

Goodhue County Mining Study Committee

Summary Report July 2012

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District 3: Dan Rechtzigel

District 4: Jim Bryant

District 5: Ted Seifert

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Other Goodhue County staff from Land Use Management, Geographic Information Systems, Assessors, Public Works, and the County Attorney’s offices provided valuable insight and information as part of this study process.

Table of Contents

Introduction.....	3
Air Quality Concerns:	5
Water Quality and Quantity Concerns:	11
Economic and Social Impact Concerns:	19
Dust Control Requirements:.....	21
Setback Requirements:	23
Input from State Agencies:	27
Transportation Infrastructure:	29
Dialogue with officials:.....	31
Additional issues Discussed:	33
Mining Technical Evaluation Panel	33
Noise Concerns	35
Traffic Studies, Best Practices, and Development Agreements.....	37
Zoning Designations.....	39
Conditional verse Interim Use Permits	41
Township Approvals.....	43
Appendix A – Maps.....	47
Appendix B – Meeting Agendas and Summaries.....	53
Appendix C – List of Presentations	81
Appendix D – Studies and Reports.....	83
Appendix E – Request for Proposal.....	87
Appendix F – Traffic Study	95
Appendix G – Road Agreement.....	99
Appendix H – Development Agreement	107

Introduction

In 2001 the Goodhue County Board of Commissioners enacted a twelve month interim ordinance (moratorium) to conduct a study and to develop regulations governing mining and mineral extraction. The moratorium was extended and an expanded ordinance was enacted in December 2002. The moratorium process was a reaction primarily due to development pressures on the aggregate resources of Goodhue County's surrounding metropolitan areas.

The 2002 ordinance update required existing mines to register their operations with the County within a specified timeframe. The County has approved four mineral extraction facilities since the 2002 update and currently has thirty eight registered mineral extraction facilities.

The more recent technological developments in horizontal drilling has expanded the demand for a particular type of silica sand that is necessary in the oil and natural gas drilling process. In Southeastern Minnesota and Wisconsin this sand resource is close or at the surface which makes the economics of mining the resource financially attractive to mineral extraction companies.

Similar to the earlier pressures of development, Goodhue County was concerned about the potential increase of mineral extraction facility requests due to the demand for the silica sand. The Planning Advisory Commission recommended denial of a new moratorium request based on the belief that the current (2002 version) adequately addressed the concerns. However, on September 6, 2011, the Goodhue County Board of Commissioners approved the citizen request to put into place a one year moratorium on the issuance of any Conditional Use Permit for a new silica/frac sand mining operation (Mineral Extraction Facility) within rural Goodhue County.

The Commissioners appointed a nine member committee, the Mining Study Committee (MSC), to review and study the issues brought forth in the moratorium request. Through this process, the committee has consolidated their discussions, research, and suggested ordinance changes with this document. It was felt that some of the background information and discussion would be beneficial to those not directly involved in the process to understand the thoughts and reasons behind the suggested wording changes and, why some of the ordinance wording has not changed.

The MSC has also had the benefit of a team of consultants, organized by Summit EnviroSolutions, to help them answer some of the technical questions, suggest mining best practices, and provide in-depth mapping and analysis of the County's non-metallic resources.

This report states the moratorium requests, provides a brief background on some of the MSC review, and outlines suggested changes to the ordinance if pertinent. Through the process, a number of other items were brought forth in the discussion and added to the end of the report.

Air Quality Concerns:

Silica sand mining operations generate a great deal of dust from mining activities. Inhalation of Crystalline Silica Sand Dust at high concentrations may cause respiratory problems, heart disease, worsening of asthma symptoms and even a life threatening and disabling lung disease called silicosis. Study of this potential health concern should result in recommendations regarding potential public health impacts and workplace hazards that may be associated with mining, processing and transportation of silica sand.

MSC Review:

The MSC reviewed numerous documents addressing air quality. One of the publications, *Crystalline Silica Primer* by the Staff at the Branch of Industrial Minerals, indicates as part of its conclusion:

Scientists have known for decades that prolonged and excessive exposure to crystalline silica dust in mining environments can cause silicosis, a noncancerous lung disease. During the 1980's, studies suggested that crystalline silica was a carcinogen. In 1987, IARC labeled crystalline silica as a "2A substance," a probable human carcinogen following a review of the available medical literature on silica. *[Subsequently, upgraded to a 1A substance following a review of the health literature in 1996].* With the publication of the first study, crystalline silica was regulated under OSHA's HCS as a carcinogen. To demonstrate that they are exempt from the requirements of HCS, suppliers must now analyze the crystalline silica content at the 0.1% level and must now more carefully consider whether the silica is crystalline or noncrystalline; whether it is a regulated form of crystalline silica; or whether it is a mixture of several silica types.

The MSC also reviewed existing regulations that the Minnesota Pollution Control Agency (MPCA) has applied to other mining projects, in particular, the Unimin Mine in Le Sueur County (*Air Emission Permit No. 07900009-001*, and *Air Emission Permit No. 07900009-002*).

The permit describes:

Non-Process Dust Control:

All reasonable measures shall be taken to prevent avoidable amounts of particulate matter from becoming airborne. In a practical manner this refers to preventing avoidable visible dust emissions beyond the lot line surrounding the stationary source. Control of non-process dust emissions can be achieved through such measures as applying water or commercially available dust suppressant to stockpiles, unpaved roads and handling areas. In addition, the following requirements apply to the Permittee:

1. Record date and time of action and initials of person making the record.
2. Record amount of water or dust suppressant applied.
3. If a commercially available dust suppressant is used, it shall be applied in accordance with the manufacturer's guidelines. The Permittee must keep a copy of these manufacturer's guidelines.
4. Record the location (e.g., on a site sketch) of water or dust suppressant application.
5. Install a rain gauge at the site and record the precipitation in the previous 24 hours for each day of operation at the site.
6. Make and record basic weather observations according to the MPCA Weather Summary Criteria that best characterize each operating day.
7. Unpaved roads at the site shall be posted with speed limit signs indicating a maximum speed of 10 miles per hour.
8. Equipment to apply water or dust suppressant shall always be available at the site or on call for use at the site within a given operating day.

MPCA staff, Jeff Hedman, presented *Air Permitting 101* to the MSC at the February 1, 2012 meeting. He discussed the Clean Air Act and the Air Permitting Triggers in his presentation.

In addition, the MSC reviewed *Report to the Natural Resources Board: Silica Study (August 2011)* prepared by the Wisconsin Department of Natural Resources. Some of their major findings, of interest to our committee, were:

Based on a review of available literature and other information, as well as a survey of state and local officials from across the U.S., the following are the major findings to date regarding sources, health effects, monitoring, and regulation of ambient silica air emissions:

- Sources of crystalline silica are ubiquitous and include paved and unpaved roads, windblown soil and agricultural activities (e.g., tilling and harvesting). *
- Industrial sources of crystalline silica include construction, foundries, glass manufacturing, abrasive blasting or any industrial or commercial use of sand and quartz, and mining and rock crushing operations.
- Crystalline forms of silica (such as quartz) meet the definition of a known carcinogenic hazardous air pollutant (HAP)1 as defined in Wisconsin's Air Toxics Rule, Ch. NR 445, Wis. Adm. Code. Wisconsin statutes have specific criteria which must be met in order for a hazardous air pollutant standard to be established.
- Amorphous forms of silica do not currently meet the decision rules for defining amorphous silica as a HAP because they have been delisted by the American Conference of Governmental Industrial Hygienists (ACGIH).
- No federal air quality standards for silica currently exist. Federal standards for particulate matter (PM), a component of which is silica, are in effect for PM 10 and PM2.5.
- The size of crystalline silica particles of most concern are those that are smaller than four microns (millionths of a meter), also called particulate matter 4 (PM4). There are no generally accepted methods for monitoring PM4 in ambient air.
- Controls for crystalline silica are the same controls typically used for particulate matter (PM). The extent of reduction from existing particulate matter (PM) controls is not currently known and will vary from source to source. The types and costs for these controls need to be evaluated on a facility-by-facility basis.
- Studies generally do not indicate the existence of any wide-spread significant concern about airborne crystalline silica exposures to individuals not living near an identified source of crystalline silica emissions. In circumstances where people live near a source of crystalline silica, data from other air pollution control agencies shows that silica ambient air concentrations could be above a level of concern. However, the data also suggests that other non-industrial sources contribute to the ambient levels.
- Of the states surveyed, six (Texas, California, Vermont, New York, New Jersey and Michigan) address emissions of crystalline silica. However, these states have not shown impacts from these sources on health. Some states use what may be considered a technology-based approach, focusing on control measures or specific management practices, while others establish an acceptable ambient air concentration of crystalline silica.
- Wisconsin Department of Natural Resources (WDNR) has extensive experience applying PM controls to many types of air pollution sources. For example, many permits for industrial sources

require dust management plans and other controls to reduce PM emissions, which also help minimize crystalline silica emissions.

- Currently, WDNR has no crystalline silica monitoring data. Additional financial and staff resources would be needed to conduct crystalline silica monitoring. Monitoring to specifically analyze for crystalline silica is difficult, there are no federal standards and there is no standard reference method for monitoring crystalline silica in ambient air.
- The draft report was released to the public on January 4, 2011 and the WDNR received comments. Comments received requested additional WDNR actions including listing crystalline silica as a HAP, establishing acceptable ambient air concentrations and controls on sources and monitoring for crystalline silica. Other comments state that the WDNR does not have the authority to regulate silica, that only occupational exposures have been associated with silicosis and cancer risk and no public health risk exists from the lower level of exposure in ambient air.
- The comments received do not change the fundamental conclusions of the report. They were factored into the consideration of possible alternative strategies.
- A recurring theme from the literature review and survey is that very little conclusive information exists regarding sources, controls or levels of silica present in ambient air. This lack of data means it is not currently possible to determine conclusively whether or to what extent the quantity, duration or types of silica emissions in the state may be a public health concern. It would take significant additional efforts to fill in these data gaps. That said, Wisconsin has regulated PM for 40 years. The controls for PM are the same controls for crystalline silica. This means that for those crystalline silica sources where PM is controlled, crystalline silica emissions are also reduced.

The Air Toxics Rule uses the term “Hazardous Air Contaminants.” For the purposes of this report, the more common term, “Hazardous Air Pollutant” (HAP) is used throughout the report.

*Goodhue County has approximately 840 miles of unpaved roads

Our current ordinance addresses air quality (dust) in the following sections:

Article 14, Section 5, Subd. 2, Supporting Documentation

- I. A description of actions to be taken to mitigate potential impacts resulting from mineral extraction and processing, including potential impact related to; wetlands, erosion, noise, air pollution, surface water contamination, traffic, dust or vibrations.

Article 14, Section 6, Subd. 4, Mineral Extraction Performance Standards:

- D. Roadway Dust Control. Operators shall be responsible for providing dust control on gravel roads that are the primary routes to or from a mineral excavation facility. Unless waived by the County Board in lieu of other remedies, watering roadways will be required when conditions warrant it and the number of one-way truck trips from a particular mineral excavation facility exceeds three (3) per hour.
- E. Mineral Extraction Facility Dust Control. The County may require dust control in a facility when it is determined that airborne dust from extraction areas, processing activities, stockpiles or internal roadways creates a public nuisance. Other remedies to control dust may include berming, landscaping, and enclosures for processing equipment. All equipment used for mining operations shall be constructed, maintained, and operated in such a manner as to minimize, as far as practicable, dust

conditions which are injurious or substantially annoying to persons living within six hundred feet (600') of the mining operations lot line. All internal roads and access roads from mining operations to public highways, roads, or streets or to adjoining property shall be paved or surfaced with gravel to minimize dust conditions.

- H. Air Quality/Water Quality. All activities on the mineral extraction facility will be conducted in a manner consistent with the Minnesota Pollution Control Agency's operating permits.
- J. Screening. To minimize problems of dust and noise and to shield mining operations from public view, a screening barrier may be required between the mining site and adjacent properties. A screening barrier may be required between the mineral extraction facility and any public road. Screening barriers shall be subject to the approval of the permitting authority.

Based upon the current MPCA regulations of preventing dust from leaving the mining sites, and the County requiring potential dust control on the access roads and the site, the dust issue to surrounding properties seems to be addressed. However, there is a public perception that more should be done. To ensure that no dust leaves the property, it is suggested that the air is monitored at strategic locations along the property line, within the site, and potentially at neighboring residences within 600 feet of the extraction facilities property line. Particulate monitoring and weather conditions should be done for six months prior to operations to create a baseline of the area. Continuous remote readings should be mandatory.

Suggested ordinance wording:

Article 14, Section 6, Subd. 4, Mineral Extraction Performance Standards:

- D. Roadway Dust Control. Operators shall be responsible for providing continuous dust control during facility operation on gravel roads that are the primary routes to or from a mineral excavation facility. ~~Unless waived by the County Board in lieu of other remedies, watering roadways will be required when conditions warrant it and the number of one-way truck trips from a particular mineral excavation facility exceeds three (3) per hour. Watering roadways or other dust control measures along paved roads accessing the facility such as pavement sweeping and wheel washing may be required.~~
- E. Mineral Extraction Facility Dust Control and Air Quality. ~~To mitigate public nuisances and public health concerns the County may~~ shall require dust control in a mineral extraction facility ~~when it is determined that airborne dust from extraction areas, processing activities, stockpiles or internal roadways creates a public nuisance.~~
 - 1. ~~Other~~ Remedies to control dust may include methods such as berming, landscaping, and enclosures for processing equipment, and watering stockpiled materials and unpaved roads within the site.
 - 2. All equipment used for mining operations shall be constructed, maintained, and operated in such a manner as to minimize, as far as practicable, dust conditions which

are injurious or substantially annoying to persons living within six hundred feet (600') of the mineral extraction facility ~~mining operations~~ lot line.

~~3. All internal roads and access roads from mining operations to public highways, roads, or streets or to adjoining property shall be paved or surfaced with gravel to minimize dust conditions.~~

3. The County may require air quality/air particulate monitoring of a mineral extraction facility. Monitoring equipment should be in accordance with MPCA or the Goodhue County best practices standards, whichever are more stringent.

a) The operator shall begin air quality/air particulate and weather monitoring at least six months prior to operation to create a baseline of the area.

b) Stationary monitors shall be located at strategic locations along the mineral extraction facility property lines, within the site, and may also be required to be located at neighboring residences within 600 feet of the facilities property lines.

c) Continuous remote readings shall be taken and reported to the County when requested; a summary report shall accompany the operations annual renewal documentation and fees.

Suggested wording for Water Quality are listed under the Water Quality and Quantity section of this report. Suggested wording for Screening are listed under the Economic and Social Impacts section of this report.

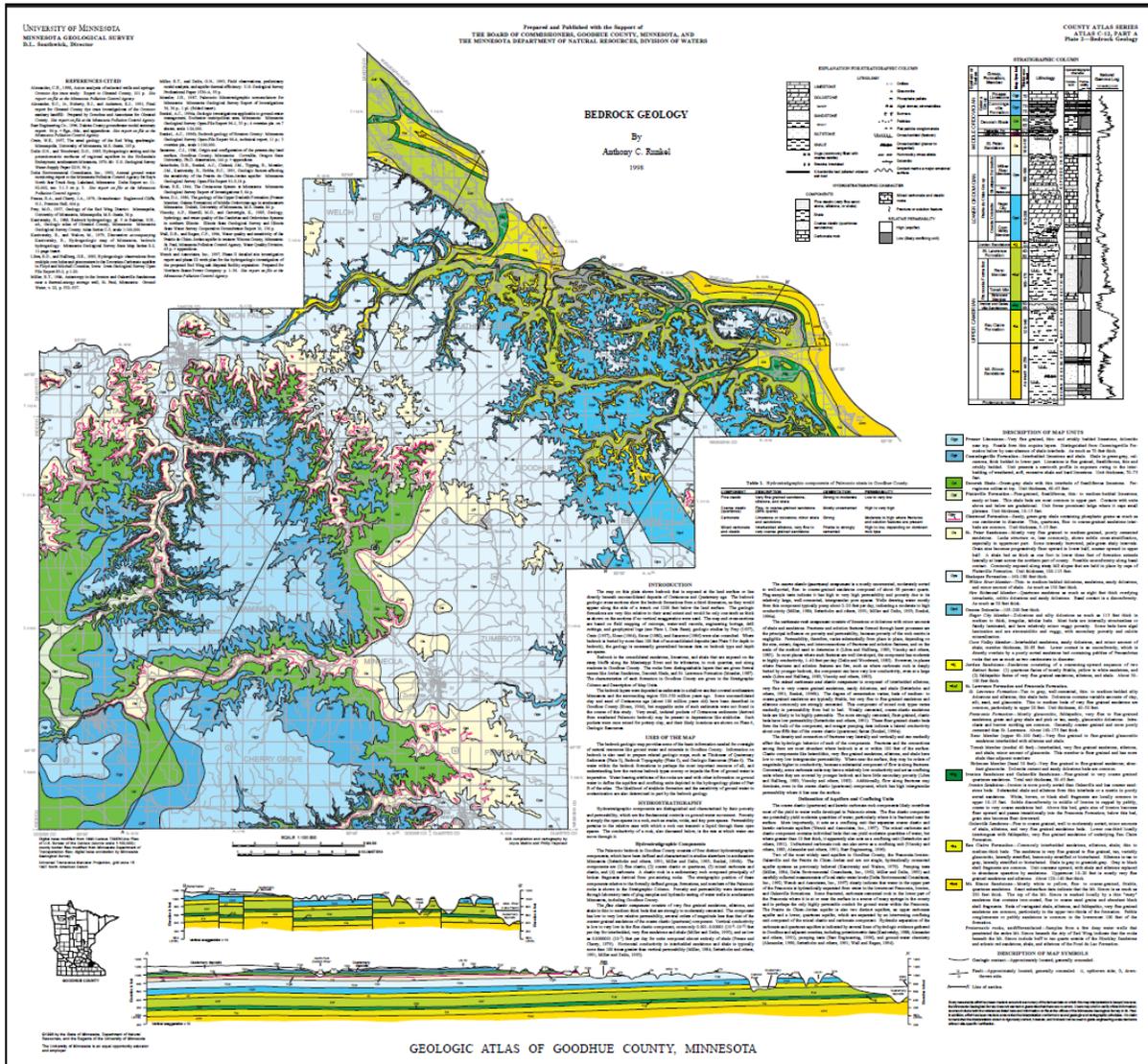
Water Quality and Quantity Concerns:

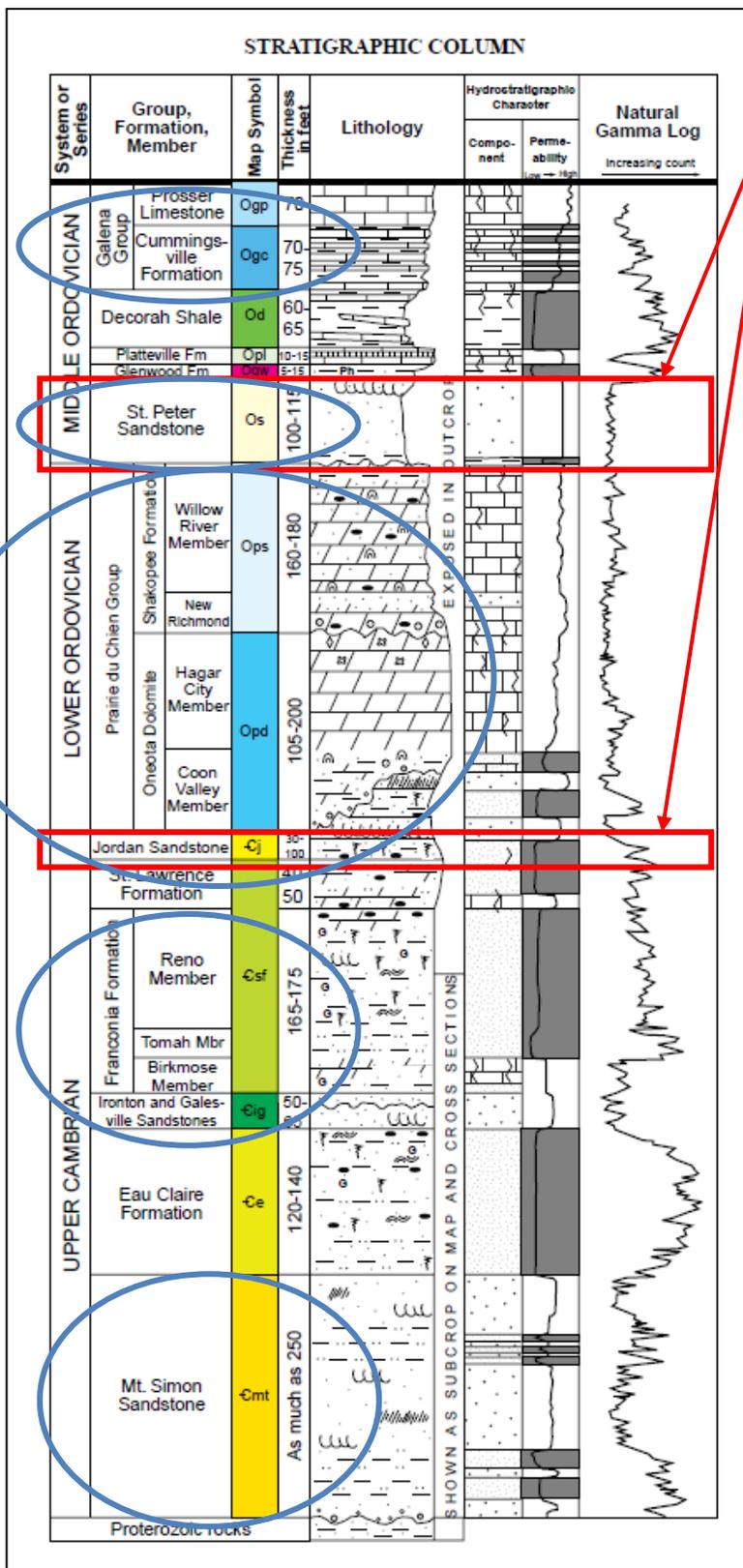
Silica Sand Mining may impact the quality and quantity of drinking water in Goodhue County. In addition, impact on surface water quality could impact aquatic life including fish populations. Study and analysis of how water quality and quantity may be impacted by silica sand mining in Goodhue County is necessary to ensure County ground and surface water resources will be sufficiently protected from negative impacts.

MSC Review:

The MSC invited Jeff Green and Scot Johnson from Minnesota Department of Natural Resources to speak in general about the hydrogeology of Goodhue County and about the impacts to our water resources that may occur from mining.

The Bedrock Geology plate from Goodhue County's geologic atlas shows the bedrock that is exposed at the land surface or lies directly below the unconsolidated deposits of the Cretaceous and Quaternary age:





The cross section shows the bedrock formations as they would appear along the side of a trench cut 1200 feet below the land surface:

The deposits of interest in Goodhue County for silica sand deposits are the Jordan and the St. Peter Sandstones.

Based upon the County Well Index (CWI) there are approximately 4500 wells in the County. The percentage of wells grouped by major aquifers are as follows:

- Ordovician Galena (OGAL) = 2%
- Ordovician St. Peter (OSTP) = 4%
- Ordovician Prairie du Chein (PDC) and Cambrian Jordan (CJDN) = 53%
- Cambrian Franconia and Ironton-Galesville (CFIG) = 14%
- Cambrian Mt. Simon (CMTS) = 1%

The majority of the domestic wells in Goodhue County are located in the PDC and CJDN (53%) aquifers. The five Red Wing Municipal Wells are located in the Mt. Simon aquifer.

The MnDNR administers the use, allocation, and control of waters in the state. Statute outlines the priorities for water appropriations (MS 103G.255):

(1) first priority, domestic water supply, excluding industrial and commercial uses of municipal water supply, and use for power production that meets the contingency planning provisions of section [103G.285, subdivision 6](#);

(2) second priority, a use of water that involves consumption of less than 10,000 gallons of water per day;

(3) third priority, agricultural irrigation, and processing of agricultural products involving consumption in excess of 10,000 gallons per day;

(4) fourth priority, power production in excess of the use provided for in the contingency plan developed under section [103G.285, subdivision 6](#);

(5) fifth priority, uses, other than agricultural irrigation, processing of agricultural products, and power production, involving consumption in excess of 10,000 gallons per day; and

(6) sixth priority, nonessential uses.

(b) For the purposes of this section, "consumption" means water withdrawn from a supply that is lost for immediate further use in the area.

(c) Appropriation and use of surface water from streams during periods of flood flows and high water levels must be encouraged subject to consideration of the purposes for use, quantities to be used, and the number of persons appropriating water.

(d) Appropriation and use of surface water from lakes of less than 500 acres in surface area must be discouraged.

(e) The treatment and reuse of water for nonconsumptive uses shall be encouraged.

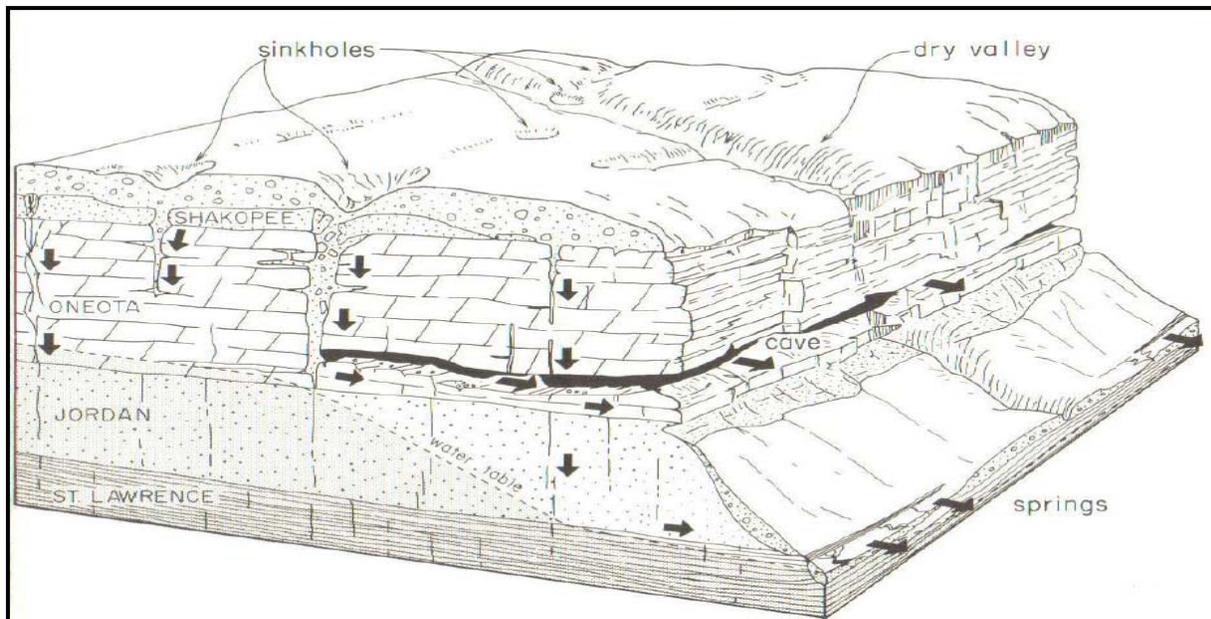
(f) Diversions of water from the state for use in other states or regions of the United States or Canada must be discouraged.

The MNDNR has appropriation thresholds for Individual permits and General permits. Individual permits are less than 10,000 gallons/day or 1,000,000 gallons/year. Some of the County's campgrounds use more than the 10,000 gallons/day. General permits are any use over those gallons per day or per year. A livestock farm is typically less than 5 million gallons/year whereas Municipal Water Supplies, Ethanol Plants, Sand and Gravel Washing uses can be over 100 million gallons/year.

Appropriation permits take into account such surrounding natural resources as trout streams and Calcareous Fens.

To add to the ground water concerns, the County has a considerable area that is classified as Karst topography, meaning terrain characterized by soluble limestone which creates caves, sinkholes, and underground rivers. Ground water pollution in these areas have a high probability of occurring because the cracks, holes, and fissures are direct conduits from the surface to the uppermost aquifers (see *Sensitivity to Pollution of the Uppermost Bedrock Aquifers* plate of the Goodhue County Geologic Atlas). In essence, what happens on the surface or as the surface erodes or is mined, can have a direct effect on water quality.

As this illustration shows, Karst surface topography has a direct relationship to the underlying aquifers (from S. Johnson's presentation):



One of the publications that was of particular interest to the MSC was the *Hydraulic Impacts of Quarries and Gravel Pits* prepared by Jeff Green et. al, for the Legislative Commission on Minnesota Resources in 2005.

The executive summary of the report states the purpose of the study as follows:

“Quarries and pits can affect ground-water and surface-water systems in various ways. This project focused on the following potential impacts:

- lowering of local ground-water and surface-water levels from mining operations and mine dewatering,
- changes in turbidity levels in ground water due to blasting and quarry operations,
- interruption of ground-water conduit flow paths by rock removal, and
- temperature change (thermal impacts) in springs and surface-water streams.

This report is intended to help local officials, the public, and the mining industry understand the main issues surrounding mine establishment and to provide suggestions for monitoring and mitigation strategies to prevent significant impacts on water resource. The research at these sites (Figure 1) provides the first comprehensive assessment of aggregate mining impacts on groundwater systems in Minnesota. This information can be used for siting of new aggregate mines and for more accurately assessing their impacts on local ground-water resources. It can also be used for planning purposes at the state and local level.”

The conclusions of the *Hydraulic Impacts of Quarries and Gravel Pits* study, based upon site investigations and monitoring were as follows:

Impacts of Quarries

Ground-Water Levels

When limestone quarries are dewatered to allow mining below the water table, they alter groundwater levels and flow direction. In essence, the quarries become huge wells. Ground-water levels were found to have dropped up to 70 ft; this lowering of the ground-water levels can affect wells on neighboring properties and surface-water bodies. New quarries that will extract material below the water table will have to be sited carefully to avoid this impact, or a plan must be developed to provide an alternative water supply for property owners whose wells are affected.

Ground-Water Flow Paths

Limestone quarries can alter ground-water flow paths by the removal of the aquifer material and the subsequent breaching of the limestone conduits without active dewatering of the quarry. At one site investigated, 90% of the ground-water basin's flow is now surfacing in the quarry. Ground water that previously discharged at a spring now discharges in the quarry where it is exposed to quarrying activities. This premature surfacing of the ground water also alters its temperature, changing the temperature characteristics of the receiving stream and potentially affecting its aquatic life. Our investigations found this scenario most likely to occur when quarries are located upgradient from and close to springs.

Modeling has shown that quarry dewatering at one site is drawing water from a nearby river. Additional impacts could not be assessed because of the lack of hydrologic data from areas surrounding the quarry. It is likely that the dewatering has decreased the yield of nearby wells at this site.

Quarry Blasting

Monitoring and visual inspections of the observation wells at two of the limestone quarry sites found no impact from quarry blasting on ground water turbidity or well integrity. Turbidity monitoring at a spring downgradient of one limestone quarry did find an increase in turbidity that could be attributed to quarry blasting; however, precipitation events had a greater impact on turbidity levels. Based on these findings, the domestic wells most likely to be affected by quarry blasting are older wells (completed before enactment of the state well code) finished in the surface limestone formation.

Impacts of Pits

Ground-Water Levels

Our monitoring found no negative impacts on ground-water levels from sand and gravel pits in alluvial deposits that operate below the water table but do not dewater. These pits will not affect the quantity of water available to shallow domestic wells on neighboring properties.

In the complex geology of glacial beach ridge settings, the removal of sand and gravel can alter ground-water flow paths and affect the supply of water available to wetlands that are fed by discharge from the sand and gravel.

Ground-Water Temperature

Open-water ponds created by sand and gravel mining change ground-water temperatures. The magnitude and extent of those changes is not yet known. This is an ongoing concern that needs further study.

As part of the review process, staff outlined the recommendations to Local Governments suggested by this report and found that although many areas are addressed in our current ordinance, some areas were not or should be more descriptive (see staff presentation dated January 4, 2012).

Under the GEOLOGY recommendations, we found that the Geologic units and contacts, depth to bedrock, confining units, and fracture patterns and traces were not addressed as a requirement for inclusion in a submitted map to the County. According to the study, this information will help the County to understand the operations size, future expansion possibilities, depth of mining, and potential overburden stockpiling.

Under the HYDROLOGY recommendations, we found that our ordinance did not specify well information, elevation of surface water or springs or Karst characteristics. In addition, although the ordinance currently discusses site hydrology, surface waters, and existing/change in drainage, it does

not discuss dewatering information. According to the study, this information will help the County to assess the impact a proposed mining extraction facility would have on wells and surface-water bodies.

Under the KARST INVESTIGATIONS the study suggests a licensed geologist map or review information that shows the known caves, joints, fractures, sinkholes, stream sinks, springs and trout stream locations. It also suggests that a dye tracing process may be necessary in some areas to determine the ground-water flow path to ensure that a mining extraction facility is sited in an area least likely to contaminate water resources. Currently, our ordinance does not request information concerning Karst features.

It appears that the best place to add these requirements would be under Article 14, Section 5, Subd. 1A, Map A. (Suggested changes in red):

Map A- Existing site conditions to include:

1. Property boundaries ~~to be~~ surveyed by a Minnesota Licensed Land Surveyor.
2. A survey which provides contour lines at five (5) foot intervals.
3. Existing vegetation including plant community, evaluation of condition of plant community, and dominate species
- ~~4. Existing drainage and permanent water areas.~~
- ~~5~~4. Existing structures.
- ~~6. Existing wells and private sewer systems.~~
- ~~7~~5. Existing pipelines, power lines and other utilities.
- ~~8~~6. Easements affecting the permitted property.
- ~~9~~7. Adjacent public road right-of-way.
- ~~10~~8. Existing access points to public roads.
9. Existing Bluff Impact zones according to Article 12 of this ordinance
10. Test borings and monitoring wells used to characterize the site.
11. Threatened and Endangered Species on the site and within ¼ mile of the site
12. Distribution, thickness and type of existing topsoil and subsoil
13. Location of existing historical, cultural, and archeological features identified in the SHPO and County's databases and those not identified but discovered onsite
14. Location of areas previously affected by mining on site, including location of stockpiles, wash ponds, and sediment basins

GEOLOGY

15. Geologic units and contacts.
16. Depth to bedrock (if applicable).
17. Confining units (clays, shale, siltstone)
18. Fracture patterns and traces (for rock quarries)
19. Location of any known caves, joints, fractures, sinkholes, stream sinks, and springs

HYDROLOGY

20. Drainage patterns and permanent water areas within 600 feet of the property lines
21. Water-table elevations with ground water flow direction
22. Wells within one mile radius of the property lines showing location, depth, static water level, age, and construction
23. Location and elevation of any known springs within 600 feet of the property lines
24. General location of septic systems within 600 feet of the property lines
25. Location of designated trout streams within 600 feet of the property lines

In addition, we added a request for locations of water retention ponds to Article 14, Section 5, Subd. 1A, Map B.

If a site is to be dewatered, a plan should be developed. Under the current Article 14, Section 5, Subd. 2, Supporting Documentation, another subdivision for Dewatering plans should be added:

If a mineral extraction facility proposes to dewater the site, a plan must be submitted that includes:

- **dewatering points and their elevations**
- **hydrogeologic parameters of the unit dewatered including hydraulic conductivity, transmissivity, and storativity**
- **proposed volume and rate of dewatering**
- **discharge point**
- **duration of dewatering**

Under the MONITORING WELLS recommendations the study suggests developing a plan to include placing monitoring wells around the perimeter of the mining extraction facility and potentially at multiple levels depending on whether or not multiple aquifers could be affected either through the excavation or the dewatering process. Under the current Article 14, Section 6, Subd. 4, it states:

P. Water Quality Monitoring. Water Quality monitoring shall be performed when required by the MPCA.

This current statement seems lacking in the overall protection of the water resources which may be affected by a new intense land use including mineral extraction processes. Suggested wording to monitor our resources would be:

P. Water Quality Monitoring. Water Quality monitoring shall be performed when a mineral extraction facility is:

- **Mining below the water table**
- **If the property lines are within 600 feet of known Karst features, springs, streams, or lakes**
- **If the operation is proposing to dewater the site**
- **If the site is using chemicals as part of the washing or ponding process**
- **If otherwise required by MPCA**

1. **If washing/processing operation is proposed a minimum of three (3) monitoring wells shall be installed to evaluate the hydrogeologic environment. The County reserves the right to require additional borings or monitoring wells if necessary.**
2. **A Water Monitoring Plan shall include placing a sufficient number of monitoring wells in strategic locations along the property lines and within the site to adequately characterize and monitor surface and groundwater.**
3. **Monitoring of residential wells within 600 feet of the property lines may also be required**
4. **Continuous remote readings shall be taken and reported to the County when requested; a summary report shall accompany the operations annual renewal documentation and fees.**

Economic and Social Impact Concerns:

Each year the population of Goodhue County is augmented by over one million visitors. These visitors come to enjoy the many scenic areas and recreational opportunities in the County. Potential alteration of the Goodhue County Landscape could significantly impact tourism and recreational opportunities for visitors and County residents. Study and analysis of potential impacts the silica sand mining operations may have on tourism and recreational uses especially in respect to streams, creeks, rivers and Blufflands located in areas of that may be subject to silica sand mining, processing or transportation.

MSC Review:

The County has mapped existing dwelling locations and its extensive historical, cultural, and recreational features dataset. Staff provided individual maps of the County's existing registered mining parcels showing a one mile buffer and all of the aforementioned datasets. (refer to the list of features and maps)

The number of existing dwellings within the one mile radius of existing registered mines ranged from four to over 70.

Our current ordinance requires the following setbacks:

Article 14, Section 6, Subd. 4,

L. Setbacks The following minimum setbacks shall be maintained from property boundaries:

1. Fifty (50) feet of adjoining property lines, unless written consent of the owner of the adjoining property is first secured recorded with the county recorder and a copy submitted to the Zoning Administrator.
2. Three hundred (300) feet of any existing dwelling or platted residential subdivision, not owned by the operator or owner, unless written consent of the owner of the adjoining property is first secured, recorded with the county recorder and a copy submitted to the Zoning Administrator. This paragraph is not applicable for Mineral Extraction Facilities in operation before and has been used annually since a subdivision within 300 feet of the Mineral Extraction Facilities was platted.
3. Fifty (50) feet to the boundary of any zone where such operations are not permitted.
4. Fifty (50') feet of any road right-of-way line of any existing or platted street, road, or highway, unless written consent by the adjacent road authority with jurisdiction over right-of-way and a copy submitted to the Zoning Administrator.
5. No mining activities, (including stockpiling) shall take place within fifty (50) feet of adjoining property lines, except for visual screening, reclamation, and berming of overburden material unless written consent of the owner of the adjoining property is first secured recorded with the county recorder and a copy submitted to the Zoning Administrator; fifty (50) feet of any road right-of-way of any existing or platted street, road or highway, unless written consent by the adjacent road authority having jurisdiction over the right-of-way. Only berm construction and vegetative screening maintenance activities may occur in the 50 ft. buffer.

Some of the historical, cultural, and recreational features found within a one mile radius of existing registered mines were historic sites, trout streams, rivers, lakes, recreational features, and state scenic and natural areas.

It does not appear as if the existing mines had a detrimental impact on the current historical, cultural, or recreational activity normally associated with tourism. The County has had very limited number of complaints from neighboring dwellings regarding nearby mining activity. The MSC recognizes that as the number of mines, the size of mines, and population increases the potential for conflict between our cultural resources become bigger concerns. Social and economic impacts will be a concern with new mining requests.

The discussion revolved around questions about new mines being proposed and what we felt would be a detrimental impact on these tourism resources and existing dwellings. Many citizens and visitors travel throughout the County on its roads and waterways to see the stunning bluffs and pastoral scenery. Visual impacts were stated as being important aspects to address. Our current ordinances states:

Article 14, Section 5. Subd. 2. Supporting Documentation

J. A description of site screening, landscaping and security fencing.

Article 14, Section 5. Subd. 4. Mineral Extraction Facilities Performance Standard.

J. Screening. To minimize problems of dust and noise and to shield mining operations from public view, a screening barrier may be required between the mining site and adjacent properties. A screening barrier may be required between the mineral extraction facility and any public road. Screening barriers shall be subject to the approval of the permitting authority.

Suggested wording for:

Article 14, Section 6, Subd.4 J. Mineral Extraction Facilities Performance Standards.

J. **Screening Barriers. Screening barriers shall be subject to the approval of the permitting authority.**

1.To minimize problems of dust and noise and to shield mining operations from public view, a screening barrier may be required between the mining site and adjacent properties.

2.A screening barrier may be required between the mineral extraction facility and any public road.

3 .A screening barrier may be required to mitigate visual impacts of the mineral extraction facility from existing historical, cultural, recreational features and dwellings, including but not limited to trails, navigable waters, and sites identified in the State Historic Preservation Office (SHPO) and County's cultural and archeological databases.

By clarifying the visual impacts that we are concerned about, the applicant understands its importance to the decision makers in their process of determining any negative effects the mining operation may have on the character and use compatibility within the neighborhood. Outlining these concerns in the application process allows the applicant to address appropriate screening methods at the beginning of the design process.

Dust Control Requirements:

Refinement of County mineral extraction facility dust control provisions to more clearly specify what constitutes a “public nuisance” and to set acceptable standards for and measurement requirements for ambient emissions of silica sand from silica sand mining operations would help ensure public health and safety

MSC Review:

As a continuation of the review of the Air Quality concerns stated previously, this also addresses what constitutes a public nuisance. Minnesota Statutes 116.061 AIR POLLUTION EMISSIONS AND ABATEMENT, under the Pollution Control Agency statutes, discuss public nuisance as follows:

Subdivision 1. **Emission notification required.**

(a) A person who controls the source of an emission must notify the agency immediately of excessive or abnormal unpermitted emissions that:

- (1) may cause air pollution endangering human health;
- (2) may cause air pollution damaging property; or
- (3) cause obnoxious odors constituting a public nuisance.

(b) If a person who controls the source of an emission has knowledge of an event that has occurred and that will subsequently cause an emission described in paragraph (a), the person must notify the agency when the event occurs.

Subd. 2. Abatement required.

A person who is required to notify the agency under subdivision 1 must take immediate and reasonable steps to minimize the emissions or abate the air pollution and obnoxious odors caused by the emissions.

Subd. 3. Exemption.

The following are exempt from the requirements of subdivisions 1 and 2:

- (1) emissions resulting from the activities of public fire services or law enforcement services;
- (2) emissions from motor vehicles, as defined in section [169.011, subdivision 42](#);
- (3) emissions from an agricultural operation deemed not a nuisance under section [561.19, subdivision 2](#); or
- (4) emissions from agency regulated sources that are routine or authorized by the agency.

Subd. 4. Penalty exception.

A person who notifies the agency of emissions under subdivision 1 and who complies with subdivision 2 shall not be subject to criminal prosecution under section [115.071, subdivision 2](#).

Subd. 5. Use of notification.

Any notice submitted under subdivision 1 is not admissible in any proceeding as an admission of causation.

Although ambient emissions of silica sand from mining operations may not have obnoxious odors or may not be visible, it appears that the Minnesota Pollution Control Agency considers it an emission due to the fact that they have required Air Permits for some existing mines (Unimin in Le Sueur County) requiring Non-Process Dust Control.

The suggested ordinance wording changes listed under the Air Quality item includes air quality monitoring in conjunction with other dust control methods for public health and nuisance concerns.

Setback Requirements:

Clarification of how various setback standards would be applied to silica sand mining including how setbacks from toe or top of bluff for mineral extraction may be applied to subsurface mining activity would provide greater certainty for both potential mining interests as well as County residents/property owners.

MSC Review:

As stated under the Economic and Social Impact section of this report, our current ordinance requires the following setbacks:

Article 14, Section 6, Subd. 4,

L. Setbacks The following minimum setbacks shall be maintained from property boundaries:

1. Fifty (50) feet of adjoining property lines, unless written consent of the owner of the adjoining property is first secured recorded with the county recorder and a copy submitted to the Zoning Administrator.
2. Three hundred (300) feet of any existing dwelling or platted residential subdivision, not owned by the operator or owner, unless written consent of the owner of the adjoining property is first secured, recorded with the county recorder and a copy submitted to the Zoning Administrator. This paragraph is not applicable for Mineral Extraction Facilities in operation before and has been used annually since a subdivision within 300 feet of the Mineral Extraction Facilities was platted.
3. Fifty (50) feet to the boundary of any zone where such operations are not permitted.
4. Fifty (50') feet of any road right-of-way line of any existing or platted street, road, or highway, unless written consent by the adjacent road authority with jurisdiction over right-of-way and a copy submitted to the Zoning Administrator.
5. No mining activities, (including stockpiling) shall take place within fifty (50) feet of adjoining property lines, except for visual screening, reclamation, and berming of overburden material unless written consent of the owner of the adjoining property is first secured recorded with the county recorder and a copy submitted to the Zoning Administrator; fifty (50) feet of any road right-of-way of any existing or platted street, road or highway, unless written consent by the adjacent road authority having jurisdiction over the right-of-way. Only berm construction and vegetative screening maintenance activities may occur in the 50 ft. buffer.

Among one item this area of study asks for clarification is whether or not the setbacks are surface setbacks or if they should also apply to underground mining. To ensure the setback both on the surface and underground, the initial statement could be modified as follows:

L. Setbacks The following minimum setbacks shall be maintained from property boundaries **at the surface and their vertical extension below the surface:**

Subsections 1 and 5 could be combined as follows:

1. No mining activities, (including stockpiling) shall take place within fifty (50) feet of adjoining property lines, except for visual screening, reclamation, and berming of overburden material, unless written consent of the owner of the adjoining property is first secured and recorded with the county recorder and a copy submitted to the Zoning Administrator.

5. No mining activities shall take place within fifty (50) feet of any road right-of-way of any existing or platted street, road or highway, except for berm construction, vegetative screening, or maintenance activities unless by written consent of the adjacent road authority having jurisdiction over the right-of-way.

The map *Setback Buffers* in Appendix A shows the current setback of 300 feet from dwellings, 300 feet from platted property lines, and an assumption of 100 feet on both sides of the centerline dataset maintained by the County for emergency management. Producing a map showing the additional setbacks from existing property lines would be only a snapshot in time and would not indicate any agreements between adjacent landowners, or operations that encompass parcels. The map titled “Accessibility of Jordan Outside Bluffs and Setbacks” (Figure 5 of *Supplemental Information Regarding NonMetallurgical Mining in Goodhue County, Minnesota* by Summit Envirosolutions, Inc.) shows the accessibility of the silica sand resource of the Jordan Formation that is outside the bluff, road, and dwelling setbacks.

With this information in addition to the other property line setbacks, some of the MSC felt that the current setbacks are sufficient minimum standards; however not all of the MSC members agreed. Being sensitive to local concerns, the new suggested wording below allows the Planning Commission to recommend to the County Board an increase of a setback depending on certain conditions. This gives the County the flexibility to adjust the distance on a site specific request.

6. **The Planning Commission may recommend to the County Board an increase the setbacks based upon residential locations, social or economic concerns, type of mining, or to mitigate public nuisance concerns.**

The MSC also discussed a reciprocity setback clause similar to what is currently in the ordinance with feedlots and LWECs projects. It was decided to not include language at this time in light of the fact that some mineral extraction facilities may be permitted as interim uses.

The Bluff Land Protection Article in the Goodhue County Ordinance addresses the definitions of the Top, Toe of bluffs, and Bluff Impact Zones as follows:

Article 12, Section 2,

Subd. 1. **BLUFF.** A natural topographic feature such as a hill, cliff, or embankment having the following characteristics:

- A. The slope rises at least twenty-five (25) feet above the toe of the bluff; and
- B. The grade of the slope from the toe of the bluff to a point twenty-five (25) feet or more above the toe of the bluff averages thirty (30) percent or greater;
- C. An area with an average slope of less than twenty (20) percent over a horizontal distance of fifty (50) feet shall not be considered part of the bluff.

Subd. 2. **BLUFF IMPACT ZONE.** All of the land lying between the top of the bluff and the toe of the bluff.

Subd. 4. **TOE OF THE BLUFF.** The point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from gentler to steeper slope above. If no break in the slope is apparent, the toe of the bluff shall be determined to be the lowest end of the lowest fifty (50) foot segment that exceeds twenty (20) percent slope.

Subd. 5. **TOP OF THE BLUFF.** The point on a bluff where there is, as visually observed, a clearly identifiable break in the slope, from steeper to gentler slope above. If no break in the slope is apparent, the top of the bluff shall be determined to be the highest end of the highest fifty (50) foot segment that exceeds twenty (20) percent slope.

Subd. 6. **VISUALLY INCONSPICUOUS.** Difficult to be seen and not readily noticeable from any point on the river or valley during the time when the leaves are on the deciduous trees.

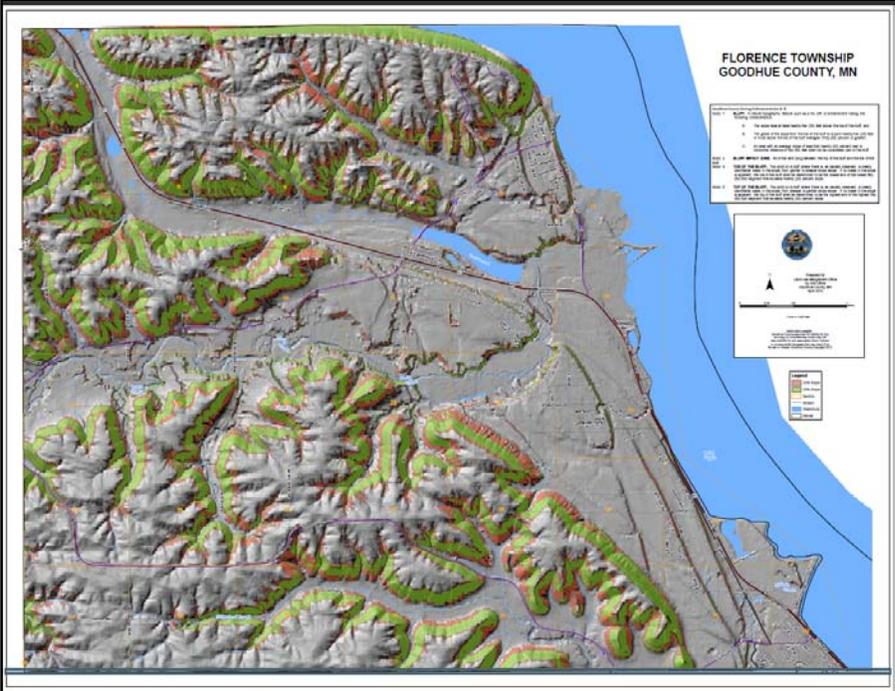
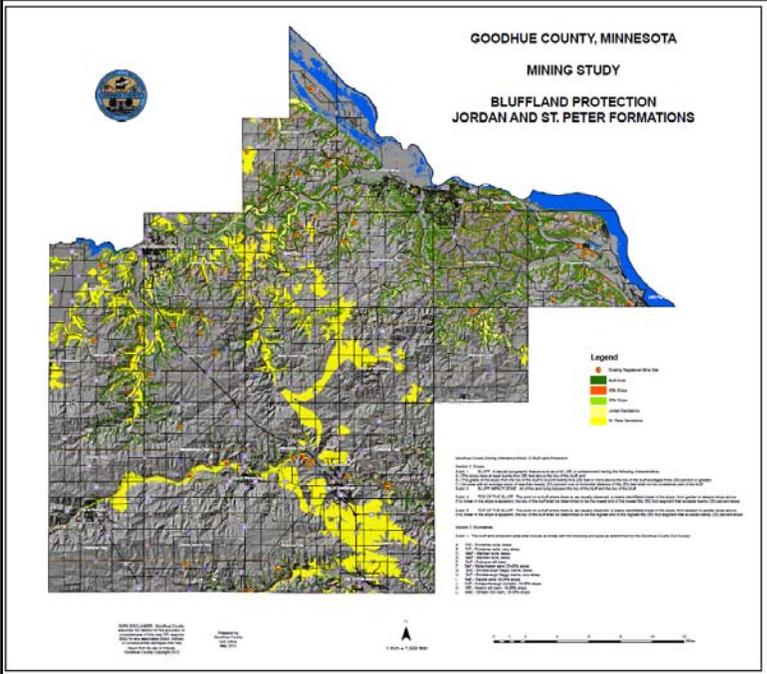
In addition, Article 12, Section 4, discusses excavating in bluff impact zones as follows:

Subd. 7. No grading, excavating or filling (including Mineral Extraction) within the bluff impact zones, except for approved erosion control measures. Erosion control projects within the bluff impact zone shall comply with A. and B. below:

A. Altered areas shall be stabilized to acceptable erosion control standards consistent with the field office technical guides of the Goodhue Soil and Water Conservation District and the USDA, Natural Resources Conservation Service.

B. Plans to place fill or excavated materials in bluff impact zones shall be prepared by qualified professional for continued slope stability, and approved by Land Use Management. All costs to be born by the applicant.

On this map (also included in the Map section of this report) we have mapped the Bluff impact zones in green and orange, the yellow indicates the Jordan and St. Peter formations, and the red dots indicate the current registered mines.



A closer view of one area in Goodhue County, Florence Township, shows the bluff impact zones.

Article 12, Bluff Land Protection, of the Goodhue County Zoning ordinance, was revised in December 2011 to reflect how the County was interpreting the bluff definitions (soils and slopes). In addition, the change added an explicit prohibition of Mineral Extraction within the bluff impact zones. There may be issues with this wording. We currently have numerous existing registered mines that are mining in the bluff impact zones where the resource is located. When they have completed that phase of their operations, are they limited by this wording for any further expansions, even though they have registered the property? This could be of significant concern for road projects as much of the aggregate mined is within the bluffs.

By limiting excavation within the bluff impact zones, are we denying any possible innovative ideas that may be shown to responsibly co-exist or improve the ecology or water quality of the area? Is the fact that any new Mining Extraction Facility requires a Conditional/Interim Use Permit with all the regulations and public comment sufficient enough to have proposals reviewed on their merits and on an individual basis sufficient? The MSC discussed these issues and felt the Bluff Land Protection wording as it currently is written protects the bluff impact zone from being mined and are not suggesting any changes.

Input from State Agencies:

Seeking input from relevant State Agencies and other expert parties to properly assess issues and concerns unique to silica sand mining that may impact public health, natural resources, historic and cultural resources, local economic conditions and the use and condition of public infrastructure would help provide information that may be needed to strengthen County plans, policies and ordinances.

MSC Review:

The MSC has invited the following people from state agencies to present information and provide guidance on the information the committee is reviewing:

Anthony Runkel, Minnesota Geological Survey – University of Minnesota
Scot Johnson, SE Minnesota Groundwater Specialist – Department of Natural Resources
Jeff Green, Springshed Mapping Hydrologist – Department of Natural Resources
Jeff Hedman, Minnesota Pollution Control Agency
Wendi Turri, Minnesota Pollution Control Agency

We have also had a presentation from the County Assessor Peggy Trebil, and Brian Ducklow, Principal Appraiser concerning Property Assessed Values and What Affects Them.

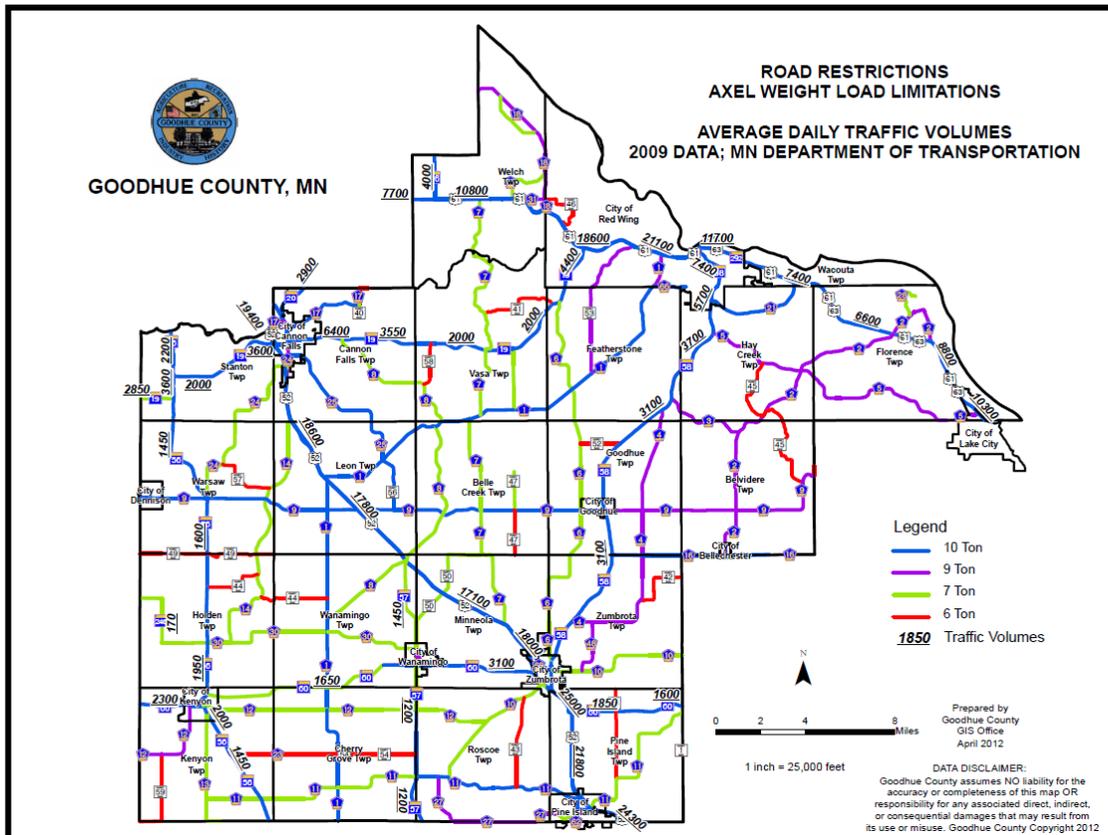
Studies, reports, and other research the committee was provided with are listed in Appendix D of this document.

Transportation Infrastructure:

Assessing additional County expenditures and responsibilities related to County Highways, Infrastructure, and Public Services that may result from potential Silica Sand Mining Operations would allow the County to more accurately determine how to plan and budget to address such impacts and demands.

MSC Review:

To get a sense of what the County’s existing road usage is, staff prepared a map showing the 2011 weight restrictions with the 2009 Minnesota Department of Transportation Average Daily Traffic count:



The

MSC discussed many aspects of the potential transportation impacts from new mining operations. Other Counties focused on these issues also and address “excessive burden” and “high intensity” use of the roads due to the increase activity of new mining operations, however, those terms do not seem to have a definition. Many roads are built to a certain estimated usage and weight of traffic. The heavier the vehicle the more stress it puts on the pavement. If an unplanned or unexpected increase of heavy traffic occurs over a length of time, it can drastically reduce the service life of a road which will require repair or replacement sooner than the budgeted plan.

The committee understands the potential for increased traffic, however they debated the singling out of one particular product (silica sand) of one industry to bear the entire cost of repairs. The increase in traffic due to agricultural harvest, road detours, other types of mining, and other land uses all have a part in the lifespan of a road.

The current funding sources of road maintenance and repair were discussed:

- **Fuel Tax.** The County received over \$5 million for County road construction and maintenance and over \$768,000 in Township road and bridge funds in 2012 from the state imposed fuel tax;
- **Vehicle Tax.** Larger construction vehicles like tankers and end dumps pay a higher license fee such as \$1800 per year verse an average personal vehicle of \$99 - \$150 per year. Part of these fees are distributed to the Department of Transportation as part of their road and bridge budget;
- **Aggregate Material Removal Production Tax.** This County ordinance reflects the State legislation which sets the fees and structure for an aggregate tax. In essence, the tax is \$0.21 per cubic yard or \$0.15 per ton of aggregate material imported or exported from the County. Five percent of the fee is retained by the County Auditor, 42.5% is distributed to the Public Works department, 42.5% is distributed to the city or town in which the mine is located, and 15% is reserved in a special fund for the restoration of abandoned pits. The April 2012 Goodhue County Fund Balance indicated an amount of \$90,266 in the special fund for restoration of abandoned pits.

When a new land use is requested it is especially important to request the amount of estimated traffic and type of traffic the new use will generate. In the past, the County has written Development Agreements to outline the responsibilities expected of the project concerning road impacts such as documenting current conditions, any necessary upgrades or improvements, and any repairs. The MSC reviewed the development agreements and other County road use fees and studies. They developed a Traffic and Road Impact Study to be used as a guideline for requesting information of *any* new land use request that appears to have a significant impact on the local roads. The information received from the Study would be analyzed to determine if a Road Impact Agreement is necessary to cover road costs deemed to be significant enough due to the new or increased use of the infrastructure.

Suggested language for Article 14, Section 6:

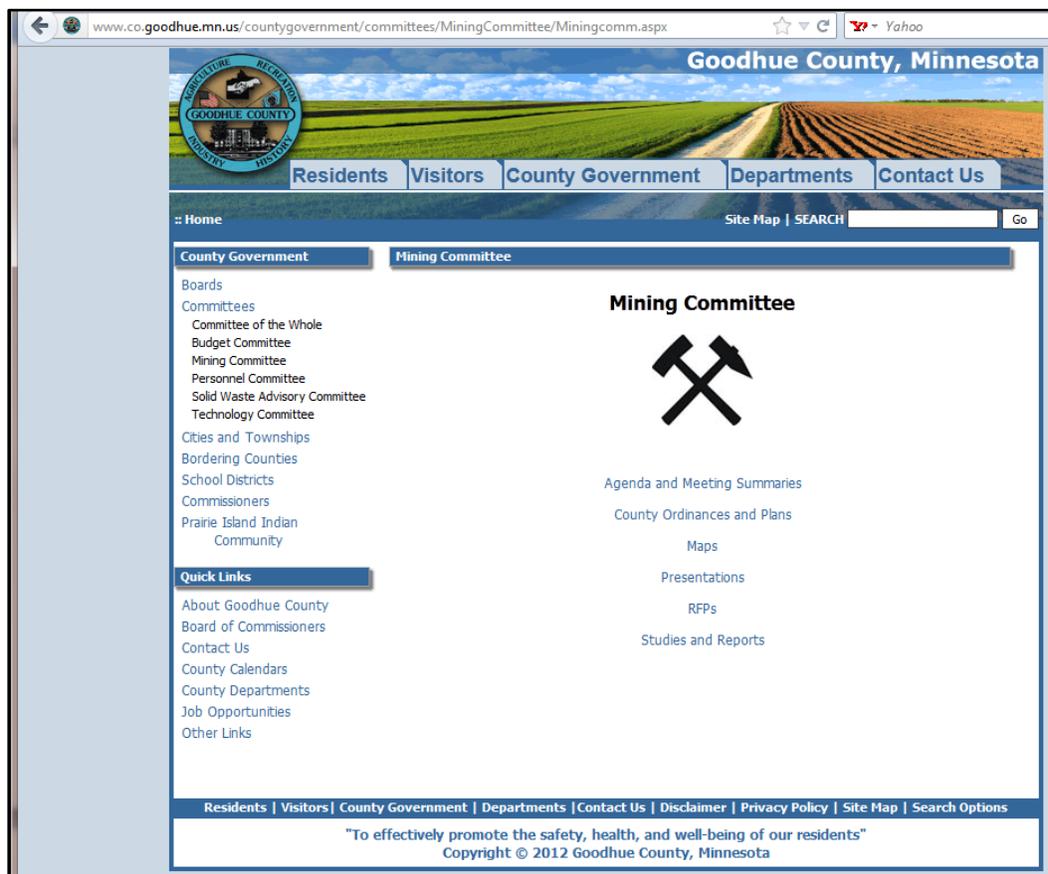
Subd. 5 Road Impact Studies and Agreements: When a proposed or amended Conditional/Interim Use Permit is requested, the County may require a Road Impact Study and a Road Impact Agreement to alleviate the additional burden on the County's financial resources associated with the road infrastructure maintenance affected by granting the request.

Dialogue with officials:

Reviewing the Goodhue County Comprehensive Plan to evaluate the compatibility of potential silica sand mining operations especially as may be proposed within Hay Creek and Florence Townships would help address concerns of County residents and other interested parties. In general, an opportunity for dialogue with Goodhue County Townships that may be impacted by silica sand mining would ensure that Township Planning and Land Use concerns are appropriately reflected in County Plans, Policies and Ordinances in regard to potential silica sand mining operations.

MSC Review:

As part of the public awareness of the MSC activities, the County has a link on their main webpage for the committee activities. The link takes a visitor to the Mining Committee page:



Navigating through the links on the committee page, a visitor can view the meeting agendas, summaries, current ordinances and plans, maps, presentations from guests and staff, the Request For Proposal document, and various studies and reports

referred to in the meetings.

In addition, members from Florence and Hay Creek Townships, the general public, other counties, and the newspapers have been present at the committee meetings and at times have had limited interaction with the committee during the meetings. Florence Township in particular has provided studies and reports for the committee to discuss.

The MSC has reviewed a number of public submittals for suggesting wording and has incorporated some of the suggestions. Individual committee members have been in correspondence with interested members of the public and brought their concerns to the committee to discuss the issues.

The MSC also held an informational meeting at the Cannon Falls High School on May 7, 2012 in which less than fifteen people attended.

Additional issues Discussed:

Mining Technical Evaluation Panel

After reviewing all of the issues outlined by the moratorium and discussing technical items with the consultant, it has become clear that many of the details of the ordinance requirements and scope of future mining operations may require more professional review. For instance, if the County requires air or water monitoring stations the staff and commissions may not have the expertise to advise the optimal placement of that equipment or the analysis of the data produced by the monitoring. In those cases it is believed that an outside expert panel would be most beneficial. This is similar to what the County has set up for wetlands issues in the Wetland Technical Evaluation Panel.

Suggested wording for Article 14, Section 2:

Subd. 12. Mining Technical Evaluation Panel. A panel of professional experts in the fields of mining, engineering, geology, hydrology, ecology, and landscape architecture that are retained for the purpose of reviewing and evaluating mining proposals, requesting pertinent information necessary for the application review, and reporting findings to staff, the Planning Advisory Commission, and the County Board. The panel's fees and expenses shall be paid for by the applicant.

The Mining Technical Evaluation Panel would be referenced in Article 14, Section 5:

- Subd. 3. Permitting Procedure for Conditional/Interim Use Permits:**
- A. **Application.** A request for a mineral extraction conditional/interim use permit, as provided within this Ordinance, shall be filed with the Zoning Administrator on an official application form, the required application fee shall be paid, and a deposit made to reimburse the County for its out-of-pocket costs in processing the application.
 - 1. **The application shall also be accompanied by twenty ~~four (24)~~ (20) hard copies and one electronic copy of detailed written and graphic materials fully explaining the proposed change, development, or use as specified in this Article.**
 - 2. **If a Mining Technical Evaluation Panel report is required, it must accompany the application in order for the application to be considered complete.**
 - D. **Referrals.** The Planning Commission, County staff, and County Board may refer the application for review and comment to other agencies, including but not limited to the Soil and Water Conservation District, the Minnesota Pollution Control Agency, **or the Mining Technical Evaluation Panel.**

SECTION 7. MINING TECHNICAL EVALUATION PANEL PROCEDURES.

- Subd. 1** The members of the Mining Technical Evaluation Panel shall consist of two or more professional experts in the fields of mining, engineering, geology, hydrology, ecology, and landscape architecture.
- Subd. 2** The Zoning Administrator will advertise every five years, or as needed, for Request for Qualifications for the Mining Technical Evaluation Panel professionals. The Zoning Administrator shall maintain a list of qualified professionals from which to choose for evaluation of individual proposals.
- Subd. 3** Mining Technical Evaluation Panel members must not have a pecuniary interest in the project, including any present financial relationship from the applicant

company, or worked on the mineral extraction facility proposal and must disclose potential conflict of interest for each proposal they review.

- Subd.4 When the Zoning Administrator determines that a proposal warrants a review by the Mining Technical Evaluation Panel, the applicant must submit the information required in Sections 5 and 6 of this Article to the Zoning Administrator to distribute to the Panel. The Zoning Administrator will assemble the Panel and distribute the material. The material shall also be distributed to the County engineer and SWCD staff.
- Subd. 5 The applicant shall respond to any questions or requests for more information or clarification from the Mining Technical Evaluation Panel in a timely manner.
- Subd. 6 The Mining Technical Evaluation Panel shall have 30 days after the material is distributed to review the proposal in accordance with this Article and report the results of their review. The report will be submitted to the Zoning Administrator and made part of the application.

Noise Issues

Article 14, Section 6, Subd. 4 reads:

- F. Noise. Maximum noise levels at the facility will be consistent with the standards established by the Minnesota Pollution Control Agency.

The MSC discussed Minnesota Pollution Control noise standards. A number of the MSC were also involved in the Large Wind Energy Conversion Systems (LWECS) ordinance changes and felt that the MPCA standards were not sufficient. Below is an excerpt of the noise standards as set out by Minnesota Rules.

7030.0040 Noise standards

Subpart 1. Scope

These standards describe the limiting levels of sound established on the basis of present knowledge for the preservation of public health and welfare. These standards are consistent with speech, sleep, annoyance, and hearing conservation requirements for receivers within areas grouped according to land activities by the noise area classification (NAC) system established in part 7030.0050. However, these standards do not, by themselves, identify the limiting levels of impulsive noise needed for the preservation of public health and welfare. Noise standards in subpart 2 apply to all sources.

Subp. 2. Noise standards Noise Area Classification	Daytime		Nighttime	
	L10	L50	L10	L50
1	65	60	55	50
2	70	65	70	65
3	80	75	80	75

Minnesota Rules 7030.0050 outline the Noise Area Classifications. In general, class 1 lists land use activities such as households, camping, resorts, and hotels. Class 2 lists railroad terminals, bus passenger terminals, airport and flying field terminals, parking, retail and wholesale trade. Class 3 list petroleum refining, manufacturing, aircraft transportation, highways, race tracks, fairgrounds, and agricultural activities.

As stated above, our current ordinance states that the noise level *at the facility* will be consistent with MPCA rules. Minnesota Rules 7030.0050, Subp. 1 states that the noise classification “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.” (Italics used for emphasis)

The L10 and L50 referred to in the chart means the sound level, expressed in dB (A), which is exceeded 10 (or 50) percent of the time for a one hour survey, as measured by test procedures approved by the commissioner.

It should also be noted, as we learned through the LWECS process, that according to Minnesota Statutes 116.07, Subd. 2, “No local governing unit shall set standards describing the maximum levels of sound pressure which are more stringent than those set by the MPCA.”

At this point in time the MSC feels the MPCA standard is not strong enough, however, they understand that the County cannot set a more stringent noise level requirement. However, the ordinance can be strengthened by the following:

Article 14, Section 6, Subd. 4 reads:

F. Noise. Maximum noise levels at the facility will be consistent with the standards established by the Minnesota Pollution Control Agency. **To mitigate public nuisances, the facility shall use Best Management Practices to minimize and monitor noise impacts.**

Traffic Studies, Best Practices, and Development Agreements

The MSC reviewed traffic studies and agreements from other counties along with Goodhue County examples from previous land use issues. A Traffic Impact Study was developed based upon a modified version of the Winona County model. The term *Impact Study* was favored over *Road Use Study* due to the fact that the public roads are for public use. The purpose of a study is more focused on the unforeseen *Impacts* not only for new land uses that may potentially cause significant shorter lifespans from the infrastructure, but also the cumulative effect on the infrastructure due to multiple intense land uses.

A Mining Best Practices document was discussed based upon suggestions from the consultant team. This document outlines more technical details on items such as the type of monitor to use to test water quality and quantity, air quality monitors, and suggested land reclamation guidelines.

The Traffic Impact Study and Mining Best Practices documents are referred to in the suggested ordinance changes, however, are not part of the ordinance. They will be public documents and used for the basis of discussion with an applicant as part of the permitting process. It allows the County the flexibility to modify the document based upon technological changes and applicability of specific requests without significant delay. Keep in mind, specific requirements can become part of any permit as a condition to the permit through the public process at the Planning Advisory and County Board reviews.

Development Agreements are also a useful tool that is a negotiated agreement between the County and an applicant. Typical items in a development agreement would be how the applicant interacts with the County as far as road improvements and repairs, security deposits, emergency contingency plans, etc. It can also include details about how an applicant interacts with the public such as having public informational meetings and notifications or creating offsite wetlands. A Conditional or Interim Use Permit can require a development agreement to be adhered to as a condition of the permit and thus keep the permit document concise. Development agreements can be lengthy but they provide important details concerning the administration of a permit.

The Traffic Impact Study and Development Agreement Guidelines are written generically and not specifically for Silica Sand mining operations. It is believed that any new, large, or unforeseen land use may be subject to these valuable tools – the same questions may be asked and the same assurances may be required to adequately protect the public health, safety, and welfare.

Zoning Designations

The MSC discussed whether or not to require a new silica sand mining operation to only be allowed in an industrial designated zone. Currently, Goodhue County does not have metallic mining operations in the county, nor does it distinguish in its ordinance the different types of non-metallic mining operations. Dust, blasting, transportation, processing, scenic and economic value concerns are applicable to sand and gravel mining, aggregate mining, and silica sand mining.

Mining is allowed as a permitted use in all of the Agricultural Districts in the county zoning. The purpose of the permitted use (permits issued administratively) is to accommodate the exceptions to the mining regulations for those mining operations that are listed under Article 14, Section 3 Exceptions From Permit Requirements. Such exceptions include excavations associated with road construction, operations excavating less than 400 cubic yards per year, and building site excavations.

If excavations do not qualify as an exception, the operation must obtain a Conditional or Interim Use Permit, which is scrutinized through a public review process, and abide by the requirements and standards outlined in Article 14.

The question was posed concerning processing facilities that would be outside of an excavation parcel. Would the processing facility need a different set of regulations and need to be located in an industrial zone?

Typically, processing is done on an excavation site, however, there are examples of standalone facilities that bring in material from numerous sites to process and ship out. After discussing the air and water monitoring, the dust control measures, setbacks, and transportation studies, it was determined that writing a separate ordinance specifically for processing facilities would be duplicative. What the MSC decided instead was to broaden the definition of Mining Extraction Facility to include processing and transportation of material. By doing so, all the information and regulations required for an excavation permit would also be applicable to processing and transport sites.

The question remained concerning the requirement for mining extraction facilities to be located in an industrial zone. Each zoning district lists permitted and conditionally permitted uses. If a mining extraction facility closes, the next use may be whatever is listed in the uses in that designated zone. For instance if it stays as an agricultural zone, it could be reclaimed for agricultural purposes. If it changes to an industrial zone, the land could administratively be allowed to establish manufacturing facilities, contractor yards, or warehousing. It could conditionally be allowed to establish stockyards, rendering plants, or petroleum refining.

Part of the permitting process of a mining extraction facility is to approve a reclamation plan. It was felt that keeping the facilities zoned in an agricultural district, with appropriate conditions and a good reclamation plan would provide more compatible future uses in the surrounding area.

Conditional verse Interim Use Permits

There was lengthy discussion concerning the option of the County to allow mining extraction facilities to obtain Interim Use Permits instead of Conditional Use Permits.

The majority of the 38 existing registered mines in the county have been in existence for decades. In the past, mining has been a long-term land use. Some of the discussion with newer silica sand mining operations is that they are shorter term uses, very active, but shorter term uses.

Under current statutes, conditional use permits run with the land. Meaning the permit stays attached to the land as long as the conditions continue to be met and the use has not lapsed for more than a certain period of time. The parcel can be bought and sold and the permit, or in this case the business, can be transferred to the new owner under the same conditions of the current permit.

An interim use permit in basic terms has an end date. Both permits fall under the same submittal requirements, standards, public review and comment and both can be conditioned. Both permits are recorded and part of the real estate record. To keep the record clear, the conditional use permit could require a public process to terminate it if it was not agreed upon by the land owner, and the termination decision recorded. With an interim use permit, the permit or permission to use the land in a specific manner would terminate at the end of a set date, much like a temporary construction easement. A termination document would not be required. Interim use permits could be renewed if the applicant reapplies and proceeds through the public hearing processes and approvals.

The advantage of an interim use permit is for the operations that have known short life spans. The surrounding community would be assured of an end date.

Township Approvals

The MSC was asked to discuss whether or not a township where a proposed mineral extraction facility would be located could have the final approval authority as part of the County process.

Counties receive their statutory authority to plan, develop, and zone by Minnesota Statutes 394.21. The townships receive their statutory authority to plan, develop, and zone by Minnesota Statutes 366.10. In Goodhue County, many of the townships have their own zoning. Applicants in many cases need to apply for both a township approval and county approval.

The County has encouraged townships who are contemplating zoning regulation to begin by adopting the County zoning and then add to the ordinance to cover their particular concerns. The purpose for this suggestion is based upon Minnesota Statute 394.33 which states that the County prevails over Town unless Town is more restrictive. In part “no town shall enact or enforce official controls inconsistent with or less restrictive than the standards prescribed in the official controls adopted by the board.” The board means the County Board in this instance.

In addition, the County’s obligation to enforce its ordinances will be limited to County regulations. If townships want to enact their own ordinances, they are obligated to enforce their own regulations which may include expenditures for abatement or legal action.

The current process within the County Land Use Management department is to ask the applicant to bring their conditional/interim use request to the township prior to the County request. The County is only requesting that the Township sign the application acknowledging that they have been made aware of the request and does not indicate that the Township has approved or denied the request. The purpose was two-fold: first, to make the township aware of a project and second, to aid the applicant in potentially getting the more restrictive process done before applying with the County. This process has not always been successful. Some townships do not regulate zoning yet they require an applicant to go to their meetings for approval. Townships also mistakenly assume that their process has to be completed or approved prior to County action.

The County and Township zoning processes are two separate tracks. The County obviously wants to hear and consider any township concerns; however the County has to be cognizant of Minnesota Statute 15.99 requiring a decision to be made within 60 days of a complete written application submittal.

After discussing the statutory authority and obligations, the MSC felt that the townships currently have the authority to regulate zoning activity (such as mining) and if according to statute, their regulations are more stringent than the County’s, the township would be the final or most restrictive approval an applicant would need to obtain.

Property Value Protection

The MSC was asked to discuss the possibility of adding language for Property Value Protections in the ordinance. A written public submittal was received and reviewed by the MSC regarding this topic. There is a public concern that new mining activity will cause a direct devaluation of surrounding residential properties. The proposal suggested a method for determining a fair market value for the property, a first right of refusal purchase from the mineral extraction facility, and have the facility pay the difference between the fair market value and the selling price if the selling price is less.

There was lengthy discussion about this topic. A number of the MSC members serve or have served on the County's Planning Advisory Commission and witness many neighbor testimonies asking about how a proposed land use will affect their property values. In the past, these issues included campgrounds, kennels, feedlots, motocross tracks, and vineyards. The most recent controversial issue was the proposed wind tower project. The non-participating neighbors wanted to have Property Value Protections for the same reasons being brought forward with the mining issue.

Many of the MSC felt that the Property Value Protection language that was suggested was not something that the County would want to regulate (have in their ordinance). They felt that it would have a snowball effect that would cause neighbors of every proposed land use to use the same argument which would result in an undue burden on any proposed or expanded land use. Others of the MSC felt that the County should require this protection to the existing land owners.

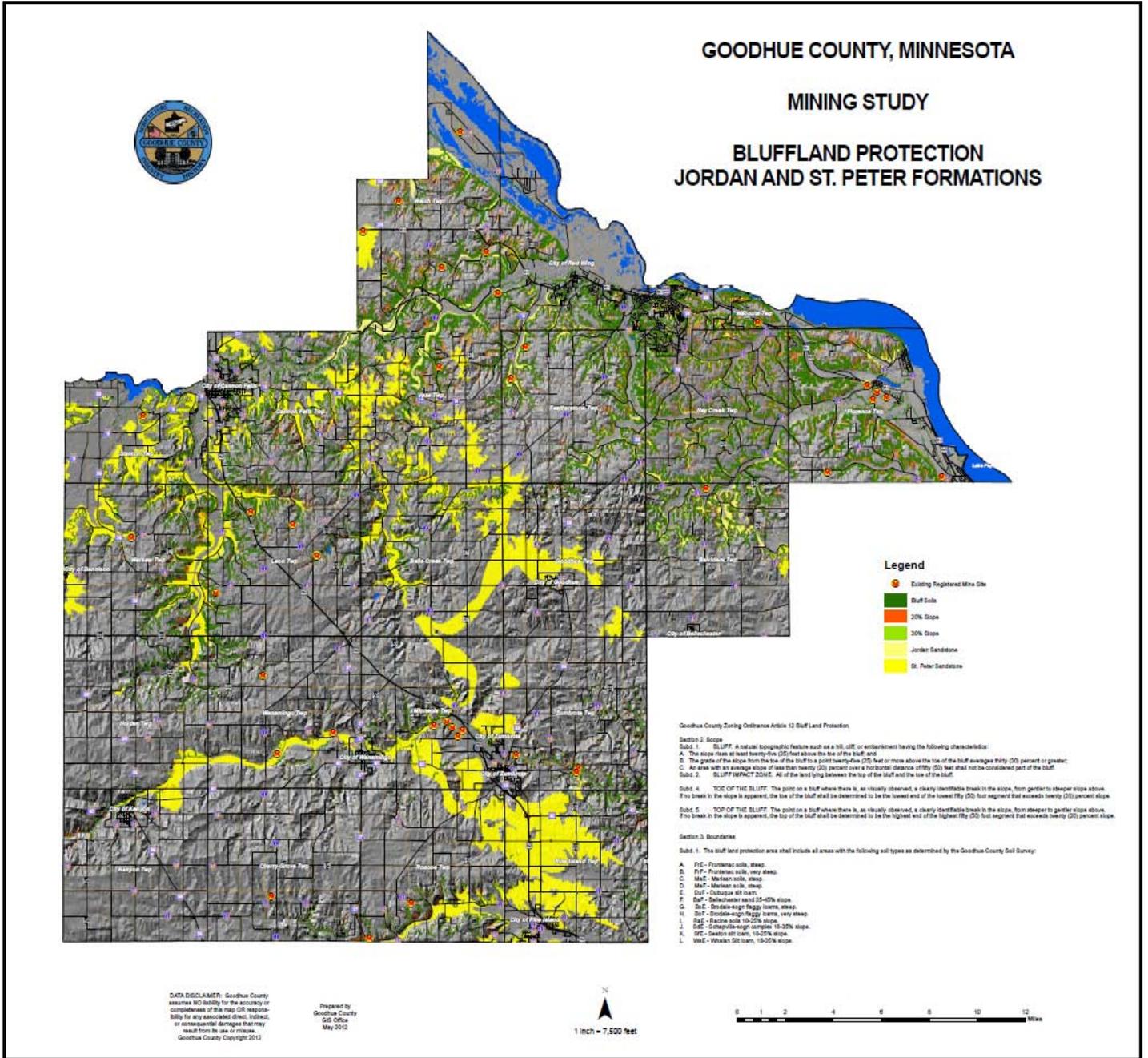
It was pointed out that the County does protect existing uses through its ordinance in many ways: permitted and conditionally permitted uses, separate Zoning Districts, setbacks, hours of operation, and the public review processes of the ordinances and specific requests to name a few.

The MSC did not recommend adding Property Value Protection requirements or details in the ordinance but added it as a suggestion of a method to handle complaints. A separate stand-alone example of Property Value Protection wording would be useful to landowners as a starting point to individually negotiate with a mineral extraction facility or other land use issues.

Article 14, Section 5, Subd. 2 reads:

- L. A description of the method in which complaints about any aspect of the mineral extraction facility operation or off-site transportation are to be received and the method which complaints are to be resolved, **such as neighbor notifications, meetings, or property value guarantees.**

Appendix A – Maps

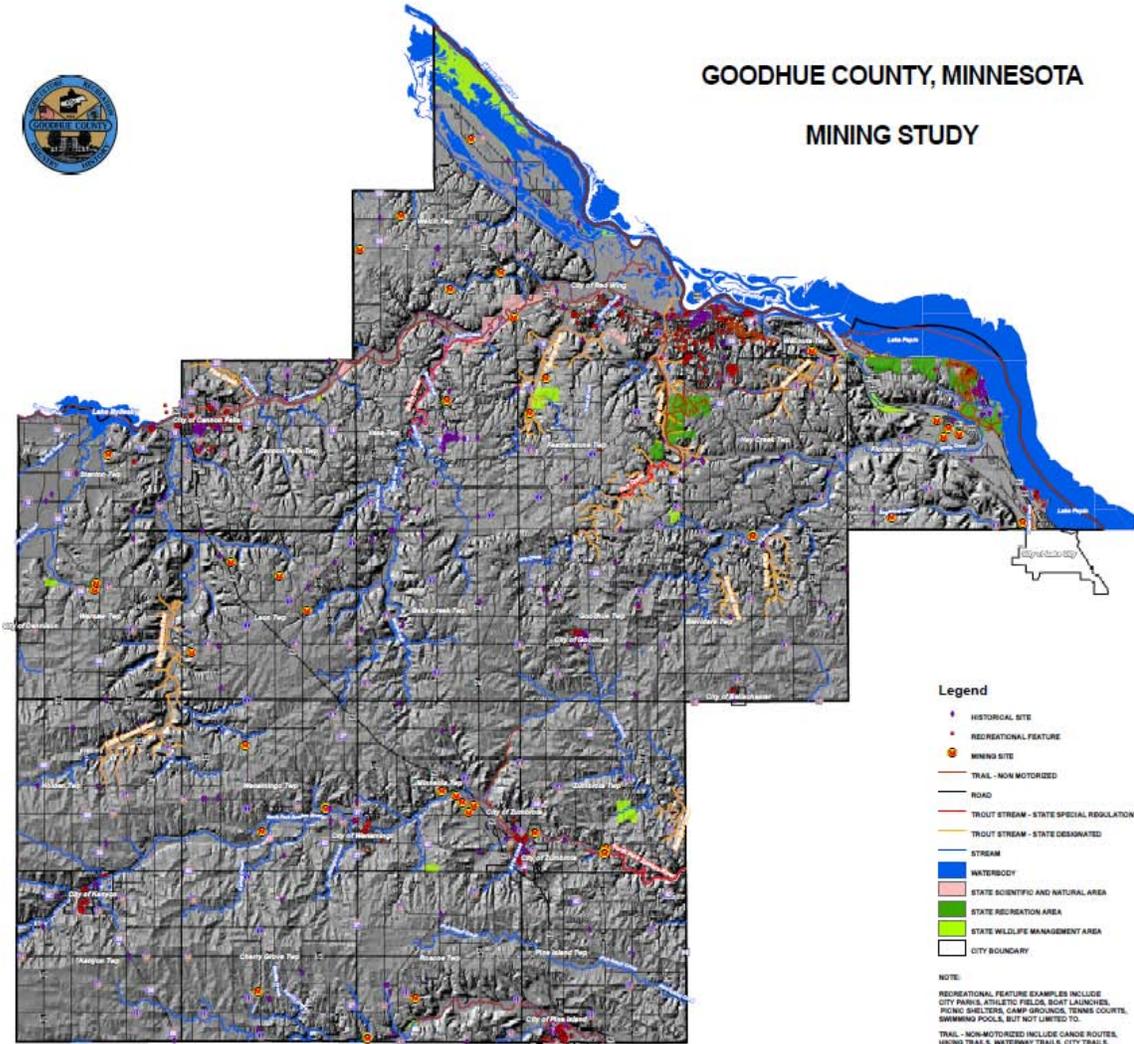


Map showing existing registered mining sites and historical, cultural, and recreational features.



GOODHUE COUNTY, MINNESOTA

MINING STUDY



Legend

- HISTORICAL SITE
- RECREATIONAL FEATURE
- MINING SITE
- TRAIL - NON-MOTORIZED
- ROAD
- TROUT STREAM - STATE SPECIAL REGULATIONS
- TROUT STREAM - STATE DESIGNATED
- STREAM
- WATERBODY
- STATE SCIENTIFIC AND NATURAL AREA
- STATE RECREATION AREA
- STATE WILDLIFE MANAGEMENT AREA
- CITY BOUNDARY

NOTE:

RECREATIONAL FEATURE EXAMPLES INCLUDE CITY PARKS, ATHLETIC FIELDS, BOAT LANCHES, PICKING SHELTERS, CAMP GROUNDS, TENNIS COURTS, SWIMMING POOLS, BUT NOT LIMITED TO.
TRAIL - NON-MOTORIZED INCLUDE CANOE ROUTES, HIKING TRAILS, WATERWAY TRAILS, CITY TRAILS, COUNTY TRAILS, HORSE RIDING TRAILS.
HISTORICAL SITE EXAMPLES, CEMETERIES, LOCAL SITES, NATIONAL SITES, HISTORIC DISTRICTS.

DATA SOURCES:

GOODHUE COUNTY GIS OFFICE
MINNESOTA DEPARTMENT OF NATURAL RESOURCES
MINNESOTA DEPARTMENT OF TRANSPORTATION

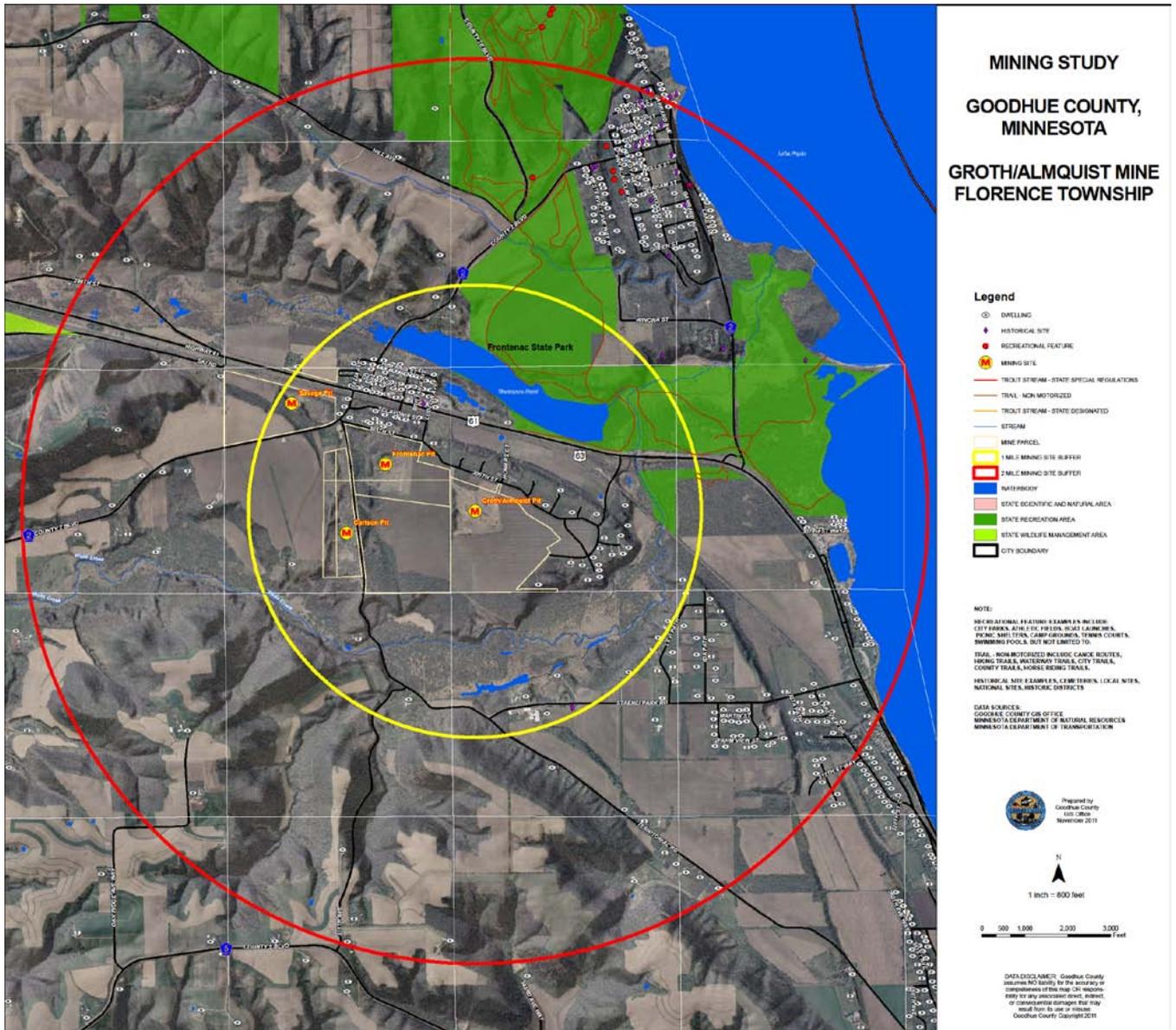
DATA DISCLAIMER: Goodhue County assumes NO liability for the accuracy or completeness of this map. GIS responsibility for any associated direct, indirect, or consequential damages that may result from its use is retained. Goodhue County Copyright 2011.

Prepared by
Goodhue County
GIS Office
November 2011

1 inch = 8,000 feet

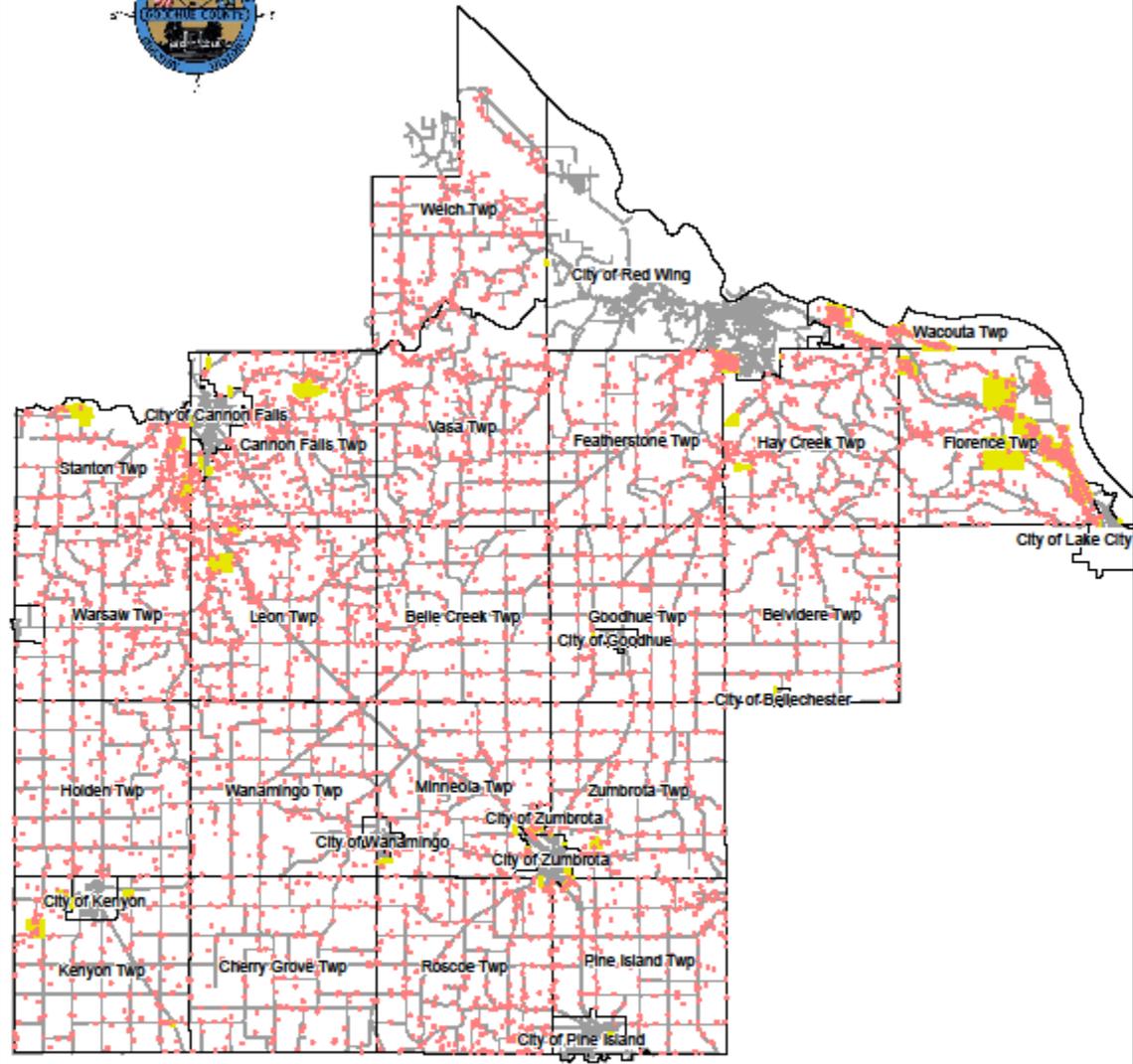
0 1.25 2.5 5 7.5 10 12.5 15 Miles

Map showing existing registered mining sites and historical, cultural, and recreational features





Setback Buffers

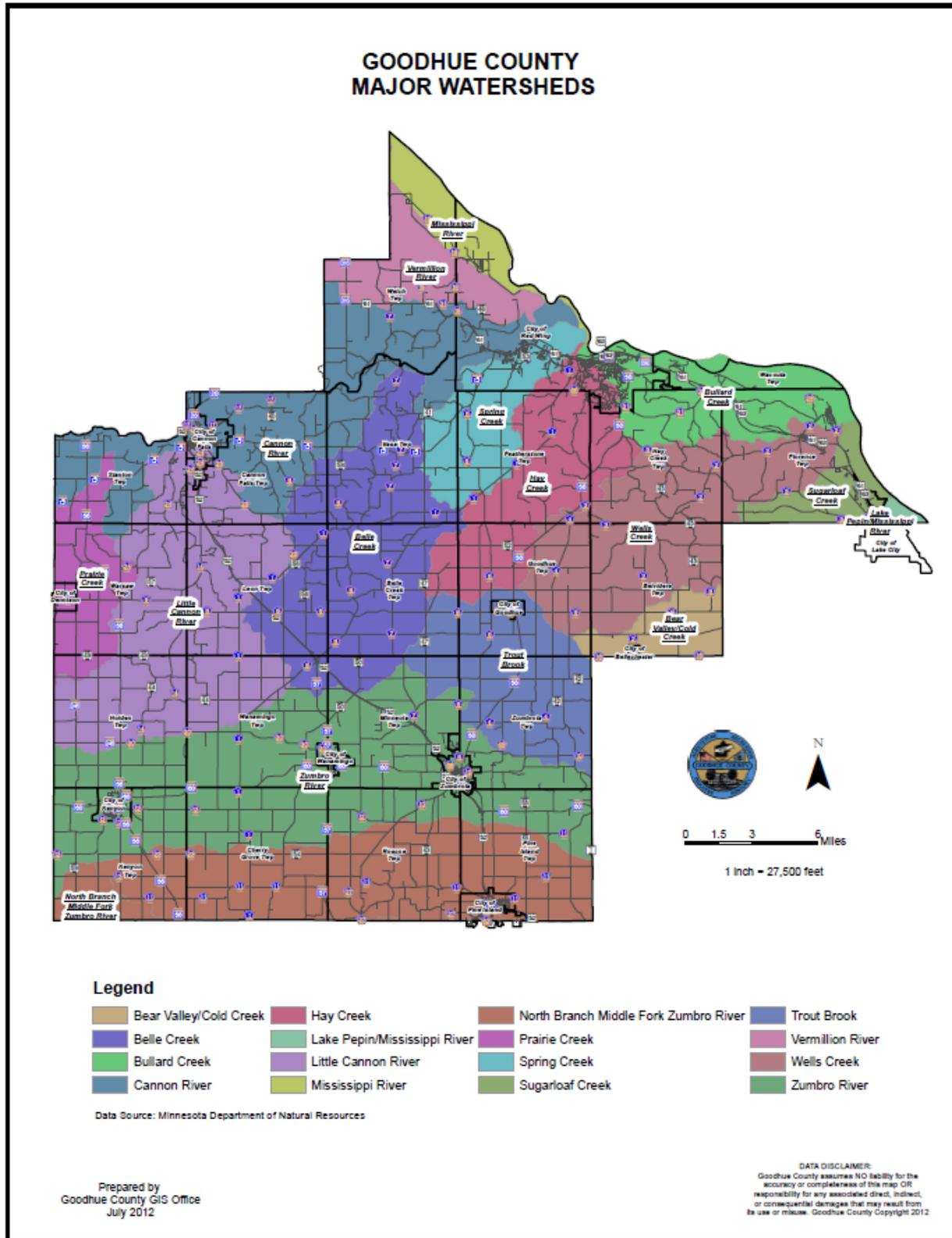


Legend

 300ft Buffer from Dwellings	 100ft Buffer from Roads
 300ft Buffer from Platted Areas	 Municipal Boundaries

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Goodhue County Major Watersheds



Appendix B – Meeting Agendas and Summaries

October 11, 2011



Goodhue County Mining Committee

**October 11, 2011 Agenda
509 West 5th Street, Red Wing, MN
8:30am – Noon
Government Center IT Conference Room**

Welcome

Introductions

Review contact information

Set calendar

Review information in the binder

Zoning/Comprehensive Plan: What do they mean?

Conditional Use Permits and Development Agreements

Review Moratorium tasks and Process

Review recent CUP under County's current ordinance
Review CUP process

Set action items for next meeting

Mining Study Committee
October 11, 2011

Members in attendance:

Bernie Overby	Joan Volz	Richard Ellingsberg	Rosanne Grosso
Howard Stenerson	Ken Kuhn	John Hobert	John Tittle
John Litsenberger			

Staff in attendance:

Lisa Hanni	Mike Wozniak	Kristi Gross
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Meeting Summary:

Staff reviewed the contents of the binders that were distributed to committee members. An overview of Goodhue County Zoning and the Comprehensive Plan was given. There was discussion about the committee tasks as outlined in the moratorium language. H. Stenerson requested reclamation plans be added to the list. J. Tittle asked if an Environmental Impact Statement could be required of the industry as a whole. Focus groups were determined. The goal at the end of the study is to create an executive summary of the findings of the committee. It will be outlined whether a consensus of the committee was reached in the process. We may have possible zoning ordinance or comprehensive plan amendment proposals to make at the end of the study period which would begin the public process.

Staff showed the committee what is currently received for a conditional use permit for a mineral extraction facility under the existing ordinance.

J. Litsenberger gave the group a brief description of the silica sand in this area and the process surrounding the excavation of the sand.

Future meeting dates:

All times 9am-12pm

November 9, 2011	December 7, 2011	January 4, 2012	February 1, 2012
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Focus Groups:

Because of the amount of information to be researched, the committee was split into sub-groups to focus on areas of particular interest to them. These groups will work with staff to do more in-depth research and bring back information to the whole group.

Air Quality concerns:	John Litsenberger, Roseanne, Bernie
Water Quality and Quantity concerns:	Roseanne, Rich, John, John, John
Economic and Social Impact concerns:	Howard, Bernie, Joan, John Tittle
Transportation concerns:	Howard, Bernie, Ken

November 9, 2011



Goodhue County Mining Committee

**November 9, 2011 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Recap of Mining Site Visit

Update October's study material: review report findings

Discuss Mining/Cultural-Recreation map

Review Request For Proposal items

Set action items for next meeting

Mining Study Committee

November 9, 2011

Members in attendance:

Bernie Overby	Joan Volz	Richard Ellingsberg	Rosanne Grosso
Howard Stenerson	Ken Kuhn	John Hobert	John Tittle
John Litsenberger			

Staff in attendance:

Lisa Hanni	Mike Wozniak	Kristi Gross
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Meeting Summary:

Recap of Mining Site Visit

L. Hanni presented staff's observations from the site visit to Fairmont Minerals, Menomonie, WI. Additional observations were:

1. Blasting consistency: always 1 pm on days they blast.
2. A lot more acreage is needed to make an underground mine economical.
3. Economically needed to be within 2 miles of a rail line.
 - a. However MSC member found company trucking sand 16 miles or more.
 - b. It is said that the company will send a truck to Illinois with glass sand and return with silica.
 - c. We cannot create ordinance to help or hinder a company's profit margin.
4. The company had community meetings regularly.
5. Re-constructed a nearby trout stream as a community service.
6. Regardless of what this company presented to us, MSC member stated that the reality is there are a number of people still not happy with their operation.
 - a. Cannot please everyone - that is the benefit of having neighbor meetings. At least voices are heard and concerns can be raised.
7. State sets minimum standards.
 - a. Get copy of Dunn County Ordinance, Fairmont Minerals CUP
8. Not a lot of difference in the mining between aggregate and silica, but the processing is different.
9. WI does not have a trigger for mandatory environmental assessment worksheets/impact studies.
10. They reclaim areas as the progress through the mine.

Update October's study material: review report findings

L. Hanni gave overview powerpoint of report findings from the studies/reports given to the Committee at the previous meeting.

Additional MSC member comments:

Crystalline Silica Primer

1. Not a whole lot of study outside of the mining operation.
2. Silicosis cases are very closely related to a type of quartz.

Unimin Mine Air Permits

1. All these regulations are in place right now and they are no different than what is required for Aggregate mines.
2. Review Appendix A
3. Who is responsible for enforcement?
 - a. Permitting agency.
 - b. Additional requirements by the County would have to be enforced by the County.
4. Neighbors have said there is constant grit one mile away from the mine, and Fairmont Minerals admitted that was possible.
5. All permits need to meet minimum standards.

Report to the Natural Resources Board: Silica Study

1. Personal monitors monitor dust and not specifically silica. Filter collects dust, it is sent to a lab for testing. National Institute of Occupation Safety and Health applies a 7500 testing method which is how they estimate the percentage of dust that is silica.
2. Can we set a standard for one land use and not apply it to all land use's including agriculture in Goodhue County?
 - a. What is basis for ordinance?
3. Where is mining appropriate.
 - a. Create a density for mines (similar to dwelling density)?
4. Are we ready to pay for additional monitoring?

Mining Cultural Recreations Map

L. Hanni reviewed the Cultural and Recreational Mapping. Suggestions were made for additional information: burial mounds, landing strips, motor cross, vineyards.

Review Request for Proposal Items

L. Hanni reviewed the draft Request for Proposal. The first part of the proposal discussed field work, however it was felt that it would potentially be very costly. The group decided that overlaying topographic information with the geological atlas would shed enough light on the subject.

Chip Krohn, geologist for Windsor Permian, was in the audience and agreed that the mining and use of silica has been around for many years (such as the use for cow bedding). He explained that there are two geologic layers that could be mined for silica sand in Goodhue County: the Jordan and the St. Peter. It is economically feasible to mine through the dolomite above the Jordan.

There was discussion about reclamation bonding. Ken Kuhn said that the big companies are not as concerned about the amount of the bond put up for reclamation, but are more concerned about their bond being filed against.

L. Hanni reminded the committee and audience to review our current ordinance as we go through this process. Many of the discussion items are covered already.

Next Meeting

December 7, 2011, 9 am

Action items

Request state geologist to come; staff will bring a revised RFP; begin working on transportation and economic value items.

December 7, 2011



Goodhue County Mining Committee

**December 7, 2011 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Tony Runkel, Chief Geologist, MN Geological Survey

Review Economic Impact report

Review Request For Proposal items

Set action items for next meeting

Mining Study Committee

December 7, 2012

Members in attendance:

Bernie Overby	Joan Volz	Richard Ellingsberg	Rosanne Grosso
Howard Stenerson	Ken Kuhn	John Hobert	John Tittle
John Litsenberger			

Staff in attendance:

Lisa Hanni	Mike Wozniak	Kristi Gross
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Meeting Summary:

Tony Runkel, Chief Geologist, MN Geological Survey

Mr. Runkel is a geological research specialist at the University of MN. He serves a non-regulatory function that is the primary source of unbiased earth science information in Minnesota.

What we are talking about with silica sand are quartz rich grains. They are rare, and the upper Midwest has the best quality. Quartz itself is not rare, any given sand contains about 50% quartz (silica). Silica sand is used for many products: glass, foundries, sand blasting, cattle bedding, etc.

Mr. Runkel showed an example of contour mining and talked about the Jordan and St. Peter layers. Questions regarding effects on drinking water arose. Mr. Runkel suggested having the author of the B Plates of the Geologic Atlas come to speak or suggested Jeff Green from the Rochester DNR office.

Mr. Litsenberger explained the washing process.

Request for proposal

L. Hanni reviewed the updated draft Request for Proposal. Fugitive dust air quality issues were added to the list of impacts for the consultant to address. Consensus of the committee was to move it forward to the Board.

Next Meeting

January 4, 2012, 9 am

Action items

Economic Impact Report discussion

January 4, 2012



Goodhue County Mining Committee

**January 4, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Jeff Green and Scott Johnson, MN DNR Waters Division

RFP update

Review Economic Impact report

Set action items for next meeting

Members in attendance:

Bernie Overby Joan Volz Richard Ellingsberg Rosanne Grosso
Howard Stenerson Ken Kuhn John Hobert John Tittle
John Litsenberger

Staff in attendance:

Lisa Hanni Mike Wozniak Kristi Gross

Meeting Summary:

Future Meeting Dates (all 9am all in same room)

March 7, 2012 April 11, 2012 May 9, 2012

Request for proposal Update

The Board of Commissioners approved sending out the request for proposal. The attorney's are giving it a final review and we are expecting responses to be in by January 23rd. Staff will bring information to the February meeting.

Jeff Green-Scott Johnson- MN DNR Waters Division

Jeff Green is a springshed mapping specialist for MnDNR Waters.

He explained that an aquifer is subjective depending on the region. Our area is considered "water rich" due to the sedimentary bedrock. Our region is rich in Karst. Characteristics of Karst are: sinkholes, bedding plane flow paths, and springs.

Scott Johnson stated that groundwater is allocated and controlled by the state. There are six types of water allocation permits:

1. Domestic
2. Consumptive <10,000 gals/day
3. Agricultural
4. Power
5. Consumptive >10,000 gals/day
6. Non-essential

Individual permit is required for >10,000 gallons/day or 1 mil gal/yr. Large appropriation permits are required for >100 mil gal/yr.

Mr. Johnson showed charts depicting typical water use. Looking at the data there is an increasing trend of dewatering and washing among mineral extraction facilities.

Mr. Green reviewed findings of the 2005 LCMR study regarding mineral extraction facilities and ground water quality. In his research he found that agriculture has a bigger impact on ground water quality than mineral extraction.

L. Hanni compared Mr. Green's report findings with our ordinance and highlighted areas that our ordinance currently addresses those our ordinance does not currently address.

Wendy Turri-Section Manager Municipal Wastewater MPCA

Wendy Turri went over MPCA Air Permit requirements. There are four types of Air permits that range in monitoring requirements. They look at emissions and particle size.

1. Federal Permit
 - a. 5 year permit
 - b. EPA approved
 - c. Facilities > 100 tons/year (pollutants)
2. State Permit
 - a. 5 year permit
3. General Permit
 - a. Most facilities fall here
 - b. Issued once
 - c. Legal requirement to protect from dust
4. Registration Permit
 - a. If you meet certain requirements this is what you do.

Dryers require individual permits (state permit). General and registration permits do not expire.

Water Permits-

Ms. Turri gave an overview of the requirements for Water Permits. There are two kinds of water permits:

1. Individual Permit
 - a. 5 year permit
 - b. Limit for total suspended solids
 - c. Won't always have a limit for flow
 - d. If washing and discharging must have individual permit
2. General Permit
 - a. Lays out regulations
 - b. Can discharge rainwater if treated

Discharge of water for mineral extraction facilities is covered well under MPCA regulations. The weakest area is cleaning basins. MPCA has a condition that it can retroactively change permits to address any issue.

Environmental Review:

No permits until process is complete. There are 3 types of Environmental Review for mining:

1. EAW
 - a. 40 acres in non-shoreland
2. EIS
 - a. 40 acres in shoreland/ 80 acres of forested or other naturally vegetated land /excavating 160 acres of land or more to a mean depth of ten feet or more
 - b. Much more in depth
3. Discretionary
 - a. 100 signatures goes to EQB
 - b. County can decide to do discretionary

MPCA will comment on all reviews and are currently tracking them. MPCA is working on a fact sheet for silica sand and hope to have it ready next week.

Next Meeting

February 1, 2012 9 am IT training room (basement Government Center)

Action items

Consultant Proposals

Economic Impact Report discussion

February 1, 2012



Goodhue County Mining Committee

**February 1, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Jeff Hedman MPCA Air Permits

RFP review

Set action items for next meeting

Mining Study Committee

February 1, 2012

Members in attendance:

Bernie Overby	Joan Volz	Richard Ellingsberg	Rosanne Grosso
John Litsenberger	Ken Kuhn	John Hobert	John Tittle

Staff in attendance:

Lisa Hanni	Mike Wozniak	Sarah Schrader
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Meeting Summary:

Future Meeting Dates (all 9am all in same room)

March 14, 2012

April 11, 2012

May 9, 2012

Jeff Hedman – Minnesota Pollution Control Agency (MPCA)

Mr. Hedman provided a hard copy handout of his presentation to meeting attendees. He provided an overview of the Clean Air Act, along with information about the National Ambient Air Quality Standards (NAAQS) and what triggers air permits.

If an MSC member has additional questions about the information that was presented, they may contact Ralph Pribble at the MPCA Public Information Office: 651-757-2657 or

ralph.pribble@state.mn.us

Lisa Hanni – Overview of RFP Process

- November/December 2011: Mining Study Committee (MSC) prepared the RFP.
- December 20th, 2011: County staff brought the Statement of Work from the RFO to the County Board.
- The County Board moved the RFP process forward.
- January 5th, 2012: The RFP was posted and emailed.
- January 23rd, 2012: Deadline for RFP submissions. Received 2 proposals.
- January 24th, 2012: County staff reviewed the proposals.
- January 27th, 2012: County staff mailed the proposals along with statutes governing RFP process to MSC.
- February 1st, 2012: Presentation of proposals for professional services by consultants at the MSC meeting.
- February 2012: After the County Board reviews and approves a contract, it will become public information.
- June 29th, 2012: Final products from the consultant are due.

RFP Review

Presentation by one of the RFP respondents.

Presentation by the other RFP respondent.

Next Meeting

March 14, 2012 9 am IT training room (basement Government Center)

Action items

Consultant References

Present RFP to County Board

March 14, 2012



Goodhue County Mining Committee

**March 14, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Discuss RFP

Peggy Trebil, County Assessor *Property Assessed Values and What Affects Them*
Brian Ducklow, Principal Assessor

Review Fiscal Impacts studies

Discuss breakout groups

Discuss county informational meetings

Set action items for next meeting

Members in attendance:

Bernie Overby	Joan Volz	Richard Ellingsberg	Rosanne Grosso
Howard Stenerson	Ken Kuhn	John Hobert	John Tittle
John Litsenberger			

Staff in attendance:

Lisa Hanni	Mike Wozniak	Kristi Gross	Steve Betcher
Peggy Trebil	Brian Ducklow		

Meeting Summary:

Future Meeting Dates (all 9am all in same room)

April 11, 2012

May 9, 2012

Discuss RFP

The Mining Study Committee (MSC) discussed the consultant proposal. The MSC received correspondence from the Save-The-Bluffs attorney late Tuesday before their Wednesday morning meeting. The MSC is aware of the Save-The-Bluff's opposition to one member of the consultant team.

The MSC discussed the potential moratoria language legislation with Attorney Steve Betcher. A few members suggested extending the moratorium while we had the option to do so, however the consensus of the committee was to keep the process moving. The majority of the committee agreed to recommend to the County Board to hire the Summit team to perform the tasks requested in the Request For Proposal, without further restriction. Concern was raised for the negative perception.

Lisa asked for representatives from the committee attend the next Board of Commissioners meeting on March 20 at 9 am to show support for the recommendation.

Peggy Trebil, County Assessor; Brian Ducklow, Principal Assessor: Property Assessed Values and What Affects Them

Peggy and Brian went through presentation. The committee discussed what affects property values further. The assessors use mass appraisal techniques and it is difficult to isolate specific factors. Hedonistic approach was suggested, but we do not have enough data to use that approach. Ken said that there are programs certain companies utilize to ensure the neighboring property does not lose value, but it is on a per-company basis, it would be difficult to put into rules for all companies to abide by. Howard asked why percentage of a mining facility was taxable such as processing plants.

Review Fiscal Impacts studies

Roseanne pointed out in the Alaska study that it can take several years for problems to show. Howard asked if payment in lieu of taxes was applicable here. What are the economic gains vs the costs to roads etc. There are other factors as well that you cannot attach a dollar amount to. John T. said whenever a new business comes in there are crowding out of other businesses, there are always things lost.

Discussed aggregate tax and the distribution of funds. Ken stated the Empire Township requires a annual fee for general oversight of their operation.

Discuss breakout groups

Air, water, economic-social, transportation

Consensus of the commission was to address each issue as a whole, felt it would save time. Suggested we review other ordinances. Asked about Interim Use Permits, the scale (1 vs 10 mines), would there be areas this is not allowed, separate ordinance for construction aggregates vs. industrial sands.

Discuss county informational meetings

John Hobert suggested having informational meetings in a couple different areas of the county in the evening. The meetings would allow the commission to address citizen concerns and share information on what has been done so far. Lisa will work with John H. to set this up.

Next Meeting

April 11, 2012 9 am IT training room (basement Government Center)

Action items

Economic-Social Issues

Transportation

April 11, 2012



Goodhue County Mining Committee

**April 11, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room**

Transportation

Economic/Social Impacts
Tourism

Set action items for next meeting

Members in attendance:

Bernie Overby Richard Ellingsberg Rosanne Grosso
Howard Stenerson Ken Kuhn John Hobert John Tittle
John Litsenberger

Staff in attendance:

Lisa Hanni Mike Wozniak Kristi Gross Steve Betcher
Carol Lee

Meeting Summary:

Future Meeting Dates (all 9am all in same room)

May 9, 2012

June 6, 2012

Transportation

Lisa presented several discussion questions to the Committee regarding Transportation. Discussed the Winona County Draft Road Impact Agreement, good but what is “excessive burden” and “high intensity”? It needs to be defined. Is it equitable? Regulations have to be uniform regardless of what is in the trucks. It was asked, since the frac sand is going out of state can you regulate that differently. Steve Betcher said that legislatively there are things that can be done, but it is not legal to say you cannot mine frac sand. He also said you can limit the scale but just cannot say absolutely not allowed anywhere.

Howard said there were many variables with aggregate now; they have registration fees, fifteen cents per ton aggregate tax and gas tax on top of it. We already require them to show haul routes and ask them how they will control the truck weight. He envisions adding provisions for letters of recommendation from the road authorities involved on those truck routes.

It was also noted that a traffic study would be required as part of an EAW process.

Lisa also asked about the cumulative impact and whether or not we can treat one industry differently than another.

Rich stated he spoke with the grain elevator in Red Wing and they are seeing 200 or more trucks per day.

Discussed the possibility of a Mining Technical Panel, but the cost of such panel was raised, and would we require it of every mine? Suggestions of requiring mineral extraction facilities to be Interim Use Permits and reviewed annually.

Discussed need for addressing processing plants when set apart from a mineral extraction facility.

Adjust suggested wording to include development agreement or a road impact analysis.

Economic/Social Impact

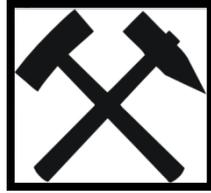
Lisa presented several discussion items. Do we want site screening from rivers and roads?
Bernie said homes were more important than roads. Screen less for tourists and more for those living in vicinity. Screen from “tourist attractions”
Discussion on what does no mining in bluffs mean. Needs clarity.

Audience asked about property values. Explained what was discussed last month with property values.

Next Meeting

Synopsis on what discussed today.

May 9, 2012



Goodhue County Mining Committee

May 9, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – Noon
Government Center IT Conference Room

Discuss Cannon Falls Presentation (May 7, 2012)

Review packet

Review comments from April Meeting

Set next meetings and timetable (please bring your calendars)

Set action items for next meeting

Members in attendance:

Bernie Overby Richard Ellingsberg Rosanne Grosso Howard Stenerson
Ken Kuhn John Hobert John Litsenberger

Staff in attendance:

Lisa Hanni Mike Wozniak Kristi Gross Steve Betcher
Carol Lee

Meeting Summary:

Future Meeting Dates

June 6, 2012-all day 9am-4pm
June 20, 2012- all day 9am-4pm

Discuss Cannon Falls Presentation (May 7, 2012)

Small turnout. Tourism was discussed. Thank you to the committee members that attended.

Draft Site Screening Discussion

- Include same screening with off- site processing plants.
- Add visual screening or screening barriers as term instead of just screening
 - o Screening is process in mine, could be confusing

Transfer Wash/ processing facility

If the use is changed to industrial there is a lack of performance standards. Does a conditional use permit in the Agricultural Zone have to be related to agriculture? A suggestion was made to create a temporary overlay district with Interim Use Permits as the requirement. The challenge stated was that the uses need to be sited rurally due to railhead funding and roads. These are not necessarily temporary facilities. The committee questions what criteria to use to determine where these can go. The committee felt there was a need for performance standards. A suggestion was made to change the definition of “mineral extraction facility” to include processing plant and transfer station. Then the processing plant will be subject to the mineral extraction ordinance. This would get around spot zoning fears and keep it simplified. We need to establish performance standards for transfer stations. They should be no different than transfer facilities for waste management. We need to define processing and transfer. Silica should be added to definition.

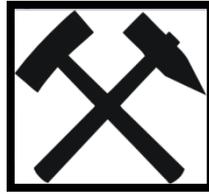
Next meeting

We are on schedule for the consultant to have 70% completion by June 11th. They will present at our June 6th meeting. We will also work on ordinance language at that meeting. We will schedule all day meetings so that we can continue on schedule. We plan to have packets out to the Planning Advisory Commission July 5th for the July 16th meeting. We will provide lunch for the committee members for the next two meetings.

We will plan for Ordinance change to be sole subject for PAC, we will plan a special meeting if need be.

Discussion regarding policy. Best practices could come back from the consultant and set a good base line. Changes needed to comprehensive plan to speak about the resource and recognize it is here. Discussed transportation plan, could use this for other projects as well.

June 6, 2012



Goodhue County Mining Committee

June 6, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – 4:00pm
Government Center IT Conference Room

Review packet

Discuss *Frac Sand Mining and Community Economic Development*

Discuss DRAFT committee report

Consultant presentation

Set action items for next meeting

Members in attendance:

Bernie Overby Richard Ellingsberg Rosanne Grosso Howard Stenerson
John Hobert John Litsenberger John Tittle Joan Volz

Staff in attendance:

Lisa Hanni Mike Wozniak Kristi Gross Steve Betcher
Carol Lee Ken Bjornstad

Meeting Summary:

Future Meeting Dates

June 20, 2012- all day 9am-4pm

July 9, 2012 6:30pm joint meeting Planning Advisory Commission, County Board

Review Packet

Lisa reviewed the packet and additional information that was handed out.

Discuss *Frac Sand Mining and Community Economic Development*

The discussion focused on what consisted of a mining community and whether or not Goodhue County could become a mining community. The key factor to avoid a mining community is to have a diverse economic base and industry. Some members of the committee felt that mining would add to the diversity of our economic base. Members of the committee felt it important to address this issue in the Comprehensive Plan.

Another discussion focused on the current language in the ordinance that reads “Mining operations shall be conducted so active extraction operation of the existing Mineral Extraction Facility exposes no more than forty (40) acres at any one time, unless approved by county staff.”

Discussion ensued on whether or not the exposed area included processing, stockpiling, and washing facilities. Was 40 acres adequate for a processing area and active excavation area?

Discussion moved onto whether or not Townships (instead of the County Board) should have the final say for mineral extraction facilities within the County. Currently, Townships can have more restrictive zoning, but not less restrictive. If a Township wants to regulate mining in a more restrictive manner than the County ordinance, the Township and their attorney will have to defend their decision. The Townships currently have the option to voice their opinion and concerns on Conditional Use Permits and to the County Board.

Consultant Presentation

John Dustman gave a presentation on the work that has been completed so far by the consulting firm. He showed various maps and GIS layers that his team has been creating. He explained to the committee that the sand that developers would be looking at Goodhue County which would be economically viable right now is the upper 30 feet of the Jordan formation. Goodhue County has area of St. Peter sandstone, but that is much finer and is not in as high demand right now. It is also easier to access elsewhere, therefore it should be less of a concern.

Discuss DRAFT committee report

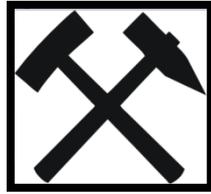
The committee discussed the draft of the report that was being compiled to address the concerns raised by the moratorium. Suggested changes were made to the report. Staff will address the suggestions and bring back another version to the next meeting.

Set action items for next meeting

The next committee meeting will be June 20th, 2012 from 9 am – 4 pm in the same location. The committee will review changes made to the draft report and discuss ordinance language.

A tentative meeting was schedule for July 9th, 2012 for a joint meeting between the Mining Study Committee, Planning Advisory Commission, and the County Board for 6:30 pm. Staff will check availability of the other Boards.

June 20, 2012



Goodhue County Mining Committee

June 20, 2012 Agenda
509 West 5th Street, Red Wing, MN
9:00am – 4:00pm
Government Center IT Conference Room

Review packet

Discuss *Monitoring Analysis of Air Surrounding a Chippewa Falls, WI Frac Sand Processing Plant*

Discuss DRAFT committee report/Ordinance wording:

This meeting will be a time to finish the DRAFT discussion and review the proposed ordinance changes and summaries. I have incorporated the suggested wording from the DRAFT into a marked up version of Article 14. PLEASE NOTE based on our discussions and questions about a Mining Technical Evaluation Panel, I added wording at the end of the Article to try to define the responsibilities of such a panel.

We will also review the suggested ordinance changes that we have received from the public.

Please remember to bring your binder with the previous handouts.

Set action items for next meeting

Members in attendance:

Bernie Overby Richard Ellingsberg Rosanne Grosso Howard Stenerson
John Hobert John Litsenberger John Tittle Joan Volz

Staff in attendance:

Lisa Hanni Mike Wozniak Kristi Gross Steve Betcher Carol Lee

Meeting Summary:

Future Meeting Dates

July 9, 2012 9am-4pm **Jury Assembly Room**, Justice Center 454 West Sixth Street in Red Wing, Minnesota.

July 11, 2012 6:30pm-8:30pm **St. James Hotel, Laurentine Room** 406 Main Street, Red Wing, MN 55066: Workshop with Board of Commissioners, Mining Study Committee and Planning Advisory Commission

July 16, 2012 6:30pm Planning Advisory Commission Public Hearing

Discuss *Monitoring Analysis of Air Surrounding a Chippeway Falls, WI Frac Sand Processing Plant*

The key take away noted by the commission was the importance of monitoring and to ensure that it is complete. Concerns were raised by the lack of standards. These are things we can address in our best management practices, which we will have to review regularly to make sure they are up to date and current.

John Tittle's e-mail discussion

Groundwater issue is complex. Confining layers can be addressed in geological survey and as part of mining plan on an individual basis.

Discuss DRAFT committee report/Ordinance wording:

The committee discussed the draft of the Article 14, Mineral Extraction Facilities wording changes and adjusted as suggested by the committee. The committee also reviewed suggested changes from John Litsenberger and a public submittal and incorporated as determined by the committee.

The committee decided to add other recommendations to the end of their report to address compliance concerns and noise issues raised.

Appendix C – List of Presentations

- December 7, 2011: Runkel, Anthony. Goodhue County Bedrock Geology-relevance to silica sand mining
- January 4, 2012: Johnson, Scot, Green, Jeff. Goodhue County Silica Sand Mining
- February 1, 2012: Hedman, Jeff. Air Permitting 101. Minnesota Pollution Control Agency
- March 14, 2012: Trebil, Peggy, Ducklow, Brian. Property Assessed Values and What Affects Them

Appendix D – Studies and Reports

This appendix lists the reports that were distributed to the MSC, posted on the Goodhue County website, or reviewed by staff as part of this study:

- Behrens, Mark A. Esq., Lorber, Leah Esq., and Silverman, Cary Esq., 2005. *Silica: An Overview of Exposure and Litigation in the United States*. LexisNexis Mealy's Litigation Report: Asbestos, Vol 20 #2, February 21, 2005.
- Environment Canada, Health Canada, 2011. *Draft Screening Assessment for the Challenge Quartz, Cristobalite*.
- Fairmount Minerals and Subsidiaries. *Tech Data Sheet: W. I. S. C. Maiden Rock, Wisconsin Silica Sand*.
- Green, J. A, Pavlish, J. A., Merrit, R. G, and Leete, J.L.; *Hydraulic Impacts of quarries and Gravel Pits, 2005*.
- I & S Group, Unimin Minnesota Corporation, Le Sueur County MN, 2010. *Scoping Environmental Assessment Worksheet, Proposed South Mine, Le Sueur County, Minnesota*.
- Interorganizational Committee on Guidelines and Principles for Social Impact Assessment; *Guidelines and Principles for Social Impact Assessment*, U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service, May 1994.
- Lujan, Manuel Jr., Ary, T. S.; *Crystalline Silica Primer*, Staff Branch of Industrial Minerals.
- Masterpole, Dan; *Mining in Wisconsin: Issues Facing County Government" Frac Sand Mining: The Local Perspective*. WI Counties Association November 14, 2011.
- Ministry of Natural Resources, 2010. *State of the Aggregate Resource in Ontario Study, Consolidated Report*.
- Minnesota Department of Natural Resources Division of Lands and Minerals; *A Handbook for Reclaiming Sand and Gravel Pits in Minnesota, July 1992*.
- Minnesota Department of Natural Resources; *Mineral Rights Ownership in Minnesota*, November 2000.
- Minnesota Department of Natural Resources, *Environmental Regulations for Aggregate Mining, Fact Sheet*, January 2001.
- Minnesota Department of Natural Resources, 2012. *Industrial Silica Sands of Minnesota, Frequently Asked Questions and Answers*.
- Minnesota Pollution Control Agency; *Environmental Management at Aggregate Operations*; September 2004
- Minnesota Pollution Control Agency, 2006. Unimin Minnesota Corp-Kasota Plant, *Air Emission Permit No. 07900009-001*.
- Minnesota Pollution Control Agency, 2006. Unimin Minnesota Corp-Kasota Plant, *Air Emission Permit No. 07900009-002*.
- Pierce, Crispin, Ph.D.; *Health Consequences of Energy Choices: Risks from Frac Sand Mining for Oil and Gas Extraction*, MREA Energy Fair, June 19, 2010.

- TLA Yukon, Yukon Economic Development, Yukon Chamber of Mines, and Klondike Placer Miner's Association; *Mining and Tourism MOU*; May 3, 2010
- Task 2 Work Group, MMSD North America, International Institute for Sustainable Development; *Seven Questions to Sustainability, How to Assess the Contribution of Mining and Minerals Activities*, 2002.
- Vanclay, Frank, 2003. SIA Principles, *International Principles For Social Impact Assessment*. Impact Assessment and Project Appraisal, volume 21, number 1, Marche 2003 pg 5-11.
- Weber, Ivan. *Actualizing Sustainable Mining: "Whole Mine, Whole Community, Whole Planet" Through 'Industrial Ecology' and Community-Based Strategies*.
- Wisconsin Department of Natural Resources, 2004. *Wisconsin Air Toxics Rules*
- Wisconsin Department of Natural Resources, 2011. *Report to the Natural Resources Board: Silica Study*.
- Wisconsin Department of Natural Resource, 2012. *Silica Sand Mining in Wisconsin*.
- Wisconsin Department of Natural Resources. *Petition by Citizens for the Promulgation of Rules to Govern Respirable Crystalline Silica Emissions*.
- World Health Organization, International Agency for Research on Cancer, 1997. Volume 68 *Silica, Summary of Data Reported and Evaluation*.

Fiscal Impact

- Economic Modeling Specialists Inc., *Economic Impact of Frac Sand Mining, A Look at Jobs and Earning in Wood County, Wisconsin*.
- Chau Ho, Sa, Hite, Diane, 2004. *Economic Impact of Environmental Health Risks on House Values in Southeast Region: A County-Level Analysis*.
- Erickcek, George A., 2006. *An Assessment of the Economic Impact of the Proposed Stoneco Gravel Mine Operation on Richland Township*.
- McDowell Group, 2006. *Economic Impact of Alaska's Mining Industry*.
- The Center for Spatial Economics, 2009. *The Potential Financial Impacts of the Proposed Rockfort Quarry*.
- University of Wisconsin-Extension. *The Economics of Frac Sand Mining, Economic Multipliers*.
- University of Wisconsin-Extension. *The Economics of Frac Sand Mining, Stability of Mining as an Industry*.
- University of Wisconsin-Extension. *The Economics of Frac Sand Mining, Who Takes the Jobs?*
- Workforce Connections Inc. *Frac Sand Mining Industry Report*.

Transportation

- Goodhue County, 2010. Goodhue County Development Agreement with AWA Wind Exhibit F: Road Use and Repair Agreement.
- Kramer, David, 2012. Example Roadway Surface Costs for Sand Mining Haul Routes.
- Kramer, David, 2012. Sand Mining Road Use Agreements.

- Miller, T. G. P. C. Road Use Agreements and Road Use Regulations, Strategies for Managing Heavy Hauling on Local Roads.
- Stelzner, Bruce, 2011. Frac Sand Mining-Local Government Roadway Impacts. <http://tdawisconsin.org/data/publications/wtda-sand-mine-article-dec-2011.pdf>
- Stelzner, Bruce G., 2012. Frac Sand Mining Roadway Impacts. Powerpoint presentation January 12, 2012.
- Winona County Traffic and Road Impact Agreement Requirements for High Intensity Mining Operations Impacting Winona County's Transportation Infrastructure System.
- Winona County Traffic and Road Impact Study Requirements for High Intensity Mining Operations Impacting Winona County's Transportation Infrastructure System.

Other

- 1000 Friends of Minnesota, 2009. *Goodhue County Environmental Constraints Land Use Evaluation (ECLUE) Model*
- Dunn County, WI, 2012. *Non-Metallic Mining and Processing in Dunn County – Environmental Impacts and Regulatory Analysis with Recommendations to Improve Industry Oversight*
- Deller, Steven C., Schreiber, Andres, 2012. *Frac Sand Mining and Community Economic Development*. Staff Paper Series.
- Esswein, Eric J., Breitenstein, Michael, Snawder, John. *NIOSH Field Effort to Assess Chemical Exposures in Oil and Gas Workers: Health Hazards in Hydraulic Fracturing*. Powerpoint.
- Wilde, W. James PhD, P. E., March 19, 2012. *Effect of Heavy Loads on Pavements*. Houston County Board of Commissioners Meeting.
- Minnesota Pollution Control Agency, Revised 2008. *A Guide to Noise Control in Minnesota*
- OSHA-NIOSH Fact Sheet. *Hazard Alert: Worker Exposure to Silica During Hydraulic Fracturing*

Other Jurisdiction Ordinances

- City of Sparta, Wisconsin. Conditional Use Permit Application. December 8, 2011.
- City of Sparta, Wisconsin. Special City Council Meeting. January 3, 2012.
- Dunn County, Wisconsin. Dunn County Comprehensive Zoning Ordinance. Effective January 28, 1993.
- La Crosse County, Wisconsin. Chapter 27, Nonmetallic Mining Reclamation. July 2007.
- LeSeuer County, Minnesota. Draft Zoning Ordinance. November 1, 2011.
- LeSeuer County, Minnesota. Scoping Environmental Assessment Worksheet. Preferred Sands Kasota Mine. June 2011.
- Marathon County, Wisconsin. General Code of Ordinances for Marathon County. Chapter 21, Nonmetallic Mining Reclamation Code. February 2007.
- Nicollet County, Minnesota. Nicollet County Zoning Ordinance. Revised February 23, 2010.
- Pierce County, Wisconsin. Nonmetallic Mining Annual Operator Report for 2008.
- Rice County, Minnesota. Chapter 507 Specific Development Standards. April 2011.
- Town of Caledonia, Wisconsin. Zoning/Mining Map. October 2, 2009.

- Trempealeau County, Wisconsin. Trempealeau County Comprehensive Zoning Ordinance. Chapter 13 Non-metallic mining.
- Winona County, Minnesota. Land Use Study. Memorandum Re: Policy and Legal Considerations Underlying the Winona Silica Sand Mining and Processing Application Packet, Discretionary EAW Guidance, and Conditions of Approval Developed During the Silica Sand Moratorium. April 23, 2012.
- Wood County, Wisconsin. Operator’s Guide to Nonmetallic Mining. 1992.
- Wood County, Wisconsin. 802 Nonmetallic Mining Reclamation. May 25, 2007.

Appendix E – Request for Proposal

Request for Proposals For Professional Services Study of Non-Metallic Mining in Goodhue County, MN

Goodhue County, MN has established a moratorium for any new Silica Sand mining Conditional Use Permits. As part of the moratorium, the County is seeking proposals for a professional level multi-discipline consultant to aid in the study of the County's Non-Metallic Mining resources. The Study is focused on the mining, transportation, and processing of non-metallic material (primarily silica sand deposits), site reclamation, and related health and safety concerns. Firms requesting consideration should have sufficient resources to ensure that all of the required work will be completed in conformance with the timeline included in this Request for Proposals.

Questions regarding this RFP should be directed to Goodhue County Land Use Management Director, Lisa Hanni, Goodhue County Administration Building, 509 W. 5th Street, Red Wing, MN 55066, (651) 385-3197, lisa.hanni@co.goodhue.mn.us.

Instructions to Proposers

- A. Ten copies of the proposal should be submitted to the County. Proposals must be received no later than **4:00pm January 23, 2012**. Proposals shall be in a sealed envelope labeled "Goodhue County Proposal for Professional Services for the Study of Non-Metallic Mining". The envelope shall be delivered to:

Land Use Management Department
Goodhue County Administration Building
509 W. 5th Street
Red Wing, MN 55066

- B. Proposal submitted must provide complete information as indicated in this request.

Required Contents for Proposals:

This Request for Proposals is offered to multi-discipline firms or individuals who have sufficient professional staff expertise, and size to meet the timeline.

All proposals should include a written report with the following information:

1. A table of contents.
2. A brief history of company.
3. Statement of the understanding of the scope of this project.
4. The process and products the firm will use to achieve the objectives.
5. Recommend additional work to meet the objectives in the 'Scope of Work' that is not included in the 'Statement of Work' along with the cost and time needed for this additional work. The County reserves the right to incorporate this additional work into the 'Statement of Work' for the project.
6. The respondent's experience and expertise must include:
 - a. A Minnesota Licensed Professional Geologist, a Minnesota Licensed Professional Engineer with Civil or Mining expertise, and a GIS specialist.
 - b. Mining experience including: evaluation of potential mine sites, drilling preparation and implementation; process operations development and implementation; reserve estimation and reporting; blasting plan preparation and implementation; hydrogeology or dewatering plan preparation and permitting; ground and surface water interaction experience.
 - c. Detail prior work experience with any other company who would be hired (sub-contracted) by the respondent to prepare any portion of the work in this project.
7. Outline experience with mining reclamation plans and implementation in open pit mining, sub-surface mining, and contour mining projects.
8. Familiarity with Goodhue County's geology and hydrology.
9. Resumes of all the principal staff who will work on the project.
10. A list of references for whom the firm has performed similar work.
11. A list of mining companies and/or government entities the company has been employed by; include dates and work performed.
12. Outline of project timeline.
13. List of Geographic Information System (GIS) datasets utilized or created as part of the project.
14. Total project cost; include itemized hourly charges for all disciplines, travel expenses, reproduction and miscellaneous costs.

Proposals will be ranked according to the completeness of the information requested above, project cost, the understanding of the project, the firm's relevant experience, the relevant experience of the specific major employees who will be working on the project and their distance from Goodhue County.

Scope of Work:

Silica Sand is prevalent in our everyday lives from the glass in windows, the fields we plow, and the roads we drive on. The most recent use of a specific silica sand is in the hydraulic rock fracturing process for extraction of petroleum and natural gas. According to the 1999 U.S. Bureau of Mines report *Crystalline Silica Primer*, “all soils contain at least trace amounts of crystalline silica in the form of quartz. It may have been part of the rock that weathered to form the soil, it may have been transported, or it may have crystallized from an amorphous (*that is, a noncrystalline*) silica that formed during the weathering process. Quartz is also the major component of sand and of dust in the air.”

Goodhue County currently regulates Mineral Extraction Facilities and operations in Article 14 of the Zoning Ordinance <http://www.co.goodhue.mn.us/departments/landuse/zoning/Ordinance.pdf>. The County has thirty-eight Registered Mining facilities. Four of these facilities were established under the current version of the Ordinance which was adopted in December 2002.

The demand for silica sand has increased due to the pursuit for domestic oil alternatives to fuel our homes and vehicles. Goodhue County is one of many counties in the Midwest that are starting to see an increase in geologic exploration for this specific material. Numerous counties along the Mississippi River, including Goodhue County, currently have a moratorium on mining silica sand or are in the process of establishing moratoriums. Goodhue County’s moratorium was established to study a number of issues including the impacts of silica sand mining on the environment, economy, health, and recreational aspects of its residents and visitors.

The County Board established a Mining Study Committee (MSC) to study numerous issues outlined in the moratorium. The MSC’s agendas, studies, maps, and reports are posted on the County website at <http://www.co.goodhue.mn.us/countygovernment/committees/MiningCommittee/Miningcomm.aspx>.

The objectives for this part of the moratorium study process are to hire a consultant to help us find answers to the following questions:

- Is there something unique (or what is unique) about the mining, processing, or transportation of the sand that is used in the hydraulic fracturing for mining of oil and gas products as compared to other uses of the sand products such as glass, construction, manufacturing, etc.?
- Are there issues or best practices that are not currently addressed by federal, state, or our local regulations concerning the mining, processing, or transportation of this material?

Statement of Work:

The objective of this professional service contract is three-fold. The first objective is to analyze, document, and report the following information within Goodhue County:

1. Review the County's current Registered mining sites and other available data including the County's Geological Atlas to analyze the following information:
 - a. Rock formation(s) and unconsolidated sediment (e.g. sand and gravel) mined
 - b. Determine if the sites have mined through or near formations containing marketable Silica Sand deposits;
2. Detail the other non-metallic materials/formations above and immediately below Silica Sand layers.
3. Detail the other marketable materials/formations (e.g. aggregate material suitable for road construction, building site preparation, rip rap or landscape rock) above and immediately below the Silica Sand layers.
4. Analyze and assess the feasibility of mining the other marketable materials/formations without disturbing the Silica Sand layers.
5. Outline hydrological impacts from typical wash facilities and from excavation at mine sites.
6. Compare water usage from typical wash facilities to other local agricultural uses, city uses, dwelling uses. Describe industry best practices for managing wash facilities including recycling of wash water.
7. Compare and contrast existing mining products and operations (such as sand, gravel, limestone operations) with proposed silica sand mining operations. Potential impact to consider should include water usage (including water withdrawals, water recycling, and water discharge), transportation volume and methods, dust control, fugitive dust air quality issues, noise, blasting, and material processing methods.
8. Describe the coagulants, flocculants and other chemicals used in processing of the various products. Outline best practices for the use and disposal of the chemicals as it pertains to health and environmental issues.

The second objective is to review, analyze, and propose language to the Goodhue County Comprehensive Plan and current County regulation of Mineral Extraction Facilities (Goodhue County Zoning Ordinance - Article 14). This objective is to analyze, document, and report the following:

1. Outline the federal and state regulations and inspections that mining facilities are subject to including, but not limited to: the Mine Safety and Health Administration, United States Occupational Safety and Health Administration, Minnesota Pollution Control Agency (air quality permits and standards), Minnesota Department of Health (Water quality permits and standards), Minnesota Department of Natural Resources (water appropriation permits).

- a) Distinguish differences between surface and underground mining operations
 - b) Outline differences between above water table and below water table mining
2. Review Goodhue County's current mining regulations in relation to federal and state regulations; outline ideas and concepts to refine and improve County mining related policies and regulations in order to better protect the public health, safety and welfare and to promote sound stewardship of scenic, cultural and natural resources.
 3. Define best practice regulations to address material processing and wash facilities, not regulated by federal or state agencies, in order to improve and refine current County ordinances.
 4. Define best practice standards pertaining to blasting including but not limited to vibration monitoring. Devise a method of analysis to evaluate noise and motion relative to distance from a blast.
 5. Outline typical transportation needs related to mining of various non-metallic minerals including: vehicle weights, vehicle trips, site scales, and material enclosures.

The third objective is to research and report the benefits and challenges related to land reclamation from open pit mining, sub-surface mining, and contour mining operations.

1. Describe and illustrate examples of land reclamation plans for open pit mining, sub-surface mining, and contour mining operations.
2. Describe methods of estimating land reclamation costs for open pit mining, sub-surface mining, and contour mining operations.
3. Outline methods of requiring financial assurance of land reclamation for open pit mining, sub-surface mining, and contour mining operations.

Timeline:

- Responses to the Request for Proposals must be received by the Goodhue County Land Use Management Land Use Management Department, Goodhue County Administration Building, 509 W. 5th Street, Red Wing, MN 55066, by 4:00pm **January 23, 2012**.
- The Mining Study Committee may conduct interviews of the proposal applicants at their **February 1, 2012** meeting and send their recommendation to the County Board. Applicants will be notified by January 27, 2012 if an interview will be scheduled.
- The Mining Study Committee may request that the County Board of Commissioners consider the award of the project to the successful firm at their **February 7, 2012** meeting.
- The respondent must include dates for the interim meetings with the Mining Study Committee in their proposal.
- The final products of the *Study of Non-Metallic Mining in Goodhue County, MN* shall be delivered to Goodhue County's Land Use Management Department by 4:00pm **June 29, 2012**. Report presentation will be scheduled at a date and time to be determined in July 2012.

Deliverables:

Reports:

Interim Reports and meetings with Goodhue County staff will be scheduled at 30%, 70%, and 95% completion. Interim Reports shall be submitted electronically, and meetings may be in person or by telephone conference depending on the need. Staff will have 10 days to reply with comments.

A written Final Report of the findings, analysis, and conclusions as listed in the Statement of Work. The Final Report shall be received as follows:

- 20 bound copies
- 1 Electronic copy

Meetings and Presentations:

In addition to the Interim Report meetings discussed above, meetings shall be scheduled with Goodhue County staff as deemed necessary to accomplish data sharing, delivery, and coordination. Meetings will be held in Red Wing at County facilities or by telephone conference depending on the need. Within 3 days of the meeting, the consultant shall submit meeting summaries and action items discussed at the meeting. Timetables shall also accompany the action item tasks.

Presentation of the 70% Interim Report shall be presented to the Mining Study Committee. Depending on the comments and the extent of any revisions or direction, the Final Report may also need to be presented to the Mining Study Committee through a presentation.

Presentation of the Final Report will be given to the County Board.

Geographic Information Systems Data:

Any deliverable GIS dataset created or used for this project must be geo-referenced to the Goodhue County Coordinate System. Detailed metadata documentation must be submitted with the datasets.

Goodhue County Data:

The successful firm will be provided access to the County's pertinent GIS, mining, and well datasets.

Ownership and Use:

The successful Firm agrees that the Final Report and any GIS data produced through this project is the sole ownership of the County. The Firm also agrees to use data given to them by the County solely for the purpose of this study and is not to transmit or sell this data or any part of it to another party, or use any of the data for any other project or purpose.

Data Privacy:

Any data, exhibits, test results, computations, notes, writings or documentation compiled by the consultant, staff or county personnel shall be the sole property of Goodhue County, Minnesota, under the exclusive control of the Goodhue County Land Use Department according to the Minnesota Government Data Practices Act, Chapter 13, Minnesota Statutes, and Goodhue County policies and procedures as established by the Goodhue County Board of Commissioners.

Appendix F – Traffic Study

Traffic and Road Impact Study

In order to alleviate additional burden on the County's financial resources associated with the road infrastructure maintenance affected by granting a request such as a Conditional or Interim Use Permit, the County may require a Traffic and Road Impact Study. This document provides a guideline which outlines the general scope and depth expected in a Traffic and Road Impact Study.

1. Terms of Contractual Services

- a. Responsibilities. The developer of a project shall be responsible for the costs of an independent study, contracted by the County, for preparation of a comprehensive analysis of road and traffic impact for the proposed mining operations.
- b. Payment. The developer shall be responsible for payment to the County 100% of the proposed consulting fees for services outlined herein as proposed and estimated by a qualified professional traffic engineering firm.
- c. Schedule for Payment. The developer shall provide the County with funding for these services before the comprehensive traffic and road impact study is contracted and commenced.
- d. Contractual Services Selection/ Qualifications. The County shall have the right to approve or deny the consultant based on qualifications to complete the requirements of the study.

2. Scope of Traffic and Road Impact Analysis

- a. **Traffic Routes.** A map shall be submitted by the developer of a project that indicates all the traffic routes within the County to be used in the construction, maintenance, and on-going traffic generated by the project.
- b. **Access locations.** All drive approaches onto public roadways serving the proposed project shall be studied and recommendations made for safety and level of service for handling the proposed new or additional traffic including but not limited to deceleration lanes, turning lanes, emergency pull-outs, shoulder conditions, etc. The study shall determine sight distances at these access points and shall make recommendations for improvements where inadequate or non-compliant conditions exist.
- c. **Pavements.** Pavements of county highways and local roads serving the proposed project shall be studied to determine existing conditions and improvements needed to withstand the hauling of products and equipment. Where existing pavements will structurally accommodate the traffic without upgrade, the study shall identify a fair-share cost assignment for the developer to bear the proportion of the pavement life consumed compared to external traffic, or the improvement necessary to restore the pavement life consumed.
- d. **Cumulative Effects.** The study will document other land uses along the traffic routes to determine the additional effect of the new or amended project on the road infrastructure. The study shall include recommendations for the entire geographic area where the proposed project may have significant impact as determined by County staff. The County reserves the right to

enter into an intergovernmental agreement with neighboring counties to determine and mitigate adverse impacts in adjoining jurisdictions.

e. Existing Deficiencies. The County reserves the right to identify existing roadway related issues or problems that require study for correction in order for the proposed project to operate safely and to maintain levels of service. Where deficiencies are identified, only that portion caused by the proposed project shall be borne by the developer and the County may choose to cost-share to make the necessary corrections, pending adequate resources and appropriations.

f. Time Frame. Projected traffic demands shall be based on fully operational conditions during each phase of operations.

3. Contents of Study

- a. Introductory Materials
 - i. Preparers Name, Team Members and Qualifications
 - ii. Project Description
 - iii. Identification of Peak Hours and Traffic Projections
 - iv. Map of routes and study area
 - v. Location of all access points
 - vi. Map of Adjacent Land Uses
- b. Existing Traffic Conditions
 - i. Description of transportation network including intersections and access points serving the proposed project
 - ii. Existing traffic counts
 - iii. Gap or queue length information where requested
- c. Proposed Project Generation
 - i. Trip generation rates used
 - ii. Traffic generation at peak/full capacity
 - iii. Source of generation data
- d. Traffic distribution
 - i. Estimated site traffic movements by direction
 - ii. Narrative of assumptions/methods
- e. External Traffic Projections
 - i. Identification of existing and known proposed traffic generators effecting impacts
 - ii. Adjustments made for external traffic impacts
 - iii. Forecast data
- f. Traffic Assignments
 - i. Assignment of peak period traffic at intersections and access points
 - ii. Figures for existing and peak impact hours and total traffic
 - iii. Recommended access improvements
- g. Site Plan
 - i. Parking layout
 - ii. Loading/Staging Areas
 - iii. Recommendations
- h. Improvements and Upgrades. Identification of costs likely to be incurred to establish and maintain safe and desirable traffic conditions along with roadway surface conditions, including but not limited to:
 - i. Improvements at entrances and intersections

- ii. Upgrading or replacing pavement sections
 - Identification of the optimum timeframe for upgrades or replacement, such as whether that may be prior to or at the beginning of operations; or whether that may sometime during or at the end of operations.
 - Identification if the pavement is designed for full normal project traffic (or reduced loads/no traffic) during annual spring load restrictions
- iii. Improvements to the roadway cross section or alignment
- i. Extraordinary Maintenance. Identification of likely extraordinary maintenance costs, above normal maintenance requirements, attributable to the proposed traffic of the project.
 - i. Identification of surface repair or reconditioning, street cleaning/sweeping, shoulder repair, etc.
- j. Right of Way Needs
 - i. Identification of costs likely to be incurred for right of way acquisition to maintain safe and desirable roadway conditions during operations attributable to the proposed traffic generated by the project.
- k. Engineering Needs
 - i. Identification of costs likely to be incurred for engineering services to maintain safe and desirable roadway conditions during operations attributable to the proposed project.
- l. Any additional items listed in Section 8, Access Traffic Studies of the Goodhue County Access Management and Control Ordinance.
- m. Findings and Recommendations
 - i. Summary of all deficiencies and recommended improvements/corrections
 - ii. An estimate of costs for all recommended improvements and corrections, itemized by improvement and totaled for entire project.
 - iii. An estimate of existing deficiencies, external traffic considerations and all factors considered in assigning rough proportionality of costs to the proposed mining operations.

4. Review

- a. The County reserves the right to review the traffic impact analysis by staff, or elect to choose a consultant to perform an independent review. If the County chooses to hire a consultant, the review consultant will be hired at the developer's expense.

Appendix G – Road Agreement

ROAD IMPACT AND REPAIR AGREEMENT

This Road Impact And Repair Agreement (the “Road Impact and Repair Agreement”) is entered into by _____ (“Developer”) and Goodhue County, Minnesota (“County”), as a part of that certain Development Agreement entered into by Developer and County on ___ day of _____ 20__ (the “Development Agreement”). This Road Impact and Repair Agreement shall be binding not only on the parties, but also upon Developer’s contractors and subcontractors. Capitalized terms not otherwise defined herein shall have the meaning given them in the Development Agreement.

RECITALS

- A. The Developer desires to **(construct/develop/...)** the Project described in the Development Agreement in Goodhue County, Minnesota.
- B. The County and the Developer wish to incorporate into the Development Agreement by this Road Impact and Repair Agreement, the impact and repair of County Roads and County State Aid Highways under the jurisdiction of the County and roadways under the jurisdiction of those townships who have designated the County Engineer as the Road Authority for this Project, as indicated by passage of a resolution in the form attached hereto as Appendix **(X)** of this Exhibit (the “Participating Townships”), all in accordance with the terms and conditions set forth herein.
- C. In connection with the development and construction of the Project, it will be necessary for the Developer and its contractors, subcontractors, suppliers and each of their respective agents, employees, representatives, and permitted assigns (the Developer and such other persons while in the performance of work for the Developer are referred to herein as the “Developer Parties”) to: (i) transport heavy equipment and materials over Designated Haul Routes located in the County, which may in certain cases be in excess of the design limits of such roads; (ii) transport certain locally sourced materials, such as concrete and gravel, on such roads; (iii) widen such roads and make certain modifications and improvements (both temporary and permanent) to such roads (including to certain culverts, bridges, traffic control devices, road shoulders and other related fixtures) to permit such equipment and materials to pass; and (iv) place certain electrical cables for the Project adjacent to or under certain roads identified on Appendix **(X)** of this Exhibit for the purposes of carrying electrical current from the Project to the Project substation.

AGREEMENT

In consideration of mutual promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. Use of Roads.
 - 1.1 Use of Designated Haul Roads. In connection with the development and construction of the Project, the County hereby acknowledges and agrees that the Developer Parties may use the roads located in the County identified on Appendix **(X)** hereto (the “Designated Haul Roads”) at any time, seven (7) days a week. Only County Roads and Township Roads under the jurisdiction of the Participating Townships shall be

considered for inclusion in Appendix (X). The Designated Haul Roads may be used by the Developer Parties in connection with the development and construction of the Project, including the transportation of heavy equipment and materials to and from the Project. In addition to identifying the Designated Haul Roads that will be used by the Developer, Appendix (X) identifies the routes over the Designated Haul Roads that will be used for: (i) transportation and delivery of (specific) equipment and components and other materials and equipment to be used in connection with the Project; (ii) truck transportation leaving the Project site following delivery of equipment and materials; (iii) movement of the assembled cranes; and (iv) transportation and delivery of locally sources materials, including concrete and gravel (collectively, the “Hauling Activities”). The County agrees that, from time to time, the Developer may request to include additional roads as Designated Haul Roads by first (A) submitting an updated version of Appendix F-1 to the County that includes such additional roads and (B) performing an Initial Evaluation, herein included by reference as Appendix F-2 on such additional roads. After submitting such updated version of Appendix F-1 to the County and performing the Initial Evaluation on the additional roads, Appendix F-1 to this Road Agreement shall be amended and restated as such updated version of Appendix F-1 once approved by the County Engineer.

- 1.2 County to Enforce for Road Authority. For purposes of the Development Agreement and this Road Impact and Repair Agreement (collectively, the “Agreements”), the Developer and the Participating Townships have agreed that the County shall have the exclusive authority to enforce the Agreements as they relate to the Township Roads identified on Appendix (X), as may be amended from time to time. Resolutions authorizing the County to enforce the provisions of the Agreements as they relate to Township Roads shall be attached as Appendices to this Road Impact and Repair Agreement.
- 1.3 Construction Period Meetings. Beginning with commencement of construction of the Project and before delivery of materials and equipment to the Project site, the Developer and the County Engineer (or designee) shall meet from time to time upon the reasonable request of the Developer or County Engineer (or designee) to discuss the expected use of the Designated Haul Roads, including the construction schedule and the Designated Haul Roads to be used. The County Engineer shall have authority to act on behalf of the County and Participating Townships on matters relating to use of Designated Haul Roads.
- 1.4 Evaluation of Designated Haul Roads.
 - a. As soon as practicable after the execution of the Development Agreement, but in any event prior to the commencement of construction at the Project site and before delivery of materials and equipment to the Project site, the County and the Developer shall agree on a method to evaluate the Designated Haul Roads (“Initial Evaluation”). An enumeration of each Initial Evaluation for the Designated Roads shall be included as Appendix (X) of this Road Impact and Repair Agreement. The Developer shall inspect and structurally assess all bridges or structures on Designated Haul Roads and provide documentation to the satisfaction of the County Engineer of acceptable use of said bridges or structures, also to enumerated in Appendix (X) of this Road Use and Repair Agreement.
 - b. If the Developer submits an updated version of Appendix (X) to the County pursuant to Article (1), the County and the Developer shall perform an Initial Evaluation with respect to each additional road that the Developer has included in Appendix (X) as a

Designated Haul Road. The costs of each Initial Evaluation will be borne by the Developer. Additional evaluations shall be conducted only in the event the Parties mutually agree.

- c. Prior to commencement of the Project construction the Developer shall, at its expense, provide the County Engineer with videotape or other media and/or other documentation such as cross section surveys, centerline profile, culvert condition inventory, etc., (and other means to determine the 'remaining life' in paved roads before and after the Project to determine the road life used by Developer during the Project) documenting the preconstruction condition of all Designated Haul Roads to be used during construction of the Project. This will be made available and approved by the County Engineer for accuracy and clarity and will be considered as the record of the preconstruction condition of the roads.

1.5 **Haul Routes.** The term "Haul Route" means any of the Designated Haul Roads that will be used for the Hauling Activities. Prior to commencing Project construction activities, the Developer agrees to consult with and receive input, and approval from the County Engineer regarding the Haul Routes to be used for the Project.

- a. While Hauling Activities are in progress, the Developer shall maintain the Designated Haul Roads in a condition satisfactory to the County Engineer. This work shall include application of water, bituminous material, or calcium chloride to the road surface as may be necessary to alleviate dust nuisance and eliminate traffic hazards. When Hauling Activities over any Designed Haul Roads are completed, the Developer shall return said road back to conditions that existed prior to use of the Haul Route by any Developer Parties, to the satisfaction of the County Engineer, or reimburse the Road Authority for paved road life consumed during the Project, as determined by the County Engineer; provided, however, that Developer shall not be responsible for damage caused by parties other than the Developer Parties.
- b. The Developer shall, at their own expense, prepare a map indicating the Haul Routes to be used in the construction and maintenance of the Project based on its consultation(s) with the County Engineer and shall provide a minimum of two (2) copies of such map to the County Engineer.

1.6 **Maintenance of Traffic.** The Developer shall, throughout construction of the Project, provide and maintain all traffic control devices as deemed necessary for the safe and efficient movement of the public. Emergency vehicles must have access to Public Roadways and special attention will be required for the maintenance of existing planned routes of school buses and mail carriers. Should any road become impassable at anytime, the Developer shall notify the Law Enforcement Center immediately and make necessary accommodations for the traveling public and emergency vehicles. Maintenance of traffic shall be in conformance with the Minnesota Manual of Uniform Traffic Control Devices ("MN MUTCD"); this includes, but is not limited to, the following:

- a. To advise, warn, and alert the traveling public of construction in advance of the Project termini and on all roads, streets, and public trails approaching or crossing the Project.
- b. To control and guide traffic through the Project; and if necessary to provide necessary flag persons and pilot vehicles.

1.7 **Oversized Move Permits.** Move permits must be obtained and complied with throughout the duration of the Project for Public Roadways under the County's

authority. Prior to the following week's construction, permits shall be secured for all planned moves along with confirmation of the previous week's moves as planned. If any move is to be altered, it must be approved by the County Engineer (or designee) and so noted in the weekly move permit log. Note:

- a. Equipment mounted on crawler tracks or steel-tired wheels shall not be operated on or across concrete or bituminous surfaces without specific authorization from the County Engineer. Special restrictions may be imposed with respect to speed, load distribution, surface protection, and other precautions considered necessary.
- b. The Developer shall comply with legal load restrictions whenever feasible. Overweight Permits will not be issued or valid during the Spring Road Restriction period, as determined by the County Engineer.
- c. Should construction operations necessitate the crossing of an existing pavement with equipment or loads that would otherwise be prohibited, methods of load distribution or bridging shall be approved by the County Engineer and shall be provided by the Developer.
- d. Neither by issuance of a special permit, nor by adherence to any other restrictions imposed, shall the Developer be relieved of liability for damages resulting from the operation and movement of construction equipment, materials or supplies by Developer Parties.

1.8 Protection of Bridges or Structures. The Developer shall, at its own expense, hire a Minnesota Professional Engineer approved by the County Engineer to inspect and structurally assess all bridges or structures on a Designated Haul Road or public drainage ditch crossings and provide documentation to the satisfaction of the County Engineer of acceptable fortification for use of said bridges or structures. The County Engineer reserves the right to have structures inspected, assessed and have the recommended fortifications reviewed by other engineers at the expense of the Developer.

1.9 Maintenance of Roads During Project. The Developer shall maintain all Designated Haul Roads during the Project in conformance with County standards, and to ensure the traveling public can use the roads at all time, and to the satisfaction of the County Engineer (or designee). Maintenance during construction shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that all roadways and structures are kept in satisfactory condition at all times. If, at any time, the Developer fails to comply with these provisions, the County Engineer will notify the Developer of the deficiencies. If the Developer fails to remedy unsatisfactory maintenance within 24 hours after receipt of written notice to do so, the County may immediately proceed to maintain the roadway at the expense of the Developer. Maintenance may include but not be limited to dust control, sweeping, blading of gravel surfaces, aggregate surfacing, bituminous surfacing, etc. The County may, in its discretion and as staff time permits, make inspections of the Designated Haul Roads to ensure compliance with the Developer's maintenance and safety obligations.

2. Repair of Designated Haul Roads.

2.1 Obligation to Repair Roads. If the Designated Haul Roads or related appurtenances, including bridges, culverts, traffic control devices, and other road fixtures are damaged by Hauling Activities conducted by Developer Parties on such Designated Haul Roads, as determined by the County Engineer, the Developer shall repair (or cause to be repaired) such damage and restore such road to the condition they were in prior to the damage caused by Hauling Activities conducted by the Developer Parties (as near as is reasonably practicable having due regard for normal wear and tear). The Parties shall

rely upon the Initial Evaluation conducted pursuant to Section 1.4 for purposes of determining whether the repair has been performed in accordance with the standard set forth in this Section 2.1. The Developer shall also be responsible to repair any non-designated road damaged by the Developer Parties. Since Initial Evaluations will not be available for these non-designated haul roads, the condition of similar roads under the same road jurisdiction shall be used as the pre-construction condition for road restoration. Any repair and restoration shall be promptly performed at such times as the County Engineer may reasonably determine, having due regard for safety, the presence of emergency conditions and the costs of such repairs. Following completion of such repair, the County Engineer and the Developer jointly shall inspect the repair to determine that it has been completed satisfactorily. The County understands and agrees that the Developer is not responsible for any damage to the Designated Haul Roads or non-designated roads that is not caused by Developer Parties. Since the Developer's Hauling Activities will potentially consume a large portion a paved road's life capacity without evidence of visual damage, the Developer shall provide testing at its own expense to determine road life capacity used; and reimburse the Road Authority for road life capacity consumed by the Hauling Activities required for the Project, or shall reimburse the Road Authority at a predetermined cost per Equivalent Standard Axle Load ("ESAL").

- 2.2 Conditions Relating to Work within Right-of-Way. The Developer shall comply with the following conditions in connection with any repair, maintenance or other work to be conducted within any public right-of-way:
- a. Developer shall submit an 'Obstruction and/or Excavation Permit' to work in the road right of way and have an approved permit prior to commencing any repair to the road or other improvements to the road right of way, and agrees to meet the conditions of the permits. Permits will not be required for daily blading and the placement of new rock surfacing. Developer shall provide the County with written notice of any contractor(s) Developer intends to use to perform the work within the right-of-way. The County Engineer will have the right to approve the contractor and subcontractors who will complete the repair or maintenance. Notwithstanding the County's approval of a contractor or subcontractor, Developer will accept responsibility as the general contractor for the repair and maintenance. The County Engineer's approval of the contractor and/or subcontractors shall not be unreasonably withheld.
 - b. If requested by the County Engineer, the Developer shall provide plans and specifications for the road repair or reconstruction to be completed. Thereafter, the Developer shall complete the repair or reconstruction according to the approved plans and specifications.
 - c. Developer will be responsible for the costs of maintenance, repair or reconstruction of the roads, soil and erosion control measures, and related improvements as required under this Road Use and Repair Agreement and related permits.
 - d. Following completion of the Project, the roads, soil and erosion control measures, and related improvements will be subject to the inspection and approval of the County Engineer. For work within a township right-of-way, such inspection and approval shall be directed by the County Engineer in consultation with the Participating Township. If any material or labor supplied is rejected by the County Engineer, as defective or unsuitable, then such rejected material or labor shall be removed and replaced with approved material or labor, to the satisfaction and

approval of the County Engineer, entirely at the cost and expense of the Developer. The approval of the County Engineer shall not be unreasonably withheld.

- e. The warranty period discussed in Article **(1)** of the Development Agreement begins once the Developer has completed all punch list items discovered during final inspections by the County and the County Engineer approves and accepts all repair work as complete.
- f. Following completion and acceptance of the work, the Developer will provide to the County Engineer an electronic file of the record plans or “as-built” in digital format (preferably in Microstation.DGN format, AutoCAD .DWG, or .DXF format) of all utilities and road construction plans. The files will be georeferenced in Goodhue County coordinates.
- g. Time is of the essence for the completion of any work within a public right-of-way, including any maintenance, repair or reconstruction of roads and associated improvements.

2.3 Failure to Repair. If the Developer fails on its own to repair Designated Haul Roads that are damaged by Hauling Activities conducted by the Developer Parties, the County Engineer may require in writing that the Developer repair such damage and return such roads to the condition such roads were in prior to such damage (as closely as is reasonably practicable having due regard for normal wear and tear). Such request for repair may include temporary repairs such as crack sealing and overlays to maintain the integrity of the roads for safe public travel until more permanent repair may be undertaken following completion of the Project. Prior to commencement of such repair, the County Engineer and the Developer shall meet to review the damage in relation to the Initial Evaluation or most recent subsequent evaluation, as applicable. After such review, the Developer shall repair (or cause to be repaired) such damage and restore the road to the standard set forth in Article **(1)**, to the extent such damage was caused by Hauling Activities conducted by the Developer Parties. Any repair and restoration shall promptly be performed at such times as the County Engineer may reasonably determine, having due regard for safety, the presence of emergency conditions and the costs of such repairs. If the Developer fails to repair such roads within the agreed period, then, unless the Parties mutually agree otherwise, the County may make such repairs and shall invoice the Developer for the costs incurred in connection with the repair. Any such invoice shall be accompanied by reasonable supporting documentation sufficient to justify the amounts claimed due by the County. The Developer shall pay such invoiced amounts within twenty (20) days following Developer’s receipt of the invoice and supporting documentation.

3. Modifications to Designated Haul Roads.

3.1 Modifications to Designated Haul Roads. The County hereby acknowledges, agrees to consider reasonable modifications by the Developer Parties to the Designated Haul Roads as are reasonably necessary to accommodate the use of the Designated Haul Roads by the Developer Parties, including the widening of certain roads, the strengthening and/or spanning of existing culverts and bridges, and other modifications reasonably necessary to accommodate the heavy equipment and materials to be transported on the Designated Haul Roads.

- a. The Developer shall obtain access permits for any new or modified access serving the Project. The Developer agrees to meet the conditions of the permit for drainage

requirements, geometric design, and location. Removal of existing access and relocation of a new access serving the parcel will be required where modification of existing access is not possible. The County's adopted access permit application fee is set in Exhibit (A) to the Development Agreement.

- b. Temporary intersection modifications to accommodate turning radii must include extension of all drainage conveyance with 6:1 side slopes wherever possible.
- c. Drainage intakes located in the road right of way shall be protected from siltation or relocated with approval of the County Engineer and/or the County Drainage Inspector.
- d. All traffic control shall be maintained per the Minnesota Manual of Uniform Traffic Control Devices. Deviations without documentation shall not be permitted.

3.2 Compliance with Law. The Developer agrees that all road modifications shall comply with all applicable laws except to the extent provided for in this Road Impact and Repair Agreement.

3.3 Collection System. The County grants the County Engineer the authority to allow the placement of the collection system related to this Project in road right of way or County property owned in Fee Title by Goodhue County or on or across those County Roads where the County has Highway Easement if Developer provides documentation (satisfactory to the County) that the underlying property owners have granted permission to Developer for said installation. "Collection System" means certain wires, cables, conduits and/or lines (and their associated equipment) related to the transmission of electricity and data from the Project above or below ground at a location adjacent to or under (including across) certain County Roads, as identified in Appendix F-3. The County Engineer agrees to consider an application to install the Collection System on or across those County Roads where the County owns the Right of Way in Fee Title. The County Engineer further agrees to consider an application to install the Collection System on or across those County Roads where the County has Highway Easement if Developer provides documentation (satisfactory to the County) that the underlying property owners have granted permission to Developer for said installation. The Developer shall obtain an 'Obstruction and/or Excavation Permit' to work in the Road Right of Way for the installation of any underground or overhead conduit placed in the public right of way. The Developer agrees to meet the conditions of the permit. The County's adopted utility permit application fee is set in Exhibit D to the Development Agreement.

4. General Provisions.

4.1 Cooperation. Developer and County agree to communicate and cooperate in good faith concerning the safe implementation of the Project and work together to prevent or correct any hazardous road conditions that may be created by the Project.

4.2 Amendment or Waiver. No waiver and no modification or amendment of any provision of this Road Use and Repair Agreement shall be effective unless specifically made in writing and duly agreed to by the parties. Waiver by any party of any breach or failure to comply with any provision or term of this Road Impact and Repair Agreement by another party shall not be construed as, or constitute, a continuing waiver, or a waiver of any breach of, or failure to comply with, any other provision of this Road Use and Repair Agreement.

- 4.3 Governing Law. This Road Impact and Repair Agreement shall be governed by and interpreted in accordance with the laws of the State of Minnesota, and hereto intend that Minnesota law shall apply to the interpretation hereof. For the purpose of resolving any dispute with respect to this Road Use and Repair Agreement, each party agrees that the venue for any legal action shall be in Goodhue County, Minnesota.
- 4.4 Severability. If any provisions of this Road Impact and Repair Agreement are determined to be unenforceable, invalid or excessive, this Road Impact and Repair Agreement can thereafter be modified, to implement the intent of the Developer and County to the maximum extent allowable under law and the remainder of this Road Impact and Repair Agreement shall remain unaffected and in full force and effect.
- 4.5 Letter of Credit and other Security. The Developer’s obligations regarding security for performance of its obligations under this Road Impact and Repair Agreement shall be governed by Article **(1)** of the Development Agreement, which are incorporated herein by reference. The County’s obligations regarding reduction, use and return of the security given by Developer also shall be governed by the provisions of Article **(1)** of the Development Agreement.
- 4.6 Events of Default and Remedies. The parties’ obligations and conduct relating to default, notice and remedies shall be governed by Article **(1)** of the Development Agreement, which is incorporated herein by reference.

IN WITNESS WHEREOF, the County and the Developer have caused this Road Impact and Repair Agreement to be duly executed on the day and year first above written.

GOODHUE COUNTY

County Board Chair

County Administrator

DEVELOPER

Chief Manager
Company

Appendix H – Development Agreement

DEVELOPMENT AGREEMENT

Project

THIS DEVELOPMENT AGREEMENT (“Agreement”) by and between [redacted] company, their contractors and subcontractors (“Developer”) and Goodhue County, Minnesota (“County”), will be entered into and becomes effective upon execution this [redacted] day of [redacted], 20[redacted].

RECITALS

- A. The Developer desires and intends to develop [redacted] A map outlining the location of the Project is included as Exhibit A.
- B. The Developer’s objective is to develop [redacted]
- C. A site permit for this Project is required and obtained through the State of Minnesota [redacted] (if applicable)
- D. The Developer entered into agreements with the owners of the real property comprising the Project area, giving it control of this land for the purpose of, and authority to, develop the Project.
- E. This Agreement specifies the commitments made by the County and by the Developer for the purpose of ensuring that the Project is consistent with the existing policies and ordinances of Goodhue County.

NOW, THEREFORE, in consideration of the recitals (which are incorporated into the Agreement by this reference) and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the County and the Developer agree as follows:

AGREEMENT

1. **Effective Date and Termination**

- 1.1 Effective Date. The effective date of this Agreement is the date first stated above.
- 1.2 Termination. This Agreement shall terminate **five (5) years** from Project Completion or may be terminated by mutual written and executed agreement of the Parties to this Agreement, Developer shall have the option, in its sole discretion, to terminate the Project. If Developer elects to terminate this Project, Developer shall submit a Notice to this effect to the County and comply with all provisions of this Agreement that apply to any work already performed on the Project.

2. **Vesting.**

This Agreement vests the Project to applicable existing County ordinances and regulations effective as of the Effective Date of this Agreement to the extent such ordinances and regulations are not superseded or preempted by federal or state law or permit.

3. Definitions

Agreement	This Development Agreement and all other agreements entered into between the County and Developer that are attached hereto as Exhibits and incorporated into this Agreement.
Developer	Company its employees, agents, successors and assigns, including, but not limited to, contractors and subcontractors engaged to do any of the work outlined in this Agreement.
Project Facilities	Include description of entire facility
Public Roadway	Roadways and appurtenance right-of-ways that are under the jurisdiction of a County or Township, and including without limitation roadway ditches.
Public Drainage Systems	Those drainage systems established or under the jurisdiction of a Drainage Authority under Minnesota Statutes 103D or 103E.
Drainage Authority	Drainage Authority means the County Board, Joint County Drainage Authority, Town Board or Watershed District having jurisdiction on or over systems or projects as defined by Minnesota Statutes 103D or 103E.
Public/Private Drainage Tile	Any artificial subsurface drainage system.
Drainage Inspector	Goodhue County Soil and Water Conservation District, County, or State personnel as designated by the Drainage Authority.
Roadway Ditches	Open ditches located adjacent to Public Roadways and within the public right-of-way.
Project Completion	Project Completion is defined as when all of the following items are satisfied: <ol style="list-style-type: none">1. Issuance of a Certificate of Occupancy for all building permits associated with the Project; and2. The Developer notifies the County in writing that [REDACTED]; and3. In accordance with Exhibit (F), repair of all road and drainage impacts documented by the County Engineer.

4. Development Standards.

- 4.1 Fire Protection and Emergency Services. Prior to initiating construction activity related to the Project, Developer will communicate and coordinate with local fire districts, Goodhue County Sheriff department, police, emergency services, and Goodhue County Emergency Management their needs and plans related to all aspects of the Project to assure adequate compatibility, preparedness, and response is executed in the event these services are required.
- 4.2 Building Code Compliance. Goodhue County has properly adopted and administers the Minnesota State Building Code (also "SBC," "Building Code," or simply "Code"). The Project is required to comply with the Minnesota State Building Code and all the

referenced codes, standards, and practices. The Goodhue County Building Official represents the Authority Having Jurisdiction (“AHJ”) and administers and enforces the Code. The Building Official may render interpretations of the Code and may adopt policies and procedures to clarify its application. The powers and duties of the Building Official are outlined in Minnesota Rules, Chapter 1300.0110.

- 4.3 Building Permits. Each structure requires a building permit (see Exhibit C). Building permits shall be applied for on the County Building Permit Application form (See Exhibit B) and shall include the submittal of documents as required by the SBC and the AHJ/Building Official.
- 4.4 Plan Reviews. Permit applications and construction submittals are reviewed by the Building Official for compliance with the Code and with other pertinent laws or County ordinances. For each structure, the issued permit and the “Field Copy” of the reviewed plans is to be maintained, accessible, and available to the Building Official or an authorized representative on the site of the work.
- 4.5 Permit Fees. Plan review fees are a part of the total Building Permit Fee and are paid by the Developer. The Building permit fee must be paid prior to permit issuance and commencement of construction. See Exhibit D.
- 4.6 Inspections. All work for which a permit is required is subject to inspection by the Building Official. Work must remain exposed and accessible for inspection purposes until it has been approved by the Building Official. The Developer is required to cause the work to remain accessible and exposed for inspection purposes. Neither the Building Official nor the AHJ is liable for any expense for removal or replacement of material that may be required to allow for full and proper inspection. The Building Official must pass a Final Inspection and approve each structure prior to use and/or occupancy.
- 4.7 Rural Identification Address. A rural address will be issued to each [REDACTED] in the Project by the Goodhue County Office of Emergency Management. Details are outlined in Exhibit E.
- 4.8 Road Impact and Repair. The use of the Public Roadways for the construction of the Project will exceed the normal anticipated use of the public roadways of Goodhue County and those particular Townships that have passed resolutions substantially in the form included in Appendix F-1 of Exhibit F. The conditions outlined for road impact and repair are hereby incorporated into this Agreement by reference as they appear in the Road Impact and Repair Agreement attached as Exhibit F.
- 4.9 Underground Drainage System Protection and Warranty. The parties recognize that the use of Public Roadways for the construction of the Project may impact drainage systems.
 - a. If any drainage systems within the road right of way are damaged by the Project construction and its associated work, said drainage system will be repaired by the Developer at its expense; however, the Developer shall not be responsible for damage caused by others. All repairs to the drainage infrastructure will be completed in a manner approved by the Goodhue County Drainage Inspector and/or County Engineer to assure that said system is in proper operating condition upon completion of the repair. Damage may not become evident until after Project Completion.
 - b. If, within five (5) years following Project Completion, public or private surface drainage or drainage tile problems within the road right of way develop as a result

of Project construction, the Developer will provide additional repair and services, or compensation (based upon the actual cost of restoration including the reasonable value of staff time if completed by the County, Township, Drainage Authority), within 45 days of receiving written notice from the Drainage Inspector and/or County Engineer.

- 4.10 Concrete batch plants. Concrete batch plants must comply with Goodhue County's Zoning Ordinance and receive a Land Use Permit from the County. Structures associated with concrete batch plants are subject to permits and inspections as provided for in the State Building Code. Permits must be issued prior to commencing construction or placement. Structures must pass a Final Inspection by the Building Official prior to being placed into service or use.
- 4.11 Mining. The extraction of minerals and associated mining activities occurring on parcels of land located within Goodhue County are regulated through Article 14 of the Goodhue County Zoning Ordinance.
- a. If mining material or activities are obtained or occur on Goodhue County sites, the sites must be registered according to said Article 14, and provide proof of a bond as outlined in Section 6, Subdivision 1 of the Article.
- b. The Developer must provide the County with a list of all mining locations contracted for the Project.
- c. If the Project is a Mineral Extraction Facility, the conditions outlined for land reclamation are hereby incorporated into this Agreement by reference as they appear in the Land Reclamation Agreement attached as Exhibit H.
- 4.12 Construction Practices. The following construction practices shall be observed by the Developer in constructing this Project:
- a. Storage of equipment and material during construction: All materials and equipment must be stored and parked within the bounds of the staging areas acquired by the Developer so that it will not interfere with public transportation, as determined by the County Engineer.
- b. Equipment and materials stored adjacent to Public Roadways must be stored outside of the road right-of-way. Equipment and materials may only be stored within the road right-of-way with the County Engineer's prior, written consent.
- c. The Developer will work with the Goodhue County Soil and Water Conservation District ("SWCD") to prevent erosion due to the construction of this Project. The Developer shall provide to the SWCD a copy of their Erosion Control Plan, the State of Minnesota National Pollution Discharge Elimination System Permit, and the Storm Water Pollution Prevention Plan prior to start of construction.
- d. The SWCD will be the local contact agency for all erosion and sediment control inspections. If a reasonable method to control erosion cannot be reached after discussions between SWCD and Developer, the SWCD will direct enforcement actions to the MPCA to administer the NPDES permit.
- 4.13 Removal of Construction Debris. All construction related debris, material, and rocks larger than 4 inches in diameter which are not an integral part of the Project will be removed from the Right-of-Way of the Designated Haul Roads identified in the Road Use and Repair Agreement (Exhibit F). This is to include all litter generated by the construction crews.
- 4.14 Public Roadway Protection and Warranty. Following the completion of the Project construction, the Developer will restore Public Roadways to its original preconstruction surface condition, elevation, cross-section and repair any other damaged appurtenances

as provided in the Road Use and Repair Agreement (Exhibit F). If, within three (3) years following Project Completion, uneven settling occurs or other damage is discovered as a result of Project construction, the Developer will provide additional repair and leveling services, or compensation (based upon the actual cost of restoration including the reasonable value of staff time if completed by the County or Township), within 45 days of receiving written notice from the Drainage Inspector and/or County Engineer; provided, however, that if the required work is not reasonably susceptible of being cured within such 45 day period, Developer will be allowed reasonable additional time to perform so long as Developer promptly commences such actions and thereafter diligently proceeds to complete the required work.

- 4.15 Site Plan. The Developer shall provide a site plan for the Project as outlined in Exhibit G.
- 4.16 Repair of Damaged Soil Conservation Practices. All soil conservation practices such as terraces, grassed waterways, etc. which are damaged by the Project construction, will be restored to their pre-construction condition. The Goodhue SWCD shall be the contact agency on the technical assistance for Best Management Practices restoration.
- 4.17 Pumping of Water from Open Trenches. In the event it becomes necessary to pump water from open trenches or Roadway Ditches the Developer shall provide the County Engineer with prior written notice and will pump the water in a manner that will avoid damaging adjacent Public Roadways and adjacent agricultural lands, crops and/or pasture. Such damages include, but are not limited to, inundation of crops for more than 24 hours, deposition of sediment in Roadway Ditches and the deposition of gravel in Roadway Ditches. The Developer shall be required to repair all such damages or pay for any damaged crops resulting from this operation.
- All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities, State of Minnesota National Pollution Discharge Elimination System/Storm Water Permits and Federal Wetland Regulations and Laws.
- 4.18 Gopher State One Call. The Developer shall register all transmission and collection line locations associated with the Project, both in the road right of ways and across private property, and any other necessary information to the Gopher State One Call service. The Developer shall provide proof of Gopher State One Call membership to the County prior to Project Completion.
- 4.19 Responsibility for County Costs. The Developer shall pay all reasonable costs incurred by it or the County, including, but not limited to, legal, engineering, and inspection expenses (including Initial Evaluations and daily inspection of the Designated Haul Roads as defined in the Road Impact and Repair Agreement (Exhibit F)), in connection with the Project; the review and approval of plans and permits relating to the Project; the preparation of this Agreement and other required agreements; the expenses for drafting and filing necessary documents; and all reasonable costs and expenses incurred by the County in monitoring and inspecting any and all phases of the Project.
- 4.20 Time of Payment. Developer shall pay in full all bills submitted by the County for obligations incurred under this Agreement within thirty (30) days of Developer's receipt of such bills, accompanied by reasonable supporting documentation. Bills not paid within thirty (30) days of Developer's receipt thereof shall accrue interest at a rate of one and one-half percent (1.5%) per month from the date of such receipt. Failure to remit payment within thirty (30) days shall constitute a default of this Agreement.

5. County Representatives.

5.1 For items in Articles 4.8, 4.9, 4.12, 4.13, 4.14, 4.17, 6.2, 10.1, 10.2, 10.3

Contact: Goodhue County Engineer
Goodhue County Department of Public Works
(651) 385-3025

5.2 For items in Articles 4.2, 4.3, 4.4, 4.6, 4.7, 4.10, 4.11, 4.15

Contact: Goodhue County Land Use Management Director
Goodhue County Land Use Management
(651) 385- 3104

5.3 For items in Articles 1, 6, 7, 8, 9, 10, 11, 12

Contact: Goodhue County Attorney
(651) 267-4950

5.4 For items in Article 4.16

Contact: Water Planner
Goodhue County Soil and Water Conservation District
(651) 923-5280

6. Amendments and Revisions.

6.1 Amendments to Agreement. This Agreement may be amended by mutual agreement of the Developer and County. Amendments shall be effective only if in writing and signed by the parties.

6.2 Project Facility Repair, Maintenance and Replacement. Developer shall be permitted, without any further amendment to this Agreement, to repair, maintain and replace Project Facilities consistent with the terms of this Agreement, the permitting and inspection provisions of the Minnesota State Building Code and road over weight and oversize permitting requirements. Provided, however, that prior to beginning any construction to replace any Project Facilities or performing any construction within any portion of a public right-of-way or Public Drainage System, and prior to using any Public Roadway within the County to transport equipment or materials for the replacement of Project Facilities, the Developer shall (1) provide security in accordance with Article 10 of this Agreement; and (2) execute a new form of the Road Agreement relating to the Developer's use of Public Roadways intended to be used for the Project Facility replacement. This provision may be waived by the County Engineer in his/her sole discretion if the County Engineer determines that the Project Facilities replacement will not impact Public Roadways or drainage systems.

7. Assignments

Developer may, within the terms of this Development Agreement, assign this Agreement to a successor or assign with the approval of the Goodhue County Board, which approval shall not be unreasonably withheld or delayed. The assignees shall then assume all responsibilities and

duties pursuant to this Agreement. If such assignment is made, Goodhue County shall be provided within 30 days with a written copy of the assignment.

8. General Provisions.

- 8.1 Binding Effect. This Agreement shall be binding upon, and inure to the benefit of, the Developer and County and their respective heirs, successors (by merger, consolidation or otherwise) and assigns, devisees, administrators, representatives, lessees and all other persons or entities acquiring all or any portion of the Project, any lot, parcel or any portion thereof within the Project Area, or any interest therein, whether by sale, operation of law, devise, or in any manner whatsoever.
- 8.2 Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Minnesota, and hereto intend that Minnesota law shall apply to the interpretation hereof. For the purpose of resolving any dispute with respect to this Agreement, each party agrees that the venue for any legal action shall be in Goodhue County, Minnesota.
- 8.3 Severability. If any provisions of this Agreement are determined to be unenforceable, invalid or excessive, this Agreement can thereafter be modified, to implement the intent of the Developer and County to the maximum extent allowable under law and the remainder of this Agreement shall remain unaffected and in full force and effect.
- 8.4 Authority. The Developer and County represent and warrant that it has the respective power and authority, and is duly authorized, to enter into this Agreement on the terms and conditions herein stated, and to execute, deliver and perform its obligations under this Agreement.
- 8.5 No Third-Party Beneficiary. This Agreement is made and entered into for the sole protection and benefit of the Developer, and its successors and assigns, and the County and its participating Townships as identified in Exhibits, and their successors and assigns. No other person shall have any right of action based upon any provision of this Agreement.
- 8.6 Agent for Service of Process. The Developer shall appoint an agent for service of process in Minnesota and shall provide written notice setting out the name, address and telephone number of said agent to the County, upon the final execution of this Agreement.
- 8.7 Duty to Act Reasonably and in Good Faith. Unless otherwise expressly provided, the Developer and County shall act reasonably in giving consent, approval, or taking any other action under this Agreement. The Developer and County agree that each of them shall at all times act in good faith in order to carry out the terms of this Agreement and each of them covenants that it will not at any time voluntarily engage in any actions which frustrate the purpose and intent of the Parties to develop the Project in conformity with the terms and conditions specified in this Agreement. The Developer and County understand and agree that the process described in this Agreement depends upon timely and open communication and cooperation between the Parties. The Developer and County agree to use best efforts to communicate regarding issues, changes, or problems that arise in the performance of the rights, duties and obligations hereunder as early as possible in the process, and not wait for explicit due dates or deadlines. Each party agrees to work cooperatively and in good faith toward resolution of any such issues.

8.8 Insurance. Before starting construction, Certificates of Insurance or self-insurance acceptable to the County shall be filed by the Developer for itself and all of its contractors, with the County Attorney and shall contain a provision that the policies will not be canceled or materially changed until at least ten days prior written notice has been given to the County Attorney. This insurance shall be written for not less than the following limits:

Workers' Compensation

Contractor's Public Liability and Property Damage

Bodily injury	\$500,000
Each person	\$500,000
Each Accident	\$5,000,000

Property Damage

Each Accident Aggregate	\$5,000,000
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Automobile

Public Liability and Property Damage	\$1,500,000
Bodily Insurance	\$5,000,000
Each Person	\$1,500,000
Each Accident	\$5,000,000
Property Damage	\$1,500,000
Each Accident Aggregate	\$5,000,000

8.9 Time of Essence. Time is of the essence in the performance of each and every obligation to be performed by the Developer and County hereto.

8.10 Obligations Surviving Termination. In addition to Developer's obligation to maintain security as provided in Article 10 and elsewhere, neither termination nor expiration of this Agreement will release either party from any liability or obligation under this Agreement, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or expiration.

8.11 Subcontractors. The Developer shall be responsible to make certain all of its contractors, subcontractors, agents, employees and representatives comply with all terms of this Agreement.

8.12 Obligation to Obtain Easements. This Agreement is conditioned upon the Developer obtaining all easements or other title for all property needed for the Project before starting construction of the Project.

8.13 Entire Agreement. This Agreement, together with all exhibits hereto, constitutes the entire agreement between the Developer and County with respect to the subject matter of this Agreement. Agreement is specifically intended to supersede all prior agreements whether written or oral.

9. Notices.

9.1 Written Notice. Either party may give notice to the other at the address for that party set forth below. Notices may be given by U.S. certified mail, personal delivery, or professional messenger.

9.2 Addresses. Written Notices shall be given to the Parties at their addresses set forth below.

If to the County:

Goodhue County Administration
509 West 5th Street
Red Wing, MN 55066
Attn: Administrator

cc: Goodhue County Attorney
454 West 6th Street
Red Wing, MN 55066
Attn: County Attorney

If to Applicant:

address

With Copy to:

address

9.3 When Notice Effective. Unless otherwise provided in this Agreement, notice by U.S. certified mail, personal delivery, or professional messenger shall be effective upon receipt. Any party at any time by Notice to the other party may designate a different address or person to which such notice or communication shall be given.

9.4 Operational Communications. Notwithstanding Section 9.1 above, communications concerning the operational aspects of the construction may be given to the appropriate County Representative listed in Article 5, via e-mail, facsimile, or telephone if such communication is acknowledged as having been received.

10. **Security.**

10.1 Security Fund. Developer shall provide the County with reasonable security for Developer's performance of its obligations under this Agreement, including the obligations in the Road Impact and Repair Agreement attached as Exhibit F. Upon execution of the Agreement, Developer shall deliver a cash deposit of \$10,000.00 with the County (the "Security Fund"). In the event the Developer fails to timely pay any and all bills submitted by the County for obligations incurred under this Agreement, the County may, in addition to other actions which may be available to the County, draw on the Security Fund pursuant to this Section 10.1. The Security Fund shall be maintained in effect until such time as the County has approved the repair and warranty obligations of Developer (including, without limitation, Developer's obligations under Sections 4.9, 4.12, 4.14, and 4.16 of this Development Agreement, Articles 1, 2 and 3 of the Road Use and Repair Agreement), and all financial obligations to the County under this Agreement have been satisfied. If the County draws on the Security Fund, the Developer shall replenish the account within twenty (20) days so that the balance of the account is maintained at \$10,000.00. If the Developer fails to timely replenish the account, the County may, upon five (5) days prior written notice to the Developer, draw on the Additional Security provided in Section 10.2 to maintain a balance of \$10,000.00 in the Security Fund. Upon confirmation from the County Engineer that all obligations under the Agreement have been satisfied, all amounts remaining in the Security Fund shall be refunded to the Developer.

10.2 Security. To guarantee compliance with the terms of this Agreement, payment of costs incurred by the County, or the remediation of any nuisance caused by Developer's

failure to comply with the terms of this Agreement, Developer shall furnish or cause to be furnished to the County an irrevocable letter of credit, cash escrow, or performance bond or such other security as is acceptable to the County or a combination thereof. The letter of credit or other acceptable security shall be in a form that automatically renews and shall be issued by an institution acceptable to the County. The security shall be in an amount equal to 125% of the County Engineer's estimated cost of the potential road and drainage impacts from the Project. The County Engineer's determination as to the amount of security shall be final.

10.3 Maintenance and Reduction of Security.

- a. At the discretion of the County Engineer, the security provided under Sections 10.1 and 10.2 shall remain in place throughout the term of this Agreement to ensure compliance with Developer's warranty obligations as provided in this Agreement.
- b. Upon confirmation by the County Engineer that substantial obligations under this Development Agreement have been satisfactorily completed, the County Engineer may approve a reduction in the amount of security provided under Sections 10.1 and 10.2. The decision of the County Engineer shall be final.

11. Default and Remedies.

11.1 Remedies. If Developer fails in any way to perform or observe any covenant, condition, or obligation contained in this Agreement and that failure is not cured within any applicable cure period; or if the Developer voluntarily commences bankruptcy, insolvency, reorganization, stay, moratorium or similar debtor-relief proceedings; or if insolvency, receivership, reorganization, bankruptcy, or a similar proceeding shall been commenced against the Developer and such proceeding remains undismissed or unstayed for a period of thirty (30) days, Developer agrees that during the continuation of such default the County may do any, all, or any combination of the following:

- (i) Halt all further approvals regarding improvements or issuance of building permits relating to the Project;
- (ii) Immediately suspend Developer's authority under this Agreement to use the Designated Haul Roads identified in the Road Impact and Repair Agreement (Exhibit F) for purposes relating to the Project by providing written notice in the manner provided in Article 9;
- (iii) Draw on or utilize any funds or other security provided to the County pursuant to this Agreement and provide payment due and owing to the County or complete any work to be done under this Agreement, including, without limitation, the inspection, repair or replacement of any Designated Haul Road, or the remediation of any nuisance caused by Developer's failure to complete any of its obligations under this Agreement;
- (iv) Seek injunctive relief;
- (v) Suspend any work or improvement relating to the Project by issuing a stop work order; and/or
- (vi) Take any other action at law or in equity which may be available to the County.

11.2 Events of Default and Notice. Unless otherwise provided for in this Agreement, if the Developer fails to perform one or more of its obligations under the Agreement relating to the permitting of the Project, or fails to comply with its monetary obligations under the Agreement, the County shall give the Developer formal notice of the default and the Developer shall have thirty (30) days to cure the default. Unless otherwise provided for in the Agreement, if the Developer fails to comply with any of the road maintenance,

repair and public safety obligations of Article 4 of this Development Agreement, or Articles 1, 2 and 3 of the Road Impact and Repair Agreement (Exhibit F) or if the Developer undertakes or permits work or other activity in violation of the restrictions of set forth in the Agreement, the County shall give the Developer formal notice of the default and the Developer shall have 48 hours to cure the default. Unless written notice of a change of address or responsible individual is provided to the County, the County's notices shall be sufficient if personally delivered or sent by certified U.S. mail, postage prepaid or by overnight mail by a national carrier such as FedEx or UPS to the name and address provided in Article 9.

- 11.3 Failure to Cure Default. If the Developer does not cure the default within the required period or such longer period as may be necessary if the default may not reasonably be cured within the required period, provided the Developer pursues the cure with reasonable diligence, then the County may avail itself of any remedy afforded it by law and any of the above cumulative, non-exclusive remedies. Provided, however, that if Developer fails to comply with any such obligation of the Agreement and the County Engineer (or Building Official, or SWCD) reasonably determines that such failure has caused or is causing an immediate danger to public health and safety, the County may, in its sole reasonable discretion, immediately and without prior notice to Developer avail itself of any remedy afforded it by law and any of the above cumulative, non-exclusive remedies. The County will make reasonable efforts to notify the Developer prior to drawing on a letter of credit or other security, but the failure to provide such notice shall not invalidate the County's actions.
- 11.4 Failure to Provide or Renew Security. Notwithstanding anything else in this Article 11, if the Developer's default is the failure to obtain an extension or renewal of a letter of credit or a replacement letter of credit within thirty (30) days of the date an existing letter of credit will expire, the County may exercise the remedies provided in this Article 11 and draw on the letter of credit without prior notice to the Developer and without the Developer having the opportunity to cure the Developer's default. The County will make reasonable efforts to notify the Developer prior to drawing on a letter of credit, but the failure to provide such notice shall not invalidate the County's actions.
- 11.5 Enforcement. Developer shall reimburse the County for costs incurred in the enforcement of this Agreement, including reasonable engineering and reasonable attorneys' fees, and all costs of collection.
- 11.6 No Additional Waiver Implied by One Waiver. If any condition, obligation or agreement contained in this Agreement is breached by the Developer and thereafter waived in writing by the County, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other concurrent, previous or subsequent breaches hereunder. All waivers by the County must be in writing to be effective.
- 11.7 No Remedy Exclusive. No remedy herein conferred upon or reserved to the County shall be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient.

12. Indemnity.

Anything to the contrary herein notwithstanding, the County, the Drainage Authority, their elected and appointed officials, their officers, agents, employees, and representatives shall not be liable or responsible in any manner to the Developer, contractor or subcontractors, materialmen, laborers, or to any other person or persons whomsoever, for any claims, demands, damages, actions, or causes of action of any kind or character whatsoever arising out of or by reason of the execution of this Agreement; the permitting or inspection of any work relating to the Project, and any and all work which is the Developer's obligation to perform pursuant to this Agreement; the grant by the County of any approval related to the Project; the failure by Developer to observe or perform any covenant, condition, obligation or agreement on its part to be observed or performed under this Agreement; the failure by the Developer to pay contractors, subcontractors, laborers, or materialmen; the failure by Developer to pay for materials; the failure by Developer to obtain necessary permits and authorization to construct the work described in this Agreement; or the County's exercise of any of its rights in the event of a default by Developer. Developer further agrees to indemnify, defend, and hold the County, the Drainage Authority, their elected and appointed officials, their officers, engineers, agents, employees and representatives harmless from all such claims, demands, damages, actions, or causes of action, and all costs, disbursements, and expenses resulting from such claims, including reasonable attorneys' fees.

IN WITNESS WHEREOF, the County and the Developer have caused this Agreement to be duly executed on the day and year first above written.

GOODHUE COUNTY

County Board Chair

County Administrator

DEVELOPER

Chief Manager