made based on looking at all sides.

However, there is a group, maybe groups, and certain individuals that are very, very vocal opponents of this and I believe people are not able to see all aspects of this issue. I think it's becoming more difficult for those who need to make these decisions to see passed the noise of the very vocal. You cram enough down someone's throat and eventually they have to swallow regardless of weather they want to or not.

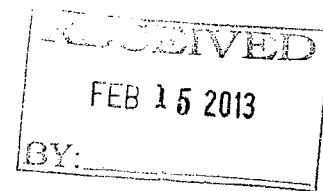
I'm all for bringing facts to light. But I'm a questioner by nature and Because i ask questions i have become dismayed by the "facts" that are being presented by the opponents to this.

I urge you to block them out as you decide on the nisbit mine or any other decisions related to this. Use your judgement and knowledge, not their opinions. This group has resorted to dragging reputations through the mud, lying and scare tactics. I don't come to this conclusion easily. However, after an editorial I wrote a few weeks ago people I don't even know have broached this subject with me. They have stated they signed the most recent petition but state they wish they hadn't. Many said they were misinformed on why they were signing....many were tricked to be scared because they were told they and their children were at risk for horrible diseases.....some said they hope it passes and those threatening to move do, they'll move to their houses near the mine, or will welcome not having them in our

town because they are sickened by how they are acting trying to oppose this, and some say the Amish are being misled and lied to by this group.

What I know is there are even bigger plants and mines in Australia that have been running since before I was born. Yet silicosis rates have dropped in that country. Why, because its an occupational risk not community. There is a mine and plant by the ocean and the Great Barrier Reef yet no talk of that area being poisoned. There is a beach in Florida made of silica sand.....there are rules and regulations in place here to monitor the mines/plants and impact on the community and environment. Change is hard. But if its necessary we will manage. Please just look at all sides. If you say no do so not because you were pressured to. That is my hope for all of this. That decisions will be made not because of being pressured or bullied into it but based on facts and truths. We can look back on history and see how the loud voices can manipulate people into believing what they want them to, but that does not mean those voices speak the truth nor do they always represent the people they say they do. If you speak the truth, if you fight cleanly, morally and with your honor and character intact, you win regardless...If you fight as they are now, and I believe they need to be called out, you lose regardless.

Sent from my iPhone



February 13, 2013

Lewiston, MN. 55952

Jason:

As a resident of winona county I want to express my feelings on frac sand mining. Gravel and sand mining has been in existence since I can remember. Especially the rock quarries many of them are all over Minnesota and neighboring states. Easy to identify large gouges out of the hills deep holes in the ground protected with large boulders in front of the deep excavated holes. Few places where sand has been mined are hard to find because of the few there are. My point is this it is OK to mine rock leave large unsightful quarries deep holes in ground and no complaints. Now we have individuals that have a chance to open sand mines which are going to be mined and when finished restored to better landscapes then they are now and everyone has objections. I say we have a chance to try something that will bring monies into the county why should we not try it. All the people complaining of mining sand are not experts and do not have enough information as to yes or no mining. Pollution? Any worse than anything else happening around? Probably not. I was at the coal mine in Wyoming and saw firsthand

the restoration that the mines did after the coal was removed and I could not believe how beautiful the landscape was improved. This can also happen with the sand mines. We are way too late for fixing all the ugly rock quarries. Winona should be the first county to get on with frac mining it is not something that if it becomes a problem to great to solve I am confident the people that write the permit will have the right wording where the mining can be stopped. We are not talking 1000's of acres we are be moving slowly and learning as we go. Kindly give this a chance and let it happen. We need a few farmers with dollars in the pocket because they will always spend them.

Richard Fischer

A handwritten signature in cursive script, appearing to read 'R. Fischer', written in dark ink.

RECEIVED

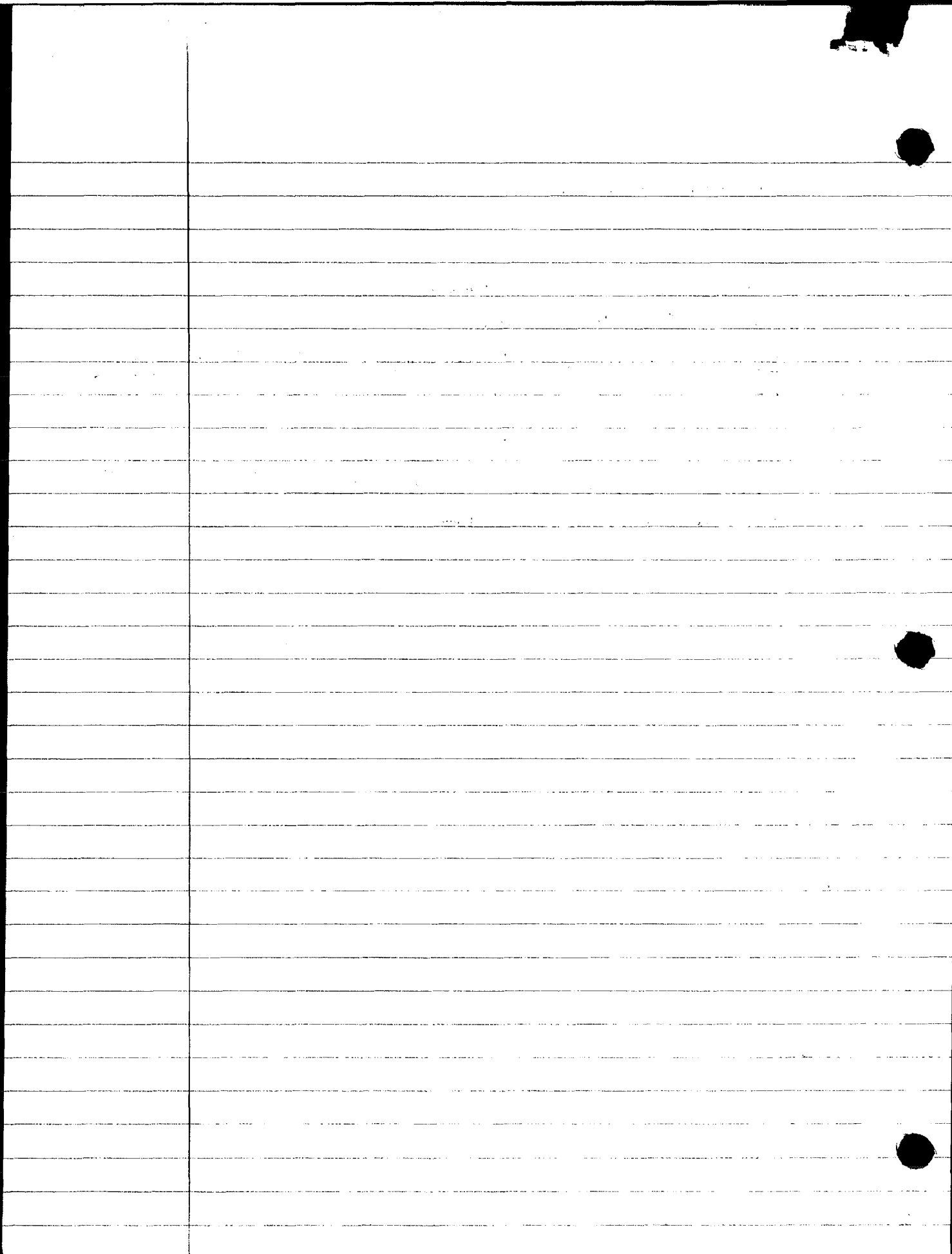
FEB 15 2013

BY:

Jason Gilman

We are absolutely opposed to the
140 Trucks per day using Hwy 33,
going through the Village of Utica
to access Hwy. 14.

Why can't they go one mile to
the East and use Cty. Rd. 111??
to access Hwy. 14??



44

RECEIVED
FEB 14 2013

Contact Information

Phone (507) 932-3663
Fax (507) 932-5537
Email sceditor@hbcsc.net
scpress@hbcsc.net

Opinions

Thursday,

Letter to the Editor

Leistikow

By Todd Stellmaker
St. Charles Press Staff

Think Positive

I have tried to stay out of this about frac sanding. There are just too many untruths being said about what will happen if we get a processing plant in St. Charles. First of all, I moved to St. Charles in 1966 and have lived in and around the city ever since. It was a great city to move to then, is a great city to live in now and still will be if we get the processing plant.

I'll start first with the sand, where do people get the idea this is so dangerous? It is just a different type of dirt. To name a few black dirt, sandy loam, clay, peat, sand, etc. I had some sandy spots on the farm and would grow just as good of a crop as black dirt if you get enough rain. By the way, it can be used in sand boxes. About the dust, all dirt will have dust if it is dry enough. I have worked the soil the better part of my life, starting out as a kid behind three horses and a three section drag. Walking, then to tractors with no cabs. So, I have walked and sat in a lot of dust in my lifetime and am still very healthy (so the doctors tell me). But the point is there will be no dust for anyone living in the city or around it. The trucks will be covered and the plant would be two miles out of town. Think for a moment about Rochester and Plainview with their canning plants. The product comes in by truck (same here), processed in an enclosed plant with water (same here), they then send most out by truck while we would be sending out by rail. Big difference there is, they are in city limits with homes all around the plants. I would have no problem living on Cherokee Road except that it is gravel and your car is dirty all the time, of which there will be alot more dust from the gravel road than you will ever see from the sand. We have men and women over seas fighting what they say is terrorists, and they are, but don't think for a minute that it isn't about oil also.

The least we can do is get behind MN Proppant, LLC that can produce a product that will help us recover more of our own oil and natural gas. The only thing I can see that might change for someone living in St. Charles is that you may have to wait 5 to 10 seconds to cross the street or pull out of a parking spot because a truck was going by, then smile and say to yourself we helped them get a job or maybe even save a life of a soldier.

There are two things that really bother me about the future. The first one is our national debt that we are passing on to future generations and the second is our use of fuel, gas, natural gas, diesel, etc. There is only so much down there and there is a way of recovering 75 to 80 % more of it, don't you think we owe it to them which is our grandchildren, great grandchildren and so on. If we think more positive, and not so negative, we can feel better about ourself and be a better community for it.

George Gilbert
St. Charles

Prior to the season Leistikow knew reaching career points was a possibility. The St. Charles senior en season with somewhere 500 points and would average over 18 points p to reach the milestone by of the season.

Little did Leistikow kn in November that he wou leading scorer in the Three Conference averaging 24 per game and he would r 1,000 point milestone games to spare on the And where 1,000 point possibility then - now th of becoming the school's leading scorer seems like

Leistikow's 1,000th po last week against R Peterson and with eigh to play on the season h average over 16 points p to pass Jim Siebenaler to St. Charles's all-time scorer.

"It means a lot," Leistol of reaching 1,000 points the start my dad would al out with me and I wou every day as a kid. I tol in my 10th grade year i going to be my goal, to 1 points. I'm glad I achiev

Leistikow has seen 1 change in the course of Last season he aver double figures and played a key role in the offense as a compliment to Will Swiggum. This year Swiggum has departed and

I would like to see the Misbit sand mine approved along with the Syden and Habelstein's I also would like to see the plant build in St. Charles. after I wrote this article in the paper I have got a lot of positive feed back from people thanking me for doing this

George Gilbert

45

Lew Overhaug

From: Jason Gilman
Sent: Thursday, February 14, 2013 8:10 AM
To: Lew Overhaug
Subject: FW: Nesbit Mine
Attachments: oledata.mso

for the file.

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Bert Mohs [<mailto:brmm84@msn.com>]
[REDACTED] 2013 7:44 PM
To: Jason Gilman
Subject: Nesbit Mine


In the Winona Post article today it indicates that if the Nesbit mine is operating we will have 280 more trucks per day driving by our house bordering Highway 14-we live in University Village. The number of trucks is already a problem and mainly due to the fact that so many use their engine brakes(jake braking) and many travel well over the speed limit-I have been driving down the hill many times and witness the speed at which they are moving.

It would be helpful if the City,County or State Law enforcement would spend some time checking speed and engine noise. However, I very seldom see them in this area.

In addition Knopp Valley Drive and Gilmore Road are very busy uncontrolled intersections and with the addition of 280 trucks per day they will become dangerous intersections. Has any thought been given to controlling those intersections with a 4 way Stop or traffic light.

Thank you for your consideration of my complaints-

Bert R. Mohs
84 College Road
Winona,Mn
55987
brmm84@msn.com

 <p>WINONA COUNTY SWCD (SOIL AND WATER CONSERVATION DISTRICT) www.winonaswcd.org</p>	<p>Winona County SWCD P.O. Box 39, 400 Wilson St. Lewiston, MN 55952 Phone: (507) 523-2171 Fax: (507) 523-3717 Weekdays 7:00 – 4:30</p>
<p><small>The Winona County Soil and Water Conservation District is a locally elected unit of government promoting soil and water conservation and environmental protection through landowner assistance, education and planning activities, coordination of public and private efforts and by serving as a forum on natural resource issues. AN EQUAL OPPORTUNITY EMPLOYER</small></p>	

February 12, 2013

TO: Jason Gilman, Winona County Planning and Environmental Services Director

SUBJECT: Nisbit Mine EAW Review.

I have reviewed the EAW for the proposed sand mine site for David & Sherry Nisbit, Saratoga Township, section 35. Below are my comments addressing the accuracy and completeness of information, and potential impacts that warrant further investigation:

Soils:

1. There is no data included in the EAW, and previously supplied data from soil logs and test pits does not support the statement that there is enough topsoil on-site to reclaim the site with an average minimum depth of 8" of topsoil nor does it support the claim to have 40-60 acre feet of topsoil.
2. The temporary restoration between stages of phase 1 and 2 (page 7) is good and necessary. However, the additional handling of the top soil will likely further deplete the amount of topsoil available for final restoration.
3. Although the restoration plan is to replace the B Horizon and then the A Horizon over that:
 - a) There is nothing in the EAW showing that the B horizon was saved.
 - b) Saving the B Horizon for restoration may not be practical or effective.
4. As stated in the EAW (page 32) the existing soils are "*thin*" with "*...rapidly permeable with low water bearing capacity and are prone to drought.*" Because of this and the potential lack of topsoil, the proposed seed mix for the final restoration of the site may need to be adjusted.

Erosion Control:

1. Preliminary plans look to address many erosion control issues. A Stormwater Pollution Prevention Plan (SWPPP) and Best Management Plan are discussed in the EAW but not available at this time, the SWCD will be available to review these if requested to do so.

Land use:

1. The Restoration Vegetation in the EAW (page 10) states "*final restoration for sand prairie grassland*" unfortunately the proposed MNDOT Mix 240 does not fit that definition. An alternate seed mix may be needed to fit the soil and moisture conditions after mining.
2. The MNDOT Mix 240 is far from the diverse prairies referenced in the EAW relating to the recent publication, A World in One Cubic Foot, by David Littschwager.
3. Although the MNDOT mix 240 has a couple minor components that are native species, 5 of the 11 species, not all are native to this area, nor can this be considered a prairie planting.

4. Although "*sand prairies or native plant communities*" were not discovered by the consultant (EAW page 25), numerous scattered remnant native prairie species were observed during the on-site investigation with Winona County Planning Department staff on 10-6-2011.
5. Based on the following information from the EAW that cites increased groundwater contamination potential, should cropland be an option for post mining land use?
 - a) Since the existing soils are conducive to rapid infiltration, should cropland be considered for reclamation, considering the lack of subsoils, organic matter, and potentially the lack of adequate top soil?
 - b) According to the EAW (page 39); "*Potential groundwater contaminant is high in Saratoga Township due to rapid infiltration.*"
 - c) The EAW continually points out that the site will be restored to grassland so there will not be the water quality concerns now found in row crops. Yet, the EAW also continually brings up the option of cropland for a post mining land use.
 - d) According to the EAW (page 30), fertilizers may be used in the restoration of the site to establish new turf. This is contradictory to other statements from the EAW that the threat to groundwater contamination is low because no chemicals will be used (page 39).
 - e) Restoring the site to an appropriate prairie seed mix would likely utilize no fertilizers.
6. No measures are being taken to minimize or avoid adverse impacts to Prime Farmland (page 54).
 - a) Although the EAW (page 48) states that according to item 16b, the soils on the site are not considered Prime Farmland, item 16b is not a complete list of the soils on the site. According to the soils report found in the EAW Appendix, there are actually 5 more soils not listed in item 16b, including approximately 1.1 acres of 301A – Lindstrom silt loam. 301A – Lindstrom silt loam is rated as "*Prime Farmland.*"
 - b) Is the loss of 13.24 total acres of cropland (1.1 acres of prime farmland) from this one site, and considerably more potentially lost from other mines and related pipelines, processing and rail trans-load facilities, consistent with goals and policies of Winona County and the Winona County Comprehensive Plan or Zoning Ordinance?

Wildlife and Habitat:

1. The EAW (page 23) states: "*Wildlife observed by the applicants consultant, Jeff Broberg, at and near the site includes: whitetail deer, raccoons, skunks, wild turkeys, pheasants and a variety of other small birds and mammals...*" With a list like this, the site was obviously significant for wildlife during the time of the consultant's observations.
2. Observations during the 10-6-2011 on-site investigation found a diversity of habitat, numerous wildlife species were also observed.
3. No measures are being taken to minimize or avoid adverse impacts to wildlife or the remnant short grass prairies. (page 54)
4. The Letter from MN DNR Division of Ecological & Water Resources, Correspondence # ERDB 20130115, Dated October 25, 2012 has many statements that warrant further consideration and/or investigation:
 - a) Although the equivalent letter for the other two current EAWs discusses reviews on or near those sites in 1993 & 1995, there is no reference of this site ever being reviewed.
 - b) This is not an exhaustive inventory so ecologically significant features for which they have no records may exist within the project area.
 - c) Their review only addresses known occurrences and there may be additional rare features present that they have no data on.
 - d) Further assessment or review may be warranted.

Potential Impacts That Warrant Further Investigation:

1. The EAW states that the proposed mine will not require a well or any other water appropriation (page 5). Yet, the EAW also states that one form of dust control for exposed soils, mining, stock piles, crushing, grinding, screening, haul roads... will be by water hauled with tankers to the site from a public water supply (pages 12 & 31).
 - a) With the recent history of extremely dry conditions, the soils prone to wind erosion & dust, and proposed land use expected to create dust, what is the estimated water use amount?
 - b) How many tanker truck loads of water will be needed?
 - c) How will this affect the public well?
 - d) Have these truckloads been figured into the traffic analysis?
2. How much "...chloride and/or other treatments..." (page 12) will be needed to control dust on haul roads with up to 280 trips per day possible?
3. According to the Geologic Atlas of Winona County, the rating for "*Susceptibility of the Groundwater System to Pollution*" is currently "*Moderate*" in some portions of the site, and "*Moderate to High*" in other portions of the site. What will the ratings be after mining?
4. Since the EAW repeatedly states that no farm chemicals will be used on this site, and that diversions will be installed to prevent runoff from surrounding land from entering the mine, why would the applicant propose to only test for nitrates and bacteria, and only test the Nisbit well? It would be a more meaningful test if many neighboring wells were tested, testing lasted for a much longer duration (before, during and after mining), and tests were for chemicals more likely to be used within the mine (fuels, oils, dust control...) or chemicals more likely to be found in the materials being returned to the mine after processing?
5. I would caution against putting too much emphasis on the MN Board of Water and Soil Resources' (BWSR) Environmental Benefits Index (EBI). Past experience with the EBI has been that it has some deficiencies for Southeast MN including:
 - a) On many sites, the soil erosion risk factor seems to fall short when considering the soil erodibility, slope, rainfall factor and observed erosion of those sites.
 - b) Water quality risk factor only considers surface water, not groundwater.
 - c) The EBI does not take Karst into consideration.
6. Increased sinkhole potential:
 - a) With respect to the area being rated as "*Low to Moderate*" sinkhole probability (page 23), what will the rating be after mining? Another EAW for a sand mine in almost an identical setting states: "*The mining will cause the area to be classified as a moderate to high sinkhole risk.*"
 - b) As stated in numerous locations in the EAW: There will be an increase in infiltration after reclamation. Unfortunately, this will also increase the potential for sinkhole formation.
 - c) There is a cluster of sinkholes less than a mile to the northeast of this site at almost the exact same elevation as the proposed extent of mining, 1,170 ft. (+/- 5 ft.).
 - d) The EAW states that the potential for sinkholes is low because of the lack of water features that would saturate or flood the subsurface, yet there are numerous references in the EAW that contradicts this claim:
 - 1) The cap rock of limestone and shale will be removed, increasing infiltration into the sandstone.
 - 2) The soils on the site have a high/rapid infiltration rate.
 - 3) The only runoff from the site will be during frozen ground or extreme rainfall events.
 - 4) The existing slopes that now exceed 30% will become 5% slope or less.
 - 5) The existing overall convex shape of the site will become concave.

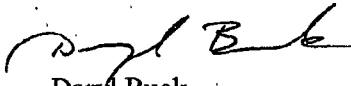
- e) How accurate is this statement from the EAW (page 27): *"Systems that allow pulses of infiltration in this landscape setting rather than ponded water have proven to be effective in avoiding sinkhole formation."*? In my 25 years of experience with the Winona County SWCD, the most common occurrence of new sinkholes opening have been following extreme rainfall events. Although there is a lot of runoff from these events, there is also a pulse or pulses of infiltration occurring.
 - f) Although the EAW discusses training and preparedness for both leaks and sinkholes, prevention is always the most effective Best Management Practice.
7. How accurate is the EAW (page 29) when it suggests that the time of travel for precipitation to reach ground water will more than double as a result of mining (5-7 days will become 12-16 days)?
- a) It is unlikely that the compacted limestone/shale rubble material leftover after a substantial portion is used for roadways, berms and site stabilization (page 28) will have a slower infiltration rate than the original, intact 3 foot thick shale cap.
 - b) The reduced distance for the water to travel before reaching the water table will shorten the time of travel.
 - c) The reduced distance for the water to travel before reaching the various karst feature conduits (fissures, cracks, crevices, caves...) will shorten the time of travel.
 - d) The increased infiltration rate and volume on the site due to the reduced soil structure, flatter slopes, and cap rock removal will likely create pulses of infiltration that in turn will create pulses of subsurface water movement, causing increased speed and volume of water into the groundwater/water table.
 - e) The EAW states in numerous other parts of the document that infiltration will be increased from the mining of the site.
8. Cumulative potential effects; other things that needs to be taken into consideration when determining the potential need for an EIS:
- a) Contrary to the statement on page 52 of the EAW, the County and the consultant for this project (McGhie & Betts Environmental Services, Inc) are aware of other proposed mining projects within Winona County. McGhie & Betts actually provided and/or developed many of the Figures attached to the EAWs for the other two sites.
 - b) Contrary to the statement on page 52 of the EAW, location, plans and details are known about these other proposed sites and are well documented in their EAWs that were posted prior to the posting of this EAW.
 - c) Although not finalized and not officially presented as an application yet, plans of a slurry injection facility, slurry pipeline and St. Charles trans-load facility are also well know and documented by the public information meetings by Minnesota Proppant and their consultant, and currently posted on the Winona County web site.
 - d) There is an expansive list of known discussed projects on pages 52 and 53 of the EAW.
 - e) What is the potential cumulative effect on neighboring well water quality and quantity with regards to the numerous discussed projects on pages 52 & 53 of the EAW when considering dust control for all the mines, stockpiles, crushing, grinding, drives, slurry pipelines, water recharge sites along the pipeline, processing facility...?
 - f) How will this potentially wide scale industry affect the "unique environmental area" of SW Winona County?
 - 1) According to the Winona County Zoning Ordinance (Chapter 11): *"The intent of the Natural Features Overlay Districts is to conserve the sensitive and unique environmental areas of Winona County..."*
 - 2) Although its focus was to include the critical geological and environmental attributes throughout the County, it failed to include this very unique environmental area that is

only found in SW Winona County and adjoining portions of Olmsted and Fillmore Counties.

- 3) This areas uniqueness seems to meet the reasons listed in Chapter 11.1 for a designated Natural Features Overlay District.
9. Since the processing facility receiving sand from this mine is likely to receive sand from other sources also, will the portions not utilized for proppant be hauled back to the mine site? If so, will each mine that provides sand for the processing plant only receive their proportion of materials coming back to the mine?
10. Considering the above comments and concerns: Is this project consistent with the Winona County Comprehensive Plan or Zoning Ordinance?

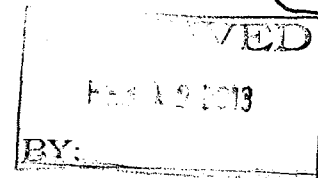
Because of the complexity of the issues and the ever-changing proposals, there may be potential issues I have missed in this review. If I have missed something or you have any questions, specific concerns, or would like clarification on points, I can be contacted for further consideration at the conservation office in Lewiston; (507) 523-2171 extension 112.

Thank you,



Daryl Buck
Winona County SWCD

Mikrut Properties LLLP
P.O. Box 485
Winona, MN 55987



February 11, 2013

Mr. Jason Gilman
Winona County Planning and Environmental Services
177 Main Street
Winona, MN. 55987

RE: Public Comment Nisbit/Roekamp

Dear Jason;

My company has been involved in frac sand handling for trans-loading for truck to rail for about the last two years. Ours is a small family operation with my wife, our son, daughter and their children.

We have done a considerable amount of research into the possible health hazards on handling frac sand. Thus far we have found no evidence of any inhalation risks in handling the sand. First of all sand is sand, what makes it suitable for fracking is its purity, size and hardness. This is only possible if the sand is removed from its original source. Once it is moved from the vein in the ground and it becomes mixed with other materials and organics it is no longer suitable for fracking. The sand that is suitable for fracking is round, very coarse, very hard and has no other materials mixed with it. These characteristics make it next to impossible to become air-borne. Also the fact that the moisture content of the sand is quite high makes it very unlikely to become air-borne. There was an air test done in Winona a couple of years ago and the technician testified that not even trace amounts of silica dust were found in the air samples. The concern for dust is a factor due to traffic. Driving on roadways not controlled for dust will cause fine materials to become air-borne. This issue must be addressed, not only for frac sand but any other traffic as well.

Another issue that seems to be of concern is with road damage. We have generated in excess of 200 truck trips a day to and from our facility, for a period of up to six months and have seen no evidence of road damage. Trucks pay Highway Use Taxes, License fees and fuel taxes. The jobs created will attract people to work here, live here and spend money here. It is my opinion that this industry presents no greater hazards than any other like industry and it should be permitted and monitored until everyone comes to the conclusion that it is a viable and compatible industry for our area.

Winona County should be welcoming this industry. This is a great opportunity to be part of "the evolving word" and be leaders not followers. We have to realize that our area is not going to thrive, prosper and be a great place to live or start a business if we just focus on tourism. We desperately need the economic activity to sustain our regional vitality.

Thank you for your assistance. If you have any questions, you may reach me at (507) 450-8883 or via e-mail at rvmikrut@hbci.com.

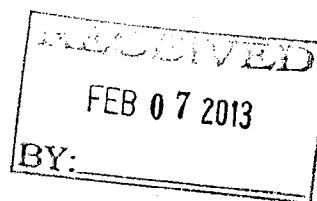
Sincerely,

Richard J. Mikrut

General Partner, Mikrut Properties LLLP



From: Laurie Sell <flowerpower@wildblue.net>
Subject: Frac mining of silica sand in Saratoga Township, Winona Co., MN
Date: February 4, 2013 2:43:05 PM CST
To: To Our Health



48



Local residents may cry, "Stop the Frac Attack!"
But there is no stopping.
Why stand we here idle?
Isn't breath so dear and clean water so essential?
As to be purchased by dirty deeds done dirt cheap?
Forbid it almighty God.
I know Ignorance, Complacency and Greed when I see it.
But as for me, protecting the biosphere will always be
a most highest priority.
I prostrate, petition, remonstrate and supplicate.
I have been spurned with contempt.
And yet I will protect our most precious Earth,
from those who wish to rape, plunder and pilfer her.
And leave nothing in it's wake to recover from,
only dirty scars, sickness and death.
Is this the land oh, Lord?
From sea to shining sea?
To watch slurry run from our hills and bluffs?
Or breath air once so crisp and clear,
now so vile, only to cause disease.
I stand upon what little land I steward
and ask God
to forgive them for they know not what they do.
Because I can't.

I stand firm in my conviction that this purposed
economic menace is an absolute infringement
On my Life, Liberty and the Pursuit of Happiness.

I am a Daughter of the World,

Laurie Saltzgiver Sell

Laurie Saltzgiver Sell

Content workings in order of appearance

Patrick Henry 1st Continental Congress of Virginia
Thomas Jefferson
David Suzuk
Jesus
His Holiness the Dalai Lama
AC/DC
Malcome X

We Don't Want T

So If You're Having Trouble Reading Our M:

YOUR PLAT & DIRECTORY" Which Is

We Want You To Take Full

Fairview Rehabilitation Services

Central Scheduling

Adult: 612-273-6228 Peds: 612-273-2897

fairview.org/rehab

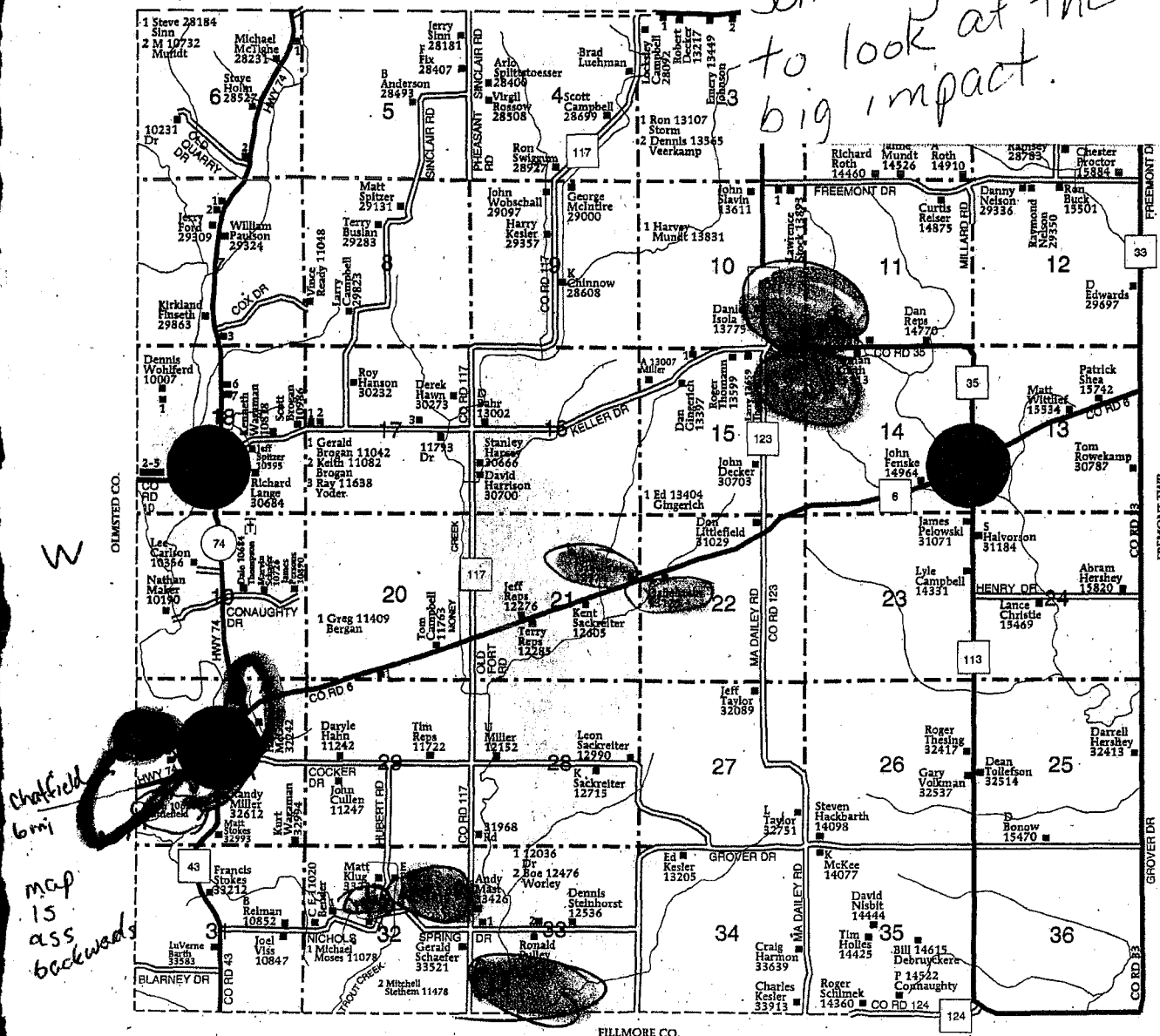
T-105-N

SARATOGA DIRECT

(Residents - Owners or Renters)

ST. CHARLES TWP.

too many
mines to count
Somebody needs
to look at the
big impact.



SARATOGA TOWNSHIP
SECTION 7

1 Martin, Clair 29131
2 Redcay, J 29135

3 Martin, George 10405
SECTION 18
1 Kjos, Kenneth 10095
2 Bush, John 10170
3 Reiman, M 10224

4 Mundell, J 10230
5 Henry, Lee 10298
6 Willson, Steve 30248
7 Willson, Dean 30258

We agree: the frac sand mining, processing and transportation industry is wrong for Saratoga Township and for the restored Village of Troy, NY

Name _____ Address _____ City _____ State _____ Zip _____ Phone _____ Email _____

Sharon L. H. Field 166 Jacee Circle, Sachin, MA 05972 938-57922 _____

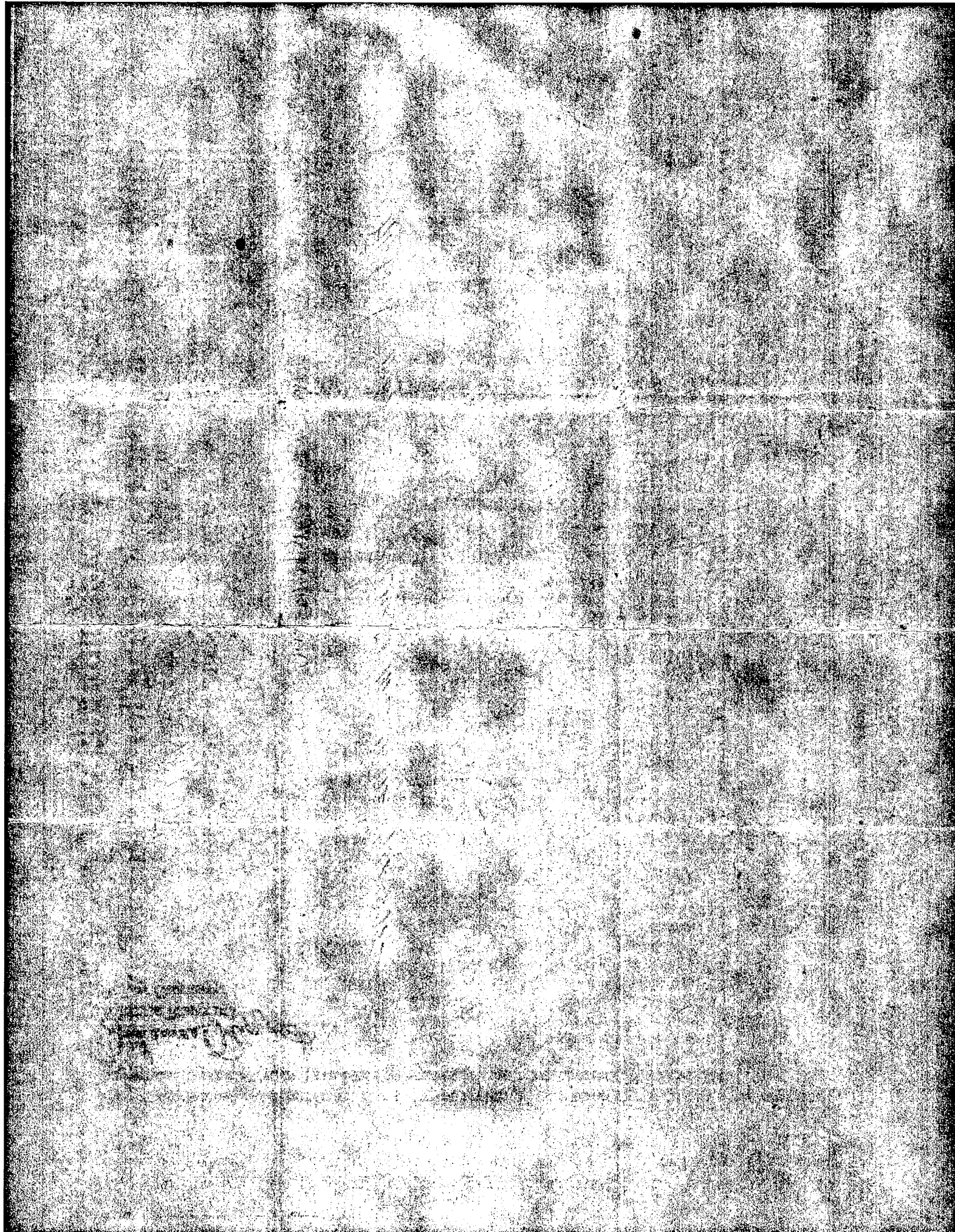
~~Donna L. H. Field 166 Jacee Circle, Sachin, MA 05972 938-57922~~

Pauline M. Klein 32442 E. 14th St. Cheney, WA 99004 938-4548

Charles M. Klein 32442 E. 14th St. Cheney, WA 99004 938-4548

Daniel Sell 10532 Taylor Rd. St. Charles, MN 55972 938-4681

Sharon L. H. Field 166 Jacee Circle, Sachin, MA 05972 938-57922 / 938-4681 / Sharon L. H. Field



From: Laurie Sell <flowerpower@wildblue.net>
Subject: Reasons why frac mining of silica sand in Saratoga Township, Winona Co.,MN USA is a bad idea
Date: February 4, 2013 10:47:49 PM CST
To: To anyone who cares



THE DIFFERENCE BETWEEN THE ENVIRONMENTAL PLANS OF THE TWO POLITICAL PARTIES AND WHERE WE NEED TO BE AND WHY We the people of the United States, voted for Obama, not Mc Cain in 2008, and again in 2012. The democratic platform won the election, a move toward greener energy like wind and solar is Obama's platform. The democratic platform stands in the truth that climate change is happening and the time is now to lower CO2 admissions. Eight Bush years of record oil, followed by republican/ Mc Cain platform "drill baby, drill!", same old, same old, and no regards for the environment, where not energy models the majority of American's wanted. Now, on a state level, we have voted overwhelmingly democratic, and with that comes the energy policy, again focusing on greener forms of renewable energy. So why in the world such a push for such a destructive, menace like frac mining. Who's pockets are being lined? Go where the money flows. It only takes one town hall meeting to see conflict of interest. Left hand buttering the right. It is such a disgrace and a total adulteration of our democratic process.

SILICOSIS Silicosis is a 100% preventable pulmonary (Lung) disease and the best place to leave silica sand particulate is in the ground undisturbed!! By mining and transporting this hazardous material down the highway, innocent lungs are being damaged when breathing in the dust. In the eye of the law, "Mens rea" applies. This is reckless and grossly negligence with strict liability. Silicosis is a real disease, nothing for debate. It has been known since the 18th Century. I have seen the damage first hand. I am now retired do to health reasons, but for 20 years I scrubbed in cardiac and thoracic surgery at the Mayo Clinic in Rochester, MN. When silica sand is breathed into the lungs, it is a lung irritant resulting in the formation of nodular lesions that continue to grow deep into the alveoli sacs of the lung. Even after exposure, like a grain of sand in an oyster, it grows and reduces lung elasticity. Decreased lung volume and poor air/gas exchange leads to shortness of breath, a harsh dry cough, difficulty in breathing, weakness, weight loss, and death. The fibrosis continues even after exposure and patients have a constant feeling of suffocation. Patients like me, with respiratory compromise already, are at increased risk, and once you get silicosis, there is tendency to develop TB and pneumonia. It's a gift that just keeps giving. There is clear and convincing evidence that exposure to silica dust causes silicosis. There are no cures, only a heart/lung transplant can save a patient's life. That is a six figure operation. Who is going to pay for all the respiratory care for all the new cases? This is called After Discovered Evidence. Who is going to be liable/responsible for all the health care attributed to this menace, not the mining company, they will be long gone by then. This one point alone makes it fiscally irresponsible to allow mining in Saratoga, or anywhere. How to tell if it's a good deal or not? If the front end fiscal gain only helps out a very few, only to be trampled by staggering health care costs and environmental disasters too enormous for a community/region to handle. That's how you tell, it's not a good deal for Saratoga Township. If it was asbestos, and knowing what we know about asbestosis, would you favor it's mining? FYI Respiratory failure has now moved into 2nd place as leading cause of death in US. Clean air to breathe, I do not ever take it for granted. Do you?

I do not want the frac mining industry to become my Advance Medical Directive, in other words, making my health care decisions for me. I don't want my ground water to be further compromised by removing the sand which works as a natural strainer. I don't want the outside air quality to become filled with silica dust. My lungs have already been injured by Agent Orange and DDT while my family lived on Guam during Viet Nam. I have been sick for several years, I do not take my health for granted. You people who have lived here all your life and no where else, take your water and air for granted. It is sacred. I have lived in many states and have seen, smelled and tasted poor air and water quality. I do not take my air and water for granted, and I think it only takes a few greedy capitalists to cause a huge environmental disaster for the rest of us to choke on.

Transportation of this silica sand, is currently being done in my area. The trucks are on Hwy 74 coming from Chatfield area. I see them out my kitchen window, the trucks have tarps on them, but the dust cloud follows the trucks, especially since we have been in a drought over the last year or so, the road dust is there. Is that tarp the

environmental protection that is going to keep the dust out of my lungs? It's a joke if it is. Some of the trucks are traveling too fast, they Jack Brake to slow down, however, my entire house, windows, and even my grandmother's dishes rattle from the reverberation of the truck traveling the bluffs of beautiful Troy. What noise pollution. Frac trucks are also traveling on Hwy 43 and they jack brake coming down that hill in Troy. The noise does not let up until dark, then the sounds of beautiful nature returns. I own the land and pay tax from the center line of Hwy 74, but no one has asked me if it's okay for these trucks to roll past and contaminate the air I breathe. Will and does the Apex rule apply? Look, I just want to go outside and garden. I don't want to have to come in because I am short of breath, because air quality is too poor. Where are my rights, not to be harmed by frac mining?

Now, the argument of people just wanting to make a dollar in this tough economy. I get it, I haven't worked at Mayo in five years. But, when it comes to our environment, and not have it as our most highest priority, is the most ignorant thing I have ever heard. Here's my opinion, "Go back to school, get yourself an education, and give back to society in some meaningful way! The money and blessings will flow in your life." But to answer the question to the ones who want to sell their land to mining, why don't you harvest all this renewable wind that blows around up here in the midwest? Every single one of those persons who want to sell to mining, they should become wind farm enthusiasts, small clusters of wind farms would generate co-op energy independence, for a grid system overloaded. And we can deal with a few bird collisions.


TROY Troy looks more beautiful than ever! We finally got our house painted. The Dog Patch and cottage are all dolled up and 'For Sale'. The D&R with Trout Unlimited totally restored Trout Run Creek, and is listed as one of the best trout streams for anglers. Last summer I met a man and his son from Alabama, who's wife/mother was having chemo therapy in Rochester. The father and son stole away some time together fishing. When they were done, they came over to tell me their blessings and said how beautiful and peaceful it was and for a while it made them forget their troubles. If more trucks start moving more sand, the noise will be such a nuisance and diesel smell and dust will make it unhealthy to breathe down in the valley near the stream. What a shame to have put several hundred thousand dollars into restoring Trout Run, only to have slurry run from the bluffs into it, once the digging begins.

To the Commercial Development Park at ST CHARLES & I 90 We don't want the biggest Frac Plant. I do believe it is a great space for a Holiday Inn Express Hotel and Oasis stop for travelers on I90. Not one hotel from La Crosse to Austin. If I were mayor, I would be meeting with every hotel chain I could. A nice hotel is so needed and so lacking for travelers. Then get a Dunkin' Donuts and a Farmer's Market, both would all be a great draw from the interstate & bring increase commerce to St. Charles, and a much needed business tax base.

Sincerely yours,


Laurie Saltzgiver Sell


Laurie Sell
10452 Troy Valley Dr.
Saint Charles, MN 55972-4103

507.932.4681 

49

Lew Overhaug

From: Mike Huth
Sent: Wednesday, February 06, 2013 9:32 AM
To: Lew Overhaug
Subject: FW: EIS
Attachments: oledata.mso; image003.png

From: Jason Gilman
Sent: Wednesday, February 06, 2013 7:58 AM
To: Mike Huth
Subject: FW: EIS

more...

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Doblar, Scott [<mailto:SDoblar@WinonaHealth.org>]
Sent: [REDACTED], February 06, 2013 6:56 AM
To: Jason Gilman
Subject: EIS

Hi Jason, I support a EIS study for the frac sand operations near St. Charles.

Concern over the amounts of chemicals used and that they will be returned to the borrow hole where the sand was removed, will percolate down into our water supply.

Respectfully, scott doblar 712 east king, winona

50

Lew Overhaug

From: Mike Huth
Sent: Wednesday, February 06, 2013 9:14 AM
To: Lew Overhaug
Subject: FW: Frac sand comment

-----Original Message-----

From: Jason Gilman
Sent: Wednesday, February 06, 2013 7:56 AM
To: Mike Huth
Subject: FW: Frac sand comment

more...

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US

-----Original Message-----

From: Jan And John Ruggeberg [mailto:coachrugg@yahoo.com]
Sent: ~~February 6, 2013~~ 2013 8:42 PM
To: Jason Gilman
Subject: Frac sand comment

>
> Because the effects of sand mining are a major environmental/health concern, we believe that the burden of proof is on the those involved in it to prove beyond a shadow of a doubt that it is safe. Not the other way around. When there is a potential for public harm, the producer and those who permit it, need to bear responsibility for it's safety up-front. Too often it seems that we are to wait and see if there are problems after the operation is running. At that time, producers may challenge accusations by responding "prove it". A complete Environmental Impact Study seems only reasonable.
> John and Jan Ruggeberg
> Winona
>
> Sent from my iPad

52

Lew Overhaug

From: Mike Huth
Sent: Wednesday, February 06, 2013 8:22 AM
To: Lew Overhaug
Subject: FW: An EIS is called for...
Attachments: oledata.mso; image003.png

From: Jason Gilman
Sent: Tuesday, February 05, 2013 8:51 AM
To: Mike Huth
Subject: FW: An EIS is called for...

for the files

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Rose Gurley [<mailto:rgurley@hbc.com>]
Sent: February 04, 2013 8:16 PM
To: Jason Gilman
Subject: An EIS is called for...

Dear Mr. Gilman - and Pertinent Decision-Makers Regarding the Frac Sand Mines Proposed in Winona County,

For the public good, it is important that due diligence is exercised before allowing the first frac sand mines to be OK'd in Winona County. It is not the citizens' responsibility to prove that the mines are harmful. It IS the government's responsibility to see that all aspects of this new industry is fully assessed before first mines are approved. Once the first are allowed, there will be no going back.

There's a right answer as to what next step is needed. And that is an EIS. The repercussions are too great for anything less than this thorough examination. The magnitude of this issue must be completely and thoroughly reviewed for the good of our current citizens - and future generations. Winona County citizens are counting on you.

Thank you very much,

51

Low Overhaug

From: Mike Huth
Sent: Wednesday, February 06, 2013 8:44 AM
To: Low Overhaug
Subject: FW: Frac Sand Mines
Attachments: oledata.mso; image003.png

From: Jason Gilman
Sent: Tuesday, February 05, 2013 1:08 PM
To: Mike Huth
Subject: FW: Frac Sand Mines

fyi

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Jan Beyer [<mailto:jankbeyer@hotmail.com>]
Sent: ~~February 05, 2013~~, 2013 9:43 AM
To: Jason Gilman
Subject: Frac Sand Mines

Hello Jason,

Without question, I believe Winona County should require an EIS. So many of us in the Saratoga, St. Charles and Utica area feel there are multiple concerns that need further consideration. Much wealth for a few at the potential expense of the health and well-being of many is not a democratic way of doing things. An EIS should be completed for the sake of all, including for the sake of our children and grandchildren.

Thank you for your consideration of my feelings and the feeling of SO MANY who do not speak up for numerous reasons.

I appreciate the fine work you do.

Jan Beyer

Rose Gurley

22505 Betty Jane Drive
Winona, MN 55987
(Hillsdale Township)
507-523-3113

53

Lew Overhaug

From: Mike Huth
Sent: Monday, February 04, 2013 1:16 PM
To: Lew Overhaug
Subject: FW: EAWS for Yoder, Dabelstein, & Nesbit mines
Attachments: oledata.mso

This comment is in regards to all three EAW's.
Mike

From: Jason Gilman
Sent: Monday, February 04, 2013 12:02 PM
To: Mike Huth
Subject: FW: EAWS for Yoder, Dabelstein, & Nesbit mines

fyi

Sincerely,

Jason Gilman, AICP
Planning and Environmental Services Director
Winona County
177 Main Street
Winona County, MN 55987
507-457-6337
e-mail: JGilman@Co.Winona.MN.US



Planning and Environmental Services

177 Main Street • Winona, Minnesota 55987 • 507.457.6335 (phone) 507.454.9378 (fax)

From: Dale Schauer [<mailto:dalevics@yahoo.com>]
Sent: [REDACTED] 2013 9:59 AM
To: Jason Gilman
Subject: EAWS for Yoder, Dabelstein, & Nesbit mines

I have some grave concerns over the cumulative effect of the Yoder, Dabelstein and Nesbit mines. In particular truck traffic needs to be looked at from a macro perspective. Along with a changing number of projected trucks, the routing of truck traffic crosses city, township, county and state roadways, making it a challenge to regulate. To make my point, lets use the City of Winona as a destination point. In addition to the three mines mentioned in Winona County, there are at least three proposed in Fillmore County and a proliferation of trucks from Wisconsin. The minimum and maximum number of possible trucks and the specific shipping routes should be known. Traffic studies need to be done for each of the entities impacted, city, township, county and state roadways. A determination needs to be made by each entity when added traffic levels should trigger predetermined action to address issues. Consider the six forementioned proposed mines; if each generated 100 truck trips to Winona a day, a minimum projection, that would total six hundred trips "oneway" or twelve hundred roundtrips. That equates to fifty trucks per hour to Winona; this does not take into account the trucks from Wisconsin. NOTE: this is if the traffic flow is evenly distributed over a twentyfour hour period AND I stress these are minimum projections. How is the County going to handle this amount of traffic? What routes will the trucks be traveling? Who and how will traffic be monitored? Who and how will dust from these vehicles be managed when they are coming from different places? What are the limitations for how many add'l mines and mine traffic can be

added? The cumulative impact and issue of truck traffic involves more than the County. A more indepth review is needed and an EIS (Environmental Impact Study) is recommended .

Lastly I would like to comment about the quality of life issue. The Mayo Clinic in Rochester is proposing a major. I mean MAJOR,expansion of its medical operations. To date we have people commuting from St. Charles and Winona to work at Mayo. This expansion has the potential to be a real growth factor in many areas for these bedroom communities.

However are people going to want to live in a mecca of frac sand activity (mining, transporting, processing etc.) or will they look elsewhere? I'd bet on the latter. I think a very serious indepth look needs to be taken at the impact and sustainability of frac sand mining on this issue.

Submitted by:

Dale V. Schauer

1620 49th Ave.

Winona, MN 55987

(507)452-9288

54

Lew Overhaug

From: Jason Gilman
Sent: Wednesday, January 30, 2013 2:57 PM
To: Lew Overhaug
Subject: FW: Nisbit frac sand mine

For the files

From: sramthun@chartermi.net [mailto:sramthun@chartermi.net]
Sent: [REDACTED] 1:52 PM
To: Jason Gilman
Cc: sramthun@chartermi.net
Subject: Nisbit frac sand mine

Dear Director,
The Nisbit mine is the 5th or 6th frac sand mine I'm aware of in Saratoga Township.

Each mine adds 300-600 truck trips per day to the roadways, along with sand dust in the air (mesothelioma-causing material), potential water table/aquifer contamination and degradation of the landscape.

Is anyone looking at the "big picture" of all these individual events added together? I'm very concerned that after all the mines begin work, damage to people and the environment will occur before any added regulations are in place. This will be too late as the damage is done and cannot be repaired.

Then there is the road damage and traffic accidents that will occur due to the sheer number of hauling trucks. A slurry pipe could be built but there are many downsides to having those potential-disasters crossing the landscape also.

It would seem reasonable that a slow, steady approach would be advisable for these mines so that we can evaluate issues (air quality, water quality, human impact). There should be an objective environmental study done before, during and after each mine begins work (probably Mn Dept of Health) and should be paid for by the mining company. Then, after several studies are complete over a period of years (and no bad issues found), added mines could be approved.

Sincerely,
Sue Ramthun
Concerned citizen
Rochester Mn



January 16, 2013-FOR IMMEDIATE RELEASE AND PUBLICATION

Contact: Winona County Planning and Environmental Services Department

177 Main Street

Winona, MN 55987

507-457-6335

Eric Johnson, Zoning Administrator (ejohnson@co.winona.mn.us)

Jason Gilman, Director (jgilman@co.winona.mn.us)

PRESS RELEASE

PUBLIC COMMENT SOLICITED FOR ENVIRONMENTAL ASSESSMENT WORKSHEET

Winona County, January 16, 2013: Pursuant to Minnesota Environmental Rules, Winona County is hereby announcing the release of an Environmental Assessment Worksheet for the following proposed project:

NISBIT QUARRY:

The Nisbit Mine is proposed on 19.1 acres in Saratoga Township, Winona County Minnesota. The primary purpose of the mine is to remove silica sand for export as industrial sand. Other uses include dairy bedding and construction footings. The sand will be hauled by truck on public roads to Winona.

Project Location: **County** Winona **City/Twp** Saratoga Twp
Part of the SW ¼ of the NE ¼ of Section 35 and Part of the NE ¼ of the SE ¼ of Section 35; ALL in Township 105N Range 10W
GPS Coordinates: 43°51'22.542"N 91°59'11.185"W
Tax Parcel Number David Nisbit – 14.000.2521
 Thomas Campbell – 14.000.2522

Important Notice: The Nisbit EAW will be published in the EQB Monitor, January 21, 2013 edition. Winona County (RGU) will accept written comment on these EAW's during this 30 day period until **February 20, 2013.**

Written comment may be made to the following address and contacts:

Winona County Planning and Environmental Services Department 177 Main Street Winona, MN 55987 507-457-6335 Eric Johnson, Zoning Administrator (ejohnson@co.winona.mn.us), or; Jason Gilman, Director (jgilman@co.winona.mn.us)
--

In addition, a paper copy of the EAW is available for public inspection at the following locations:

Winona Public Library
151 W. 5th Street
Winona, MN 55987

St. Charles City Hall
830 Whitewater Avenue
St. Charles, MN

Saratoga Township Hall
12835 County Road 6

Winona County Planning Department
177 Main Street
Winona, MN 55987

A copy is also available on the Winona County Website at CO.WINONA.MN.US under the Silica Sand Mining and EAW Documents link on the home page.

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form and EAW Guidelines are available at the Environmental Quality Board's website at: <http://www.egb.state.mn.us/EnvRevGuidanceDocuments.htm>. The Environmental Assessment Worksheet (EAW) provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. This project proposer must supply any reasonably accessible data for – but should not complete – the final worksheet. If a complete answer does not fit into the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project Title: <u>Nisbit Mine</u>	
2. Proposers: <u>Tom Rowekamp, CEO IT Sands LLC and David Nisbit and Sherry Nisbit (landowners)</u>	3. RGU: <u>Winona County</u>
Contact Person <u>Jeffrey S. Broberg, McGhie & Betts Environmental Services, Inc.</u>	Contact Person <u>Jason Gilman, AICP</u>
and Title <u>MN Licensed Professional Geologist Consultant to the Proposers</u>	and Title <u>Planning and Environmental Services Director</u>
Address <u>1648 Third Avenue SE Rochester, MN 55904</u>	Address <u>177 Main Street Winona, Minnesota 55987</u>
Phone <u>507-289-3919</u>	Phone <u>507-457-6337</u>
Fax <u>507-289-7333</u>	Fax _____
E-mail <u>jsbroberg@mcghiebetts.com</u>	E-mail <u>JGilman@co.winona.mn.us</u>

4. Reason for EAW Preparation:

EIS	Mandatory	Citizen	RGU	Proposer
Scoping _____	EAW _____	Petition <u>X</u> _____	Discretion _____	Volunteered _____

If EAW or EIS is mandatory give EQB rule category subpart number and name: _____

The EQB received a petition requesting an EAW for this project and designated Winona County as the RGU. This EAW has been prepared in response to the citizen petition to assist the RGU in making a

determination of potential significant environmental effects and in reviewing and assessing the application of a Conditional Use Permit, as required by Winona County Zoning Ordinance Section 9.10.

5. Project Location: County Winona City/Twp Saratoga Twp
Part of the SW ¼ of the NE ¼ of Section 35 and Part of the NE ¼ of the SE ¼ of Section 35; ALL in Township 105N Range 10W

GPS Coordinates: 43°51'22.542"N 91°59'11.185"W

Tax Parcel Number David Nisbit – 14.000.2521
Thomas Campbell – 14.000.2522

- The Nisbit property is 74.09-acres in size and is owned by David & Sherry Nisbit, 14444 Gathje Lane, Utica, MN 55979. The proposed 19.1-acre mine proposes to install 0.59-acres of new private haul road on the Nisbit site and another 0.77-acres for a new private haul road and driveway entrance on to CR 113 on the 96.77-acre Tom Campbell property to the south (11763 County Road 6, St. Charles, MN 55972), while utilizing 1.08-acres of the existing Gathje Lane for access. The total combined project size is 21.5-acres.

Note – acreages are from the Winona County GIS parcel ID's.

Tables included in the EAW:

- Table 1 – Soils Characteristics
- Table 2 – Annual Vehicle-related Air Emissions

Figures attached to the EAW:

- Figure 1 – County Map
- Figure 2 – USGS Map
- Figure 3 – Vicinity Map
- Figure 4 – New Construction
- Figure 5 – Existing Conditions
- Figure 6 – Phase 1 Proposed Operations
- Figure 7 – Phase 2 Proposed Operations
- Figure 8 – Haul Route
- Figure 9 – Final Reclamation Plan
- Figure 10 – Pre-Settlement Vegetation
- Figure 11 – 1940 Aerial
- Figure 12 – 1991 Aerial
- Figure 13 – 2010 Aerial
- Figure 14 – Hydrology Map
- Figure 15 – Environmental Benefits Index
- Figure 16 – County Well Index Map
- Figure 17 – Bedrock Geology Map
- Figure 18 – Depth to Restrictive Layer
- Figure 19 – Sinkhole Probability Map

- Figure 20 – Soils Map
- Figure 21 - Project Area Mines

Appendix attached to the EAW:

- Appendix 1 – Traffic Impact Analysis for Nisbit Sand Mine
- Appendix 2 – MnDOT Seed Mixtures
- Appendix 3 – NHIS Database Results
- Appendix 4 – County Well Index Well Logs
- Appendix 5 – Soils Information
- Appendix 6 – US EPA DEQ Air Emissions
- Appendix 7 – SHPO Letter

6. Description:

- a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*.**

The Nisbit Mine is proposed on 19.1 acres in Saratoga Township, Winona County Minnesota. The primary purpose of the mine is to remove silica sand for export as industrial sand. Other uses include dairy bedding and construction footings. The sand will be hauled by truck on public roads to Winona.

- b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.**

Proposed Project

The applicant portrays the proppant sand mining activity as a small scale / short duration activity on 20 acres lasting 3 years with a portion of the mine continuing to supply dairy bedding sand for local markets. The mine is located in Section 35 of Saratoga Township in Winona County, Minnesota located approximately 4 miles south of intersection of Winona CR 6 and CR 33 near the rural village of Clyde (Figure 1). The Project is located in a sparsely populated area where the topography and bedrock conditions expose high quality silica sandstone resources of the upper St. Peter Sandstone Formation (Figure 2).

Silica sand will be mined, transported and sold to the Brant Valley load out and sand washing facility in Winona where it will ultimately be screened by grain size and shipped out of the state for final use as a proppant for hydraulic fracturing of hydrocarbon wells. The operator estimates 80 percent of the sand will be transported to the Winona facility while 20-25 percent of the silica sand will be utilized locally for dairy bedding and construction uses.

Initial processing of silica sand will occur on the site by excavating the sand and placing it into a portable jaw crusher and portable screen designed to remove larger cemented stones and very

fine sand, but will be limited to the rapid sorting of large and fine materials. Silica sand of proppant quality will be truck hauled to an off-site location for washing, grain size sorting and final processing. The Nisbit project cannot address final sand washing or other processing, rail loading or interstate transport which will take place at an existing permitted facility in Winona that is not part of this project.

This mining operation is expected to last for two to three years at which time the site will be restored with existing overburden and returned to grassland or pasture.

The project is subject to the Winona County Zoning Ordinance as well as applicable County, State or Federal laws and regulations.

Property and Project Site Information

The 19.1-acre mine site is located in Part of the SW ¼ of the NE ¼ of Section 35 and Part of the NE ¼ of the SE ¼ of Section 35; ALL in Saratoga Township, Winona County Minnesota. The parcel lies on the north side of Gathje Lane, a dead-end private road that serves adjoining parcels. Gathje Lane enters CR 113 approximately 2.8 miles south of the intersection with CR 6/CR 124 and ½ mile north of the Fillmore County Line (Figure 3).

The Nisbit property encompasses 74.09-acres of agricultural land. The 19.1-acre proposed mine site lies on an east-west trending sandstone ridge that is agricultural land devoted to former pastured grasslands and row crops. Mr. Nisbit and his family live at a farmstead on the site and their home is located more than 850 feet west of the mining area. The farmstead utilizes a private water supply well. Six other parcels adjoin the Nisbit Mine (Figure 3):

- 1) Roger and Rita Baer, 30271 CR 109, Lewiston, MN 55952: 507-523-3194. A parcel to the northwest with a homestead 3,200 feet from the proposed mine. According to the Minnesota Department of Health County Well Index (CWI) there is a 500 foot deep, cased and grouted well on a small parcel adjacent to the Baer site (Unique No. 695896 in the NW/4 of the SW/4 sec 35, T105N R10W).
- 2) Rachael Boyum, 16172 Grover Dr, Utica, MN 55979: 507-875-2417. A 120-acre parcel east and northeast of the Nisbit Mine has an abandoned farmstead with no serviceable buildings. The CWI indicates no record of a private well. The farm is enrolled in the Agricultural Land Preservation Program.
- 3) Harmon Family Farms, 33639 Dailey Road Utica, MN 55979: 507-875-2417. A 105-acre parcel to the southwest is utilized as agricultural land. No farmsteads or wells are present on this property. The farm is enrolled in the Agricultural Land Preservation Program.
- 4) James Holien, 14425 Gathje Lane, Utica, MN 55979: A 5-acre parcel located 980 feet west of the Nisbit Mine has a farmstead with no record of a private well.
- 5) Craig Harmon, 33639 Dailey Road Utica, MN 55979: 507-932-3229. A 237-acre parcel to the west and southwest with a farmstead 3,200 feet west-southwest from the proposed mine.

According to the CWI the Harmon's have a cased and grouted well that is 490 feet deep with casing to 452 feet. (Unique No. 132675 in the NE/4 of NE/4 sec 34, T105N R10W).

- 6) Bill Debruyckere, 14615 Gathje Lane Utica, MN 55979: 507-932-0608. A 20-acre parcel to the south with an occupied residence more than 1,500 feet south of the Nisbit Mine. According to the CWI the site has a 420 foot deep cased and grouted well into the Jordan Formation. (Unique No. 641660 in the NE/4 of SE/4 sec 35 T105N R10W).
- 7) Thomas Campbell, 11763 CR 6 St. Charles, MN 55972: 507-932-4028. A 102-acre farm with no buildings or residents to the south and southeast.

The proposed sand mine is a dry bedrock ridge and there are no wetlands, water courses, major drainage systems or impounded waters within the limits of the proposed mine.

The proposed mine will not wash sand on site and will not require a well or any other water appropriation.

Winona County shows the property is currently zoned Agriculture/Resource Conservation. Extraction pits and mining operations are permitted in the A/RC zoning district when reviewed and approved as part of a Winona County Conditional Use Permit.

Infrastructure

The Nisbit parcel is served by a private road, Gathje Lane that is subject to private easements. Gathje Lane enters Winona CR 113 about ½ mile north of the Fillmore County line (Figure 3).

Sand hauled to City of Winona will leave the driveway, located on the Thomas Campbell property, turn right onto CR 113 and proceed east to CSAH 33, turning north (left) on CASH 33 and proceed north on CSAH 33 through Utica to US Highway 14. From this point turn east (right) on US 14 and proceed east through Lewiston and Stockton to Goodview Rd. in Winona entering the Brannt Valley load out and sand washing facility.

There are no pipelines, power transmission lines or other infrastructure on the parcel or on adjoining properties.

New Construction

Two private driveways constructed to a width of 24 feet will extend south from the mine site onto Gathje Lane from the western (0.46-acre) and eastern boundary (0.13-acre) of the mining area. From this point the existing private driveway, Gathje Lane (1.08-acre) will connect to a temporary private drive (0.77-acre) that will be constructed through existing cropland on the Campbell property. This drive will be constructed along the west edge of the existing right-of-way (ROW) of CR 113 and will extend approximately ½ mile south to a field drive entrance that connects to CR 113 (Figure 4). The private drive on the Campbell property was recommended by the applicant and agreed to by the Winona County Highway Engineer to alleviate concerns over site distances at the Gathje Lane/CR 113 intersection. The private haul road will be

designed for two-way loaded traffic and will be constructed of crushed rock and covered with crushed rock or recycled bituminous. The entry to the county road will be surfaced with recycled bituminous within the public ROW. Structured entrances or tire cleaning measures will be employed to mitigate potential tracking and dust from vehicles.

Empty trucks returning to the site will continue to use the driveway on the Campbell property which is a private driveway with easements granted to multiple parties that dictate the operations and maintenance. The applicant is proposing to maintain and improve Gathje Lane.

Additional new construction will be confined within the 19.1-acre mining area boundary and will consist of grading for stormwater control best management practices. Temporary perimeter ring berms, ring ditches and sediment basins will be constructed with on-site materials. Other temporary structures may include scales, scale sheds, crushers/screeners and a portable bathroom facility (port-a-potty). The mine will not require construction of any well, ponds or permanent structures for storage of equipment or materials. All operation management will be conducted in a temporary job trailer.

Operations Methods - Mining Sequence

The mining will be conducted in two phases.

1. Phase 1 (7.8-acres) proposes to extract sand from the top of a grassland ridge beginning at an elevation of 1,233 feet down to an elevation of 1,190 feet to existing pastureland (Figure 5). The mining will be conducted in three stages (Stage 1A, 1B and 1C) progressing from east to west (Figure 6). Temporary restoration will follow the mining once the working areas are 3 to 5 acres in size.
2. Phase 2 (19.1-acres) of the mining will extract sand from west to east in three stages (Stage 2A, 2B and 2C) from elevation 1,210 feet to a base elevation of 1,170 feet. During this phase sand will be mined along the north and south flanks of the pasture ridge in areas now devoted to row crop production. Permanent restoration will be completed as the working area expands to 3-5 acres (Figure 6 & 7).

Before mining activities begin the construction of mining infrastructure, soil stripping and installation of berms and sediment control features will be completed. This will include construction of truck access roads and the perimeter berm and ditch and sediment basins. The mining area will have top soil removed and reserved for restoration in stockpiles on the perimeter of the Phase 1 mining activity. Seeded and stabilized berms will partially screen the site while providing wind shelter for the working areas of the mine.

Phase 1

Phase 1 of the mine proposes to excavate in three stages from east to west covering approximately 7.8-acres beginning with Stage 1A (2.73-acres) and progressing to Stage 1B (2.73-acres) and 1C (2.32-acres) across the top of the ridge (Figure 6). Excavation will begin at an

elevation of 1,230 feet and mine down to an elevation of 1,200 feet (± 5 feet). During this phase the limestone and shale cap rock (overburden) that overlies the sand above the 1,220 foot elevation will be removed to access the sand. The applicants have indicated the limestone overburden materials have beneficial use as road rock and a portion of the limestone will be crushed and used for road base to maintain the private roadways that lead to CR 113. The remaining proportion not utilized for road rock will be retained, stockpiled and reserved for sub-grade materials to be used during the site restoration.

During Stage 1A a deeper 3-acre excavation located within Stage 1C will be made to the 1,170 foot elevation in order to extract the sand and create an area for placing overburden and fine sand waste. This allows the removal of the cap rock and creates a place to start the mine restoration with the overburden and rock waste.

Temporary restoration between the reclamation of Stage 1A-1C and the beginning of Phase 2 mining will involve slope stabilization, black dirt spreading and temporary vegetation establishment of Stage 1A and 1B in a timely manner, while not interfering with the mining operation. The final excavation of Stage 1C will be the starting point for Phase 2, Stage 2A.

Phase 2

Phase 2 of the mine proposes to excavate in three stages from west to east covering approximately 19.1-acres beginning with Stage 2A (6.6-acres) and progressing to Stage 2B (8.27-acres) and 2C (4.2-acres) where excavation will begin at an elevation of 1,200 feet to 1,170 (± 5 feet) at the base (Figure 7). Although Stage 2A and 2B are greater than 5-acres no more than 5 acres will be open in any phase per year. It is estimated that approximately 200,000 cubic yards per year will be mined in stages based on elevation.

Due to the topography of the mine site, there may be some variation in phase boundaries and stockpiling locations as the mine progresses. Variations in phase boundaries will not exceed 5-acres in size.

Measures will be taken continuously to keep any drainage internal within the mine boundary, a strategy assisted by the sandy, highly permeable substrate. The perimeter berm and swales will be incorporated to direct flow into proposed sediment traps.

Phase 2 will proceed from west to east from the 30 foot property line setback developing the finished 3:1 slope and mining to the target elevation. Mining operations will be similar to those described above for Phase 1. Upon completion of each phase, permanent restoration will be completed with the on-site soils and seeding and mulching will take place. Reclaimed phases will be returned to grassland as soon as mining operations do not conflict.

The mine operator proposes to restore the area to a grassland with perennial grasses and forbs for cover employing a final grading plan that takes into account the natural setting and erosion

mitigation. The landowners and mine operators are not proposing to restore the area to agricultural production; however, if future parties who own or operate the land after the CUP has expired seek to crop the land they must contact the NRCS/SWCD office for assistance on the proper procedures for returning the site to row crop production. Factors to be addressed for returning the reclamation area to row crop production are soil depth, topsoil depth and color, organic content of soils, nutrient content of soil and drainage upstream, within and downstream of reclamation area.

Site Access, Hauling and Hours of Operation

The existing access to the site is from CR 113 on the west on Gathje Lane, which lies south of the mining area. The access shall be shared with the existing house on the property and the neighbor who is located south of Gathje Lane. The access for the residence must be maintained at all times.

Haul routes to and from the site will be on County Roads, County State Aid Highways and US Highways capable of accommodating the maximum traffic. Hauling will avoid Township Roads and unpaved roads.

Haul routes must be approved as part of the Winona County Zoning (Conditional Use) permitting process and are subject to public hearing.

Plans are for access from CR 113 east to CSAH 33 north to US Highway 14 and east to Goodview Rd. at the Brant Valley load out and sand washing facility in Winona, MN (Figure 8). Proposed conditions require proper “truck hauling” signage per MnDOT standards. This is to ensure only the approved access sites are utilized for ingress and egress.

The mining activities propose to generate a total *maximum* of 280 truck trips per day (140 empty trucks in and 140 loaded trucks out). The trucks will have a one-hour round-trip per truck from the Nisbit mine to the Winona load-out. There will also be 6 employee trips per day (3 in and 3 out). This equates to 26 truck trips and 6 employee trips during the weekday peak hours (7:00 - 9:00 a.m. and 4:00 - 6:00 p.m.) for a total of 26 trips in and out during the peak hours. Plans have been developed to generate the total *maximum* truck trips of 280 per day may occur if market demand increases, however, at the current time mining activities are planned to operate with 10 trucks generating a total of 120 loaded trips per day and 120 empty trips per day.

All of the study intersections have been evaluated based on existing traffic and with 280 trips per day are forecasted to operate acceptably at Level of Service (LOS) B or better (where, LOS B represents stable flow with a high degree of freedom and LOS A represents light traffic flow or free flow conditions) with additional Nisbit Mine truck traffic. The “Traffic Impact Analysis for Nisbit Sand Mine” prepared by Wenck Associates, Inc. concluded that the CSAH 33/CR113 intersection has sight distance deficiencies, however, due to the very low traffic volumes physical improvements to the roadways to increase the sight distances are not justified

(Appendix 1). The proposer will install signage to alert drivers of hauling trucks. No road segments are forecasted to reach capacity with the additional truck traffic from the Nisbit mine.

According to the Winona County Zoning Ordinance Performance Standards (Section 9.10.3, Item 6) and recommended Conditional Use Permit conditions the proposed mining may take place Monday through Friday between the hours of 7 AM and 10 PM CST (13 hours/day) and Saturday from 7 AM to 12 PM CST (five hours). Permission from the County Zoning Administrator may be granted for operations beyond these hours to respond to public or private emergencies or whenever any reasonable or necessary repairs to equipment are required to be made. Mining will occur on the site year around, however, hauling is generally restricted to approximately 200 days per year excluding Saturdays and Sundays, holidays and during road bans or when temperatures are below 10°F. Hauling will take place Monday through Friday between the hours of 7 AM and 7 PM CST and from 7 AM to 12 PM CST Saturday. Hauling cannot be conducted during the MnDOT Spring Highway Weight Restrictions.

Extraction and Processing Equipment

Mining and on-site processing activities will include earth excavating, blasting, screening, crushing, and loading materials. Various types of heavy earthwork machinery principally backhoes, loaders and dump trucks will be used to strip and stockpile topsoil. Blasting may be needed for the removal of the limestone overburden at the beginning of Phase 1, but will not be necessary for the excavation and removal of the sand in future phases. Limestone overburden from the Platteville formation may be used for crushed aggregate for maintenance of roads and work areas and large flat rock would be suitable for landscape stone or for streambank stabilization projects.

Fine sand not used for industrial sand and construction materials will be used for dairy sand, local construction and mine restoration. Loaders and elevators will be used for loading of silica sand for export onto trucks. Periodic processing with portable crushers and portable dry screening may be used based on the grain size, quality and hardness of the materials encountered during the excavation.

Crushing and screening are proposed to be conducted on the site with portable equipment that will follow the working face. Crushers will be used when pockets or beds in the sand are well cemented and require disaggregation by crushing to separate sand grains. Dry screening will be utilized to sort out particles, clumps and grains larger than the #20 screen size and to separate the fine sand that passes the #70 sieve.

No washing, wet screening or final processing of excavated material will take place on-site. The material will be transported to another location for further processing by the purchaser.

Except for the two haul roads all excavation, stockpiling, equipment storage and on-site processing (crushing/screening) will be done within the proposed mining limits (Figure 4).

Sand stockpiles will not exceed 24 feet in height and elevators will be used to pile the sand for truck loading. Stockpiles will be active while the mining, sand excavation and load out is occurring.

Blasting

Blasting may be necessary to remove the Platteville Limestone cap rock off the ridge and to loosen any well cemented sandstone at the top of the St. Peter sand at the beginning of the mine operations. Based on other sand workings currently used for dairy bedding and based on the initial test pits and rock samples we do not anticipate blasting will be required. If blasting is necessary the owner and operator will retain professional and licensed blasting contractors who operate in accordance with all federal, state, county and township regulations. No explosives will be stored on the site. The blasting contractor will notify all adjoining neighbors in advance and identify the time and duration of the event. Vibration monitoring shall be done as necessary at adjacent homes and structures within ¼ mile of the proposed blast area.

Restoration Earthwork

Any overburden materials having no marketable value will be used to build the mine roads and backfill previously mined areas, especially along the finished slopes.

In Phase 1, the mining operation will dig to the target depth of 1,170 feet on the east end. A portion of Stage 1C will be excavated during this stage to create a 3-acre area to place overburden and unusable fine sand to begin restoration as the mining proceeds (Figure 6). The mining will proceed from east to west from stage 1A to allow for any overburden to be placed in the restoration area on the west end and along the perimeter of the Phase 1 mining area. This process will be continuous and ongoing from year to year and will proceed so that a 1.5 to 3.0 acre working area will remain open.

Areas depleted of sand for each phase will be temporarily restored with topsoil previously stripped from the site or derived from the slopes within the footprint of the mine plan. The topsoil will be re-vegetated with perennial grasses (pasture mix) until the Phase 2 mining progresses back over the area to recover the deeper sand.

The final slope along the eastern mine boundary will be a maximum of 3:1 leaving a mound along the east property line. The final restoration will place topsoil back over the mined area at an elevation that will vary from 1,165 feet (±5 feet) on the north to 1,170 feet (±5 feet) on the south creating a low profile ridge across the center of the site (Figure 9). The final reclaimed slopes will be stabilized with topsoil and will be seeded and mulched for restoration as a sand prairie grassland.

Restoration Re-Vegetation

The restoration plan is in two phase: 1) temporary restoration with a sandy area roadside mix and 2) final restoration for sand prairie grassland.

Phase 1 will be temporarily restored to re-establish topsoil and perennial pasture grass vegetation. Once restoration begins we would blade the topsoil originally removed from the hill back over the site to a depth of 8" to 1 foot and seed this area with a perennial grass mix MNDOT240 Sandy roadside mix at a rate of 75#/acre.

MNDOT Mix 240 Sandy Roadside	Comments	Bulk Rate lb/ac	% of mix component
Common Name			
Brome grass, smooth		9.7	13
Bluegrass, Kentucky "Certified park"		20.2	27
Bluegrass, Canada		9.7	13
Switch grass		1.9	2.5
Wheatgrass, slender		3.0	4.0
Fescue, hard "Reliant II"		5.3	7.0
Ryegrass, Perennial		15.0	20.0
Dropseed, sand		1.9	2.5
Bluestem, little	Requires minimum 50% pure live seed.	2.6	3.5
Red Clover		5.3	7.0
Prairie Clover, purple		0.4	0.5

Phase 2 final restoration will occur once the final depth of the mine is established at \pm 1,165 - 1,170 foot elevation. The restoration goal is to restore the site with a grassland forb mix as specified by MnDOT Seed Mix # 240 (figure 9). This restoration will occur after 3-acres of final mining has occurred and will involve pushing and blading the previously removed topsoil over the mined surface to a minimum depth of 8 inches. This will be followed by seeding with the same seed mix described above.

NOTE: Additional activities may be warranted due to site conditions, weather conditions or phasing limitations.

Final Reclamation

- 1) **Disposition of Structures and Roads.** All processing and mining equipment will be removed. The truck access road will be removed and returned to sandy prairie grassland. All private driveway accesses to residences and farm buildings will remain.

2) **Soil Re-application.** The soils will be replaced first with B Horizon soils and covered with the A Horizon (topsoil) to a minimum depth of 8 inches. The topsoil shall be replaced as uniformly as possible.

3) **Safety Assurances.** In order to control safety hazards there will be no public access to the mine. Access to the site for mine workers and truck drivers is located to provide appropriate vision for ingress/egress and internal logistics for the operation of equipment and circulation of trucks as they are loaded. The operation will follow Mine Safety and Health Administration (MSHA) regulations. The reclaimed slopes will be no greater than 3:1 slopes.

Dust control will be conducted with water, chloride and/or other treatments on the haul roads and water may be utilized on active working areas. Water will be purchased from a local public water supplier with existing water appropriation permits and will be hauled by tankers to the site.

4) **Seeding Plan.** The seeding of the mining site shall be done in accordance with "Standards for Stabilization Treatments." A standard MNDOT specified mixture of cool season, warm season grasses, and legumes described above will be used for both temporary restoration between Phase 1 and Phase 2 mining and for the final reclamation after the mining is complete.

5) **Future Use.** The property owner and mine operator intend to reclaim the land to a grassland. Following completion of reclamation and expiration of the Conditional Use Permit, the property owner will continue to maintain the grassland and will assume responsibility for future land use.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose of the project is to mine industrial silica sand, construction sand and dairy sand. The St. Peter Sandstone found across the site will be mined and sorted to obtain high quality industrial silica sand that is coarser than #70 (0.210 mm grain size) sieve size. Raw silica sand will be truck hauled to the Brannet Valley load out and sand washing facility located in Winona where it will be further processed (Figure 8).

The St. Peter sand is desirable for multiple purposes. The bulk of the coarse sand will be exported from the area for use in various industries ranging from proppant used to enhance oil and gas production and glass production. The remaining fine sand will be used locally as dairy sand and fill.

The mined material is subject to taxes/fees, including sales tax, which will provide a benefit to the State of Minnesota, Winona County and Saratoga Township. The mining will employ approximately 3 people working in the mine plus 10 truck drivers. Employment levels and hours of operation may be expanded for short periods if necessary to meet demand and will likely be reduced during the winter as temperature and weather reduce productivity.

- d. Are future stages of this development including development on any other property planned or likely to happen? ☐ Yes ☒ No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

- e. Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No

If yes, briefly describe the past development, timeline and any past environmental review.

7. Project Magnitude Data

Total Project Area (acres)	<u>21.5</u>	Area to be mined (acres)	<u>19.1</u>
	<u>NA</u>	Access roads (acres)	<u>2.4</u>
	NA		NA
Number of Residential Units:		Maximum Units Per Building:	
NA	Unattached <u> </u> Attached <u> </u>		<u>N/A</u>
Commercial/Industrial/Institutional Building Area (gross floor space):		total square feet	<u> </u>
Indicate area of specific uses (in square feet):			
Office	<u>NA</u>	Manufacturing	<u>NA</u>
Retail	<u>NA</u>	Other Industrial	<u>(mining) 19.1 acres</u> <u>(access roads) 2.4 acres</u>
Warehouse	<u>NA</u>	Institutional	<u>NA</u>
Light Industrial	<u>NA</u>	Agricultural	<u>21.5 acres</u>
Other Commercial (specify)	<u>Staging Area</u>	A level area will be graded for stockpiles, truck loading areas, turn-arounds and a scale. This area will vary in size between Phases 1 and 2; Phase 1 - Stage 1A (1.09 ac), 1B (1.06 ac) and 1C (1.13 ac) and Phase 2 – Stage 2A (0.92 ac), 2B (1.14 ac) and 2C (0.7 ac). In all situations these areas will be temporary as mining progresses and will be reclaimed when mining is complete (Figure 6 & 7).	
Building height	<u>NA</u>	If over 2 stories, compare to heights of nearby buildings	<u> </u>

8. Permits and approvals required. List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment

Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minn. R. 4410.3100.

Unit of Government	Type of Application	Status
Winona County	Conditional Use Permit	Recommended for Approval by Planning Commission. Requires final approval by County Board following environmental review.
Winona County	Driveway Access (change of use)	To be applied for
Winona County	Road Use Agreement	To be applied for
Minnesota Pollution Control Agency (MPCA)	Nonmetallic Mining and Associated Activities NPDES/SDS Permit	To be applied for

The Migratory Bird Treaty Act applies to this project and the applicant cannot conduct brush clearing or tree removal during the primary nesting season (May 15 – August 1).

Wood will be used for firewood or chipped for use as mulch on site and brush may be burned on site after receipt of a burning permit from the MN DNR.

Prior to the citizen petition for an EAW and during Winona County's 3 month moratorium on industrial sand mining a set of conceptual conditions of approval were considered which may be used in conjunction with the review and approval of conditional use permits for industrial sand mining. These preliminary condition are included in this EAW to provide information to the reader on the realm of considerations and mitigation measures the County may consider in conjunction with local permitting. The following is a list of the proposed conditions which may be ratified by the County Board as part of a conditional use permit process:

Proposed General Conditions

- 1) **An erosion control plan is required.** Owner/applicant shall provide the County with a detailed erosion control plan which shall mitigate erosion on neighboring property, wind erosion mitigation and finished conditions stabilization. All crushing and processing work must include watering/misting operations to minimize airborne particulate.
- 2) **Hours of Operation are restricted.** Hours of operation at the mining site shall be limited to those specified in the application and shall not conflict with the minimum requirements specified in Section 9.10.3(6) of the Winona County Zoning Ordinance. Additionally, there shall be no hours of operation on the following observed holidays: New Years Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day.
- 3) **Setbacks are required.** Mining operations shall not be conducted within 1,000 feet of an existing residential dwelling or within 50 feet of an existing well. The principal owner of the

proposed mine site may submit a written consent letter to the County, waiving the 1,000 foot setback requirement, however, no home shall exist within 300 feet of a proposed mine and no waiver shall be granted for less than a 300 foot setback. The County reserves the right to impose greater setback restrictions on a case by case basis, where necessary to mitigate adverse impacts on neighboring land uses.

- 4) **Air Quality Monitoring.** In cases where residential homes exist within 1,320 feet of a proposed mining site, the owner/applicant shall be responsible for the costs of air quality monitoring by a professional selected by the County. Air quality standards shall not exceed a maximum allowable limit of 3ug/m³ levels. If these levels are exceeded, mining operations shall cease and be required to take necessary precautions to minimize airborne particulate. The operator shall be required to monitor the ambient level of airborne particulate matter of 2.5 microns in size (PM_{2.5}) and Total Suspended Particulates (TSP). If the air monitors show an exceedance of 35 micrograms per cubic meter of PM_{2.5} in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize PM_{2.5} emissions. If the air monitors show an exceedance of 150 micrograms per cubic meter of TSP in any 24 hour period, the operator shall evaluate and implement additional best management practices to minimize TSP. The operator shall compile a quarterly summary of monitoring results report within 10 days of the end of each month that shall be available to the County Board. A minimum of 3 scientific approved air quality monitors are required in active mining areas available for staff review and data collection at all times. Type/brand of monitor will be pre approved by all parties. Air Quality Monitors shall be placed on the downwind perimeters of the land disturbance area and separated by a minimum of 100 feet.
- 5) **A Fugitive Dust Plan Is Required.** Owner/applicant shall submit a comprehensive plan to control fugitive dust on the site and during hauling operations. Access drives, shall be watered and/or conditioned regularly to minimize dust at all times. A tire wash system must be installed at the mine site to minimize migration of sand and dust to adjacent roadways.
- 6) **Stock piles.** All stock piles shall be kept below 24 feet in height except where stockpiles are covered to prevent wind erosion or where stockpiles are regularly watered to prevent surface areas from drying out and becoming susceptible to windborne erosion or where stockpiles are protected by excavated banks, preventing windborne erosion. All stockpiles shall not encroach upon any easement, roadway or driveway and shall maintain a minimum setback of 30 feet as required in Section 9.10.3(4) if the WCZO.
- 7) **Water Quality Monitoring.** The mine operator/owner shall install groundwater monitoring wells adjacent to the proposed mine site where the site is within 1,320 feet of residential plats or suburban development, springs, sinkholes and/or wellhead protection areas or community wells and shall provide the County with groundwater testing by an independent

environmental engineer, approved by the County, at the time of commencement of disturbance activities and twice per year until 1 year after the mine has been completely reclaimed.

- 8) **Wetland Permitting.** No mining operation shall affect existing wetlands either on site or adjacent to proposed operations without the proper permitting.
- 9) **Prohibited Activities.** Blasting, milling and crushing shall not be permitted at the mine site, **except** by specific Planning Department approval with specified time limits and mitigation of airborne particulate. Applicants intending on blasting must submit detailed information as to the frequency, duration, schedule and vibration standard/thresholds for review and approval by the County Planning Department as part of the initial Conditional Use Permit submittal for Public Hearing review. If approved, all crushing and processing work must include watering/misting operations to minimize airborne particulate. Blasting will be allowed up to 3 times per calendar year. Neighborhood notification will be sent to all property owners within a ½ mile radius of the blasting activity.
- 10) **Noise Levels Restricted.** Owner/applicant must conform to all County ordinances with regard and noise level thresholds.
- 11) **Lighting / Glare.** Lighting shall be hooded with cut-off style refractors and controlled in some manner as required in Section 9.1.7 of the WCZO.
- 12) **State BMP Guidelines.** Owner/applicant shall use the Minnesota Pollution Control Agency's Environmental Management Best Management Practices used as a guidance tool and reference document.
- 13) **State and Federal Requirements.** Owner/applicant shall abide by all local, state and federal regulations, including Mine Safety and Health Administration standards. All applicable permits shall be placed on file with the County prior to the commencement of mining operations.
- 14) **Project Manager/Contact Person Required.** Owner/applicant shall at all times have an agent whose name, fax number, telephone number/cellular number and email address are on file with the County and Town Clerk in order to respond promptly to concerns. The agent's name and contact information shall be available on site on a 2' x 3' placard or sign at the site entrance adjacent to the public right of way entrance.
- 15) **MPCA Fuel and Hazardous Materials Storage Rules.** Owner/applicant shall follow Minnesota Pollution Control Agency regulations for Fuel and Hazardous Materials Management as applicable on site.

- 16) **This conditional use permit shall** be valid based on the owner/operator's conformance with the conditions specified herein and the applicable provisions of the Winona County Zoning ordinance. Winona County shall hereby have the right to conduct an annual performance review to assure conformance with the above stated provisions and to determine if corrective action is required including but not limited to permit revocation.
- 17) **Violations and Penalties. Owner/applicant/operator is hereby notified** that violation of the conditions of approval may result in the execution of a stop work order, bond withdrawal, legal action or any combination thereof until such violation is permanently corrected.
- 18) **Requirements Prior to Mining to be Satisfied.** Commencement of land disturbance and/or mining activity shall be prohibited until all required submittals and above stated conditions are met and approved by the County. It is highly recommended that the applicant provide the County Planning Department with a schedule of submittals and answers matching the conditions of approval and the timing of each submittal.

Road Use Conditions

- 19) **A Road Use Agreement is Required.** Owner applicant shall be required to enter into a road use maintenance agreement with Winona County which shall specify the owner/applicant's responsibilities with regard to road maintenance costs based on the life expectancy of the quarry including but not limited to:
- Temporary posting and signage
 - Cracking
 - Sub base
 - Drainage
 - Surface conditions/distortion
 - Ride quality
 - Shoulder maintenance
 - Replacement costs based on pavement rating at the time of commencement of mining operations.
- 20) **Access Permit.** Owner/applicant shall obtain an access permit from the County for where mine traffic enters or exits onto a County highway. In addition, the owner/applicant shall obtain all required local permits for access to Township roads and shall place the same on file with the County.
- 21) **Tracking Pad Required.** The owner/applicant shall be responsible for paving the approach to the county road for a minimum distance of 40 feet from the shoulder of the county road

with asphalt. Tracking pads and tire washes shall be reviewed and be part of the fugitive dust plan for control of dust/tracking.

- 22) **Traffic is Limited by the Permit for Due Process Considerations.** The quarry operation shall not exceed 140 loaded trucks per day during normal operations, except as permitted by the County for short term operations which must be defined at the time of the conditional use permit review and approval. Any exceedance of 140 loaded trips per day shall be immediately disclosed to the County for review.
- 23) **Amendment to Traffic Levels Requires Review.** Requests to re-evaluate average and maximum daily-loaded trips in order to adjust annual road maintenance fees may occur two years or beyond subsequent to the initial start up of the sand mining operation, subject to the County Highway Engineer approval. This condition shall be applicable where annual average traffic volume increase by 10% or more.
- 24) **Seasonal Road Closures Apply.** The County reserves the right to restrict or close roads during spring-thaw periods or when otherwise warranted to prevent damage, and to close roads when the conditions are deemed unsafe.
- 25) **Reporting Vehicle Weights.** Owner/Applicant shall be required to identify a method of positive controls regarding the weight of vehicles leaving the mine and method to insure vehicles do not exceed the weight limits of the roads and bridges upon which they will travel, and obtain approval by the County Highway Engineer on the methods and frequency of inspection used. Controls such as scales and regular reporting on vehicle weights shall be implemented with minimum quarterly reporting to the County Highway Department in conjunction with road use agreement reporting requirements.
- 26) **Street Maintenance and Sweeping Required.** Owner/applicant shall be responsible for monitoring roadways and roadway sweeping as necessary to maintain safe conditions. All transportation routes used by the mine shall not have any accumulation of visible debris or sand from the mine site. The owner/applicant shall take all necessary precautions to avoid spillage on Winona County roadways.
- 27) **Requirement for Secure Loads.** No vehicle shall be driven or moved on any roadway unless such vehicle has the load securely covered as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping from vehicles.
- 28) **Traffic Impact Analysis Required.** Owner/applicant shall be responsible for the preparation of a traffic study indicating any required improvements for ingress and egress, vision/sight lines and traffic control within a service area defined by the County Highway Engineer. Owner/applicant shall be responsible for the cost of said improvements upon review and

approval by the County Highway Engineer-prior to the commencement of mining operations.

- 29) **Local Road Use Agreement with Township Required.** The owner/applicant shall be responsible to enter into a road use agreement with the Township for the use of any local-township road and shall be responsible for maintenance and repair of any damage resulting from the proposed mining operation.

Reclamation Conditions

- 30) **Reclamation Plan Required.** A complete and detailed reclamation plan shall accompany all applications which meets or exceeds the requirements of Section 9.10 of the WCZO. The plan shall be prepared by a qualified professional with proper credentials for reclamation plan preparation, specifying the following:

- A systematic approach to land reclamation for the mining site, including phases and schedule for reclamation with no more than 5 acres open in any phase per year. The County reserves the right to review the conditional use permit annually to enforce compliance.
- Proposed land use after reclamation activities are completed-Reclamation plans for sand mining sites shall include a land use/cover plan equal to the actual land use/cover types previous to mining operations. Areas intended for post-mining agricultural uses must approval by SWCD for best management practices.
- Inactivity at the mine site shall require reclamation in accordance with the terms of the NPDES permit. NPDES permit shall be placed on file with Winona County before extraction/mining operations commence. Inactivity shall be defined as when an operator of a surface mining operation has curtailed production at the site/operation with the intent to resume at a future date, for a period of one year or more by more than 90 percent of its maximum annual mineral production.

- 31) **Subterranean Engineering Analysis Required.** Owner/applicant shall submit an analysis prepared by a qualified independent engineering firm of the existing geologic conditions both in the extraction area and sub-extraction area and the impacts of the mining operations, including the applicability of the reclamation plan including any potential adverse affect on area hydrology, springs or Karst formations. The County reserves the right to have this data reviewed by state geologists/hydrologists and/or SWCD and NRCS staff.

Financial Guarantees

- 32) **Performance Guarantees Required.** Performance bonds shall be required for the following:
- 110% of the estimated cost of reclamation for a period equal to the life of the quarry plus 2 years. Performance bonds for reclamation may only cover the areas of disturbance for the duration of mining activity and may 'roll' with disturbance activity accordingly in order to minimize financial burden on the applicant.

- 110% of the estimated cost of the roadway maintenance agreement requirements for a period of 5 years.
- A performance surety shall be provided in the amount of \$1,000 per acre for the total proposed site disturbance. The surety shall be used to reimburse the County for any monies, labor, or material expended to bring the operation into compliance with the conditions of the permit.

Environmental Review

33) An EAW or EIS May Be Required Before CUP Application Acceptance. Discretionary environmental review can be initiated by the Planning Commission and County Board. The Owner/applicant shall provide an Environmental Assessment Worksheet for the proposed site in accordance with Winona County standards.

Miscellaneous

34) Transferability/Severability. These conditions shall apply to all heirs, successors and assigns and shall run with the land until such time as the conditional use permit is modified, amended or terminated.

35) Proof of Authority Required. The applicant shall provide the County with a notarized document assigning representation and proof of ownership of the land and mineral rights for an application to be processed.

36) The applicant will work with the independent school districts along the proposed haul route each year to identify bus stop locations in order to reach a mutual agreement to avoid potential traffic hazards.

37) The petitioner meet with the Planning Commission as a courtesy to report that all conditions and permits have been acquired prior to commencement of mining activities.

- 9. Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.**

The proposer has assessed historic land use using a variety of sources including:

- Minnesota Department of Natural Resources (MNDNR) County Biological Survey which shows no significant biodiversity sites on or adjoining the proposed mining area.
- Land cover and “bearing tree” maps from the 1846-1908 Public Land Survey with pre-settlement vegetation indicated the Nisbit Mine was prairie before the passage of the Homestead Act of 1862 where the majority of land in Winona County was plowed for agricultural production (Figure 10).

- The 1927 Winona County Atlas – Plat Book and Rural Directory of Winona County, Minnesota indicated Section 35 of Saratoga Township was divided between 70-120 acre parcels.
- Historical review of the 1940, 1991 and 2010 aerial photographs showed the Nisbit Mine was utilized for agricultural purposes (Figure 11, 12 and 13).

During the early agriculture history of the Nisbit area from 1880 to 1920 cropland was dominated by small grains (oats, wheat, barley), hay or pasture lands worked with horse driven equipment. As farming became mechanized with tractors and combines, corn began to dominate the cropland in the 1930's. With the advent of chemical nitrogen fertilizers after 1950, cropland was planted in a hay, oats and corn rotation. Soybeans were introduced to more widespread cultivation in the 1970's and hay and small grains began to diminish. Currently, the cropland is dominated by a corn and soybean rotation that relies on heavy nitrogen fertilizer inputs and the use of chemical herbicides.

The Nisbit sand ridge was cultivated for small grains with pasture on the steep south facing slope until approximately 1940 when air photos show small grains and pasture on the ridge. Currently, pasture fencing surrounds two areas currently not in row crops. The vegetation is typical of areas formerly cultivated to row crops and utilized as sparse pastures.

The site is currently zoned Agricultural/Resource Conservation (A/RC). Current and recent land uses are/were agricultural in nature with row crop and pasture lands located within the property. These are the same uses as all adjacent lands. Mining operations will be located within the cropland and pasture lands. There is no evidence indicating that there are, or have been environmental hazards, other than the factors common to row crops such as groundwater contamination from agricultural inputs or from soil loss and erosion.

The project is a temporary use that the proposer indicates is a small scale / short duration project for proppant sand that will not continue indefinitely. Once the mine site is reclaimed, the property will again be restored to grassland.

Winona County's Comprehensive Plan's Goals and Policies (p. 17, Development Goals and Policies) indicates the promotion of protection and preservation of agricultural lands by limiting non-agricultural development in agricultural areas. Although extraction of mineral resources has been a historic land use attributable to agricultural areas, industrial mining on a larger scale must be considered when altering land use patterns, specifically the removal of prime agricultural lands from crop production or pastures. While it is important to recognize that the proposed mining area is largely in crop production and a portion in brush/pasture, this will be an important consideration of post-mining reclamation.

Citizens along the described haul route from Nisbit to Winona have expressed concern that heavy truck traffic associated with industrial mining has the potential for causing a significant decrease in

property values. According to the applicant three factors make it improbable that property values will be negatively impacted:

- The number of trucks proposed does not trigger the need for land acquisition for roadways and is not expected to exceed the capacity of County or State roadways.
- The Nisbit project creates a temporary traffic impact. According to the applicant the project will deplete the proppant sand in approximately three years under current market conditions. At the end of proppant sand mining traffic will decline to one or two trucks hauling a small number of loads weekly to satisfy the local demand for dairy sand and construction materials.
- The applicant has also cited the fact that property values in close proximity to highways already take into account affected values, both positively and negatively, based on the proximity to the roadway, roadway type, traffic and surround land uses.

On October 2, 2012, the Winona County Planning Department staff addressed land values in describing and recommending approval of the Nisbit CUP saying that *"The Planning Department has addressed this concern with the County Assessor's office and the findings are inconclusive; that is; it is nearly impossible to measure value loss given the sporadic distribution of similar properties on the route and the means of evaluating loss of value through comparable sales data. It is important to note, however, that homes situated near busy roadways are known to have potential value differences than like homes in other locations according to the Assessor's office."*

10. Cover Types. Estimate the acreage of the site with each of the following cover types before and after development:

Nisbit	Before	After		Before	After
Types 1-8 wetlands	0	0	Farm sites/lawn	0	0
Wooded/forest	1.76	0	Impervious Surfaces	1.08	1.54
Brush/pasture land	4.1	19.1	Stormwater pond		
Cropland	14.6	0.9	Other (Right of Way)		
			TOTAL	21.5	21.5

If before and after totals are not equal, explain why.

Please refer to Figure 13 for reference.

- Before mining 1.76-acres of trees are present within the 19.1-acre mining area. After mining the area will be restored to grassland.
- Before mining 4.1-acres of existing brush/pasture land (grassland) is present at the site. After mining 4.1-acres of existing grassland, 1.76-acres of existing trees, and the 13.24-acres of existing cropland will be converted to grassland (19.1-acres total).
- Before mining 13.24-acres of cropland and 1.36-acres (0.46-acre, 0.13-acre and 0.77-acre) of proposed roads are dominated by cropland. After mining is completed the 0.13-acre and 0.77-acre proposed roads will be restored back to cropland.
- The 1.08-acre Gathje Lane will remain impervious before and after mining. Before mining 0.46-acres of existing agricultural land will be converted to a roadway for mine access on the west; after mining is complete this roadway will remain an impervious surface.

11. Fish, Wildlife, and Ecologically Sensitive Resources.

- a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.**

The project site is currently dominated by smooth brome/bluegrass pasture land along the ridge top with sparse trees and shrubs on the steep slopes and along the former pasture fence lines. The toe of the slope at the mining site is surrounded by row crop agricultural land.

The Nisbit Mine is located within the Pine Creek sub-watershed of the Root River basin. The closest protected water is Pine Creek located 3.47 miles to the southeast (Figure 14). Based on the sandy nature of the Nisbit site and surrounding land and the long distance to any perennial streams there are no fish habitats that will be impacted by mining activities. Other than on-site erosion and sedimentation control there are no additional mitigation measures for adverse runoff impacts proposed.

Wildlife resources and habitats on or near the site are limited to those associated with the species inhabiting the agricultural cropland, fence rows, and isolated pastures. Wildlife observed by the applicants consultant, Jeff Broberg, at and near the site includes: whitetail deer, raccoons, skunks, wild turkeys, pheasants and a variety of other small birds and mammals, however, it is the consultants opinion that the site is not a significant breeding or wintering ground for wildlife

A recent publication, A World in One Cubic Foot, by David Liittschwager, a photographer making a visual and pictorial assessment of the ecology of different habitats, notes that while native prairies are home to 300 species of plants, 60 mammals, 300 birds and hundreds of insects, a corn field is denuded of life other than corn and a few flying insects. In modern corn fields the air and the ground are generally vacant of biodiversity.

During the 3 years that the mine is proposed to operate the amount of plant, animal and insect diversity is expected to diminish to less than what is found in the corn, however, once restoration commences the proposer expects the sand prairie habitat to support hundreds of species. Any remnant wildlife resources and habitats in the old pasture are highly degraded and will be altered due to mining conversion that is expected to occur for a period of up to 3 years. The mined areas will be restored back to a lower elevation with sand prairie land cover conditions. Temporary loss of the cropland will not result in a substantial loss of biodiversity due to the existing lack of diversity in row crop lands. There will be temporary impacts to wildlife during the construction and mining phases. Any wildlife present within the agricultural cropland of the site will be displaced to the surrounding cropland. Following restoration the proposer expects the area to have more diversity and be a more welcoming area for biodiversity.

- b. Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources on or near the site? ☐ Yes ☒ No**

If yes, describe the resource and how it would be affected by the project.

In order to assess biodiversity three maps were referenced including the Priority Areas of Native Biodiversity in Southeastern Minnesota (2007), the Winona County Biological Survey and the Minnesota Land Cover Database. A summary of our findings are provided below:

- 1) The Priority Areas of Native Biodiversity in Southeastern Minnesota (1997) and the Winona County Biological Survey (1997) show no areas of significant native plants present on the site.
- 2) The Priority Areas of Native Biodiversity in Southeastern Minnesota map shows the woods on the adjoining property to the south outside of the project site as having scores "below minimum biodiversity significance."
- 3) The Minnesota Land Cover Databases are not available for Winona County and there is no GIS coverage for vegetation.
- 4) Based on review of the 2010 aerial photography the current land cover consists of 15.8-acres of crop land (82%) and 3.3-acres of pasture/grassland (18 %) (Figure 13). The grassland cover is typical of many old pastures with a stable turf of grasses and forbs dominated by brome and cool season grasses. The fence line includes pioneer species and invasive shrub and tree (box elder, elm, cedar, buckthorn, honeysuckle) species.

In October 2012, the MNDNR Natural Heritage Information System (NHIS) database was queried to determine if any state-listed endangered, threatened, special concern species, or rare plant communities, or other sensitive ecological resources have been documented within one-mile of the site. Based on their query, there are no known occurrences of rare features in the area (Appendix 3).

Another measure to determine if sensitive ecological resources are present includes the use of the Minnesota Board of Soil and Water Resources (BWSR) Environmental Benefits Index (EBI). The EBI is a statewide ranking tool that helps to determine which lands are most valuable from a conservation perspective. The EBI considers soil erosion potential, water quality risk, and wildlife habitat quality by ranking each factor on a scale from 0-100. Combining each factor generates a score from 0-300 that is then used to help prioritize and conserve land with the best conservation potential. In general, lands ranked below a score of 200 using the EBI are considered to be of low to moderate conservation value. For the Nisbit sand ridge the mean values for the soil erosion risk, water quality risk, and wildlife habitat quality are 85, 41, and 19 respectively. Combining these three values produces a relatively low EBI value of 145.

As a means of comparison, the applicant stated that the following areas have a range of environmental indices.

- Nisbit sand ridge 19.1-acre mining site: EBI ranges from 112 to 170; soil erosion risk 26 to 94; wildlife habitat quality 17 to 24 and water quality risk 33 to 70.

- Section 35 of Saratoga Township: EBI ranges from 70 to 218; soil erosion risk 1 to 98; wildlife habitat quality 17 to 28 and water quality risk 23 to 98.
- Saratoga Township: EBI ranges from 47 to 241; soil erosion risk 1 to 99; wildlife habitat quality 9 to 47 and water quality risk 23 to 99.
- Winona County: EBI ranges from 42 to 279; soil erosion risk 0 to 100; wildlife habitat quality 2 to 89 and water quality risk 18 to 99.

A high EBI score identifies the most valuable places from a conservation perspective. EBI is the sum of three separate layers: soil erosion risk, water quality risk, and wildlife habitat quality. Each layer is classified on a 0-100 scale so that when added together the EBI scale is 0-300.

A field assessment of the site was conducted in June 2012 by McGhie & Betts Environmental Services, Inc. professionals familiar with native plant habitats and local ecological resources. The inspection and assessment was performed to further assess the vegetative communities present. No areas supporting sand prairies or native plant communities were discovered. The Nisbit Mine is dominated by row crop agriculture and smooth brome grass pastures that are sparsely wooded. Two distinct areas of vegetative communities are summarized below (Figure 5):

Grassland

- The ridge top at an elevation of 1,220 feet is divided east and west by an old fence line. East of the fence line is dominated by a turf of introduced cool season grasses, principally smooth brome, that have not been managed for years. This area also includes clusters of milkweed, goldenrod and other common forbs that are considered weeds. West of the fence is a turf of pasture grasses and legumes that has been planted and managed more recently. This area is also dominated by brome with fewer weeds.
- On the steep slope from an elevation of 1,192 to 1,120 feet are cool season grasses (brome) intermixed with trees and shrubs. The trees are volunteers of a mixture of box elder, elm and aspen. The shrubs are buckthorn, sumac and honeysuckle.

Corn/Soybean Rotation

- The toe of the slope below an elevation of 1,192 feet is row cropped with a rotation of corn and soybeans.

We discovered no state-listed (endangered, threatened or special concern) species identified at the time of the survey.

Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-_____) and/or Division of Ecological Resources contact number (ERDB 20130115 Proposed Nisbit Mine) from which the data were obtained and attach the

response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.

12. **Physical Impacts on Water Resources.** Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch? ☐ Yes ☒ No

If yes, identify water resource affected and give the DNR Public Waters Inventory (PWI) number(s) if the water resources affected are on the PWI. _____

Describe alternatives considered and proposed mitigation measures to minimize impacts.

The closest mapped drainage way to the Nisbit ridge is a drainage way type that is mapped and known as a 'drainage end' as identified in the Soil Survey of Winona County, Minnesota. This feature is located 240 feet to the northeast of the project location and flows from west to east extending for approximately 0.5 miles before terminating on the west side of CR113. According to the applicant drainage ends designate areas with small catchments and rapidly permeable soils where surface water rapidly infiltrates before gathering enough flow to become an intermittent stream.

The next two closest drainage networks are mapped in the soil survey as intermittent streams located to the southwest and west approximately 1,040 feet and 1,400 feet respectively (Figure 14). Stormwater that does collect in the drainage way would flow across 3.5 miles of agricultural land, grassed waterways and drainage swales before emptying into a perennial stream, Pine Creek (Figure 14). Local observers and the applicant claim that these intermittent features only have flowing water when there is melt water on frozen ground or during very intense rainfall events exceeding rates of 1"/hour or during prolonged rains with total rainfall exceeding 2 inches.

Pine Creek is designated as "protected water" and a designated trout stream by the Minnesota Department of Natural Resources is 3.5 miles downstream from the project site in Fillmore County. On-site erosion control measures will be installed and maintained to prevent any sediment from reaching adjacent water courses or drainage ways.

Since there are no wetlands, water courses or major drainage systems on the site and due to the rapid permeability of the underlying soils and bedrock grading, mining, and site restoration will not have any effect on surface water resources. Stream diversions, outfall structures, diking or impounding of surface water and dewatering will not occur.

Analysis of nearby Minnesota Department of Health County Well Index (CWI) boring logs indicated the groundwater is mapped at an elevation of 1,030 feet (± 5 feet), 140 feet below the final mine elevation of 1,170 feet based on the static water levels reported on well logs available from the Minnesota County Well Index (Figure 16). Additional water wells not entered in the CWI may exist in the mapped area but have not been identified by the proposer. Well data used for this assessment was obtained from the MDH CWI was obtained on October 11, 2012. Any information available after that date is not included in the assessment.

Hydrologic alteration through dewatering for mining will not be necessary at the site.

There are no natural lakes streams and no manmade ponds or drainage ditches feeding to or flowing from the site. The soils are rapidly permeable and recent studies completed on Wisconsin Discovery Farms in similar terrain of the Driftless Area of Wisconsin show that on average only 8% of precipitation runs off the loess and residuum soils. This indicates that the only source of runoff will occur during spring melt and during intense rainfall events on saturated ground. In order to avoid any unnecessary sinkhole risks permanent ponds will not be employed because ponds create permanent soil saturation that can mobilize sand particles to flow into any voids in the underlying Shakopee formation karst. Systems that allow pulses of infiltration in this landscape setting rather than ponded water have proven to be effective in avoiding sinkhole formation.

At the conclusion of the planned mine the operation will have removed 45-50 feet of course to fine grained St. Peter sand from the crest of the Nisbit ridge. Due to the sands' effective filtering properties and rapid infiltration the public has raised concerns about the potential impact on the underlying groundwater from the loss of approximately 40-45 feet of very fine grained sand.

According to the applicant the removal of the sand is inconsequential based on the following factors:

- The groundwater table is at 1,030 feet (\pm 5 feet), 140 to 203 feet beneath the Nisbit ridge
- Infiltration through a very fine filter medium like the St. Peter sand exerts its effectiveness in the top few feet of the sand where virtually all of the fine particles, including minute organisms become trapped in the small-scale honeycombed pore spaces. Forty to 45 feet of undisturbed St. Peter sandstone will remain as a filter after mining.
- The highly porous sand does not treat or otherwise remove dissolved compounds, but the thickness of the sand does have a measurable effect on the amount of time that it takes for water to infiltrate down to the water table.

According to the applicant, the groundwater levels, derived from a review of all of the surrounding drilling logs available from the CWI shows the static water table is at an elevation of approximately 1,030 feet. Data from the Winona County Geologic Atlas and water quality data from the Minnesota Department of Health shows that the groundwater in this area is highly susceptible to groundwater contamination due to rapid infiltration especially from septic systems, leaks, spills and from agricultural nutrients and pesticides.

According to the Geologic Atlas surface infiltration surrounding the Nisbit ridge reaches the water table in days to weeks, largely due to the water table depth. Factors that influence water infiltration in this setting depend on three factors:

- First, whether the Prairie du Chein karst is exposed which allows direct injection of both suspended solids and dissolved compounds
- Second, whether the karst aquifer is covered by thick soils or porous media, like the highly permeable St. Peter sand that effectively filters suspended solids but does not retard or mitigate for dissolved compounds

- Third, whether the karst aquifer is covered by impervious materials that shed water down gradient to areas where the porous or cavernous bedrock aquifers are exposed

The St Peter sand at the Nisbit ridge and throughout Saratoga Township consists of a coarse clastic component in the upper half (40-50 feet) and a very fine clastic component in the lower half (40-45'). According to the Minnesota Geological Survey (MGS) publication RI-61 Hydrology of the Paleozoic Bedrock of SE Minnesota the St. Peter sand is homogeneous and friable with a high porosity and a moderate to high permeability. The MGS analysis of multiple pumping tests shows the St. Peter to have hydraulic conductivity of 15.9 ft/day in shallow bedrock conditions and 38.7 ft/day in deep bedrock conditions, largely due to the homogenous intergranular porosity. According to the applicants Geologist, Jeff Broberg fracture porosity creating conduits for more rapid flow in the St. Peter sandstone are a feature that has been regionally identified. This occurs in the basal 20 to 25 feet of the St. Peter in drainage way settings but rarely manifest in the upper half of the formation and have never been observed on the headlands or shoulder of the Saratoga or Rochester area sand ridges.

The bedrock underlying the St. Peter is the Prairie Du Chein Group Shakopee formation, a karst dolomitic limestone that is the bedrock host to the underlying aquifer. The top of the Shakopee, estimated by the applicant from nearby well logs is at approximately 1,130 feet (± 5 feet) is an unconformable surface that varies ± 20 feet in drainage way settings and is evident as a wavy, deeply corroded, karst surface with variable paleo-erosion and sedimentation features. This surface has variable relief that is highly accentuated in any drainage ways where water concentrates on the landscape. These features have occurred since the end of the last geological age and have continued to corrode the underlying carbonate bedrock.

According the MGS publication RI 61 the hydraulic conductivity in the Prairie du Chein, derived from multiple tests, averages 60.8 ft/day in the shallow bedrock and 33.5 ft/day in the deep bedrock with a significant range from 2.2 ft/day to 1,023 ft/day in some individual wells. The MGS hydraulic conductivity data shows that fractured karst zones in the Prairie du Chein display conduit flow with little or no intergranular filtration differing dramatically from the clastic St. Peter dominated by intergranular porosity in very fine sand.

The applicant states that the pre-mine conditions of the 19.1-acre Nisbit ridge has a cap rock of Platteville limestone and Glenwood shale measuring 10 to 14 feet thick at the crest and thinning to zero along the eroded cap of the ridge. Precipitation rapidly runs off the highly fractured limestone cap or infiltrates into the frost fractured limestone residuum rapidly reaching the impervious Glenwood shale. The water runoff from the Glenwood infiltrates into the underlying sandstone without every gathering sufficient volume to create distinct drainage ways.

According to the proposed plans the mining will remove and reserve the soil, vegetation and the limestone/shale cap, segregating the soils from the rock and reserving these materials for roadways, berms, site stabilization and restoration. The 90 foot thick St. Peter sandstone that overlies the Prairie du Chein karst will then be exposed, similar to adjoining areas where the sand is currently exposed in the croplands and pastures on the headlands of the Saratoga sand ridges.

The applicant has stated as mining progresses the ability of surface water to infiltrate into the groundwater will change in three distinct ways:

- The area before mining will have a thin soil, variable subsoil, about 15 feet of Platteville Limestone, 3 feet of Glenwood Shale under approximately 7-acres or 90 feet of St. Peter and 100 feet of Shakopee above the water table. The applicant estimates from the average hydraulic conductivity published in MGS publication RI 61 precipitation at the surface requires 5 to 7 days to infiltrate to the groundwater once water contacts the St Peter (the thin soils and cap rock drain rapidly and are retarded by the small area covered by Glenwood strata for a matter of one or two days).
- During mining the 3 to 5 acre active mining areas will be devoid of vegetation or any biologic veneer in the soil or bedrock. The applicant estimates that infiltration to the groundwater could occur from the surface through the underlying sandstone and dolomite in a matter of 2 to 3 days. The temporarily restored areas will have a thin veneer of vegetated soil where the applicant estimates infiltration to the groundwater will take 2.5 to 3.5 days.
- The restored areas will have a thick layer (\pm 8 feet of compacted limestone/shale rubble) covered by restored subsoil and topsoil covering the undisturbed 40-45 feet of sandstone over 100 feet of Shakopee. The applicant estimates that the infiltration in the restored area will take 12 to 16 days to reach the groundwater due to the cap rock materials being mixed, spread and compacted over the entire footprint of the mine.

The phased mining and progressive restoration will temporarily transform the ridge to a broader zone of rapid infiltration after removing the cap rock and vegetation. On the working face and operational areas of the mine the raw sand will be exposed and will have no bio-matt or other vegetation. On the areas that are progressively restored to temporary vegetation a veneer of soils will be replaced and seeded for vegetation. The progressive restoration reduces the footprint of the exposed sand that has no biologic element to the rapid infiltration. In the final restoration the ridge will have a 19.1-acre cap of materials that have a lower hydraulic conductivity. The applicant states that by ultimately reducing infiltration rates and restoring the entire 19.1-acres to grasslands, which require no ag-inputs, the restored mine will reduce the risk of groundwater contamination compared to the current conditions or the surrounding cropland.

The mining is proposed to extend to a depth of 1,170 feet harvesting the top 45-50 feet of sand and restoring soil over the top of the reserved limestone/clay cap rock that will be restored over the top of the un-mined sandstone. Forty to 45 feet of undisturbed sand will be left in place beneath the restored overburden and according to the proposer will effectively restore the infiltration pattern that existed prior to mining. The restored mine will leave an impermeable or semi-permeable rock that is covered by thin soil overlying 40-45 feet of undisturbed very fine grained sand. This will reside over the Prairie du Chein that is present in the subsurface beneath the entire region. The applicant claims mining will not expose any direct opening or conduits to the underlying karst and states the filter capacity of the remaining undisturbed sandstone will continue to be effective for solid particles, but will continue to allow dissolved compounds to ultimately infiltrate into the Prairie du Chein groundwater.

The proposer does not expect any negative effect on nearby water wells. The wells are not at risk for excessive water use and there should be no negative changes in static water levels. Water used on the site will come from existing public water supplies and will be hauled in tankers. Infiltration rates will temporarily increase making leak and spill prevention, preparedness and response a high priority for all on site operations. Finally the restoration will create a grassland habitat without need for fertilizer and pesticides that will slow the infiltration.

The proposer indicates that well monitoring in close proximity to the mine would not accurately differentiate water quality impacts from mining versus farming, largely due to the massive scale of row crop agriculture relative to the small scale/short duration of the mine. The application proposes to conduct a pre-mining water test (nitrates and bacteria) of the Nisbit well and a post mining nitrate and bacteria test for the Nisbit well. Impacts that are proven to occur from mining, as opposed to farming or any additional action not related to the mine, will be mitigated by the mine operator.

Mine excavation, grading and construction activities during reclamation will be completed in accordance with the Winona County Zoning Ordinance Section 9.10.4 Reclamation Standards and in accordance with all other applicable County, State or Federal laws and regulations.

Prior to commencing the mine new erosion control best management practices (BMPs) will be installed to protect surface water. The proposer will construct a berm/rim-ditch around the perimeter of the mining site that is then surrounded by silt fencing. Stormwater runoff generated at the site will be contained within the mining limits (Figure 6 and 7). Other forms of BMPs such as grassed swales and/or diversion berms will be used as necessary.

Existing slopes on the site approach 30%. The mining plan will utilize backhoes to develop a near vertical working face for the sand extraction. The working face will migrate in accordance with the phasing plan. During mining the slopes will be near vertical cuts up to 24 feet tall. The high wall mining will continue throughout the process. All steep slopes will be restored to a required 3:1 slopes using the reserved overburden. The restored end slope abutting the Boyum's on the east will have the appearance of an isolated, short and nearly symmetrical ridge with gently sloping grasslands on the west and grasslands and cropland to the east.

Stockpiles will have a slope equivalent to the angle of repose of the sand, approximately 2:1 depending on the mix of materials and the moisture content.

All reclaimed areas, other than the exposed sandstone face, will be covered with topsoil to a level consistent with the current site and surrounding area (spread salvaged topsoil). Final seeding will be applied at a rate of 75#/acre consisting of a MNDOT sandy-roadside seed mix suitable for restoring a grassland. The quality of the topsoil placed shall be analyzed to determine if and how much fertilizer may be needed to establish new turf on the sandy restored soils. Once grass has had an opportunity to become established, which may take more than one growing season, the reclaimed area will be left to nature.

Once mining is complete and restored and the CUP is complete the owner will manage the land. If the landowner wishes to restore the area to crop or pasture they must contact the Winona County NRCS/SWCD office for assistance on the proper procedures for returning the site to row crop production. Factors to be addressed for returning the reclamation area to row crop production are soil depth, topsoil depth and color, organic content of soils, nutrient content of

soil and drainage upstream, within and downstream of reclamation area. The current landowner and mine operator are not proposing to restore the area to cropland.

Silt fencing and/or vegetated berms will remain in place until vegetation establishes and areas disturbed by removal of the fence/berm will be reseeded.

13. **Water Use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?** ☐ Yes ☒ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

There is no surface water on the site and local well logs show the water table is approximately 200 feet below the ground surface (Appendix 4). No water wells will be used for the mine and no mining will take place within 140 feet of the water table.

Water used for dust control will be hauled in tanker trucks after having been purchased from an existing permitted public water supply.

Groundwater monitoring wells are not being proposed due to the following factors:

- The project will not be drilling new wells or using water for processing or washing.
- The mining operation is not using or applying hazardous materials. The primary risk to the groundwater is via leaks and spills from diesel and gas fueling, motor oil, and to a lesser degree hydraulic fluid.
- The mining will be down to the 1,170 foot elevation, approximately 140+ feet above the water table. Over 45 feet of St. Peter Sandstone will remain beneath the site.

14. **Water-related land use management districts. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?** ☐ Yes ☒ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

The Federal Emergency Management Agency Map Service shows that the Nisbit Mine is located outside of the 100 year and 500 year floodplain. This is confirmed by the FEMA FIRM Map Community Number 270525 Panel Number 0150 C.

There are no shoreland zoning districts, delineated 100 year or 500 year floodplains or state or federally designated wild or scenic river land use districts.

15. **Water Surface Use.** Will the project change the number or type of watercraft on any water body?
☐ Yes ☒ No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

Not Applicable.

16. **Erosion and Sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved:
- | | | | |
|-----------------|-------|---------|-------------|
| 19.1 Mine | Acres | 700,000 | Cubic yards |
| 2.4 Access Road | Acres | 5,000 | Cubic yards |

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

The soils covering the site are thin and are derived from loess and weathered sandstone bedrock. The soils are rapidly permeable with low water bearing capacity and are prone to drought. The soils information including soil types, capability class and prime farmland data was obtained from the United States Department of Agriculture Natural Resources Conservation Service, "Web Soil Survey" (Appendix 5).

Within the mining area the soils that will be stripped, stockpiled and re-used for reclamation are:

- 11D, Sogn silt loam, rocky, 6 to 30% slopes, capability class 7 (not prime farmland) are located at the top of the ridge within the pasture land.
- 898F, Bellechester-Brodale complex, rocky, 15 to 60% slopes, capability class 7 (not prime farmland). These soils are found on the backslope of the hillside are located within pasture land.
- 301D, Lindstrom silt loam, 12 to 18% slopes, capability class 4 (not prime farmland) are located on cropland.

The ridge proposed for mining is not currently farmed above an elevation of 1,190 feet due to the slope, shallow bedrock and droughty nature of the soils. The current plan will mine the ridge from west to east in phases and will restore the mined area with reserved topsoil and re-vegetate with a mixture of pasture grasses, legumes and trees. The existing soils are conducive to rapid infiltration meaning there is minimal runoff under normal conditions.

All of the silt loam soils are susceptible to wind and water erosion if exposed without protections. The topsoil will be removed from the areas to be mined in stages and retained in berms and stockpiles or will be used for site reclamation. Mining will create additional exposures of sandstone faces and will create temporary steep slopes at the active face. The location of the active face and associated steep slopes will move as mining progresses through the site. Measures to control erosion and sedimentation will be implemented at the site.

Erosion and Sediment Control

The stormwater management plan developed in accordance with Minnesota Pollution Control Agency criteria contains the stormwater runoff within the mine. Ponding and infiltration areas in a ring berm and ring ditch stormwater treatment system are designed to provide infiltration, settling and sediment control and to contain runoff so as not to increase the stormwater runoff during a 100-year storm event. Runoff will be prohibited from leaving the site by sloping the excavated areas toward the mine and directing the water into the treatment system. The berm and ditch will be seeded and vegetated with perennial grasses and forbs using a MnDOT Mix #190 prescribed for 2-5 year stabilization (Appendix 2). The holding ponds will be removed during the restoration after all extraction is complete.

The site will operate under a Minnesota Pollution Control Agency Permit (MPCA) Non Metallic Mining Operations General Permit. This permit is in the process of being developed pending final approval of the Conditional Use Permit that will define the size and operation of the facility. Once finalized a copy of the Permit and SWPPP will be submitted to Winona County for their records.

Perimeter silt fencing and a rim-ditch/berm will be maintained throughout the mining operation.

Topsoil stockpiles will be constructed with a 3:1 (horizontal to vertical) side slope and a flat top of not less than 8 feet. Silt fencing will be placed downhill of stockpiles and piles will be seeded to establish vegetation.

As silica sand is excavated it will be loaded into a portable jaw crusher, screen and elevator producing two stockpiles. One stockpile will contain waste material of larger stones and cemented bedrock that did not disaggregate in the crusher. This reject material will be reserved for reclamation and the course to fine sand will be placed in the finished stockpile of marketable product (silica sand). The crushing/sorting/elevator equipment will have large hoppers and will be shielded to minimize dust and noise and whenever practicable will be placed behind the rim ditch and stockpiles to minimize exposure to the prevailing southwest/northwest winds as a means of minimizing dust.

A loader will transfer the silica sand to trucks for hauling. Waste stockpiles will be protected with silt fencing and temporarily seeded. A tracking control pad will be maintained at all exits from the project. Haul roads will be treated and watered or treated to control dust.

Topsoil Management

The soils on the site are thin, rocky and sandy on the north and thicker loess and sand on the south. The soils in Phase 1 will be stripped with dozers/scrapers and used to develop the permanent berm and stockpile areas where materials will be stored until the restoration begins. The thin organic rich topsoil will be segregated and stockpiled for future use and the brown subsoil, flaggy limestone and shale cap rock and other non-organic soils will be used for the core of the berms and base of the restoration profile. Topsoil will be spread across the restored and graded areas and will be the seedbed for vegetation establishment.

The proposer states that the exact volume of topsoil available for restoration is estimated from soil borings and test pits to be 40 to 60 acre feet. All the topsoil will be retained on the site for restoration.

Chapter 9.15 of the Winona County Zoning Ordinance outlines the requirements for Soil Erosion and Sediment Control for mining operations. To ensure soil erosion is minimized the applicant will develop a conservation plan with the Winona County Soil and Water Conservation District which will adopt "Best Management Practices."

17. Water Quality – Surface-water Runoff.

- a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm-water pollution prevention plans.**

Existing soil conditions consist of the Sogn and Lindstrom silt loams and the Bellechester-Brodale complex which are classified as well-drained to excessively well-drained. These soils rapidly infiltrate water, leaving little to no standing water at the surface. According to the Winona County Soil Survey these soils have properties that allow water to transmit through the most limiting layer in the soil profile at rates up to 1.98 in/hr. In isolated areas, the Bellechester-Brodale complex found on the backslope of the hillside is considered excessively drained with capacity to transmit water through the most limiting layer at rates of 5.95 in/hr to 19.98 in/hr.

Similar to the discussion on the effect of infiltration in Section 12 the before, during and after effects on stormwater has been estimated by the applicant. The applicant has stated as mining progresses the ability of surface water to infiltrate into the groundwater will change in three distinct ways:

- Before mining the top of the ridge above elevation of approximately 1,220 feet will have a thin soil, a variable thickness of subsoil and about 10 to 12 feet of heavily fractured Platteville Limestone that is rapidly permeable and soaks up most precipitation before it can runoff the crest of the ridge. The underlying 3 feet of Glenwood Shale retards the downward stormwater flow until the water reaches the exposed edge in the headland of the ridge which focuses stormwater flow into the highly permeable sandstone below. The area below the Glenwood has rapid and almost complete infiltration into the ground except under frozen ground or saturated soil conditions when runoff may occur.
- During mining the 3 to 5 acre active mining areas will be devoid of vegetation or any biologic veneer in the soil or bedrock and will infiltrate all stormwater, except during excessive rainfall events of more than 2"-3" rain per hour. The applicant estimates that any runoff from the mined area will be captured in the surrounding rim-ditch/berm. The temporarily restored area will have a thin veneer of vegetated soil where the applicant estimates runoff may occur with rainfall events exceeding ½ inch/hour. Runoff water will be captured in the rim-ditch/berm.
- The restored areas will have a thick (\pm 8 feet of compacted limestone/shale rubble) that is largely impervious to stormwater that will be covered by moderately permeable sandy subsoil and sandy topsoil covering the undisturbed 40-45 feet of sandstone. The applicant estimates that the final restoration will have runoff with frozen grounds or

saturated soils when rainfall exceed ½ inch/hour, however, the vegetation will absorb runoff and the gentle finished slopes will reduce water erosion and resist wind erosion.

The mine operation requires an Industrial Stormwater Permit for Non-metallic Mining Actives and as required by Winona County Performance Standards to protect surface water and groundwater quality. The Stormwater Pollution Prevention Plan (SWPPP) and Water Management Plan will be developed once the final criteria of the mine are defined by the County Conditional Use Process.

The SWPPP will address site operations and installations necessary for the control of erosion from wind and runoff, vehicle and equipment tracking and all aspects of the transport, storage, use and disposal of all waste including hazardous materials (fuels, hydraulic fluids and lubricants) The SWPPP will include:

- Provisions for training, preparedness and response to any leaks and spills.
- Grading, construction and erosion control measures including the proposed rim ditch/berm around the entire perimeter to prevent stormwater from entering the mine and to assure that all mine drainage goes into the lineal infiltration rim-ditch/berm.
- During mining BMP's such as rim-ditches/berms and silt fencing will be designed, installed and maintained to collect and treat runoff from the disturbed areas during rainfall events. All runoff from the site is to be routed to the rim-ditch/berm through the construction of berms and swales. The rim-ditch will act as a long narrow infiltration and stormwater treatment swale. Periodically the rim-ditch/berm may collect fine sediment that will be excavated and used for reclamation efforts.
- Specific provisions will be identified for the immediate response to any leaks or spills including reporting, containment and immediate excavation of all contaminated sand or soils for proper disposal, including the immediate evolution and abatement of any risks by qualified consultants and contractors.
- Waste handling including pumpable porta-potties for workers and contracted solid waste collection and disposal, collection and recycling or proper disposal of all equipment related lubricants and fluids will also be included.

Upon reclamation, the slope of the land will be less than existing conditions which will reduce the runoff velocity which will increase the quantity of rainfall that infiltrates. Since the entire site will be reclaimed, there will not be any increase in impervious surfaces so no permanent treatment controls are required.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

The mine is currently located in the upland portion of the Pine Creek sub-watershed and is surrounded by intensively cropped agricultural land that is rapidly permeable and does not require drain tile. The closest mapped drainage way is an intermittent stream type known as a 'drainage end' as identified in the Soil Survey of Winona County, Minnesota. This feature is located 240 feet to the northeast of the project location and extends for approximately 0.5 miles east before terminating west of CR113. The next two closest drainage networks are intermittent streams located to the southwest and west approximately 1,040 feet and 1,400 feet respectively (Figure 14).

Due to the site's rapid soil infiltrating capacity (described above) and the distance to receiving waters the impact of stormwater runoff and infiltration from the site will be negligible. Any runoff that is produced on-site will be protected by erosion control measures described in Item #12.

18. Water Quality – Wastewater.

- a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.**

On-site sanitary, municipal and industrial wastewater will not be produced at the Nisbit Mine.

Lavatory facilities, including a portable toilet (port-a-potty) will be provided for employees that will be contracted to a Minnesota licensed septic service provider and maintained on a regular basis.

Final processing of silica sand will occur at an off-site location that is permitted separately, therefore there will be no industrial wastewater generation from the sand mining and processing.

- b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.**

No waste treatment methods or discharges to receiving waters will be generated. The site will have a portable toilet for employee use that will be maintained by a Minnesota licensed septic service provider.

- c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.**

No wastes will be discharged into a publicly owned treatment facility.

19. Geologic hazards and soil conditions.

a. Approximate depth (in feet) to ground water: Existing static groundwater levels are at 1030, ± 5 feet, based on the applicant's evaluation of local well logs. This places the groundwater 200 ft. beneath the top of the ridge prior to mining and 140 feet below the toe of the mined slope. **Final conditions:** The base of the mine exaction will be 1170 with groundwater a 140 feet beneath the mined surface.

to bedrock: Bedrock is between 0-10 ft from the surface prior to mining and is proposed to be approximately 0-10 feet after mining reclamation.

Describe any of the following geologic site hazards to ground water and also identify them on the

site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

As previously described in earlier sections the Nisbit ridge has a thin cap rock of Platteville Limestone and Glenwood shale above an elevation of 1,220 feet with 90 feet of St. Peter sandstone overlying the unconformable contact with the underlying Shakopee Limestone. Based on nearby water well data from the County Well Index the top of the Shakopee Formation is at an elevation of \pm 1,125 feet, 45 feet below the proposed depth of silica sand mining (Figure 17).

The St. Peter Sandstone is not a karst horizon subject to sinkholes formed by dissolution of the sandstone bedrock and there are no sinkholes on the site or on adjoining property. However, the St. Peter Formation does overlay carbonate dolomite bedrock of the Shakopee Formation which is known to dissolve and develop karst features causing solution enlarged cavities and rare sinkholes in the bottom 20-30 feet of the St. Peter Sandstone formation when sand flows downward into solution enlarged cavities in the underlying dolomite.

In SE Minnesota the basal St. Peter sinkholes form in drainage way settings and beneath ponds. The sinkhole formation process involves frequent saturation or permanent flooding of the St. Peter Sandstone surface with water that percolates downward and dissolves the underlying Shakopee Dolomite. The voids left from persistent dissolution of dolomitic rock allow the overlying sand at the base of the 90 foot thick St. Peter Sandstone to flow into the cavities collapsing sand into the underlying voids and causing sinkholes at the surface.

Geologic investigations completed by McGhie & Betts professional geologist Jeff Broberg in SE Minnesota have shown that the upper 70 feet of the St. Peter Sandstone is not prone to sinkhole formation. The proposer indicates that based on the mining site's stratigraphy, sand thickness, distance to the underlying dissolving karst, and the lack of water features that would saturate or flood the subsurface the risk of sinkhole formation is low.

In the event a sinkhole forms within the Nisbit mine standard Best management Practices including diverting runoff away from the opening and establishing a vegetative buffer (minimum of 30 feet for areas with 5% slopes) around the opening will help prevent groundwater pollution. Under some circumstances an earthen dike may be required to be constructed around the sinkhole to prevent surface water from entering.

The exposed bedrock geology of the site is of Middle Ordovician age where the Platteville and Glenwood Formations are the first encountered bedrock and underlain by St. Peter Sandstone that will be mined for silica sand (Figure 17). The Winona County Soil Survey indicates bedrock is shallow and is found < 12 feet below the ground surface (Figure 18). The St. Peter Sandstone ranges from 90 to 100 feet thick. The St. Peter Sandstone is a fine grained to medium grained, very well sorted, poorly cemented quartz sandstone with round grains making the sand desirable for silica sand.

There are no mapped or observed karst features, sinkholes or caves known to exist on the site or in a similar sand ridge setting in the vicinity of the site. The closest sinkholes to the west are Platteville Limestone. The Platteville exists on the Nisbit ridge but will be removed as overburden. The sinkhole probability as defined by the Minnesota Geological Survey County Geological Atlas shows the Nisbit Mine is within an area above an approximate elevation of 1,145 feet where the site is classified as "low to moderate probability" for karst features. In the vicinity, land areas below an approximate elevation of 1,115 feet the site is classified as moderate to high reflecting the risk in the basal 20-30 feet of the sandstone (Figure 19). The low to moderate classification means only widely scattered individual sinkholes or isolated cluster of 2 to 3 sinkholes occur where the average sinkhole density is less than one sinkhole per square mile. The moderate to high classification means diffuse clusters of three or more sinkholes occur with an average sinkhole density of one per square mile.

According to McGhie & Betts professional geologist Jeff Broberg the upper 70 feet of the St. Peter Sandstone is not prone to sinkhole formation. However, the bottom 20 feet is more prone to sinkholes, especially in natural drainage ways or in areas excavated to create ponds, lagoons or other man-made drainage or water storage features. The 40 to 50 ft. of St. Peter Sandstone proposed to remain between the bottom of the mine and above the Shakopee karst along with the lack of natural drainage ways or excavated water storage features such as ponds, lagoons or permanent waterways will minimize chances of sinkhole formation.

Sinkhole formation can be most easily avoided by preventing the concentration of water in ponds. If sinkholes do occur they can be easily mitigated by bridging or filling the collapse features in accordance with Best Management Practices that are widely accepted in the areas where sinkholes do occur.

Static water levels in the immediate vicinity have been recorded from County Well Index data at an elevation of approximately 1,030 feet in a valley west of the site, at least 140 feet below the proposed base of the mining excavation.

Environmental problems concerning groundwater contamination from karst susceptibility or shallow bedrock conditions will be minimized by avoiding the use of hazardous materials during the mining activities. Operations will also prevent farmland runoff from entering the mining site where rapid infiltration will occur. Mining operators will be trained to inspect stormwater features to detect the early warning signs of sinkhole development. In the event a sinkhole does form a Professional Geologist will be consulted to properly mitigate the sinkhole in a manner that will promote protection of groundwater resources.

- b. Describe the soils on the site, giving Natural Resources Conservation Service classifications, if known. Discuss soil texture and potential for ground-water contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.**

The NRCS online Web Soil Survey maps eight different soil types on the site (Figure 20). The site belongs to the Mt. Carroll-Port Byron-Lindstrom Associations. The Mt. Carroll-Port Byron-Lindstrom Association is defined as very deep, nearly level to steep, well-drained and moderately well drained soils derived from loess located on uplands. The table below provides an index of the soils identified on the property and denotes if the soils are highly erodible, hydric or floodplain soils, the Crop Productivity Rating (CPI) for each soil, and the slopes on which they are found (Figure 20).

Table 1: Soils Characteristics

Soil #	Soil Name	Slope %	Hydric	Floodplain	CPI	HEL
11D	Sogn silt loam	1-6	N	N	6	HEL
301A	Lindstrom silt loam	1-3	N	N	99	NHEL
301C	Lindstrom silt loam	6-12	N	N	92	PHEL
301D	Lindstrom silt loam	12-20	N	N	73	HEL
476C	Frankville silt loam	6-12	N	N	55	HEL
476D	Frankville silt loam	12-18	N	N	43	HEL
832F	Lacrescent-Rock outcrop complex	30-45	N	N	3	HEL
898F	Bellechester-Broadale complex, rocky	15-60	N	N	3	HEL

HEL – Highly Erodible Land; NHEL – Not Highly Erodible Land; PHEL – Potentially Highly Erodible Land; Hydric – Yes=listed on the Hydric Soils In Winona County, Minnesota, 1994, No=Not Listed; CER – Crop Productivity Rating; Slope – in percent

According to the Winona County Web Soil Survey these soils have properties that allow water to transmit to the most limiting layer in the soil profile at rates of 0 in/hr to 0.41 in/hr on the lower end to 0.57 in/hr to 1.98 in/hr on the higher end. In isolated areas across the Nisbit Mine the Lacrescent-Rock soils have the capacity to transmit water at rates of 0.57 in/hr to 1.98 in/hr. The existing soil conditions are considered by the Winona Soil Survey to be excessively drained with infiltration rates of 5.95 to 19.98 inches per hour (11.9 to 40 feet per day). The St. Peter sandstone is also excessively drained with hydraulic conductivity rates of over 19 feet/day according to data published in MGS publication RI-61. Excessive drainage would allow any pollutants to infiltrate rapidly in to the subsurface; however, the great depth to groundwater (140-200 feet) adds a measure of protection and points to the importance of leak and spill prevention and the necessity to rapidly recover leaks and spills. Potential groundwater contaminant is high in Saratoga Township due to rapid infiltration. However, as stated before farm chemicals, fertilizers and hazardous materials will not be used, so the threat to groundwater contamination is low.

Excavation will require the use of heavy equipment and truck hauling along with the use of fuels, lubricants and hydraulic fluids. Mobile transport venders will be used to replenish and maintain heavy equipment and trucks.

In the event that a spill does occur, mitigation measures including spill containment and emergency preparedness materials such as absorbent materials and pads will be kept on-site during

construction and mining operations. Additionally contaminated soils will be immediately excavated and containerized for proper disposal.

20. Solid Wastes, Hazardous Wastes, Storage Tanks.

- a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.**

Mine operations will utilize construction equipment and trucks that run on diesel fuels, use hydraulic fluids and petroleum-based lubricants. There will be no on-site storage of these materials except in the tanks and reservoirs on the equipment. All waste generated from equipment operations and maintenance such as waste oil, grease tubes, etc. will be collected and properly disposed or recycled. All solid waste generated by mine employees will be collected and waste disposal services will be contracted to a licensed hauler who disposes of the wastes at approved landfills or waste management facilities.

- b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating ground water. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.**

Measures will be taken to prevent and control the release of any toxic materials and to prevent surface or ground water contamination. A SWPPP, as described earlier, will assure and document that all employees are properly trained and equipped to prevent leaks and spills and to immediately respond to any accidental releases. Releases will be immediately contained and contaminated soils will be excavated and placed on plastic or other impervious materials and covered with plastic pending proper disposal as required by the MPCA.

Equipment maintenance and repair will collect and properly recycle or dispose of any waste fuels, lubricants or hydraulic fluids off-site.

Waste sand is not considered a hazardous material subject to special rules or regulations for disposal, however, erosion control to prevent dust and runoff are planned. Areas of disturbed soils and waste overburden and sand will be stabilized and re-vegetated.

A review of MPCA and Department of Agriculture records on leaks and spills "What's in My Neighborhood" show that currently there are no known or suspected hazardous waste sites, leaks, spills or other releases within 5 miles of the site.

See:

<http://pca.state.mn.us/index.php?data/wimn-whats-in-my-neighborhood/whats-in-my-neighborhood.htm>.

and

<http://www.mda.state.mn.us/chemicals/spills/incidentresponse/disclaimer.aspx>

- c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

The project will not involve the installation of any above or below ground tanks to store petroleum products or other materials.

21. Traffic. Parking spaces added: 4 Existing spaces (if project involves expansion): 0
Estimated total average daily traffic generated: 240 Truck Trips (120 in and 120 out) 6 cars (3 in and 3 out)
Estimated maximum peak hour traffic generated and time of occurrence: 29 (13 in and 13 out) (3 in or out)

The mining activities propose to generate a total *maximum* of 280 truck trips per day (140 empty trucks in and 140 loaded trucks out). The trucks will have a one-hour round-trip per truck from the Nisbit mine to the Winona load-out. There will also be 6 employee trips per day (3 in and 3 out). This equates to 26 truck trips and 6 employee trips during the weekday peak hours (7:00 - 9:00 a.m. and 4:00 - 6:00 p.m.) for a total of 26 trips in and out. However, plans to generate the total *maximum* truck trips of 280 per day may occur if market demand increases, otherwise mining activities are planned to operate with 10 trucks per day generating a total of 120 trips per day. Truck traffic is proposed to travel along CR 113 and CSAH 33, US Highway 14 and Goodview Road in Winona (Figure 8).

The traffic impact analysis submitted with these figures was conducted by the proposer early in the planning stages of this project and therefore does not represent the cumulative traffic from projected mining activity in the same geographic area. The estimates of traffic volume indicated in the EAW worksheet represent the most current information from the project proposer.

A Traffic Impact Study for impact to County Roads was prepared for this development by Wenck Associates, Inc., a Professional Engineer registered in Minnesota to perform traffic impact studies (Appendix 1). The purpose of the study was to determine if the proposed development will significantly impact the adjacent transportation system and to recommend mitigation measures.

The scope of this traffic study was developed in coordination with the Winona County Engineer. The following intersections were analyzed for capacity and sight distance:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

All of the study intersections are forecasted to operate acceptably at Level of Service (LOS) B or better (where, LOS B represents stable flow with a high degree of freedom and LOS A represents light traffic flow or free flow conditions) with additional Nisbit Mine truck traffic. The "Traffic Impact

Analysis for Nisbit Sand Mine” prepared by Wenck Associates, Inc. concluded that the CSAH 33/CR113 intersection has sight distance deficiencies, however, due to the very low traffic volumes physical improvements to the roadways to increase the sight distances are not justified (Appendix 1). The proposer will install signage to alert drivers of hauling trucks. No road segments are forecasted to reach capacity with the additional truck traffic. No modifications to the existing public transportation system will be needed to accommodate the proposed mine trucks. MN DOT has acknowledged the fact that the proposed vehicles have a slow acceleration rate and has recommended a gap analysis should be conducted to address potential safety concerns

22. Vehicle-related Air Emissions. Estimate the effect of the project’s traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.

Vehicle-related air emissions generated by this project will consist primarily from emissions from mobile sources including heavy equipment at the mine (1 backhoe, 1 loader, 1 elevator, one power screen) and 40 ton over-the-road trucks. The mining equipment will be confined to a ±1 to 3-acre working/staging area that will migrate across the Nisbit mine as the mining progresses in phases. The over-the-road trucks will circulate between the loading at the mine and the load out in Winona.

Emissions from vehicles and equipment are controlled by the manufacturer in accordance with USEPA motor emission regulations and federal fuel standards. All equipment and trucks will be compliant with current air emission, efficiency and fuel use standards.

Since mining equipment and haul trucks are constantly moving to stay efficient and the open mining area and prescribed haul routes are adequate to handle the proposed truck traffic, congestion within the site is not a concern. Haul routes were modeled by traffic engineers and they concluded selected routes will not cause a decline in the level of service that can contribute to concentrated air quality problems.

At the mine site the open atmosphere, elevation and topography of the loading areas allows for diffusion of the engine emissions and will not contribute to pockets of air with excessive pollution levels.

Mobile source emissions from the added traffic will be ephemeral. With a 16 hour day a maximum of 240 trucks/day haul vehicles will pass by any particular point on the haul route at a rate of 15 trucks/hour. Based upon discussions with Ralph Pribble at the MPCA he indicated it is a standard practice to use the US EPA’s online Diesel Emission Quantifier (DEQ) (<http://cfpub.epa.gov/quantifier/>) to model and quantify the annual diesel emissions associated with truck traffic. Annual diesel emissions from the Nisbit Mine for 240 truck trips per day were modeled to quantify vehicle-related air emissions associated with truck traffic. for three criteria pollutants including nitrogen oxides (NO_x), particulate matter less than 2.5 microns in diameter (PM_{2.5}), carbon monoxide (CO), in addition to hydrocarbons (HC) and carbon dioxide (CO₂) (Appendix

6). A summary of the modeled results is provided in the table below.

Table 2: Annual Vehicle-related Air Emissions (240 trucks/day maximum)

Pollutant	NO _x	PM _{2.5}	HC	CO	CO ₂
Emissions (short tons/yr)	9.31	0.11	0.20	1.0	198.32

Note: Results are based on use of 17,867 gallons of diesel fuel per year.

Detail of the model assumptions and calculations used to quantify vehicle-related air emissions are included in Appendix 6.

According to the USEPA “Green Book Non-attainment Areas for Criteria Pollutants” Winona County is not listed as a non-attainment area, where air pollution levels persistently exceed National Ambient Air Quality Standards (<http://www.epa.gov/airquality/greenbook>).

No air quality issues are known nor have been reported to exist in the vicinity of the mine, along the haul route or in the City of Winona at the present time. The level of traffic generated by the mining activity is not expected to lead to any measurable decrease in air quality due to vehicle emissions.

No detail or published information is available on the potential for fugitive dust and ambient air changes associated with projected haul routes and dust from vehicles. MN Statutes require heavy vehicles to secure and cover loads with tarps and Winona County will require vehicles be covered and cleaned satisfactorily to avoid accumulation of tracked material onto public roadways.

The Minnesota Department of Health has cautioned on the health risks associated with silica dust but has acknowledged that no data is available on ambient air conditions having possible lower concentrations of silica dust, noting it is the subject of on-going research. (See MDH Publication “Frac Sand Mining in Minnesota, September, 2012).

23. **Stationary Source Air Emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydro fluorocarbons, per fluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

There are no stationary source air emissions for the operations in this proposal. All mine equipment will be mobile and will move as the working face migrates across the mine site. The mine equipment will be placed across a ±1 to 3-acre area, depending on each mine phase.

The applicant claims that numerous published studies of airborne particles show that clay and

other plate-like or lath-like particles have a larger aerodynamic diameter than round sand particles, thus making it more difficult for round sand to stay suspended in the air than similar sized clay or silt particles that become airborne from soil disturbance, wind erosion or road dust. The applicant has stated that the Web Soil Survey and other published studies of the mineralogy of loess soils similar to the soils surrounding the Nisbit ridge have a greater proportion of respirable silica dust (< 4 microns) than the St. Peter sand that is proposed to be mined thus making wind erosion of the soil and of the sand both priorities for the mine operation.

Sand samples analyzed by McGhie & Betts, inc. from the Nisbit mine show fine sand passing the 200 sieve (finer than 73 microns) ranges from zero to 10.4%. A hydrometer grain size analysis of the sample with 10% passing the 200 sieve found that particles less than 10 microns were 2.6% of the sample while the other samples had no particles finer than the 200 sieve (73 microns).

According to the proposer fine sand and dust does not become airborne and suspended under normal conditions when the moisture level of the sand is above 1.5%. Comparing the sand to the surrounding Lindstrom soils (301A, 301C and 301D), we find that this soil type has 85-95% particles passing the 200 sieve, and the Frankville soils that have 95-100% passing the 200 sieve. The smaller than 200 particles in the local soils have been analyzed to be 50-60% silica, therefore the dust from the cropland may be 42.5 to 60% respirable silica dust while the sand that is being mined has zero to 2.6% silica dust. According to the proposer the silica sand being mined has much less risk of creating respirable silica dust than the surrounding agricultural soils.

Research from Mine Safety Health Administration (MSHA) and the Center for Disease Control (CDC) indicate long-term exposure to silica sand (crystalline silica) can cause acute and chronic health effects, or in severe cases silicosis. The most common occurrences are reported in employees with high risk jobs having frequent daily exposure to dust including farming, sandblasting, foundry work, or stonecutting and other activities where the silica sand is exposed over large areas or where silica sand grains are crushed into very small particles less than 4 microns in size (PM₄). According to the proposer in this instance the silica sand mining avoids breaking the sand grains because the industrial proppant sand applications are dependent upon maintaining the grain size and round structure of the silica sand. Compromising the quality of the sand through crushing or pulverizing would make the silica sand unusable as proppant. Therefore, the Nisbit Mine will preserve the physical properties of course to fine grained, round silica sand found at the Nisbit Mine to ensure respirable silica dust is minimized.

Dust control methods employed on the site include: first to strip and immediately re-vegetate soils; second, limit the amount of sand being exposed at any given time to less than 5 acres by using rapid restoration; third, employ the perimeter berm/rim ditch as a partial wind break; and, fourth to employ water trucks for dust control during dry and windy days. The dust from the mine is expected to be confined to the Nisbit property and all haul trucks will use covers for loads at all times. Additionally, dust suppressants such as misting around equipment, enclosed equipment with cabs and air filtration systems, watering or treatments of the haul roads, covered truck loads, clean-up of spilled sand and following MSHA best management practices for dust control in silica mines are the primary tools for minimizing dust.

Further, as silica sand is excavated it will be loaded into a jaw crusher, screen and elevator equipped with big hoppers and shields to produce two stockpiles. As material is transferred from crusher, screen and loader the dust generated will be suppressed by conforming to MSHA standards that require well maintained equipment with proper guards and dust control measures like watering, misting, protective berms and dust resistant surfaces to control dust below the permissible exposure limit for worker safety. Protecting worker safety has the corollary effect of protecting the public from dust exposure.

There will not be any boilers or stationary engine installations.

Further, the Nisbit Mine will comply with the proposed Winona County Conditional Use Permit General Condition Item number 4 "Air Quality monitoring" for sand mining operations. Condition 4 requires air quality monitoring when residential homes are located within a 1,320 foot radius (1/4 mile) from the site. The closest home is located 850 feet from the mine, but is the applicants homestead and is exempt from the setback requirements. The next closest home west of the Nisbit's is vacant. The nearest occupied home is located 1,500 feet to the south of the Nisbit Mine outside of the area where air quality monitoring is required. Therefore, no air quality monitoring is expected at this time.

24. **Odors, noise and dust. Will the project generate odors, noise or dust during construction or during operation?** ☒ Yes ☐ No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Odors

Diesel odors will be emitted by construction equipment during the quarrying and transporting at the site. Emissions are regulated by the USEPA at the manufacturer of the equipment and trucks.

The sand and rock has no odor.

We do not anticipate that any odors will occur during mining or post construction other than vehicle exhaust during heavy commute times.

Noise

Noise will be emitted by earth moving equipment and mining during their established hours of operation. Heavy equipment noise, including back-up beepers, will be noticeable at the site and on adjacent properties. Quarrying noise will be typically associated with the operation of motorized vehicles and construction equipment similar to noise generated from agricultural operations. All diesel and gasoline driven equipment will have mufflers. To the extent practicable the processing equipment will be shielded and placed near the mining operation. Truckers will be instructed not to employ dynamic breaking while hauling. Back-up beepers will be utilized on all

equipment in accordance with National Institute for Occupational Safety and Health (NIOSH) Guidelines and Minnesota Occupational Health and Safety Administration (MNOSHA) Rules.

The proposer indicates that the area is sparsely populated and there are few noise receptors in close proximity to the site. The topography of the working face and operational area, the perimeter berms, and the wind speed and direction will influence the noise for receptors in the area.

The applicant acknowledges and recognizes the requirements to adhere to Minnesota Noise Rules MR7030 for Class 3 noise areas for agricultural and related activities. These requirements prescribe standards for day and night that “are constant with speech, sleep, annoyance and hearing conservation requirements for receivers.”

The noise levels for this activity would be measured at the property line and would be:

- Daytime and nighttime: L10 (10% of the time in a one hour survey) = 80 dB.
- Daytime and nighttime: L50 (50% of the time in a one hour survey) = 75 dB.

Blasting may be necessary to start Phase I while removing the cap rock off the ridge and to loosen well cemented sandstone. Blasting creates an instantaneous “impulse” noise and percussion that may be noticed in the areas near and downwind of the blast site. If blasting is found to be necessary the owner and operator will retain professional and licensed blasting contractors who operate in accordance with all federal, state, county and township regulations. No explosives will be stored on the site. The blasting contractor will notify all adjoining neighbors in advance of the blast alerting them to the time and duration of the event and vibration monitoring shall be done as necessary at the adjacent homes and structures within ¼ mile of the proposed blast.

Dust

The potential for dust generation from silica sand mining occurs during various stages of mining including topsoil stripping, crushing, screening, truck traffic from hauling and wind exposure on the open mine face or from exposed stockpiles. Control measures can be employed to reduce the amount of dust produced during mining operations to protect mine workers, nearby receptors and individuals along the haul routes.

Worker safety from respirable silica dust exposure is the primary human health concern. The MSHA regulates exposure of silica in the mining workplace and has established an exposure limit of 0.1 mg/m³ of air over an 8-hour work shift. Additional standards established by the NIOSH have a recommended exposure limit (REL) for silica of 0.05 mg/m³ (fixed value), which is half the regulated exposure limit. In accordance with the 1970 Occupation Safety and Health Act (OSHA) specific employers are then responsible for providing safe and healthy working conditions. Engineered controls, work practice, personal protective equipment and working training are important aspects of minimizing dust.

The principal means of dust control at the Nisbit mine includes limiting the size of the open face and working area to less than 5-acres. Best management practices such as strategically placing berms to create windbreaks from the prevailing NW and SW winds ensures the mine open face is

protected from wind exposure. Other practices including use of water trucks for wet suppression and vegetation establishment over all areas not used for active mining will help minimize dust during mining operations and hauling.

Operations will comply with the recommendations of the Department of Health and Human Services Center for Disease Control and National Institute of Occupational Health and Safety Information Circular 9521, 2010 "Best Practices for Dust Control in Metal/Nonmetal Mining."

The manual prescribes best management practices to protect workers and prevent fugitive dust. For the Nisbit Mine three principal areas of dust control are prescribed:

- Mining area: Equipment and trucks will have cabs with filtration systems to protect workers. Water will be employed on travel surfaces.
- Processing areas: Crushers and screens will employ wet suppression for dust at transfer points.
- Private haul roads: The roads will be constructed of crushed limestone aggregate and recycled bituminous. The driving surface will be treated with oil, chloride and/or water to control dust. There is no hauling on crushed rock public roads and dust suppression will not be used on paved surfaces. Best Management Practices will be employed to control tracking on public roadways.

In addition to protect receptors located adjacent to the mine and along the proposed haul routes all trucks will comply with Minnesota Statutes (MS 169.81, Subd. 5) that states *"no vehicle shall be driven or moved on any highway unless such vehicle is so constructed, loaded, or the load securely covered as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping."*

According to the proposer only a small fraction (≤ 5 ac) of the 19.1-acre mining area and the processing/vehicle parking area (≤ 1.13 ac) will be active at any one time during the project and receptors located adjacent to the mine and along the haul routes are at a low risk of exposure to silica sand.

25. Nearby resources. Are any of the following resources on or in proximity to the site?

- a. Archaeological, historical, or architectural resources? ☐ Yes ☒ No
- b. Prime or unique farmlands or land within an agricultural preserve? ☒ Yes ☐ No
- c. Designated parks, recreation areas, or trails? ☐ Yes ☒ No
- d. Scenic views and vistas? ☐ Yes ☒ No
- e. Other unique resources? ☐ Yes ☒ No

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

Two adjoining properties are enrolled in the Agricultural Preserve program in accordance with MS 40A. Public records show that the abutting Rachael Boyum property and the Harmon Family Farms property shown on Figure 3 are enrolled in the Ag-Preserve.

The Minnesota State Historical Preservation Office (SHPO) of the Minnesota Historical Society was contacted to determine if any archeological or historically significant sites existed on or near the Nisbit Mine. There have been no identified historical or archaeological resources located within the proposed project boundaries. A letter from SHPO is provided in Appendix 7.

The NRCS system described in item 16b indicates all soils within the Nisbit Mine are not considered prime farmland.

There are no significant recreational resources on or within 5 miles of the Nisbit Mine including designated parks, recreation areas, trails, or wildlife management areas. However, along the mine's haul route three recreational resources, including a state designated snowmobile trail (west of CSAH 33 ROW), the County Farmers Community Park (south of US Highway 14) and the Department of Natural Resources designated Aquatic Management Area along Garvin Brook (south of US Highway 14) are located more than 5 miles from the proposed mine. According to the proposer, compared to mine worker exposure as discussed in Item 24, dust impacts to the users of these resources will be negligible as covered trucks temporarily pass by the resource within a few seconds and will be substantially less than living or working on or near cropland.

The Nisbit Mine will be operated during Monday through Friday between the hours of 7 AM and 10 PM CST and Saturday from 7 AM to 12 PM CST. Hauling will take place Monday through Friday between the hours of 7 AM and 7 PM CST and Saturdays from 7 AM to 12 PM CST. The proposer indicates hauling will be completed each week by 12 PM CST on Saturdays before roadway traffic increases from nearby residents traveling to popular tourist destinations such as Winona, Rochester, Lanesboro or La Crosse. There are no tourist destinations located within 5 miles of the mine.

Although there are no identified scenic views or vistas, the site is visible from some areas of adjacent roadways and properties.

26. **Visual impacts. Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?** ☐ Yes ☒ No

If yes, explain.

Most construction operations will be carried out during daylight hours. Temporary lighting is expected during the construction phase during early morning and evening hours. The proposed hours of operation are 7:00 AM to 10:00 PM and during the winter months downcast portable lighting will be used to illuminate the working area. Depending upon weather conditions and the prevailing wind direction occasional dust may be visible during dry periods. However, a water tanker truck will be used on-site for dust control on the access driveway and stockpiles. No stationary sources or fixed exhaust stacks are anticipated which would create additional visual impacts.

Stockpile areas placed within the mining limits will provide transient screening of mining activities for surrounding roadways and properties. Stockpiles that will remain in place longer than 14 days will be susceptible to wind erosion and will be covered with topsoil, seeded, and mulched. Due to the phasing and continuous restoration the site will have the appearance of a 3 to 5-acre sand pit surrounded by cropland. The mining site is located in a rural area and there are few residences that would be visually impacted by the mining and quarrying operation.

Due to visibility from surrounding roadways and properties, it is expected that current viewsheds will be affected by mining operations.

- 27. Compatibility with plans and land use regulations. Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?** ☒ Yes ☐ No

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

Winona County has land use and zoning authority and the Nisbit Mine is subject to the Winona County Comprehensive Plan (2000). The property is zoned Agricultural/Resource Conservation as defined in the Winona County Zoning Ordinance. Mining operations are permitted in this zone when reviewed and approved as part of a Conditional Use Permit (CUP). CUP requirements are outlined in Chapter 6.10 of the Winona County Zoning Ordinance and the Nisbit Mine will follow the Extraction Pits/Land Alterations requirements as outlined in Winona County Zoning Ordinance Chapter 9.10.

Winona County's Comprehensive Plan's Goals and Policies (p. 17, Development Goals and Policies) indicates the promotion of protection and preservation of agricultural lands by limiting non-agricultural development in agricultural areas. Extraction of mineral resources has been a historic land use attributable to agricultural areas and therefore mining is consistent with the Winona County Comprehensive Plan recommendations in agricultural areas, however, industrial mining on a larger scale must be considered when altering land use patterns, specifically the removal of prime agricultural lands from crop production or pastures. While it is important to recognize that the proposed mining area is largely in crop production and a portion in brush/pasture, this will be an important consideration of post-mining reclamation.

Winona County's zoning ordinance requires certain performance and area standards for mining and extraction and this proposed site will be required to conform to local regulations.

- 28. Impact on infrastructure and public services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?** ☐ Yes ☒ No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

The Nisbit Mine does not require any connection to public utilities, just an improved access to existing public roadways. The impacts to public roadways are identified in item 21. Any maintenance or upgrades to the haul route would be addressed in a roadway agreement with Winona County.

Further processing of the sand at off-site facilities may have an impact on public facilities. Those impacts are outside the realm of this EAW.

The "Silica Sand Mining in Wisconsin" report of the Wisconsin DNR, January 2012, acknowledges that "vehicular traffic on local roads will have an impact on the service life and condition of the roads and that the degree of road deterioration will depend on the amount of traffic, the type of vehicles and the design of the road." Winona County anticipates the use of a road impact exaction, required as part of the conditional use permit process for County Highways in order to address this impact and the use of local road use agreements to mitigate impacts on local roads.

The proposed quarry operations anticipate up to 240 truck trips per day (120 out and 120 in). The impact on County Highways is expected to be mitigated by proposed requirements for a road impact agreement requiring an exaction for road impacts.

Additional impact on public services is due to required staff time in EAW and permitting review and projected administration of permits.

29. **Cumulative potential effects.** Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative potential effects. (Such future projects would be those that are actually planned or for which a basis of expectation has been laid.) Describe the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects *(or discuss each cumulative effect under appropriate item(s) elsewhere on this form)*.

Cumulative Effects are defined by Minnesota Environmental Rules as "effects resulting from a past, present, or reasonably foreseeable future projects". Potential Cumulative Effects may be considered in determining the need for an EIS.

Cumulative effects are also important in determining the need for an EIS in that they ultimately assist the RGU in achieving disclosure and assessment of the environmental impacts potentially caused by an action (whether individual, connected or phased).

Cumulative Impacts are more fully defined in MN Rules 4410.0200, subpart 11 which states that "cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time".

MN Rules contain the following provisions involving cumulative impact:

- EIS need decision criteria (4410.1700, subpart 7, item B)-Cumulative potential effects of related or anticipated future projects-the cumulative impacts must be weighed along with the project's direct impacts when deciding if an EIS is needed. This criterion also implies that the RGU must consider this in the preparation of an EAW.
- Related actions EIS (4410.2000, subpart 5)-This provision authorizes a single EIS to cover "independent projects with cumulative impacts on the same geographic area, if joint review will not unreasonably delay review of the project."
- EIS scoping decision (4410.2100, subpart 6) a scoping decision is to include "identification of potential impact areas resulting from the project itself and from related actions" In other words, the RGU must consider both direct and cumulative impacts.
- EIS contents-impacts (4410.2300, item H) this provision requires an EIS to address both direct and indirect impacts which may include cumulative impacts.
- Generic EIS-criteria (4410.3800, subpart 5, item G) Indicates that one criteria for ordering a generic EIS is "the potential for significant environmental effects as a result of cumulative impacts of such projects".

The Nisbit quarry is 19.1 acres, smaller than other proposed quarries in SW Winona County. It is being operated by an independent operator not affiliated with the operators of the other mines indicated below. In addition, it was the earliest application for industrial sand mining in Winona County and has always anticipated trucking the material to processing and load-out facilities in the City of Winona.

As stated by the proposers the Nisbit owners and operators cannot predict any past, present or reasonably foreseeable future projects that may interact with this mine.

Phased and connected actions do not in themselves constitute cumulative potential effects; however, they may influence the consideration of cumulative potential; effects due to timing, geographic proximity, operational relationships and other criteria. Current guidance on phased and connected actions does not clearly indicate this mine is part of a larger action. Connected actions are defined by one project inducing or being interdependent with another. It is not clear that this mine will interact in any way with those indicated below. Phased actions are partially defined as having sequential timing. Since this mine is being operated independently and has its own market relationships, it is not clear that it is in any way sequentially timed with other mines in the area.

According to the City of Winona there are currently six active silica sand washing and/or load out facilities actively operating in Winona; these facilities purchase silica sand from approved and active mines located in Wisconsin. According to the proposer, silica sand load-out and export capacity is capped in Winona County Minnesota until another rail load out facility is approved. The proposer further indicates that the Brant Valley load out and sand washing facility is the sole market for the sand from the Nisbit mine although it is currently operating at maximum capacity with undefined agreements from approved sand mines in Wisconsin. Once the Nisbit mine is approved the proposer indicates that Brant Valley will purchase silica sand from the Nisbit Mine

which will result in displacing existing Wisconsin sand supply markets to Brant Valley reducing the trucking across the interstate bridge.

It is possible that other mining projects are proposed within Winona County but the exact location, plans and details are unknown and cannot be reliably predicted due to proprietary economics and permitting.

Other mine owners and operators not affiliated with the Nisbit mine are discussing projects within the vicinity of this project which is related to the cumulative availability of the high quality silica sand within the region.

What follows is a list of known or discussed projects associated with silica sand in the Winona County vicinity:

- A number of processing facilities exist within or within the vicinity of the City of Winona.
- A number of shipping facilities exist within the City of Winona where rail and barge access are available.
- Preliminary information on a proposed processing site near the City of St. Charles indicates a 300 acre project, having an annual processing capacity of 2 million tons of sand and a trans-load rail facility.
- A 36.5 acre quarry site is proposed in Saratoga Township (Dabelstein Site) and is the subject of an EAW. The mine operator is Minnesota Sands LLC.
- An 84.3 acre quarry site is proposed in Saratoga Township (Yoder Site) and is the subject of an EAW. The mine operator is Minnesota Sands LLC.
- Additionally, there is at least one known mine proposed in Fillmore County located in Holt Township on County Road 10 about ½ mile southwest of Highland (approx. 50 acres). Fillmore County has also indicated 3 *pre-applicants* in Pilot Mound Township, just south of the project area, in Sections 1 and 2, about a mile away from Winona County Road 33, south of CR104 and County 30. They are listed as the Alice Dabelstein quarry (approx. 50 acres and approximately 1.25 miles from the Nisbit property), the Randy Boyum quarry (approx. 50 acres and approximately 1 mile from the Nisbit property) and the Kessler Quarry (approx. 30 acres and approximately 1 mile from the Yoder property). The mine operator for these sites is Minnesota Sands LLC according to information from Fillmore County.
- Lastly, a Minnesota Sands LLC, public relations employee indicated in a Winona Post newspaper article from October, 2012, that the company had nine leases in three different counties.

To summarize, cumulative potential effects may be:

- Impacts of vibrations on neighboring properties caused by blasting cap rock.
- Impacts on road infrastructure and safety due to truck traffic.
- Impacts of traffic entering the cities of Winona and Goodview with regards to levels of service, safety and infrastructure capacity.
- Impacts on air quality due to dust or airborne crystalline silica
- Impacts on water quality due to change in land cover and runoff quality/rates.
- Impacts on processing facilities, existing and proposed.
- Impacts on shipping facilities, existing and proposed.
- Impacts on other quarries, existing and proposed.

- Impacts due to expansions at existing processing, shipping or quarries.
- Impacts created by fluctuations in market demand.
- Impacts created by new technologies and material uses.
- Impacts yet to be determined.

The nature of potential cumulative effects can be determined by considering the breadth of issues contained herein, including the data submittal by the proposer, supplemental agency comments and information identifying areas for additional study.

30. Other Potential Environmental Impacts. If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No other potential environmental impacts are expected that haven't been addressed by items 1 to 28.

31. Summary of issues. *(Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the Draft Scoping Decision Document, which must accompany the EAW.)* List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigate measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

Based upon further discussion with the Winona County Planning Commission Staff the applicant was requested to address several additional issues not specified in the standard Environment Assessment Worksheet (EAW). Additional issues addressed in the EAW are summarized below:

- Property Values (See Item 9)
- Air quality impacts on haul routes (see Item 24, Dust)
- Tourism impacts (See Item 25)
- Assess cumulative potential effects of other sand mining projects within Winona County (See Item 29)
- Assess cumulative potential effects of the sand load out facility in Winona (See Item 29)

Issue	Alternative	Mitigation
Farmland Conversion Loss	None	Site is proposed to be restored to grassland.
Wildlife and Ecologically Sensitive Resources	None	Wildlife displacement will be temporary and restoration will be grassland. Ecologically sensitive resources are not state-listed endangered, threatened or special concern species and are not regulated.
Water Quality	None	Comply with erosion and runoff control measures using berms, swales and silt fencing; obtain MPCA Nonmetallic Mining Stormwater Discharge Permit
Geologic Hazards	None	Develop a sinkhole mitigation plan if mining exposes a sinkhole formation
Vehicle-related Air Emissions	None	Regularly maintain construction equipment to ensure compliance with current air emission, efficiency and fuel use standards is employed.
Dust		Employ dust control measures that include watering and chloride applications to graded areas, minimizing the open face of the mine, employing wet suppression on crusher and screens and stabilize disturbed areas with vegetation within 90 days.
Noise		Control and enforce hours of operation.

Additional issues related to the proposed project are:

- Susceptibility to karst formations – reference #19, is a risk in areas where carbonate bedrock is the first encountered bedrock or where there is minimal cover over the karst. The Nisbit sand ridge site has Shakopee formation karst at an elevation of approximately 1,130 feet, 40 feet below the base of the mine. Diversion and buffer areas are the most effective methods for minimizing impacts to groundwater via sinkholes.

Because sinkholes can create a conduit to funnel contaminated surface waters into the Prairie du Chein/Jordan aquifer sinkhole prevention is a priority. According to the applicants Geologist sinkhole prevention at the site is best accomplished by leaving adequate (>20 feet) of cover over the Shakopee and by not designing or constructing ponds or lagoons.

Because the surrounding bedrock is high permeability sand the surrounding terrain can also be a conduit for contamination from the release of dissolved compounds such as nitrogen, chlorides, pesticides and petroleum products. While mining will reduce the use of nitrates and pesticides over the 19.1-acre footprint of the mine prevention and

immediate clean-up of leaks and spills, or avoidance of the excessive use of chlorides will also help reduce the risk of groundwater contamination. While sinkholes can be repaired and mitigated the prevention of the release of any contaminants that could affect the aquifer is a priority.

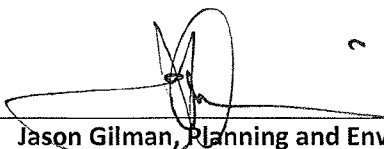
- Susceptibility to pollution of drinking water – reference item 12, 17 and 18. Mining will not come in contact with groundwater and will not require any dewatering or chemical flocculation of storm water runoff.
- Traffic – reference Item 21. The impact on County Highways is being mitigated by proposed requirements for a road impact agreement requiring an exaction for road impacts.
- Health impacts due to airborne crystalline silica – reference Item 24. The Minnesota Pollution Control Agency states “There are known health risks associated with airborne crystalline silica. However, the available information on health effects comes almost exclusively from occupational settings, where exposures are more concentrated. There are no federal or state standards for silica in ambient air.” The MPCA and Minnesota Department of Health are working in conjunction with other states to determine if any regulatory changes should be made.

RGU CERTIFICATION

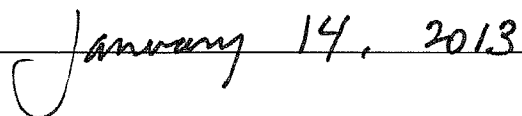
I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages, or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minn. R. 4410.0200, subps. 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Name and Title of Signer:


Jason Gilman, Planning and Environmental Services Director
Winona County Planning Department

Date:



The format of the Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board. For additional information, worksheets, or for EAW Guidelines, contact: Environmental Quality Board, 520 Lafayette Road, St. Paul, Minnesota, 55155-4194, 651-296-6300, or at their website <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>.

FIGURE 1 COUNTY MAP

Map By: B M O

Map Scale: 1 in = 25,000 feet

Date: Monday, December 10, 2012

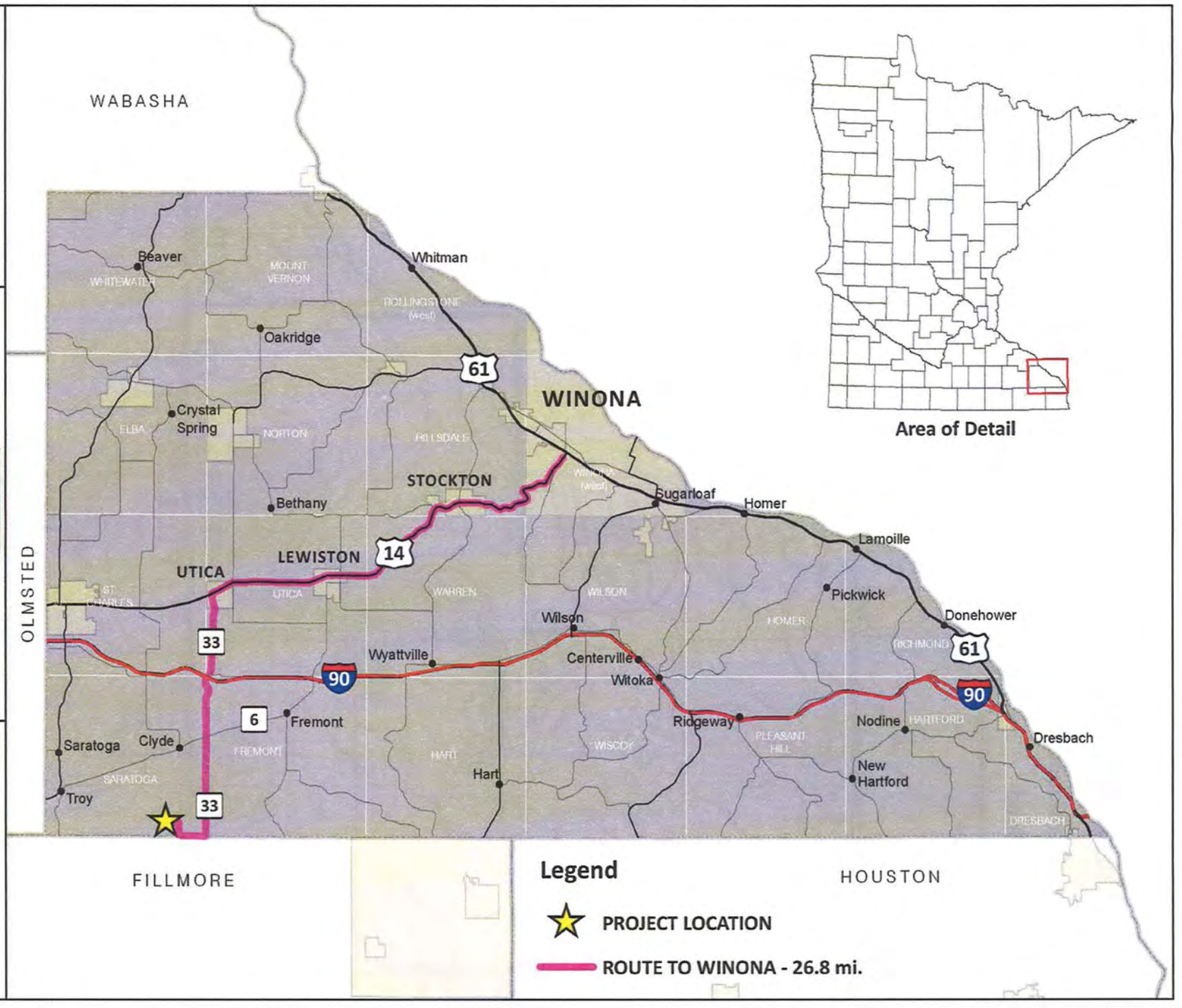
GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards
Environmental
Assessment Worksheet
& Impact Statements



Environmental Site
Investigations, Mgt
& Design
Landscape
Architecture
604 Third Ave S.E.
Fargo, ND 58103
P: 701.782.7333
email: info@mcgheebc.com



0 2 4
Miles



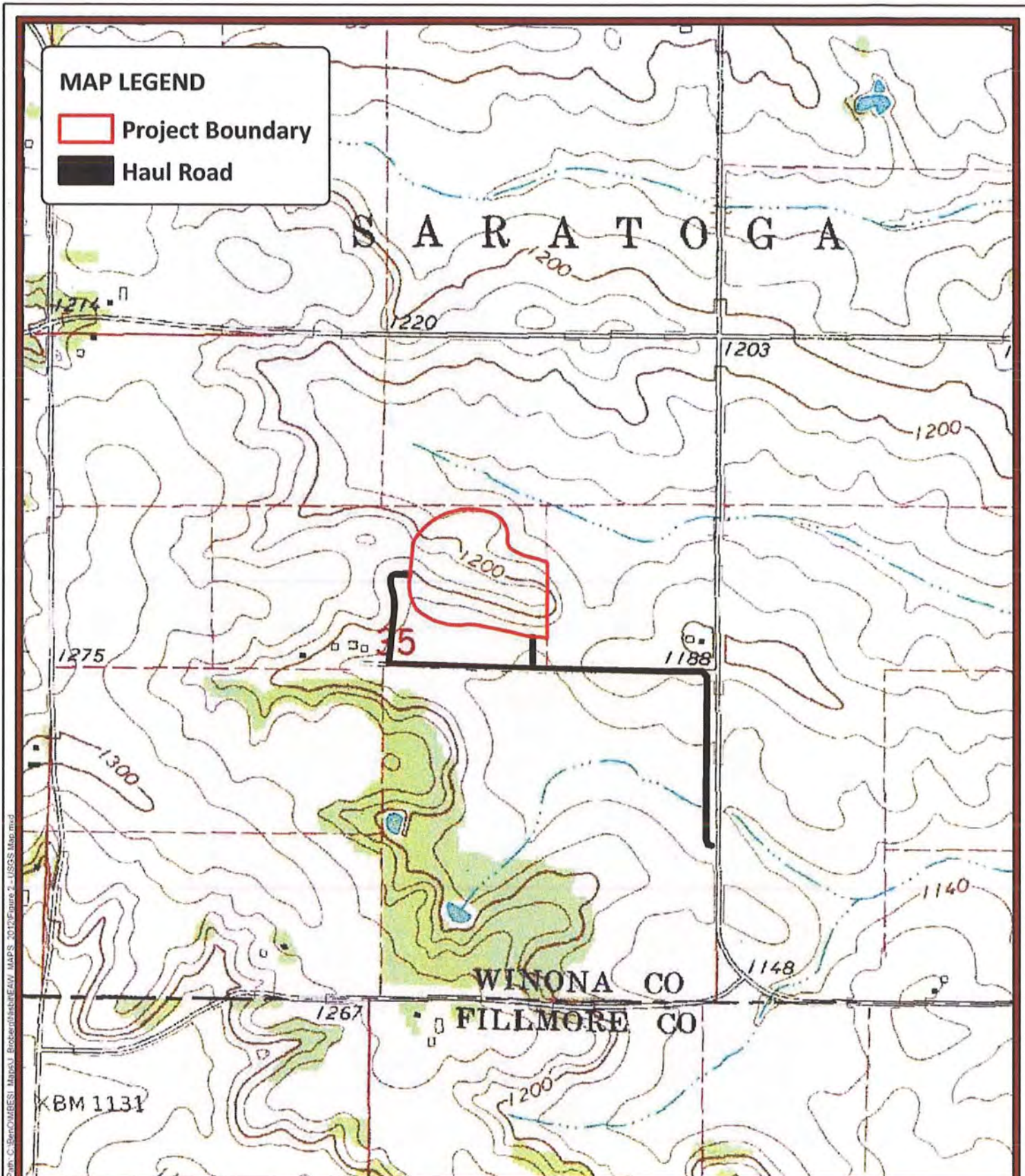


FIGURE 2

USGS MAP

Map By: B M O

Map Scale: 1" = 1,000'

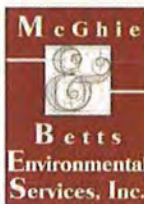
Date: Wednesday, October 10, 2012

GIS Mapping
& Spatial Analysis

Wetland Delineation
& Permitting

Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

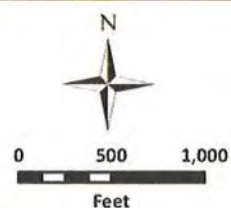


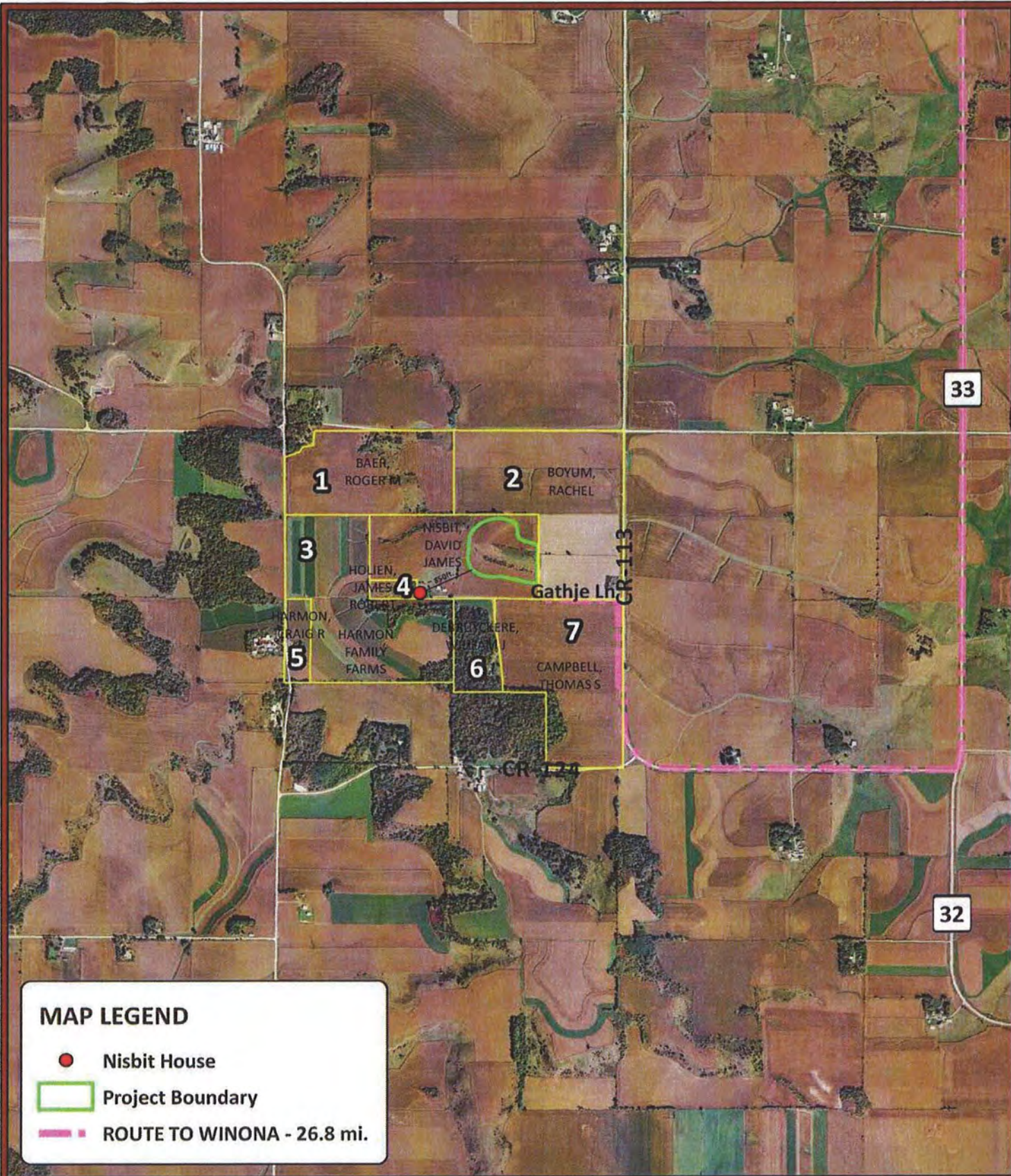
Environmental Site
Investigations, Mgt.
& Design

Indoor Air Quality

Landscape
Architecture

1648 Third Ave. S.E.
Tel. 507 280 3610
Fax. 507 280 7333
email: info@mcghiebetts.com





MAP LEGEND



Nisbit House



Project Boundary



ROUTE TO WINONA - 26.8 mi.

VICINITY MAP

FIGURE 3

Map By: B M O

Map Scale: 1" = 2,000'

Date: Monday, December 10, 2012

GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

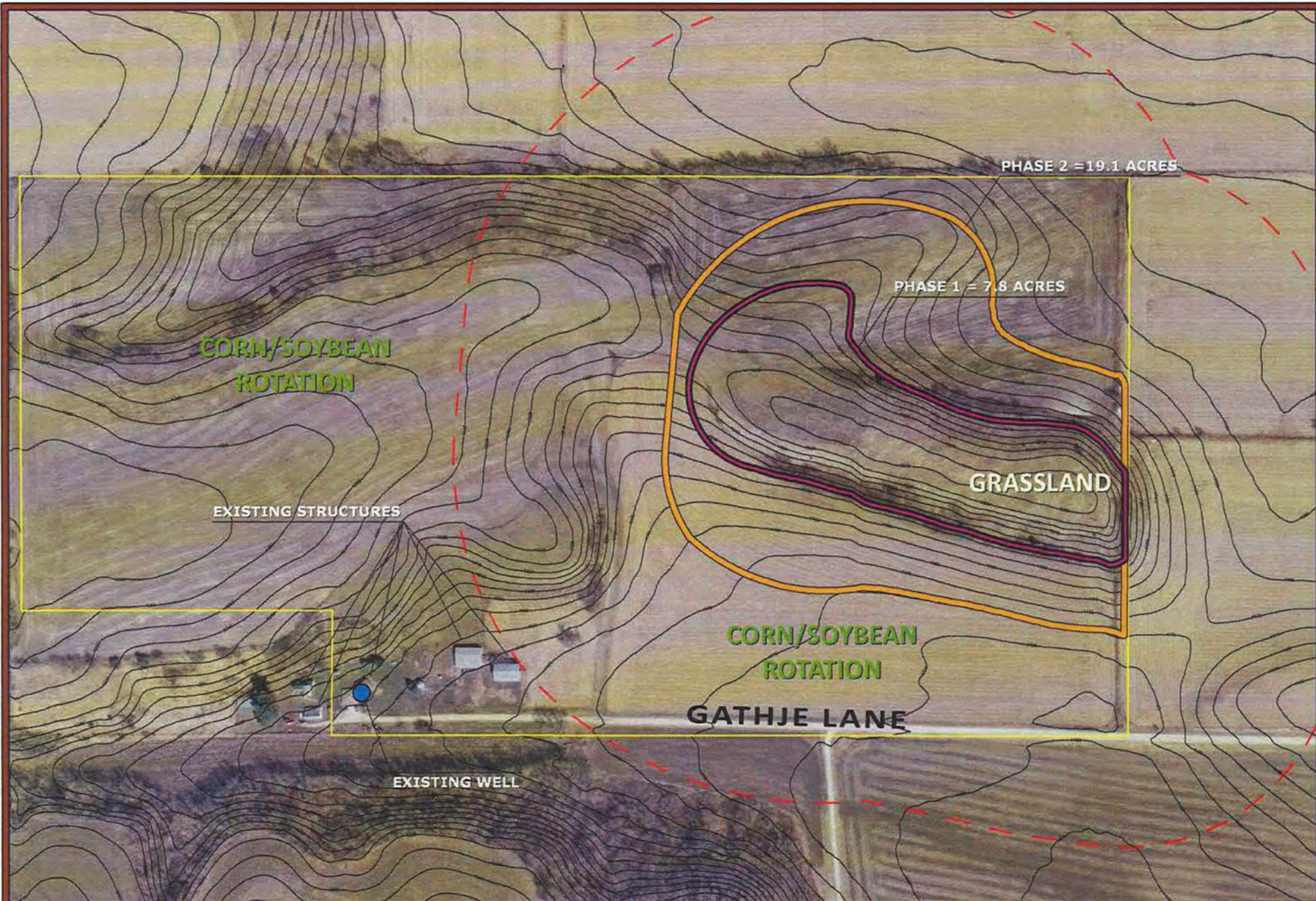


Environmental Site
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& Design
Indoor Air Quality
Landscape
Architecture

1648 Third Ave. S.E.
Tulsa, OK 74103
Tel: 918.259.7343
Fax: 918.259.7343
email: mbs@mcghiebetts.com



0 0.25 0.5
Miles



EXISTING CONDITIONS
FIGURE 5

Land Surveying
Urban-Land Planning
Consulting • Civil
Engineering
1040 Third Ave. S.E.

McGhie
Betts
Environmental
Services, Inc.

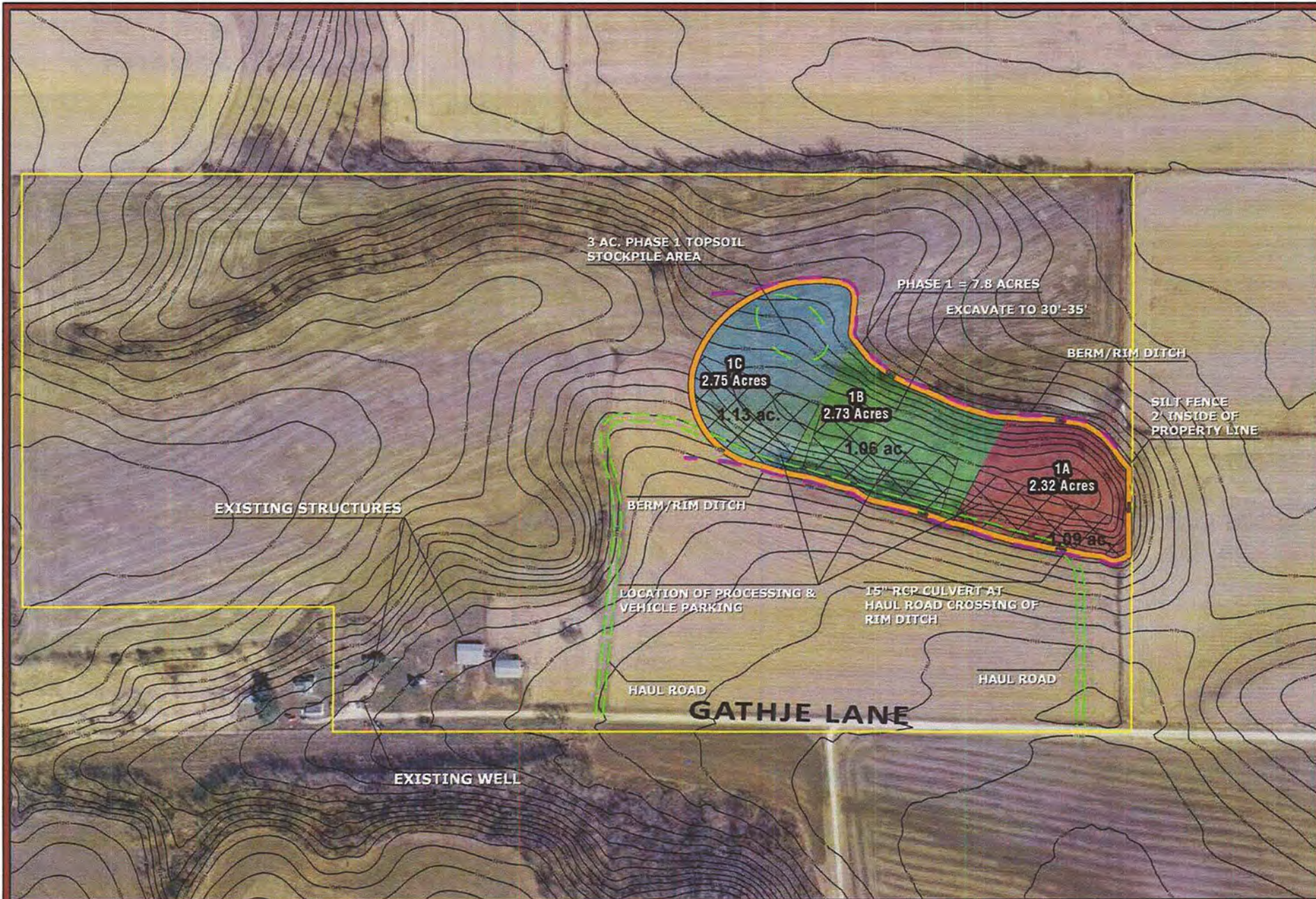
Geotechnical
Engineering
Construction
Material Testing
Landscape
Architecture
Tel: 507.289.9979
Fax: 507.289.7333
email: mh@mcghiebetts.com

Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W Winona County

Date: 10/12/2012 Scale: 1" = 300'

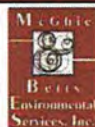
Project Boundary (19.1 ac.)
 Nisbit Property





PHASE 1 PROPOSED OPERATIONS
FIGURE 6

Land Surveying
Union-Land Planning
Consulting - Civil Engineering
1645 Third Ave. S.E.



Geotechnical Engineering
Construction Management
Landscaping
Architectural
Tel: 507-289-3019
Fax: 507-289-7333
email: info@mcgheebates.com

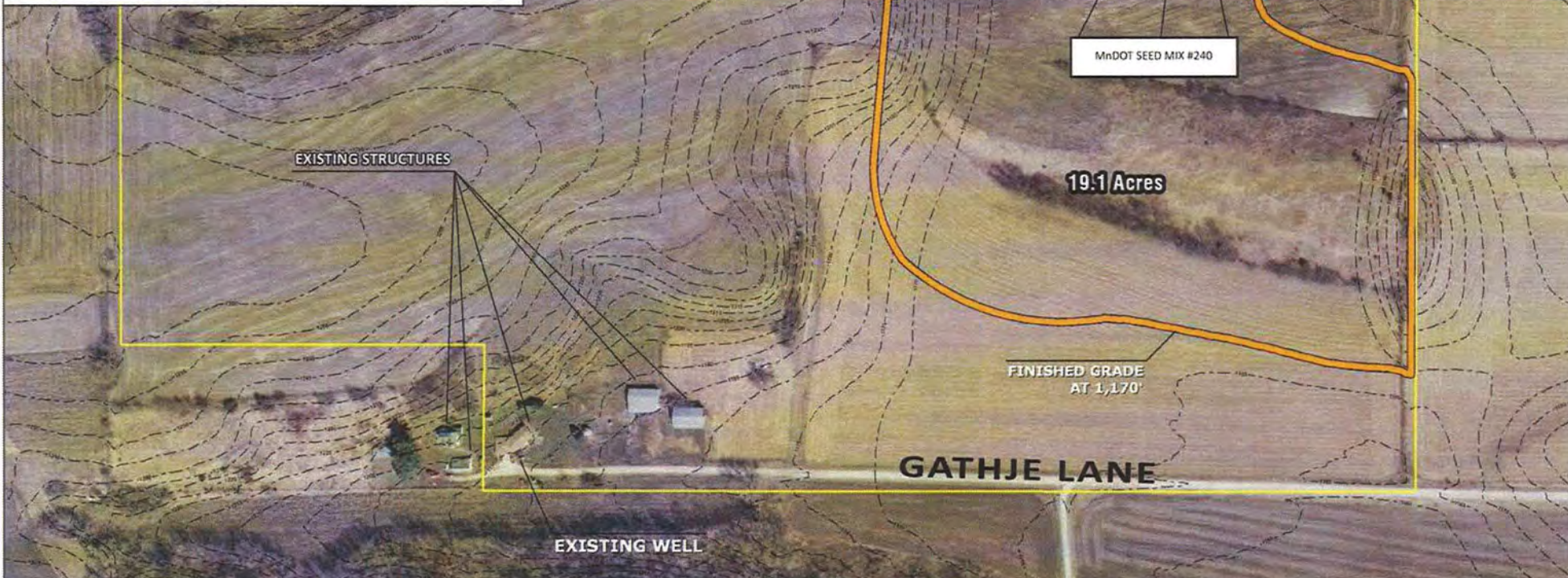
Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W Winona County

Date: 1/11/2013 Scale: 1" = 300'

- Haul Road
- 5 Foot Contour Interval
- Berm & Rim Ditch
- Phase 1 Boundary (7.8 ac)
- Nisbit Property
- Vehicle Parking & Storage Area



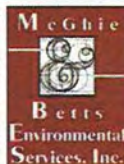
Mixture: 240			
Common Name	Bulk Rate		% of Mix Component
	kg/ha	lb/ac	
Brome grass, smooth	10.9	9.7	13.0
Bluegrass, Kentucky "Certified Park"	22.6	20.2	27.0
Bluegrass, Canada	10.9	9.7	13.0
Switch grass	2.1	1.9	2.5
Wheat-grass, slender	3.4	3.0	4.0
Fescue, Hard "Reliant II"	5.9	5.3	7.0
Rye-grass, perennial	16.8	15.0	20.0
Dropseed, sand	2.1	1.9	2.5
Bluestem, little *	2.9*	2.6*	3.5*
Red clover	5.9	5.3	7.0
Prairie clover, purple	0.5	0.4	0.5
GRAND TOTALS:	84	75	100.0
* Bulk with 50% PLS minimum			
Purpose: Sandy- Roadside			



FINAL RECLAMATION PLAN

FIGURE 9

GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards
Environmental
Assessment Worksheet
& Impact Statements



Geotechnical
Engineering
Construction
Material Testing
Landscape
Architecture
Tel: 507-289-3019
Fax: 507-289-7333
email: info@meghiebetts.com

Sand Mine Phase 1
Nisbit Property
Saratoga Township
SW1/4 of the NE 1/4 S35
T105N R10W Winona County

Date: 1/11/2013

Scale: 1" = 300'

- Project Boundary (19.1 ac)
- Nisbit Property

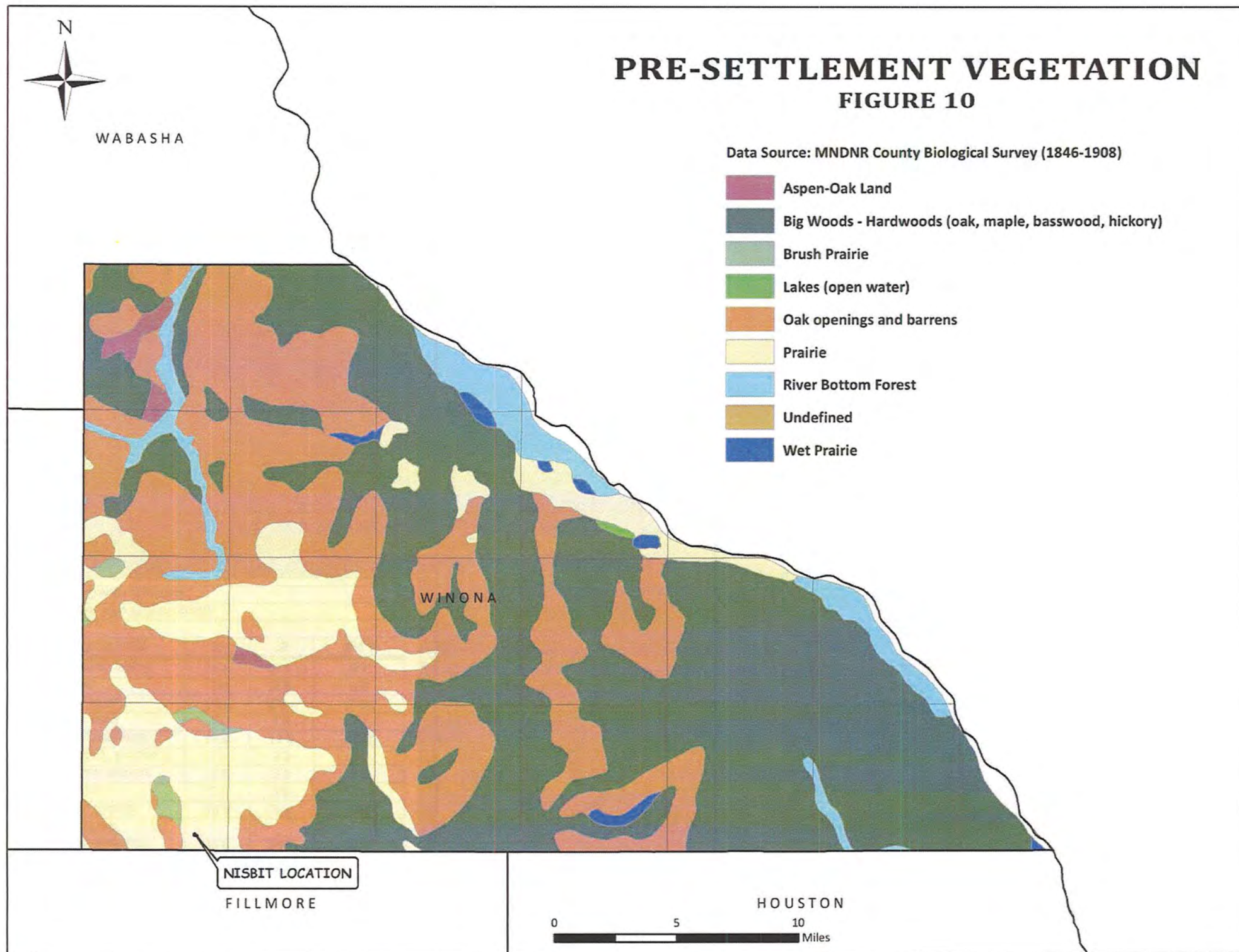


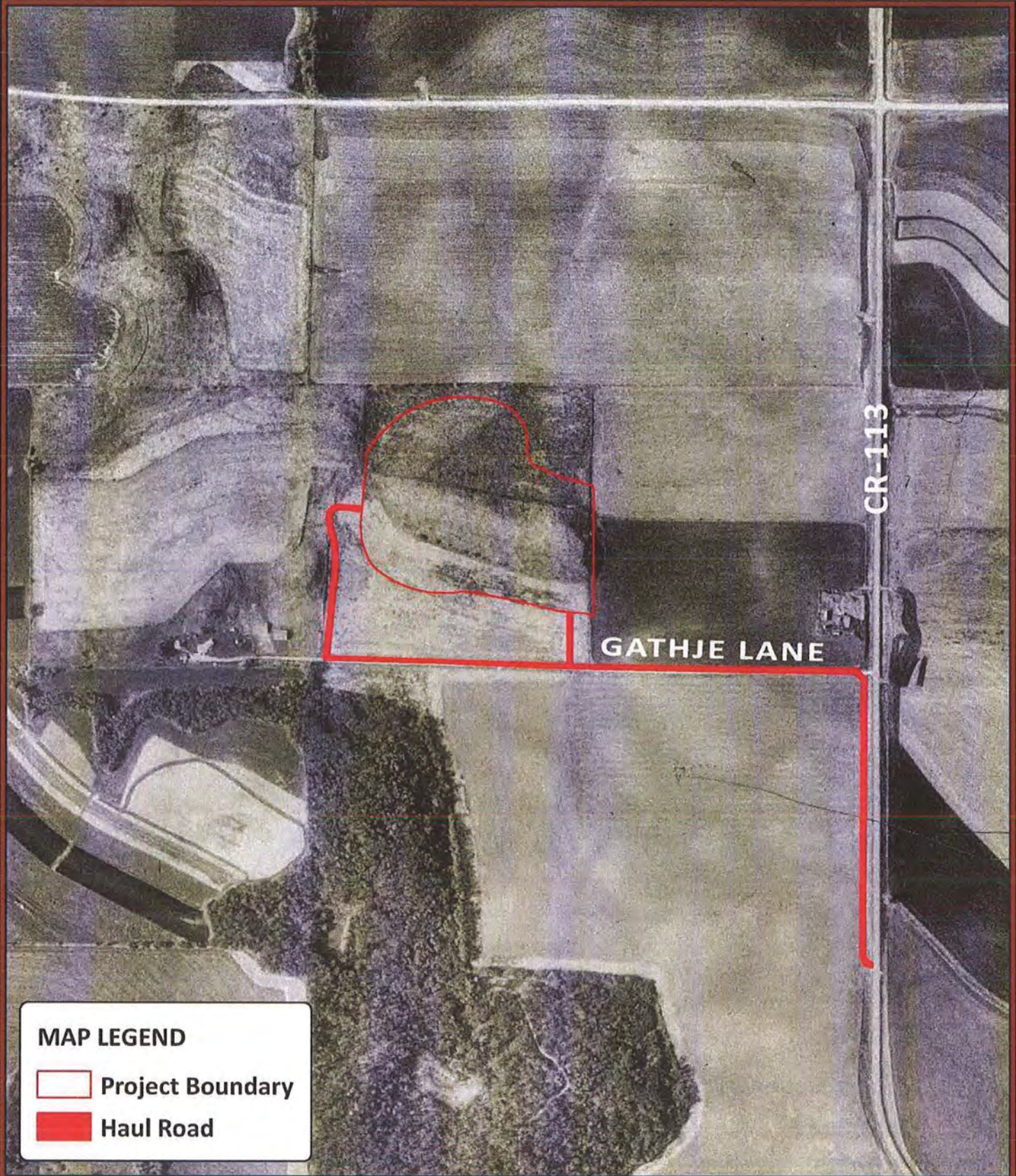
PRE-SETTLEMENT VEGETATION

FIGURE 10

Data Source: MNDNR County Biological Survey (1846-1908)

- Aspen-Oak Land
- Big Woods - Hardwoods (oak, maple, basswood, hickory)
- Brush Prairie
- Lakes (open water)
- Oak openings and barrens
- Prairie
- River Bottom Forest
- Undefined
- Wet Prairie





MAP LEGEND

-  Project Boundary
-  Haul Road

1991 AERIAL

FIGURE 12

Map By: B M O

Map Scale: 1" = 600'

Date: Friday, October 12, 2012

GIS Mapping
& Spatial Analysis

Wetland Delineation
& Permitting

Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

McGhie



Betts

Environmental
Services, Inc.

Environmental Site
Investigations, Mgt
& Design

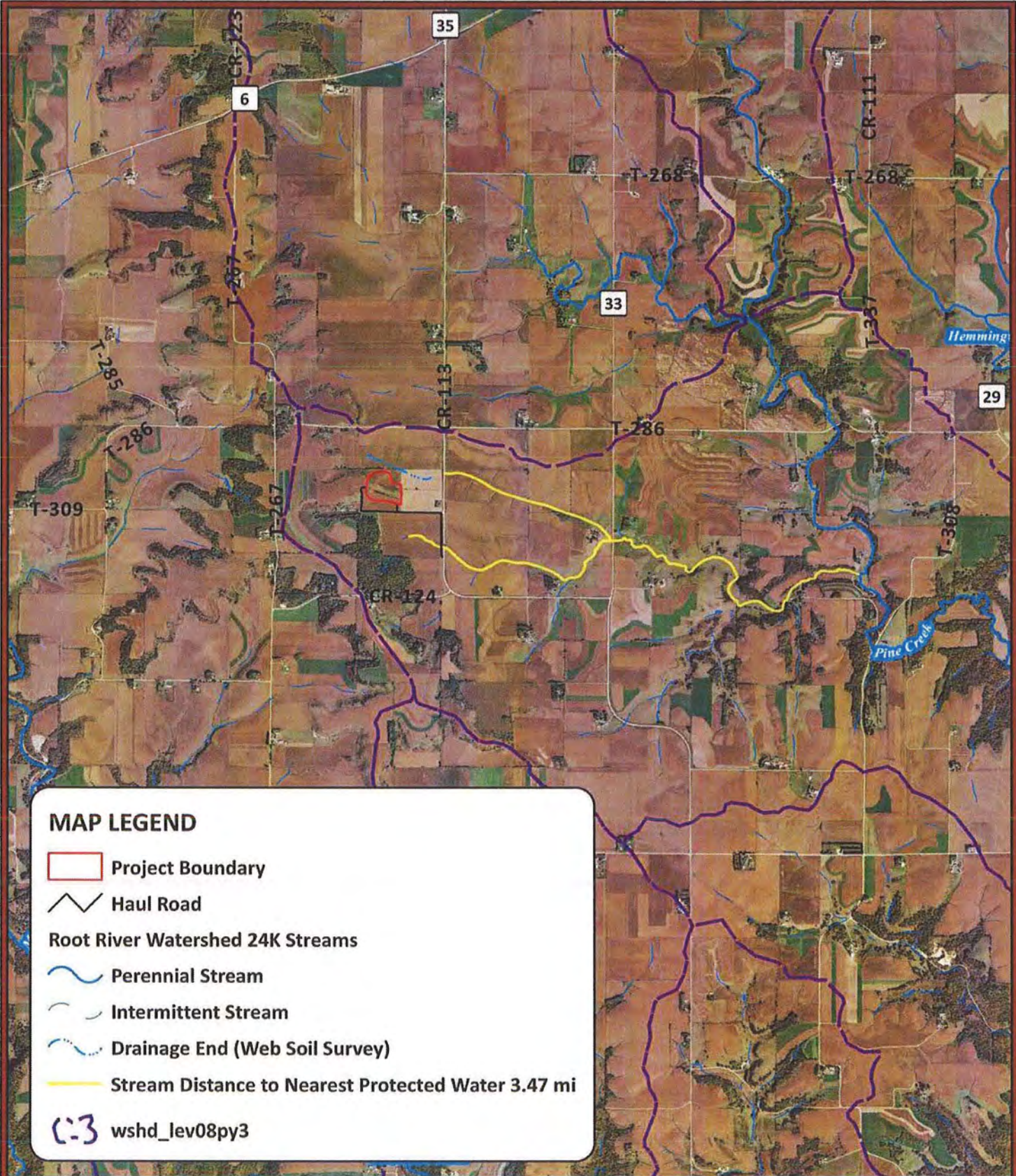
Indoor Air Quality

Landscape
Architecture

1648 Third Ave. S.E.
Tel. 507.289.1919
Fax. 507.289.7333
email: mbi@mcghiebetts.com



0 300 600
Feet



HYDROLOGY MAP

FIGURE 14

Map By: B M O

Map Scale: 1" = 4,000'

Date: Friday, January 11, 2013

GIS Mapping & Spatial Analysis

- Wetland Delineation & Permitting

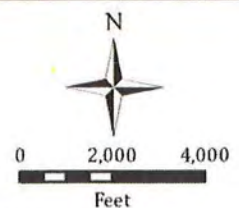
Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

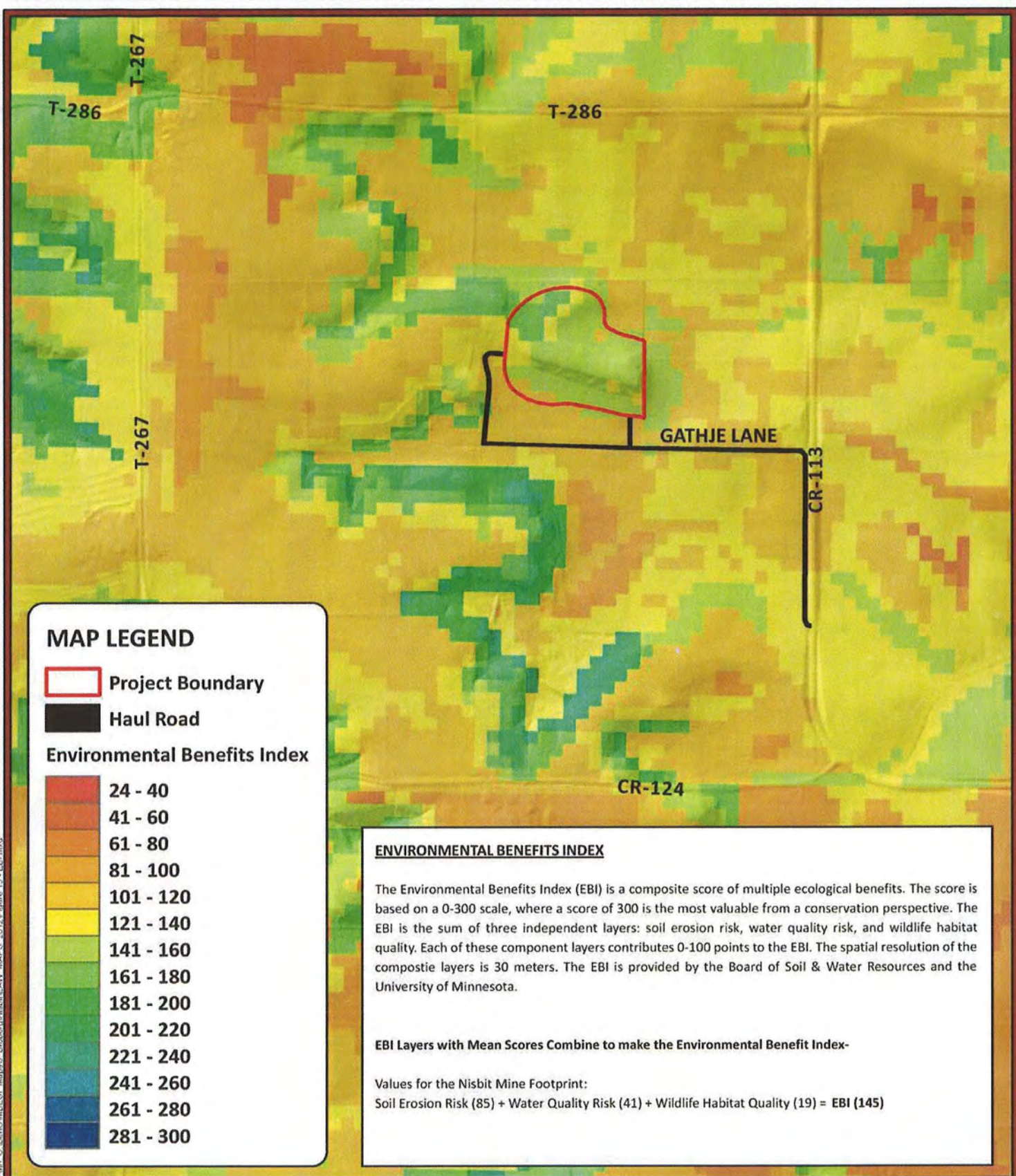
**Environmental Site
Investigations, Mgt.
& Design**

Indoor Air Quality
Landscape
Architecture

1648 Third Ave S E
Tel 507 289 3919
Fax 507 289 7333
email info@mcgluebetts.com



Path: C:\BenCH\EBI Maps\EBI Maps\2012\Figure 15 - EBI.mxd



MAP LEGEND

- Project Boundary
- Haul Road

Environmental Benefits Index

- 24 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- 141 - 160
- 161 - 180
- 181 - 200
- 201 - 220
- 221 - 240
- 241 - 260
- 261 - 280
- 281 - 300

ENVIRONMENTAL BENEFITS INDEX

The Environmental Benefits Index (EBI) is a composite score of multiple ecological benefits. The score is based on a 0-300 scale, where a score of 300 is the most valuable from a conservation perspective. The EBI is the sum of three independent layers: soil erosion risk, water quality risk, and wildlife habitat quality. Each of these component layers contributes 0-100 points to the EBI. The spatial resolution of the composite layers is 30 meters. The EBI is provided by the Board of Soil & Water Resources and the University of Minnesota.

EBI Layers with Mean Scores Combine to make the Environmental Benefit Index-

Values for the Nisbit Mine Footprint:
Soil Erosion Risk (85) + Water Quality Risk (41) + Wildlife Habitat Quality (19) = EBI (145)

EBI FIGURE 15

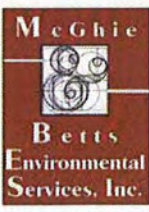
Map By: B M O

Map Scale: 1" = 1,000'

Date: Friday, January 11, 2013

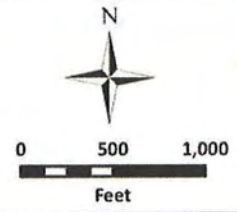
GIS Mapping
& Spatial Analysis
Wetland Delineation
& Permitting
Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

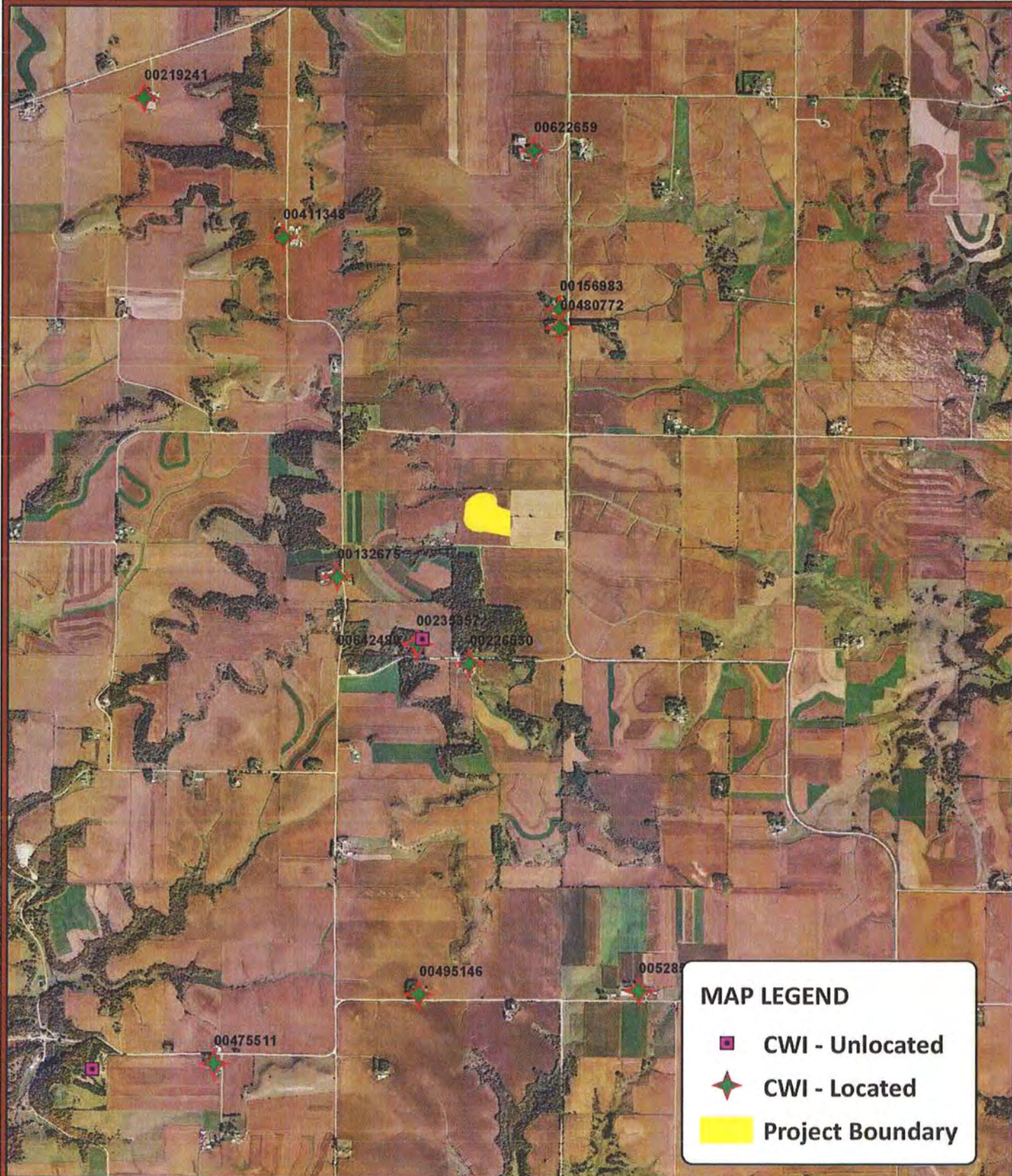


Environmental Site
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& Design
Indoor Air Quality
Landscape
Architecture




1648 Haul Ave. S.E.
Tulsa, OK 74109
Tel: 507.289.3919
Fax: 507.289.7333
email: mlb@meghiebetta.com



Path: C:\Bentley\ESI Maps\01\02\Figure 16 - CWI Map.mxd



MAP LEGEND

-  CWI - Unlocated
-  CWI - Located
-  Project Boundary

COUNTY WELL INDEX FIGURE 16

Map By: B M O

Map Scale: 1" = 3,000'

Date: Friday, October 12, 2012

GIS Mapping
& Spatial Analysis

Wetland Delineation
& Permitting

Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

McGhie

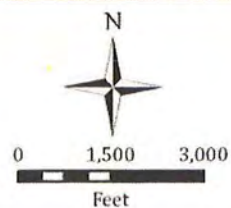
Betts
**Environmental
Services, Inc.**

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Indoor Air Quality

Landscape
Architecture

1648 Third Ave. S.E.
Tel: 507.289.1919
Fax: 507.289.7333
email: msi@mcghiebetts.com





 Project Boundary - 19.1 ac.

 Haul Road


Bedrock Geology - 4 County

UPPER ORDOVICIAN


 Prosser Limestone, Ogp

 Galena Grp: Cummingsville Fm, Ogc

 Decorah-Platteville-Glenwood, Odpg

 St. Peter Sandstone, Os

LOWER ORDOVICIAN

 Shakopee Formation, Ops

Shakopee
Formation
Ops

Decorah-Platteville-Glenwood
Odpg

St. Peter
Sandstone Os

W I N O N A
C O U N T Y

Galena Grp:
Cummingsville
Fm Ogc

St. Peter
Sandstone Os

St.
Peter Sandstone Os

BEDROCK GEOLOGY FIGURE 17

Map By: B M O

Map Scale: 1" = 1,000'

Date: Wednesday, October 17, 2012

GIS Mapping
& Spatial Analysis

Wetland Delineation
& Permitting

Geologic Hazards

Environmental
Assessment Worksheet
& Impact Statements

McGhie



Betts

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Environmental Site
Investigations, Mgt.
& Design

Indoor Air Quality

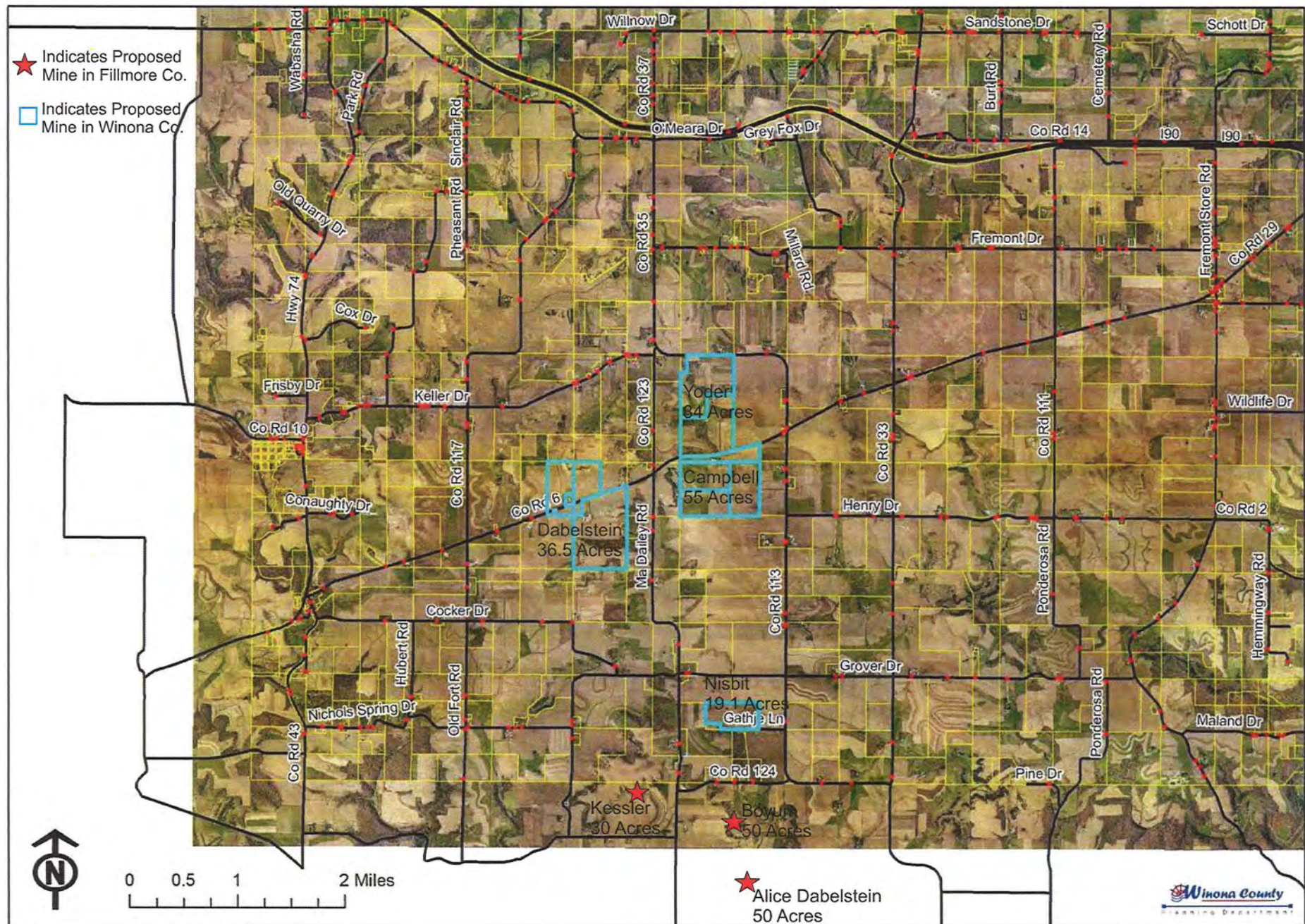
Landscape
Architecture

1648 Third Ave S E
Tel: 507 289 3040
Fax: 507 289 7333
email: info@mcghiebetts.com



0 500 1,000
Feet

Map of Proposed Silica Sand Mining Operations in Project Area



Traffic Impact Analysis for Nisbit Sand Mine

Winona County, MN

Wenck File #2911-01

Prepared for:

TOM ROWEKAMP

DRAFT

Prepared by:

WENCK ASSOCIATES, INC.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
(763) 479-4200

July 19, 2012



1.0 Executive Summary

The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.

2.0 Purpose and Background

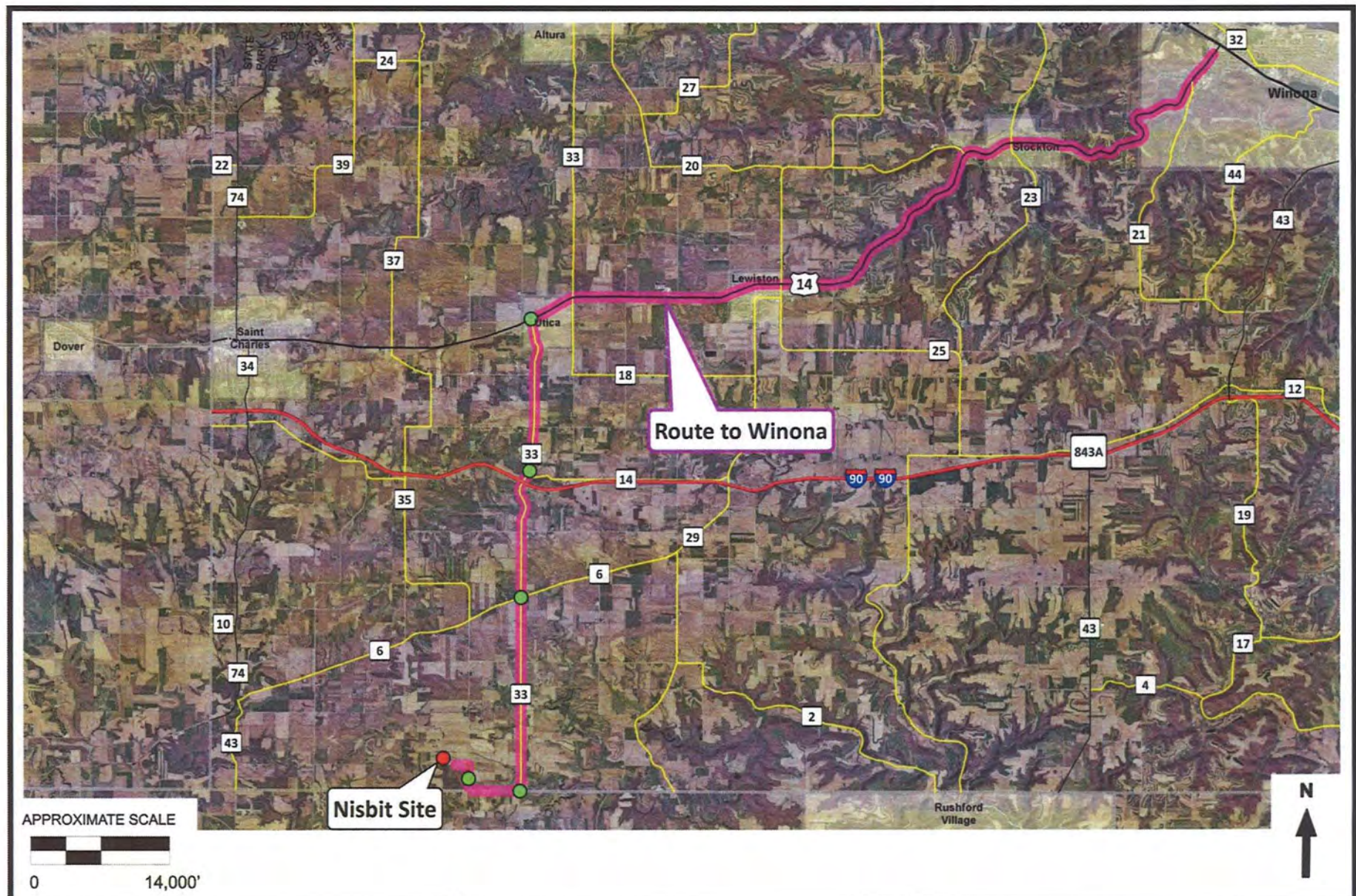
The purpose of this report is to present the results of our traffic impact analysis for the proposed Nisbit sand mine located in Saratoga Township, Winona County, MN. This traffic analysis examined the impacts of the proposed project at the following intersections:

- CR 113/proposed access location
- CSAH 33/CR 113
- CSAH 33/CSAH 6
- CSAH 33/CSAH 14
- TH 14/CSAH 33

The proposed project site is located on the west side of CR 113 north of the CR 124 intersection. **Figure 1** shows the project location.

For purpose of this study, the proposed project consists of a mining operation that will excavate sand. The mine is expected to generate a maximum of 140 truckloads of sand per day. On average, the mine is expected to generate 80 truckloads per day.

Figure 2 shows the proposed haul route for the project. Trucks will exit the site at an existing field access located on CR 113 north of CR 124. The loaded trucks will then travel on CR 113 to CSAH 33, where they will turn north. They will travel north on CSAH 33 to TH 14 in Utica, where they will travel east into Winona. The empty trucks will use the same route in reverse to travel back to the mine. The proposed mine is expected to be operational later this year.



4.0 Traffic Forecasts

As indicated earlier, the proposed project is expected to be operating later this year. Traffic forecasts and analyses have been completed for the year 2014 in order to account for the proposed project and other potential projects in the area. Weekday a.m. and p.m. peak hour traffic forecasts were developed for the subject intersections for the 2012, 2014 No-Build, and 2014 Build scenarios. Each of these scenarios is described below.

- *Existing (2012).* Weekday a.m. and p.m. peak hour traffic volumes for this scenario were established based on peak period traffic counts.
- *2014 No-Build.* To account for natural background traffic growth, existing volumes at the subject intersections were increased by 1.0 percent per year. Review of historic count data shows that volumes have actually decreased in the recent past. To be conservative, we have chosen to include growth at 1.0 percent per year.

In addition to the background growth, trips generated by proposed Yoder and Dabelstein sand mines were also added. Information on the number of trips for these mines was obtained from County staff. Trips from these mines will use CSAH 6 and will travel through the CSAH 33/CSAH 6 intersection.

- *2014 Build.* Volumes due to the proposed project were added to the 2014 No-Build volumes to establish 2014 Build volumes.

Trip Generation

The expected number of trips is based on the maximum number of truckloads produced by the mine. As described earlier, the mine is expected to generate a maximum of 140 truckloads of sand per day and an average 80 truckloads per day. We have based the traffic forecasts on the maximum loads per day to account for the worst case scenario.

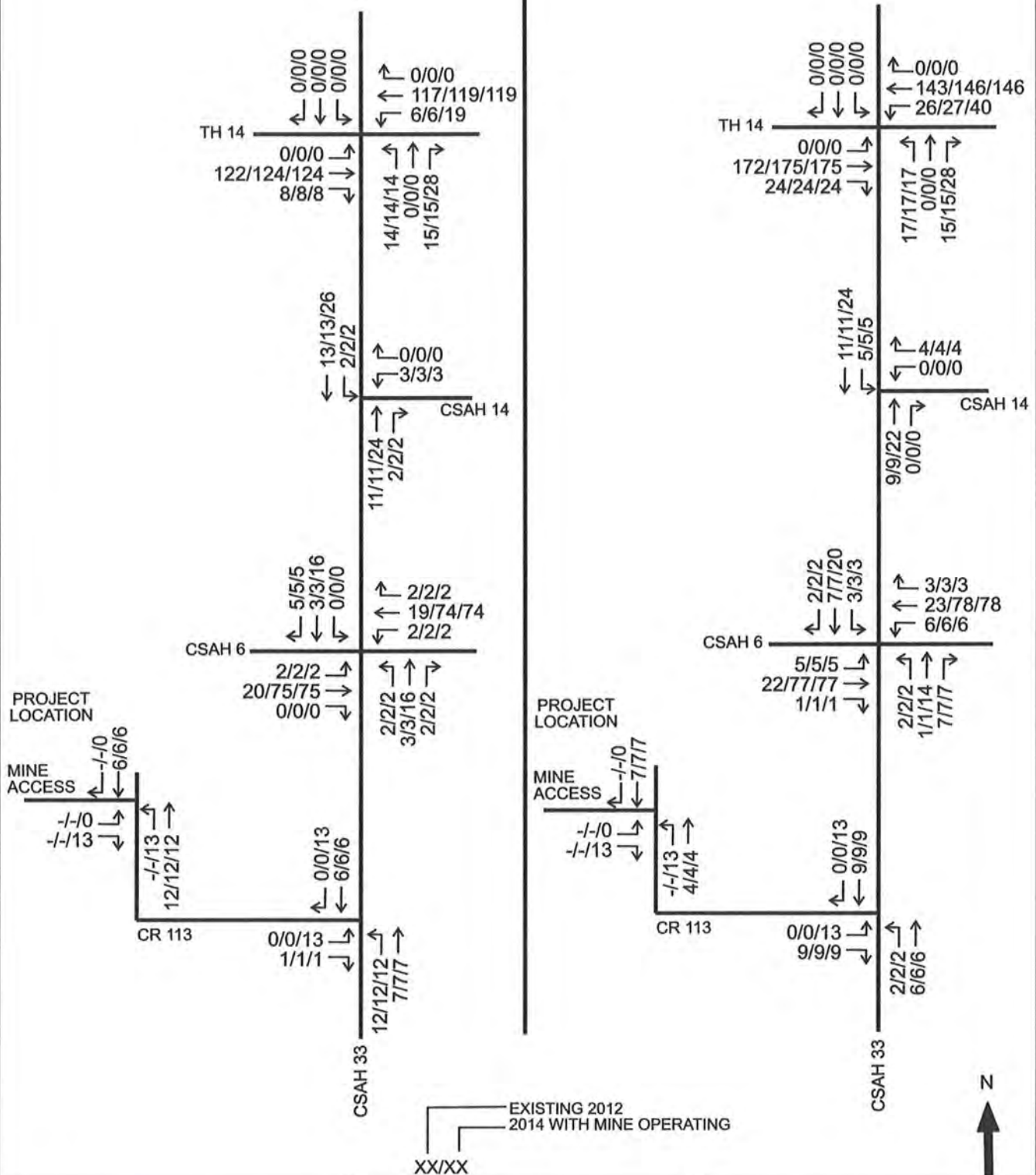
Mining operations are proposed to occur from 7 a.m. to 6 p.m. This equates to an average of 13 loads per hour. Each truck must leave the site and return to the site, resulting in 13 entering truck trips and 13 exiting truck trips per hour. Over the course of an entire day the mine will generate 140 entering and 140 exiting truck trips.

Traffic Volumes

The trips generated by the mine were assigned to the roadway system according to the proposed haul route shown in Figure 2. The resultant a.m. and p.m. peak hour volumes are shown in Figure 3.

WEEKDAY AM PEAK HOUR

WEEKDAY PM PEAK HOUR



intersection at this level.

- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The forecasted traffic volumes for each scenario were analyzed using the existing geometry and intersection control. The LOS results for the study intersections are discussed below.

CR 113 and proposed access. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CR 113. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 6. During the weekday a.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better. During the weekday p.m. peak hour, all movements operate at LOS A under 2012 and 2014 No-Build scenarios. Under the 2014 Build scenario, all movements operate at LOS B or better.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

CSAH 33 and CSAH 14. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios.

All movements operate at acceptable levels of service under all scenarios. From a level of service standpoint, the proposed access operates in an acceptable manner.

TH 14 and CSAH 33. During the weekday a.m. peak hour, all movements operate at LOS A under 2012, 2014 No-Build, and 2014 Build scenarios. During the weekday p.m. peak hour, all movements operate at LOS B or better under 2012, 2014 No-Build, and 2014 Build scenarios.

number of trucks turning left, we recommend additional advanced warning on CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed on both northbound and southbound CSAH 33 to warn motorists of trucks entering the roadway. The recommended sign legend will have the legend "Trucks Entering Ahead, will be black on orange, and will be 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

Empty trucks will turn right from CSAH 33 onto CR 113. Trucks traveling south on CSAH 33 have clear sight of the access from approximately 600 feet away. The stopping sight distance requirement for a truck is 495 feet. Therefore adequate stopping sight distance is provided at this location.

CSAH 33 and CSAH 6. Loaded trucks will cross over CSAH 6 to continue traveling north on CSAH 33. At this location, drivers must stop and be able to see vehicles arriving from the east and west. The sight distance looking to the east and looking to the west is approximately 700 feet. The intersection sight distance requirement for a truck crossing from a stopped condition is 849 feet. Therefore the sight distance at this location is less than the required distance.

Empty trucks will also cross CSAH 6 and continue south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

Due to the very low volumes at this location, physical improvements to the roadway to increase the sight distance are not justified. Based on the existing conditions at this location and the number of trucks crossing, we recommend additional advanced warning on CSAH 6. While the mine is operational and trucks are hauling, additional signs should be installed on both eastbound and westbound CSAH 6 to warn motorists of trucks crossing the roadway. The standard sign for this situation is sign number W8-6 as described in the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD). The sign will be black on orange and 30" x 30" in size. When the sand mine is not in operations, the signs should be removed.

CSAH 33 and CSAH 14. Loaded trucks will pass through this intersection to continue traveling north on CSAH 33. Vehicles on CSAH 14 are required to stop at this location. At this location, drivers on CSAH 14 must stop and be able to see vehicles arriving from the north and south. The sight distance looking to the north is approximately 1,200 feet and looking to the south is approximately 1,350 feet. The intersection sight distance requirement for a passenger vehicle turning left a stopped condition is 606 feet. Therefore adequate sight distance is provided at this location.

Empty trucks will also pass through this intersection to continue traveling south on CSAH 33. The sight distance for southbound trucks is the same as described above for northbound trucks.

A worst case scenario would require a truck on CSAH 33 to come to a stop at this location. The required stopping sight distance in the northbound direction is 520 feet due to the downgrade. In the southbound direction the required stopping sight distance is 495 feet. The available sight distances in both directions are greater than these requirements.

6.0 Conclusions

Based on the information and analyses presented in this report, the following conclusions have been made:

- The proposed project will generate a total of 26 truck trips (13 entering and 13 exiting) during the weekday a.m. peak hour and 26 truck trips (13 entering and 13 exiting) during the weekday p.m. peak hour. The project will generate 280 truck trips (140 entering and 140 exiting) during a typical weekday.
- All intersections analyzed have adequate capacity with the existing geometrics and control to accommodate the proposed project.
- Adequate sight distances are provided at the CR 113/proposed access, CSAH 33/CSAH 14, and TH 14/CSAH 33 intersection.
- Sight distance deficiencies exist at the CSAH 33/CR 113 and CSAH 33/CSAH 6 intersection.
- Due to the very low volumes at these locations, physical improvements to the roadways to increase the sight distances are not justified. We recommend advanced warning signs on CSAH 33 at CR 113 and on CSAH 6 at CSAH 33. While the mine is operational and trucks are hauling, additional signs should be installed to warn motorists of trucks entering or crossing the roadway. When the sand mine is not in operation, the signs should be removed.



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 E-mail: lisa.joyal@state.mn.us

October 25, 2012

Correspondence # ERDB 20130115

Ms. Nicole Lehman
McGhie and Betts Environmental Services, Inc.
1648 Third Avenue SE
Rochester, MN 55904

RE: Natural Heritage Review of the proposed Nisbit Mine (Y7987/Y11429);
T105N R10W Section 35; Winona County

Dear Ms. Lehman,

As requested, the Minnesota Natural Heritage Information System (NHIS) has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, there are no known occurrences of rare features in the area searched.

The Natural Heritage Information System, a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed.

Please note that locations of the gray wolf (*Canis lupus*), state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

Furthermore, the Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,

A handwritten signature in black ink that reads 'Samantha Bump'.

Samantha Bump
NHIS Review Technician

Minnesota Unique Well

No.

132675County Winona
Quad Arendahl
Quad ID 26CMINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103IEntry Date 04/17/1988
Update Date 08/02/2011
Received Date

Well Name HARMON, HERBERT				Well Depth 490 ft.		Depth Completed 490 ft.		Date Well Completed 11/18/1976			
Township	Range	Dir	Section	Subsections	Elevation	1305 ft. 7.5 minute topographic map (+/- 5 feet)					
105	10	W	34	DADAAA	Elevation Method						
Geological Material DRIFT BROWN SOFT 0 13 GALENA TAN SOFT 13 30 DECORAH GRAY HARD 30 58 PLATTEVILLE GRAY HARD 58 82 GLENWOOD GREEN MEDIUM 82 88 ST. PETER WHITE SOFT 88 180 SHAKOPEE-ONEOTA TAN HARD 180 430 JORDAN WHITE SOFT 430 490						Drilling Method Non-specified Rotary					
						Drilling Fluid -		Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No From Ft. to Ft.			
						Use Domestic					
						Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Above/Below 1 ft.					
						Casing Diameter 4 in. to 452 ft.		Weight 10.78 lbs./ft.		Hole Diameter 8 in. to 452 ft.	
						Open Hole from 452 ft. to 490 ft.					
						Screen NO Make Type					
						Diameter		Slot/Gauze		Length Set Between	
						Static Water Level 275 ft. from Land surface Date Measured 11/18/1976					
						PUMPING LEVEL (below land surface) 275 ft. after 3 hrs. pumping 35 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)											
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Grout Material: Neat Cement from 7 to 452 ft. 9 yds.											
Nearest Known Source of Contamination 200 feet W direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material											
Abandoned Wells Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No											
Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No											
Well Contractor Certification Christenson Well 20065 GILMAN, G. License Business Name Lic. Or Reg. No. Name of Driller											
First Bedrock Galena Grp Aquifer Jordan Last Strat Jordan Sandstone Depth to Bedrock 13 ft.											
County Well Index Online Report											
132675											
Printed 10/12/2012 HE-01205-07											

Minnesota Unique Well
No.**235357**County Winona
Quad Arendahl
Quad ID 26CMINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103IEntry Date 04/17/1988
Update Date 08/02/2011
Received Date

Well Name SWIGGUM, FREDRICK						Well Depth 426 ft.		Depth Completed 426 ft.		Date Well Completed 12/22/1967							
Township		Range		Dir		Section		Subsections		Elevation							
105		10		W		35		CDCADA		Elevation Method							
						1255 ft.				7.5 minute topographic map (+/- 5 feet)							
Geological Material DRIFT PLATTEVILLE ST. PETER SHAKOPEE ROOT VALLEY ONEOTA JORDAN Color Hardness From 0 20 53 142 223 230 411 To 20 53 142 223 411 426						Drilling Method Non-specified Rotary											
						Drilling Fluid --				Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No From Ft. to Ft.							
						Use Domestic											
						Casing Type				Joint		No Information		Drive Shoe? <input type="checkbox"/> Yes <input type="checkbox"/> No		Above/Below ft.	
						Casing Diameter				Weight		Hole Diameter					
						4 in. to 283 ft.				lbs./ft.							
						Open Hole from ft. to ft.											
						Screen				Make		Type					
						Diameter				Slot/Gauze		Length		Set Between			
						Static Water Level 242 ft. from Land surface Date Measured 12/22/1967											
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.																	
Well Head Completion Pitless adapter manufacturer Model <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																	
Grouting Information Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No																	
NO REMARKS																	
Located by: Minnesota Geological Survey Method: Digitized - scale 1:24,000 or larger (Digitizing Table)																	
Unique Number Verification: Information from neighbor Input Date: 01/01/1990																	
System: UTM - Nad83, Zone15, Meters X: 580973 Y: 4855492																	
Nearest Known Source of Contamination _feet _direction _type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name MEYERS Model number HP 1 Volts Length of drop Pipe 270 ft. Capacity g.p.m. Type Submersible Material																	
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																	
Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Well Contractor Certification Rowland Well Co. 23124 License Business Name Lic. Or Reg. No. Name of Driller																	
First Bedrock Platteville Formation Aquifer Prairie Du Chien-Jordan Last Strat Jordan Sandstone Depth to Bedrock 20 ft.																	
County Well Index Online Report																	
235357																	
Printed 10/12/2012 HE-01205-07																	

Minnesota Unique Well
No.**480772**County Winona
Quad Arendahl
Quad ID 26CMINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103IEntry Date 03/02/1993
Update Date 09/19/2011
Received Date

Well Name BABCOCK, ROGER				Well Depth 470 ft.		Depth Completed 470 ft.		Date Well Completed 05/06/1992																																									
Township	Range	Dir	Section	Subsections	Elevation 1205 ft. 7.5 minute topographic map (+/- 5 feet)	Drilling Method Non-specified Rotary																																											
105	10	W	26	DAAABD	Elevation Method																																												
Well Address RR 1 BOX 51 LEWISTON MN 55952 Geological Material <table border="1"> <thead> <tr> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>DRIFT</td><td></td><td>0</td><td>40</td></tr> <tr><td>GRAY SHA;E</td><td>GRAY</td><td>40</td><td>65</td></tr> <tr><td>BROWN ROCK</td><td>BROWN</td><td>65</td><td>100</td></tr> <tr><td>GRAY ROCK</td><td>GRAY</td><td>100</td><td>120</td></tr> <tr><td>BROWN SANDROCK</td><td>BROWN</td><td>120</td><td>165</td></tr> <tr><td>BROWN ROCK</td><td>BROWN</td><td>165</td><td>320</td></tr> <tr><td>GRAY ROCK</td><td>GRAY</td><td>320</td><td>360</td></tr> <tr><td>BROWN SANDROCK</td><td>BROWN</td><td>360</td><td>465</td></tr> <tr><td>GRAY ROCK</td><td>GRAY</td><td>465</td><td>470</td></tr> </tbody> </table>						Color	Hardness	From	To	DRIFT		0	40	GRAY SHA;E	GRAY	40	65	BROWN ROCK	BROWN	65	100	GRAY ROCK	GRAY	100	120	BROWN SANDROCK	BROWN	120	165	BROWN ROCK	BROWN	165	320	GRAY ROCK	GRAY	320	360	BROWN SANDROCK	BROWN	360	465	GRAY ROCK	GRAY	465	470	Drilling Fluid Foam		Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No From Ft. to Ft.	
						Color	Hardness	From	To																																								
						DRIFT		0	40																																								
						GRAY SHA;E	GRAY	40	65																																								
						BROWN ROCK	BROWN	65	100																																								
						GRAY ROCK	GRAY	100	120																																								
						BROWN SANDROCK	BROWN	120	165																																								
						BROWN ROCK	BROWN	165	320																																								
						GRAY ROCK	GRAY	320	360																																								
						BROWN SANDROCK	BROWN	360	465																																								
GRAY ROCK	GRAY	465	470																																														
Use Domestic																																																	
Casing Type		Joint Welded	Drive Shoe? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Above/Below ft.																																														
Casing Diameter		Weight	Hole Diameter																																														
8 in. to 40 ft.		lbs./ft.	8 in. to 440 ft.																																														
4 in. to 440 ft.		lbs./ft.	4 in. to 470 ft.																																														
Open Hole from 440 ft. to 470 ft.																																																	
Screen NO		Make	Type																																														
Diameter		Slot/Gauze	Length	Set Between																																													
Static Water Level 170 ft. from Land surface Date Measured 05/06/1992																																																	
PUMPING LEVEL (below land surface) 230 ft. after hrs. pumping g.p.m.																																																	
Well Head Completion Pitless adapter manufacturer MONITOR Model 6PS67BS4CL <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																																	
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																																	
Grout Material: Pearrock from to ft. 3 yds.																																																	
Grout Material: Neat Cement from to ft. 9 yds.																																																	
Nearest Known Source of Contamination 65 feet North East direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																																	
Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material																																																	
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																																	
Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input type="checkbox"/> No																																																	
Well Contractor Certification Larson Well Co. 23150 RAAEN, D. License Business Name Lic. Or Reg. No. Name of Driller																																																	
First Bedrock St.Peter Sandstone Aquifer Jordan-St.Lawrence Last Strat St.Lawrence Formation Depth to Bedrock 40 ft.																																																	
County Well Index Online Report																																																	
480772																																																	
Printed 10/12/2012 HE-01205-07																																																	


Minnesota Unique Well
No.**641660**County Winona
Quad Arendahl
Quad ID 26CMINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103IEntry Date 01/04/2001
Update Date 03/15/2012
Received Date

Well Name DEBRUYCKERC, WILLIAM J.						Well Depth 420 ft.		Depth Completed 420 ft.		Date Well Completed 05/03/2000			
Township		Range		Dir		Section		Subsections		Elevation			
105		10		W		35		DBCDA		1183 ft. 7.5 minute topographic map (+/- 5 feet)			
Elevation Method						Drilling Method Non-specified Rotary							
Well Address RR 1 BOX 951 UTICA MN 55979						Drilling Fluid		Well Hydrofractured? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
						--		From Ft. to Ft.					
Use Domestic						Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Above/Below ft.							
Geological Material						Color		Hardness		From To			
						CLAY		BROWN		SOFT		0 24	
						SAND & GRAVEL		BROWN		SOFT		24 53	
						DOLOMITE		BROWN		HARD		53 108	
						SANDSTONE		BROWN		SOFT		108 149	
						DOLOMITE		GRAY		HARD			
						SANDSTONE		BROWN		SOFT			
										320 420			
						Casing Diameter		Weight		Hole Diameter			
						8 in. to 55 ft.		lbs./ft.					
						4 in. to 393.3 ft.		lbs./ft.					
						Open Hole from 393 ft. to 420 ft.							
						Screen NO		Make		Type			
						Diameter		Slot/Gauze		Length Set Between			
						Static Water Level 132 ft. from Land surface Date Measured 05/03/2000							
						PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.							
						Well Head Completion Pitless adapter manufacturer WHITEWATER Model FAT 95 <input type="checkbox"/> Casing Protection <input type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)							
NO REMARKS						Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
						Grout Material: Neat Cement from 0 to 393 ft. 8.25 yds.							
						Nearest Known Source of Contamination 100 feet North East direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
						Pump <input type="checkbox"/> Not Installed Date Installed Manufacturer's name GRUNDFOS Model number 10S15-21 HP 1.5 Volts 230 Length of drop Pipe 189 ft. Capacity 12 g.p.m. Type Submersible Material							
						Abandoned Wells Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
						Variance Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
						Well Contractor Certification Rowland Well Co. 23474 ROWLAND, N. License Business Name Lic. Or Reg. No. Name of Driller							
First Bedrock Pr. du Chien/Shakopee Fm						Aquifer Jordan							
Last Strat Jordan Sandstone						Depth to Bedrock 53 ft.							
County Well Index Online Report						641660		Printed 10/12/2012 HE-01205-07					

Soil Map—Winona County, Minnesota
(Nisbit Mine)

MAP LEGEND








Area of Interest (AOI)


 Area of Interest (AOI)


Soils


 Soil Map Units

Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other


Special Line Features

-  Gully
-  Short Steep Slope
-  Other

Political Features

 Cities

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:2,680 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Winona County, Minnesota
Survey Area Data: Version 7, Jun 1, 2012

Date(s) aerial images were photographed: 8/16/2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Appendix 6: EPA's Diesel Emission Quantifier (DEQ) - Assumptions and Calculations

Assumptions

- 280 trucks per day traveled 26.8 miles (one-way)
- 140 trucks per day traveled 53.6 miles (roundtrip)
- 14 trucks in the hauling fleet; each truck makes 10 trips (one hour roundtrip)
- 200 working days/year
- Average fuel mileage per truck is 6 mpg

Model Inputs

- Quantity: 14 trucks (fleet)
- Type: on highway
- Target Fleet: Short haul
- Class/Equipment: Class 8a (33,001 – 60,000 lbs gross weight trucks)
- Model Year: 2009
- Year Retrofit: 2013 (assumes if retrofit was made to truck a reduction would be realized)
- Fuel Type: Regular Diesel (ULSD), 15 ppm
- Fuel Volume: 17,867 diesel gallons/year for fleet
- Vehicle Miles Traveled: 107,200 miles/vehicle/year
- Idling Hours: 1,000 hours/vehicle/year

Calculations

- Quantity: $(14 \text{ trucks/day}) * (10 \text{ trips}) = 140 \text{ roundtrip trucks/day}$
- Fuel Volume: $(53.6 \text{ miles roundtrip/day}) * (140 \text{ trips/day}) * (200 \text{ working days/year}) = 1,500,800 \text{ miles traveled/year for fleet}$
 $(1,500,800 \text{ miles traveled/year for fleet}) / (14 \text{ trucks in fleet}) = 107,200 \text{ miles/vehicle/year}$
 $(1,500,800 \text{ miles/year/fleet}) / (6 \text{ miles/gallon/truck (average)}) = 17,867 \text{ gallons diesel/year}$
- Idling Hours: $(30 \text{ minutes roundtrip loading and loadout \& traffic}) * (10 \text{ trips/vehicle}) / (60 \text{ min/hr}) * (200 \text{ working days/year}) = 1,000 \text{ hrs/vehicle/year}$



National Clean Diesel Campaign (NCDC)

Quantifier

Use The Quantifier

Working Together for Cleaner Air

Not logged in | [login](#)[DEQ FAQs](#)

1) Fleet Entry >> 2) Vehicle Group Entry >> 3) Technology Entry >> 4) Quantify Results >> 5) Health Benefits

Note: Your session will time out after 30 minutes of inactivity.

Emissions Results:

The results are broken into four sections: Emissions Results: Annual, Daily; Emissions Results: Lifetime; Funding Sources; and Detailed Results. The data that appear in the Results tables are an aggregation of the emissions from all vehicle groups and technologies that you entered. For information on the results, refer to the User's Guide, 3. Emission Results Screen.

[Start Over](#)

Nisbit Mine

Fleet Type On Highway / Non-road

State Minnesota

[Edit Fleet](#)[Summary Emissions Results](#)[Detailed Results](#)[Download Results](#)[Health Benefits](#)

Summary Emissions Results

Annual	NOx (short tons/year)	PM2.5 (short tons/year)	HC (short tons/year)	CO (short tons/year)	CO2 (short tons/year)	Diesel- Equivalent (gallons/year)
Baseline of Entire Fleet	9.3169	0.1129	0.2008	1.0586	198.3237	17,867.0000
Baseline of Vehicles Retrofitted	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Percent Reduced (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Amount Reduced Per Year	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily	NOx (kg/day)	PM2.5 (kg/day)	HC (kg/day)	CO (kg/day)	CO2 (kg/day)	Diesel- Equivalent (gal/day)
Kilograms Reduced Per Day (kg/day)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Lifetime	NOx (short tons)	PM2.5 (short tons)	HC (short tons)	CO (short tons)	CO2 (short tons)	Diesel- Equivalent (gallons)
Baseline of Entire Fleet	232.9233	2.8216	5.0191	26.4656	4,958.0925	446,675.0000
Baseline of Vehicles Retrofitted	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Percent Reduced(%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Amount Reduced	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Amount Emitted After Retrofit, Retrofitted Vehicles	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Amount Emitted After Retrofit, Entire Fleet	232.9233	2.8216	5.0191	26.4656	4,958.0925	446,675.0000
Fleet Capital Cost Effectiveness (\$/ton), Retrofitted Vehicles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Cost Effectiveness (\$/ton), Retrofitted Vehicles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Remaining Lifetime

Short Haul | Class 8a (33,001-60,000)25.0 years

Detailed Results

Detailed Annual Results

Vehicle	Target	Class/Equipment	Model	Retrofit	Number	Usage	Horsepower	Fuel	Fuel	Vehicle Miles	Technology	Number of	Installation	Unit	1
---------	--------	-----------------	-------	----------	--------	-------	------------	------	------	---------------	------------	-----------	--------------	------	---

Lehman, Nicole

From: Thomas Cinadr [thomas.cinadr@mnhs.org]
Sent: Wednesday, October 10, 2012 7:36 AM
To: Lehman, Nicole
Subject: Re: SHPO Request for Dave Nisbit Mine

THIS EMAIL IS NOT A PROJECT CLEARANCE.

This message simply reports the results of the cultural resources database search you requested. The database search produced results for only previously known archaeological sites and historic properties. Please read the note below carefully.

No archaeological sites or historic structures were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested.

The result of this database search provides a listing of recorded archaeological sites and historic architectural properties that are included in the current SHPO databases. Because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Additional research, including field survey, may be necessary to adequately assess the area's potential to contain historic properties.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson in Review and Compliance @ 651-259-3455 or by email at kelly.graggjohnson@mnhs.org.

The Minnesota SHPO Survey Manuals and Database Metadata and Contractor Lists can be found at <http://www.mnhs.org/shpo/survey/inventories.htm>

Tom Cinadr

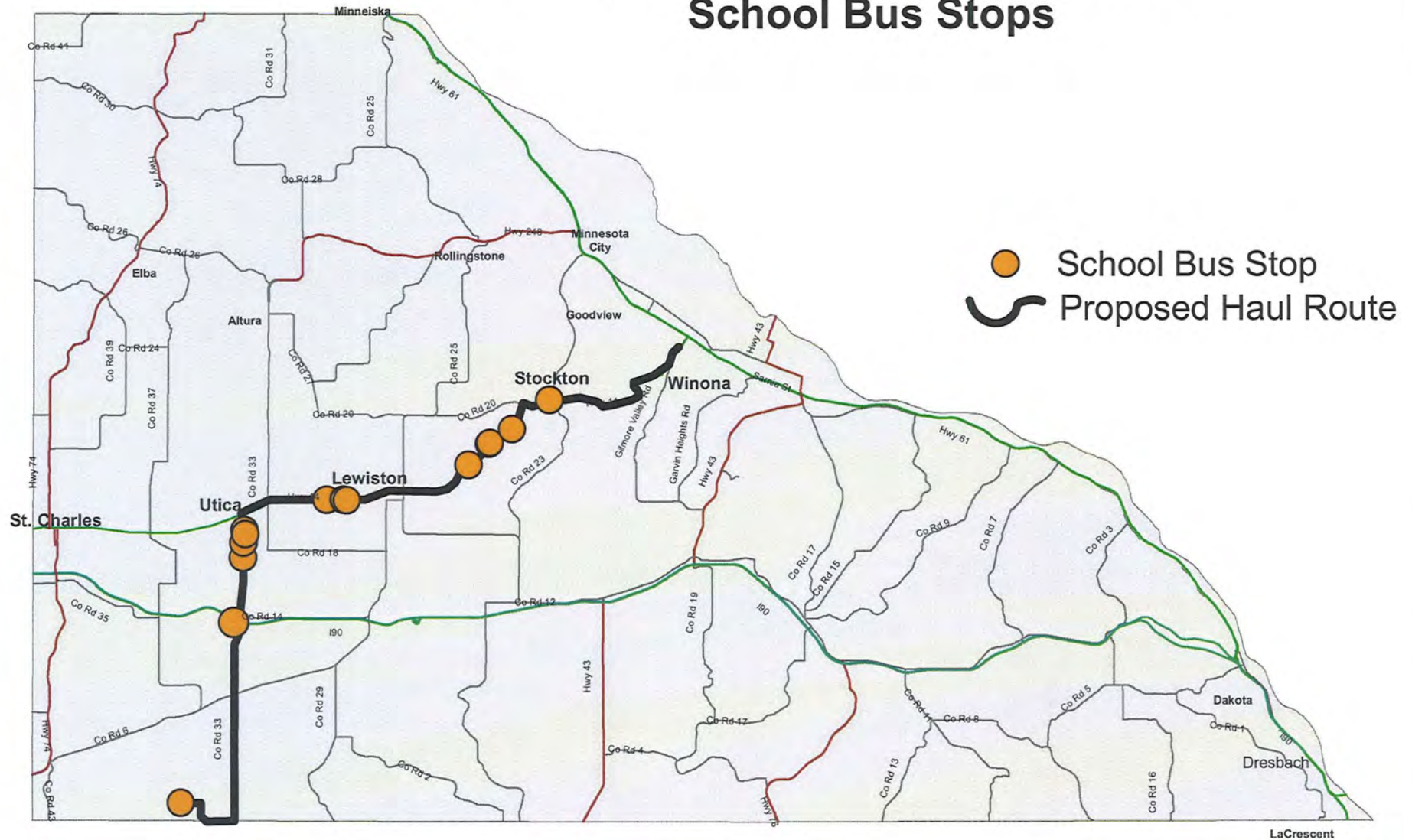
Survey and Information Management Coordinator
Minnesota State Historic Preservation Office
Minnesota Historical Society
345 Kellogg Blvd. West
St. Paul, MN 55102

651-259-3453

On Mon, Oct 8, 2012 at 2:12 PM, Lehman, Nicole <nlehman@mcghiebetts.com> wrote:
Mr. Cinadr,

10/12/2012

Proposed Nisbit Mine Haul Route School Bus Stops



This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION OR IN PLACE OF A SURVEY.

0 2.75 5.5 11 Miles





Lewiston - Altura Public Schools

Independent School Dist. No. 857
100 Co. Road 25
Lewiston, MN 55952

Jeff Apse, Superintendent
Mitchel Schiltz, High School Principal
Dave Riebel, Elementary Principal

(507) 523-2191
(507) 523-2192
(507) 523-2194

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June 13, 2013

RE: I T Sand LLC Request for Verification of Meeting with School District

To Whom It May Concern:

I am writing this letter at the request of Thomas Rowekamp CEO of I T Sand LLC. This letter is verification that Mr. Rowekamp has informed our School District of a sand mining project that his company is working on that will cause for increased traffic on County Road 33 from the Fillmore County line to Utica.

Mr. Rowekamp has informed me that he will be in touch with our School District before school starts in the fall to see if any of our students will be picked up on the route that will be used for sand trucks.

Sincerely,

Jeffrey P. Apse
Superintendent of Schools

"Laura Hahn" <laurahahn@r-pschools.com>

To: Tom Rowekamp

R-P Schools

June 11, 2013 4:30 PM

Good afternoon Tom,

Per your conversation with Mr. Ehler today attached is a letter confirming your visit here today.

Have a nice evening!

Laura Hahn
Accounting Clerk / Administrative Assistant
Rushford Peterson Schools
102 N. Mill St P.O. Box 627
Rushford, MN 55971
(507)864-7785 ext. 1106 phone
(507) 864-2085 fax
laurahahn@r-pschools.com



Empowering all for lifelong learning

Independent School District #239

102 N. Mill Street P.O. Box 627 Rushford, MN 55971
www.r-pschools.com

Chuck Ehler
EC-3 Principal
Superintendent

Shane McBroom
High School Principal
4-5 Principal

Luke Lutterman
Middle School Principal
Activities Director

Lisa Lawston
Community Education
Program Director

June 11, 2013

To Whom It May Concern:

I am confirming that a meeting was held between Tom Rowekamp of IT Sand and myself on Tuesday, June 11th at 11:20 AM. Our discussion focused on the opening of a sand mine on the Dave Nisbit property in the western part of our school district.

Mr. Rowekamp was concerned about the possible conflicts of trucks hauling sand and our school buses. Our school district leases student transportation to Ready Bus of LaCrescent. However, I am familiar with our routes and the various pickups and drop-offs.

We currently do not have any concerns and feel there would not be any conflicts with the route (CR -33) that is planned as the route of transportation for the trucks that will be hauling sand.

I am confident that if we do have any situations that may arise in the future that we will be able to brainstorm and resolve them in a collaborative and timely manner.

Again, we do not have any immediate concerns in regards to planned route (CR-33) for the hauling of sand.

Please feel free to contact me if you have any additional questions or concerns.

Have an enjoyable summer!!



Mr. Ehler
Superintendent of R-P Schools

"Roubinek, Mark" <mroubinek@schs.k12.mn.us>

June 11, 2013, 3:05 PM

To: Tom Rowekamp

St. Charles Nesbit Mining Route

Tom:

Thanks for stopping by today and letting me know about the prospective route for transporting frac sand from the newly permitted Nesbit Mine through Utica and across to Winona. I visited this morning with our transportation company about student bus riders in that area. He will be looking at those students in terms of morning pick-ups and after school drop-off times.

It is my understanding that we will talk later this summer to coordinate the truck transport times with our busing schedules so there aren't any conflicts.

I look forward to hearing from you later this summer.

Thanks,

--

Mark Roubinek
St. Charles Superintendent
Admin. Secr. Laura Reisdorf
507-932-4420

AGREEMENT

This agreement dated this 21 day of May, 2012 is by and between David Nisbit and Sherry Nisbit, husband and wife (hereinafter "Nisbit") and IT Sand LLC, a Minnesota Limited Liability Company (hereinafter "LLC")

Whereas, Nisbit is the owner of the Southwest quarter of the Northeast Quarter (SW/4 of the NE/4) of Section Thirty-Five (35), Township One Hundred five (105) North, Range Ten (10) West, Winona County, Minnesota; and

Whereas, LLC wishes to excavate, remove and purchase sand from approximately 19 acres located within the Southwest Quarter of the Northeast Quarter (SW/4 of NE/4) of said Section Thirty-five (35);

Whereas, Winona County requires submittal of Proof of Authority signed and notarized by each party authorizing said agent to act on the owner's behalf in seeking Conditional Use Permits.

Now therefore, Nisbit has agreed to allow LLC to seek a Winona County Conditional Use Permit to excavate, remove and purchase sand from a portion of the said parcel and furthermore to excavate, remove and purchase sand from a portion of the land in accordance with all permits and approvals and based upon all other payments and conditions as agreed under the mining contract.

IT Sand LLC

[Signature]

David Nisbit

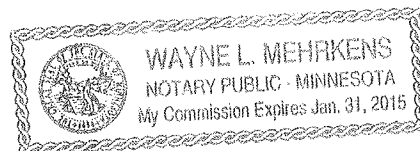
By: [Signature]

Its: CEO

[Signature]
Sherry Nisbit

Notary: [Signature]

5-27-12



Sincerely,
Ryan & Grinde, Ltd.



Wayne L. Mehrkens
Attorney at Law

WLM/rjh

cc: David & Sherry Nisbit

RYAN & GRINDE, LTD.
ATTORNEYS AT LAW

James P. Ryan, Jr.
Paul H. Grinde
Kristine L. Dicke
Wayne L. Mehrkens
DeAnna J. Schleusner

313 West Sixth Street
Post Office Box 356
St. Charles, Minnesota 55972-0356

(507) 932-4461
(507) 932-3736 FAX
stcharles@ryanandgrinde.com

6/7/2012

Winona County
Winona County Planning & Environmental Services
177 Main Street
Winona MN 55987

Re: David & Sherry Nisbit

Dear Sir or Madam:

I represent David and Sherry Nisbit and have examined the Abstract of Title No. 19857 to the SW¼ of the NE¼ and the SE¼ of NW¼ of Section 35, Township 105 North, Range 10 West excepting therefrom that part of the SE¼ of NW¼ of said Section 35 described as follows: Commencing for a point of beginning at the Southwest corner of said SE¼ of the NW¼; thence East along the South line of said SE¼ of the NW¼ a distance of 758 feet; thence North parallel with the West line of said SE¼ of the NW¼ a distance of 287 feet to a point; thence West parallel with the South line of said SE¼ of the NW¼ a distance of 758 feet to the West line of said SE¼ of the NW¼; thence South along the West line of said SE¼ of the NW¼ a distance of 287 feet to the point of beginning.

The Nisbit's have entered into an agreement regarding the excavation and removal of frac sand from their property. My understanding is that the County is concerned about the potential for other individuals owning the mineral rights to the property. This abstract is certified through August 29, 2005 at 7:00 a.m. The Nisbit's acquired the property through Warranty Deed on February 5, 1998, recorded on February 6, 1998 as Document No. 404321. There are no documents contained in the abstract through the date of certification either severing the mineral rights from the fee title or reserving the mineral rights by any of the previous grantors. If you need additional information, please advise.

cover map has not assessed the upland crop areas in Winona County and therefore there is no GIS coverage for vegetation.

We have reviewed and analyzed four maps and the Soil Survey.

- 1) The County Biological Survey map for Saratoga Township. This map shows no significant features on the site or in the area.
- 2) A an air photo showing the 19.1 acre mining area and the current land cover which is 15.8 acres of crop land (82%) and 3.3 acres of pasture/grassland (18 %). The grassland cover is typical of many old pastures with a stable turf of grasses and forbs dominated by brome and cool season grasses and a fence line with pioneer species and invasive species shrubs and trees (box elder, elm, cedar, buckthorn, honeysuckle).
- 3) A review of the National Wetland Inventory Map and the hydric soil maps from the Soil survey show that there are no wetlands on the site or on adjoining property.
- 4) A review of the Winona county Protected Waters Map shows that there are no surface waters on the site or adjoining property.

Geology:

Geologically the Nisbit ridge has a thin (<12') cap-rock of resistant limestone and shale (up to 15' of Platteville Limestone and 3' of Glenwood Shale) that overlays 90-100 feet of white sandstone of the St Peter Formation. Based on nearby well data the top of the Shakopee Formation Dolomite underlying the sandstone at an elevation of $\pm 1125'$, 35 below the lowest elevation on the Nisbit Farm and 45 feet below the depth of silica sand mining (Map D).

The St. Peter sand is desirable for multiple purposes including local use as dairy bedding and a filter medium. The sand is also exported from the area for use in various industries ranging from enhanced oil and gas production to glass production.

- The St. Peter Sandstone is not a karst horizon and there are no sinkholes on the site or on adjoining property. The St. Peter formation is not subject to sinkholes formed by dissolution of the sandstone bedrock but does overlay carbonate bedrock of the Shakopee formation which does develop karst features causing rare sinkholes to develop in the bottom 20-30 feet of the St. Peter Sandstone. In SE Minnesota the basal St. Peter sinkholes form in draingeway settings and beneath ponds. The sinkhole formation process involves frequent saturation or permanent flooding of the St. Peter Sandstone with water that percolates downward and dissolves the underlying Shakopee Dolomite. The voids left by the persistent dissolution of the dolomite allows the overlying sand at the base of the 90 foot thick St. Peter Sandstone to flow into the cavities collapsing sand into the underlying voids. Based on the stratigraphy, sand thickness, distance to the underlying dissolving karst and the lack of water features that would saturate or flood the subsurface geologic investigation completed in SE Minnesota have proven that there is no risk of sinkhole formation in the upper 70 feet of the St. Peter Sandstone.

Soils:

The soils covering the site are thin and are derived from loess and weathered sandstone bedrock. The soils are rapidly permeable with low water bearing capacity and are prone to drought. Soil Data taken from the United States Department of Agriculture Natural Resources Conservation Service, "Web Soil Survey". The soils information including soil types, capability class and prime farmland is information taken from web soil survey and is included with this application (Appendix 1).

Within the mining area the soils that will be stripped, stockpiled and re-used for reclamation are:

- 11D, Sogn silt loam, rocky, 6 to 30% slopes, capability class 7, not prime farmland
- 898F, Bellechester-Brodale complex, rocky, 15 to 60% slopes, capability class 7, not prime farmland
- 301D, Lindstrom silt loam 12 to 18% slopes, capability class 4, not prime farmland.

These soils will be stripped and stockpiled in separate piles and later used to reclaim mining site.

The ridge proposed for mining is not currently farmed above an elevation of 11190 due to the slope, shallow bedrock and droughty nature of the soils. The current plan will mine the ridge from west to east in phases and will restore the mined area with reserved topsoil and re-vegetation with a mixture of pasture grasses and legumes and trees.

Silica Sand Products and By-Products from Proposed Nisbit Mine:

Formation: St. Peter Sandstone:

The purpose of the Nisbit proposal is to mine, transport and sell silica sand extracted from the St. Peter Sandstone formation which is ~75 feet thick and is present on the site from an elevation of ~1200 to a depth of ~1125.

St. Peter Silica Sand Markets:

The bulk of the Silica sand extracted from the Nisbit site is for export across North America and is utilized as frac sand to act as proppants to stimulate the production of oil and gas from tight formations.

We anticipate that 80% of the sand will be shipped to a rail loading facility in Winona to be transported by rail to oil fields.

Up to 20-25% of the silica sand will be utilized locally for dairy bedding.