

[REDACTED]

To:

[REDACTED]

[Smyser, Jeff \(MPCA\)](#)

Subject:

comments for rule amendment

Date:

Monday, July 22, 2013 4:44:03 PM

Hello,

I would like to comment that any lessening of rules for silica mining is not acceptable to us. The mining industry does not need loosened rules to make profits, they are already making profits. Any risks to the environment due to the loosening of the rules is not a risk worth taking just for the profit of a few businesses. If any amending to the rules is done I would consider making them stronger so that our environment is protected. Once the environment is compromised it is much more costly to return it to its normal state then to just protect it in the first place.

Thank You,

[REDACTED]

█
█
To:

█
[Smyser, Jeff \(MPCA\)](#)
█

Subject:

Environmental Rule Review Comments

Date:

Tuesday, July 23, 2013 1:29:04 PM

Attachments:

[EQB Review of EAW and EIS Requirements.docx](#)

Dear Jeff,

I am representing Florence Township and Save-The-Bluffs Citizen's group in Goodhue County. I have reviewed the Environmental Review Rules on the EQB website and have attached my comments by categories listed in your review document. I have requested the following:

1. The RGU's to be State Agencies at all times regarding any frac sand project, regardless of size, EAW or EIS, in concert with Local Government units.
2. Reduction of acreage triggering a study. i.e. EAW= 20 acres vs. 40 acres, and EIS= 80 acres vs. 160 acres.
3. Inclusion of the term Frac Sand into areas where Peat and Coal have been listed as well as included in the water, air, and other categories for your consideration, as Frac Sand is a comparable high volume/high impact commodity in the area of the State.

These comments are not all inclusive, and there may be other submissions of comments from citizens from my area. I look forward to seeing you at the August 2nd meeting in Red Wing.

Sincerely,

Jody McIlrath

07/23/13

EOB EAW Amendments

Review of EAW Requirements by Florence Township and Save The Bluffs Citizen's Group

	Local Govt as RGU		
Subp. 12. Non-Metallic Minerals	4410.4300 MANDATORY EAW CATEGORY.	Recommend 20 acre trigger on frac sand mining/processing for EAW.	Recommend DNR is RGU for EAW
Subp.9. Non-Metallic Minerals	4410.4400 MANDATORY EIS CATEGORY.	Recommend 80 acre trigger on frac sand mining/processing for EIS	Recommend DNR is RGU for the EIS
Subp. 14. Industrial, Commercial and Institutional Facilities	4410.4300 MANDATORY EAW CATEGORY.		Recommend DNR is RGU for any frac sand facility Question: Where is a township considered in these classifications?
Subp.11. Industrial, Commercial and Institutional Facilities	4410.4400 MANDATORY EIS CATEGORY.		Recommend DNR is RGU for frac sand projects
Subp. 26. Stream diversion	4410.4300 MANDATORY EAW CATEGORY.		Recommend DNR is RGU for any frac sand project
	4410.4400 MANDATORY EIS CATEGORY		
Subp. 27. Wetlands and public waters.	4410.4300 MANDATORY EIS CATEGORY		Recommend DNR is RGU for any frac sand project
Subp. 20. Wetlands and public waters.	4410.4400 MANDATORY EIS CATEGORY		Recommend DNR is RGU for any frac sand project
Subp. 30. Natural areas.	4410.4300 MANDATORY EAW CATEGORY		Recommend DNR is RGU for any frac sand project
	Mandatory Categories: MnDOT as RGU		Recommend MnDOT is RGU for any frac sand project
Subp. 31. Historical places.	4410.4300 MANDATORY EAW CATEGORY.		
Subp. 32. Mixed residential and industrial-commercial projects	4410.4300		
Subp. 21. Mixed residential and	4410.4400 MANDATORY EIS CATEGORY.		Recommend MnDOT and Port Authority are RGU

industrial-commercial projects			for any frac sand project
Subp. 36. Land use conversion, including golf courses	4410.4300 MANDATORY EAW CATEGORY.		Recommend DNR and EQB for all frac sand projects
Subp. 36a. Land conversions in shoreland.	4410.4300 MANDATORY EIS CATEGORY.		Recommend DNR is RGU for all frac sand projects
Subp.27. Land conversions in shoreland.	4410.4400 MANDATORY EIS CATEGORY		Recommend DNR is RGU for all frac sand projects
MnDOT as RGU			
Subp. 23 Barge Fleeting	4410.4300 MANDATORY EAW CATEGORY.		Recommend MnDOT and Port Authority are RGU for any frac sand project
Subp. 17. Barge Fleeting Facilities	4410.4400 MANDATORY EIS CATEGORY.		Recommend MnDOT and Port Authority are RGU for any frac sand project
Subp. 7. Pipelines.	4410.4300 MANDATORY EAW CATEGORY.		Recommend EQB as RGU
Subp. 24. Pipelines.	4410.4400		Recommend EQB as RGU
Subp. 11. Metallic mineral mining and processing.	4410.4300 Metallic mineral mining and processing		Recommend DNR as RGU
subp. 11 B B. For expansion of a stockpile, tailings basin, or mine by 160 or more acres, the DNR shall be the RGU.			
Nonmetallic mineral mining subp. 12A	4410.4300		Recommend for areas of 80 acres or more DNR is RGU
Water appropriation and impoundments subp. 24 A	4410.4300		Recommend DNR is RGU for all frac sand water usage
Water appropriation and impoundments subp. 24 B	4410.4300		Recommend DNR is RGU for acreage of 80 acres or more
Transfer Facilities subp. 8	4410.4300-	Construction of a facility designed for or capable of	This area needs to be expanded to include frac

		<p>transferring 300 tons or more of frac sand per hour or with an annual throughput of 500,000 tons of frac sand from one mode of transportation to a similar or different mode of transportation; or the expansion of an existing facility by these respective amounts,</p> <p>B. Construction of a new facility or the expansion by 50 percent or more of an existing facility for the bulk transfer of hazardous materials with the capacity of 10,000 or more gallons per transfer, if the facility is located in a shoreland area, delineated flood plain, a state or federally designated wild and scenic rivers district, Minnesota River Project Riverbend area, or the Mississippi headwaters area,</p>	sand
subp 10	4410.4300	A. Construction of a facility designed for or capable of storing more than 7,500 tons of coal or with an annual throughput of more than 125,000 tons of coal; or the expansion of an existing facility by these respective amounts, -	
Air Pollution. Subp. 15	4410.4300	For construction of a stationary source facility that generates 250 tons or more per year or modification of a stationary source facility that increases generation by 250 tons or more per year of any single air pollutant, other than those air pollutants described in item after installation of	Recommend the MPCA is the RGU for all frac sand projects

		air pollution control equipment, the PCA shall be the RGU.	
Hazardous Waste subp. 16	4410.4300	<p>A. Construction or expansion of a hazardous waste disposal facility</p> <p>B. Construction of a hazardous waste processing facility with a capacity of 1,000 or more kilograms per month</p> <p>C. Expansion of a hazardous waste processing facility that increases its capacity by ten percent or more</p> <p>D. Construction or expansion of a facility that sells hazardous waste storage services to generators other than the owner and operator of the facility or construction of a facility at which a generator's own hazardous wastes will be stored for a time period in excess of 90 days, if the facility is located in a water-related land use management district, or in an area characterized by soluble bedrock</p>	Recommend the MPCA is the RGU for all frac sand projects
Hazardous Waste subp. 12	4410.4400	<p>A. Construction or expansion of a hazardous waste disposal facility for 1,000 or more kilograms per month</p> <p>B. Construction or expansion of a hazardous waste disposal facility in a water-related land use management district, or in an area characterized by soluble bedrock</p> <p>C. Construction or expansion of a hazardous waste processing facility if</p>	Recommend MPCA is GU for all frac sand projects

		the facility is located in a water-related land use	
Solid Waste subp. 17	4410.4300		Recommend MPCA as RGU for all frac sand projects
Wastewater Systems subp. 18	4410.4300		Recommend MPCA as RGU for all frac sand projects

RECEIVED
AUG 16 2013

BY: _____

ST. ANTHONY PARK



July 31, 2013

Jeff Smyser

Re: Possible Amendments to Rules Governing the Environmental Review Program, Minnesota Rules Chapter, 4410; Revisor's ID Number R-04196

Dear Mr. Smyser:

I am writing as a representative of St. Paul's District 12 Community Council (www.sapcc.org) to express our concern about the potentially serious adverse health effects posed by the regular loading and transport of large volumes of silica sand in our urban neighborhood. We request that, as you consider amendments to the rules governing the environmental review of silica sand operations, you will take our situation into consideration. The adverse effects of crystalline silica exposure, especially silicosis, are well documented - please refer to the official statement of the American Thoracic Society on this topic (www.thoracic.org/statements/resources/eoh/506.pdf) or any MSDS for silica sand (www.anchorsand.com/Portals/3/granusil_msd.pdf).

Many people consider silica sand to be primarily a rural concern. But in the rail yards situated in the St. Anthony Park (SAP) neighborhood of St. Paul there exists a significant silica sand loading operation. Every week hundreds of rail cars are filled here with silica sand trucked in from Wisconsin. Most of the trucks arriving are covered, in compliance with regulations, but we have received reports that some trucks are not properly covered. The sand is then dumped into piles and loaded into rail cars from this site. Winds often buffet this area, blowing silica sand dust from these piles and uncovered rail cars into nearby residential and business sections of SAP. With the increased mining of silica sand in the region, and hydraulic fracturing nationally, we expect that the volume of silica sand being transported through SAP will remain significant, if not increase, as will the potential risk to SAP residents and rail workers.

We have discussed our concerns about renegade silica dust with both MN Commercial Railway and BNSF. In a public District 12 meeting in July 2012, railroad representatives asserted that they are in full compliance with all existing regulations and that they have conducted air quality monitoring that showed that there was no reason for concern. Their tests focused only on coarse silica particles (PM 10). They had no data on fine particles (PM 2.5), which are of greater health concern and can travel further at lower wind speeds. These particles can be a long-term health threat as they collect on impervious surfaces over time, from which they can be re-lofted by human activity and wind.

While national occupational exposure standards for silica dust exist today, we recognize that no national environmental exposure standards yet exist. Some forward looking states such as CA, NJ, NY, TX and VT are extrapolating from occupational standards to establish environmental standards and provide a glimpse of likely standards to come (dnr.wi.gov/air/pdf/DraftForPublicComment-SilicaStudyStatusReport.pdf). But why wait for national environmental standards? The health risks of this situation are avoidable today. Renegade dust can largely be eliminated by covering rail cars used to transport silica sand and by taking steps to mitigate dust migration at loading

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August 5, 20133

Page 2

facilities. There are regulations about covering trucks hauling sand, but no similar regulations for transporting sand by rail. Why?

We ask that the Environmental Quality Board to take the following prudent steps now:

- Require an environmental review, including air quality monitoring for PM 2.5 and smaller silica sand particles, for all facilities involved with the loading and transport of silica sand. Monitoring should reflect emissions under conditions when little loss is expected (e.g., calm winds, rain) and when losses may be greater (e.g., gusty strong winds and low relative humidity). Complete results of these environmental reviews should be made public.
- Support regulations requiring effective dust containment procedures at all silica sand loading facilities to minimize renegade dust.
- Support regulations prohibiting the transport of silica sand in open-top rail cars to minimize renegade dust.

Sincerely,



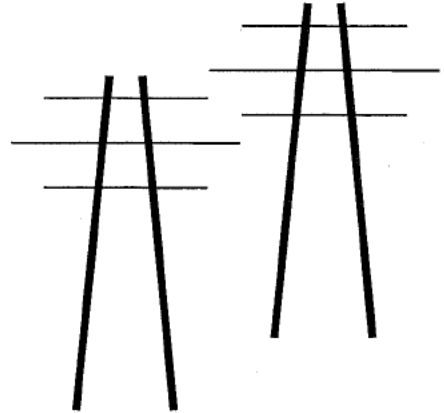
Steven Yetter
Chair, District 12 Community Council Environment Committee

cc: Alice Hausman, MN House Representative, District 66B
Erin Murphy, MN House Representative, District 64A
John Marty, MN Senator, District 66
Ellen Anderson, Senior Advisor to the Governor on Energy and Environment
Betty McCollum, U.S. Representative, MN 4th District

Legalelectric, Inc.

Carol Overland

Attorney at Law, MN #254617



August 2, 2013

HAND DELIVERED

Jeff Smyser
Bob Patton
Kate Frantz
EQB Staff/MPCA

Dave Frederickson, Chair
Environmental Quality Board

John Linc Stine
MPCA Commissioner

Tom Landwehr
DNR Commissioner

Jim Kelly
MDH Environmental Health Manager

Charles Zelle
MnDOT Commissioner

RE: EQB Standards and Criteria, Minn. Stat. §116C.99; Minn. Stat. §116C.991.
MPCA Silica Sand Rulemaking, Minn. R. Ch. 7001, 7007, 7009, 7011, 7050
DNR Rulemaking, reclamation and other issues; Revisor's ID R-04198
EQB Silica Sand Rulemaking, Ch. 4410; Revisor's ID R-04196
EQB Mandatory Categories Rulemaking, Ch. 4410, Revisor's ID R-04157

Dear Mr. Smyser, Mr. Patton, and Ms. Frantz, Commissioner Stine, Commissioner Landwehr, Commissioner Zelle and Manager Kelly:

Attached please find a spreadsheet with suggested language for EQB Standards and Criteria for consideration by the Environmental Quality Board as a starting point for discussion. To be clear, these suggestions are not all inclusive, nor do they signal acquiescence to permitting silica sand mining in Minnesota. Our position is that the state should enact a ban on silica sand mining immediately.

I am filing this Comment on behalf of Winona County Citizens Concerned About Silica Mining (CASM). We ask to be added to the email list of notifications for all future meetings, notifications, drafts of Standards and Criteria and rulemaking, and other communications regarding these matters. We also ask to be included at the table at all future meetings regarding the Standards and Criteria and in the rulemaking proceedings.

At this time, we request that a Rulemaking Advisory Committee be appointed for all of the rulemakings, after open, public, and noticed solicitation for Advisory Committee members, specifically that Rulemaking Advisory Committees be established for the MPCA Silica Sand Rulemaking, the DNR Rulemaking, and the EQB Silica Sand and Mandatory Categories Rulemakings.

The notice for the EQB "Silica Sand Rulemaking" and Minn. Stat. §116C.99 asks for consideration of "whether the requirements of Minnesota Statutes, section 116C.991, should remain part of the environmental review requirements for silica sand." Minn. Stat. 116C.991 is as follows:

§116C.991 ENVIRONMENTAL REVIEW; SILICA SAND PROJECTS.

(a) Until two years after the effective date of this section, an environmental assessment worksheet must be prepared for any silica sand project that meets or exceeds the following thresholds, unless the project meets or exceeds the thresholds for an environmental impact statement under rules of the Environmental Quality Board and an environmental impact statement must be prepared:

(1) excavates 20 or more acres of land to a mean depth of ten feet or more during its existence. The local government is the responsible governmental unit; or

(2) is designed to store or is capable of storing more than 7,500 tons of silica sand or has an annual throughput of more than 200,000 tons of silica sand and is not required to receive a permit from the Pollution Control Agency. The Pollution Control Agency is the responsible governmental unit.

(b) In addition to the contents required under statute and rule, an environmental assessment worksheet completed according to this section must include:

(1) a hydrogeologic investigation assessing potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water;

(2) for a project with the potential to require a groundwater appropriation permit from the commissioner of natural resources, an assessment of the water resources available for appropriation;

(3) an air quality impact assessment that includes an assessment of the potential effects from airborne particulates and dust;

(4) a traffic impact analysis, including documentation of existing transportation systems, analysis of the potential effects of the project on transportation, and mitigation measures to eliminate or minimize adverse impacts;

(5) an assessment of compatibility of the project with other existing uses; and

(6) mitigation measures that could eliminate or minimize any adverse environmental effects for the project.

Minn. Stat. §116C.991 establishes the lower bound of environmental review for two years, perhaps intended to be in place during rulemaking. However, the requirements of Minn. Stat. §116C.991 must extend beyond two years through incorporation into the EQB Standards and Criteria, the EQB, DNR and MPCA rules, and the MDH value. No silica sand permitting should go forward until these rulemakings are completed and environmental review requirements and standards and criteria are established.

The notice for the EQB "Silica Sand Rulemaking" and Minn. Stat. §116C.99 asks for consideration of "whether the requirements should be different for different geographic areas of the state." We note that the requirements are based on potential impacts, and on characterization of physical, geological and hydrological properties, and not geographic location. The standards and criteria should be based on these characteristics, applicable where those features are present, without regard to geography.

If you have any questions or require anything further, please let me know.

Very truly yours,



Carol A. Overland
Attorney at Law

cc: Winona County Citizens Concerned About Silica Mining (CASM).

Minn. Stat. 116C.99

Standards & Criteria (from statute)	Proposed language	Support for language
(1) Setbacks or buffers		
(i) Residence or residential zoning district boundary	1/2 mile from residence, use of berms/swales to divert flooding.	Public comments; see e.g., Goodhue Wind Ordinance; see also citations below in Groundwater and Air Emissions and Noise sections.
(ii) Property line or right-of-way line of any existing or proposed street or highway	1,000 foot setback from property line or right-of-way line, in addition to 1/2 mile from residence.	See citations below in Groundwater and Air Emissions and Noise sections.
(iii) Ordinary high water levels of public waters	1 mile from high water levels and containment pond and berm sufficient to prevent spill in normal operating conditions, high water, and heavy rain.	See citations below in Groundwater section.
(iv) Bluffs	1 mile from top of bluff (see karst section below).	See bluff protection ordinances (visual, land-use and geological protections).
(v) Designated trout streams, Class 2A water, flowing tributary of either	1 mile from designated trout streams, Class 2A water, flowing tributary of either, with berm/swale sufficient to prevent spill in normal operating conditions, high water, and heavy rain.	Minn. Stat. 103G.217; see also citations below in Groundwater section.
(vi) Calcareous fens	1 mile from calcareous fens and berm/swale sufficient to prevent spill in normal operating conditions, high water, and heavy rain. Some calcareous fens in SNA areas, which are already avoidance criteria.	Minn. Stat. 103G.223; DNR Calcareous fen list: http://files.dnr.state.mn.us/publications/waters/calcareous_fen_list_nov_2009.pdf
(vii) Wellhead protection areas defined 103I.005	1 mile from MGS karst sinkhole and one mile from bedrock joints; diversion with berms and swales; monitoring of wells during term of mining activity and 20 years after cessation of mining. State must develop standard regarding karst due to prevalence of Karst in Minnesota and relation of Karst to location of silica sand and aquifer recharge areas.	Minn. Stat. 103G.217, Letter 2/6/2013, Ehlinger MDH to Winona County; Hydrological Processes in Karst Terranes (https://itia.ntua.gr/hsj/redbooks/207/hysi_207_01_0000.pdf#page=15)
	Develop sinkhole sealing plan.	
(ix) Natural resource easement paid wholly or in part by public funds	Karst protocol, i.e., stop excavation where sinkhole develops; notify permitting authority of location; divert water/runoff from sinkhole with berms/swales, employ sinkhole sealing plan.	
(viii) Critical natural habitat acquired by DNR 84.944	1 mile from critical natural habitat.	DNR Rulemaking regarding silica sand mining
(ix) Natural resource easement paid wholly or in part by public funds	2 miles from natural resource easements (natural resource easements are established to protect resource)	DNR Rulemaking regarding silica sand mining
(2) Standards for hours of operation		
(county 6a - 10p 6 days a week)	Mining - 8 a.m. to 5 p.m. weekdays	
	Blasting - (narrower)(impulsive dBA over ___ not more than ___ per hour/day ???), vibration limit of	
	Processing - 8 a.m. to 5 p.m. week days	
	Transportation - limited times, number of daily trips and haul routes	MnDOT Design Capacity, Road Agreements,

Minn. Stat. 116C.99

<p>(3) Groundwater and surface water quality and quantity monitoring and mitigation plan requirements</p>	<p>(language of Standard and Criteria must include "protection" of groundwater and surface water quality)</p>	
	<p>Baseline testing on site for ph, nitrate and bacteria, Diesel Range and Gasoline Range Organics (aqueous and non-aqueous phase liquid) and identified and other potential contaminants; baseline and monitoring of ph, nitrate and bacteria, DRO and GRO, and identified and other contaminants in private wells within 1 mile. Identify on map and protect all recharge areas associated with mine production appropriation and wastewater discharge.</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; Dustman, Summit EnviroSolutions for Goodhue County, EQB Final Report, p. 28: http://www.eqb.state.mn.us/documents/23.%20March%20Final%20Silica%20Sand%20report.pdf.</p>
	<p>Consultation of impaired waters list -- no mining within 1 mile of body of water on impaired water list.</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; Dustman, Summit EnviroSolutions for Goodhue County.</p>
	<p>Volume disclosure expressed in ratio of aquifer capacity, and consideration of cumulative impacts of process water and treatment.</p>	<p>Minn. Stat. 103G.265, Subd. 2; Minn. Stat. 116D.04, Subd. 16; Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; Dustman, Summit EnviroSolutions for Goodhue County.</p>
	<p>Protocol for monitoring, testing for flocculant and other contaminatin, and documentation of haul back material to prevent contamination. Groundwater surrounding mines and processing plants tested at least monthly, controlled by state and project assessed for costs.</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; see Dustman, Summit EnviroSolutions p. 34-53.</p>
<p>(i) applicable groundwater and surface water appropriation permit requirements</p>	<p>Groundwater appropriation permit - assessment of water resources available for appropriation to be provided by DNR, and identification of sustainable rate of appropriation, with safety factor, required.</p>	<p>Minn. Stat. 103G.265, Subd. 2; Minn. Stat. 116D.04, Subd. 16; Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; Dustman, Summit EnviroSolutions for Goodhue County; State draining water supplies as nature can't keep up with demand, Feb. 28, 2013 (http://m.startribune.com/news/?id=192783461)</p>
	<p>Zero liquid discharge (ZLD); treatment and reuse; discharge. No injection wells or injection of waste allowed.</p>	
	<p>Update well location maps; comply with well sealing protocol</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County</p>
<p>(ii) well sealing requirements</p>	<p>After baseline levels, periodic testing, well data is to be submitted annually in an accessible format, such as Excel or WORD, and promptly posted on agency and county website.</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County</p>

Minn. Stat. 116C.99

<p>(iii) annual submission of monitoring well data</p>	<p>Groundwater surrounding mines and processing plants tested at least monthly, controlled by state and project assessed for costs. Results shall be tracked through public posting and monthly review by independent consultant, costs to be assessed to project.</p>	<p>Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; Dustman, Summit Envirosolutions for Goodhue County.</p>
<p>(iv) storm water runoff rate limits not to exceed two-, ten-, and 100-year storm events</p>	<p>Application of ambient air quality standards for silica dust to mines, processing, and haul routes. Conduct Air Emissions Risk Analysis (part of MPCA's analysis in air permit review) and begin Community Air Improvement Project for affected communities. There is to be no measureable deterioration of air quality and no increases in ambient levels of silica dust or diesel exhaust.</p>	<p>Health Concerns with Frac Sand Mining - Minnesota Dept. of Health: http://www.mehaonline.org/sites/default/files/meha/docs/Health%20Concerns%20with%20Frac%20Sand%20Mining_0.pdf; Students measure city (Winona) air quality, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=51648&home_page=&archives=; Environmental committee calls for diesel exhaust, silica dust air monitoring -- now, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=54542&home_page=1&PHPSESSID=c489d7fd22d68f83554355d2e58161; MPCA Community Air Improvement Project: http://www.pca.state.mn.us/index.php/air/air-monitoring-and-reporting/air-emissions-modeling-and-monitoring/community-air-improvement-project-caip.html</p>
<p>(4) Air Monitoring and data submission requirements</p>	<p>General Health Concerns</p>	<p>Health Concerns with Frac Sand Mining - Minnesota Dept. of Health: http://www.mehaonline.org/sites/default/files/meha/docs/Health%20Concerns%20with%20Frac%20Sand%20Mining_0.pdf; Students measure city (Winona) air quality, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=51648&home_page=&archives=; Environmental committee calls for diesel exhaust, silica dust air monitoring -- now, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=54542&home_page=1&PHPSESSID=c489d7fd22d68f83554355d2e58161; MPCA Community Air Improvement Project: http://www.pca.state.mn.us/index.php/air/air-monitoring-and-reporting/air-emissions-modeling-and-monitoring/community-air-improvement-project-caip.html</p>
<p>Minnesota Department of Health</p>	<p>Dept of Health to adopt an air quality health-based value for silica sand (Minn. Stat. 116C.991); The MPCA has requested that MDH develop a short-term exposure limit for respirable crystalline silica in air. (p. 21, EQB Report)</p>	<p>Minn. Stat. 116C.991; EQB Final Silica Sand Report, March 23, 2013: http://www.eqb.state.mn.us/documents/23.%20March%20Final%20Silica%20Sand%20report.pdf</p>
<p>Air monitoring - silica dust</p>	<p>Air monitoring at mine, processing and transfer sites, property lines, along haul routes every 2 miles in rural areas, and ever 1/4 mile in residential areas -- silica sand is carcinogenic. There is to be no measureable deterioration of air quality and no increases in ambient levels of silica dust.</p>	<p>WHO-IARC, Volume 68 Silica http://monographs.iarc.fr/ENG/Monographs/vol68/volume68.pdf; Health Consequences of Energy Choices: Risks from Frac Sand Mining for Oil and Gas Extraction (); Lidar characterization of crystalline silica generation and transport from a sand and gravel plant (Trzepla-Nabaglo 2006) (http://www.ncbi.nlm.nih.gov/pubmed/16442218).</p>

Minn. Stat. 116C.99

<p>Air monitoring - diesel exhaust</p>	<p>Air monitoring of diesel exhaust at mine, processing and transfer sites, property lines, along haul routes every 2 miles in rural areas, and every 1/4 mile in residential areas, property lines, along haul routes -- diesel exhaust is carcinogenic. There is to be no measurable deterioration of air quality and no increases in ambient levels diesel exhaust.</p>	<p>IARC Press Release - Diesel exhaust Group 1 Carcinogen: http://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf; Carcinogenic Effects of Exposure to Diesel Exhaust, CDC: http://www.cdc.gov/niosh/docs/88-116/; EPA Integrated Risk Information System, Diesel engine exhaust: http://www.epa.gov/iris/subst/0642.htm#woe</p>
<p>Cumulative impacts; cumulative potential effects</p>	<p>Offsite ambient air standard to be developed for general public. Pending establishment of offsite air standard by the State of Minnesota, the lowest standard established in any United States or other jurisdiction shall be the applicable standard. If standard is lowered elsewhere, the Minnesota standard shall be lowered accordingly.</p>	<p>Minn. R. 4410.1200, 4410.2300, item H, and 4410.3610, subpart 4; see also Minn. R. 4410.4400, Subp. 1.</p>
<p>MPCA Air Permit -- agency requires funding to monitor and enforce.</p>	<p>MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.</p>	<p>MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.</p>
<p>Ambient air monitoring shall be continuous, performed and controlled by the MPCA and project shall be assessed for cost of monitoring. Air monitoring shall be performed at the property boundary with at least four monitors positioned at the four highest velocity wind locations based on the area windrose. Results shall be tracked through public posting and monthly review by independent consultant, costs to be assessed to project.</p>	<p>Ambient air monitoring shall be continuous, performed and controlled by the MPCA and project shall be assessed for cost of monitoring. Air monitoring shall be performed at the property boundary with at least four monitors positioned at the four highest velocity wind locations based on the area windrose. Results shall be tracked through public posting and monthly review by independent consultant, costs to be assessed to project.</p>	<p>MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.</p>
<p>Continuous ambient air monitoring shall be performed for silica dust -- PM2.5 concentrations generally and for crystalline silica concentrations specifically. A sufficient number of air monitoring sites shall be established on the boundaries of the mining and/or processing property that a monitor is effectively "downwind" of dust generation activities at all times. Mining and processing operations shall only be carried out while "downwind" continuous air monitors are operational.</p>	<p>Continuous ambient air monitoring shall be performed for silica dust -- PM2.5 concentrations generally and for crystalline silica concentrations specifically. A sufficient number of air monitoring sites shall be established on the boundaries of the mining and/or processing property that a monitor is effectively "downwind" of dust generation activities at all times. Mining and processing operations shall only be carried out while "downwind" continuous air monitors are operational.</p>	<p>MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq. ' see above.</p>
<p>Output of continuous air monitoring equipment shall be made available to the public in real time via the internet. Concentrations reported to the public, the media, and for regulatory purposes shall be the highest concentrations detected, not "averages" of multiple monitoring sites.</p>	<p>Output of continuous air monitoring equipment shall be made available to the public in real time via the internet. Concentrations reported to the public, the media, and for regulatory purposes shall be the highest concentrations detected, not "averages" of multiple monitoring sites.</p>	<p>See above.</p>

Minn. Stat. 116C.99

	<p>Pending establishment of a health-based ambient air concentration standard by the State of Minnesota, the lowest standard established in any United States or other jurisdiction shall be the applicable standard. If standard is lowered elsewhere, the Minnesota standard shall be lowered accordingly.</p>	<p>See above.</p>
	<p>Exposure guidance and limits for various types of exposure, i.e., workers, neighbors, organic and other farms, livestock..</p>	<p>OSHA, MSHA; see also MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; see above</p>
<p>(5) Dust control requirements</p>	<p>Conduct Air Emissions Risk Analysis (part of MPCA's analysis in air permit review) and begin Community Air Improvement Project for affected communities.</p>	<p>WHO-IARC, Volume 68 Silica http://monographs.iarc.fr/ENG/Monographs/vol68/volume68.pdf; Health Concerns with Frac Sand Mining - Minnesota Dept. of Health: http://www.mehaonline.org/sites/default/files/meha/docs/Health%20Concerns%20with%20Frac%20Sand%20Mining_0.pdf; Students measure city (Winona) air quality, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=51648&home_page=&archives=; Environmental committee calls for diesel exhaust, silica dust air monitoring -- now, Winona Post: http://www.winonapost.com/stock/functions/VDG_Pub/detail.php?choice=54542&home_page=1&PHPSESSID=c489d7fdc22dc68f8355435d2e58161; MPCA Community Air Improvement Project: http://www.pca.state.mn.us/index.php/air/air-monitoring-and-reporting/air-emissions-modeling-and-monitoring/community-air-improvement-project-caip.html</p>
	<p>Fugitive emissions</p>	<p>See Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.</p>
	<p>Ambient off-site air standard shall be developed. Pending establishment of a health-based ambient air concentration standard by the State of Minnesota, the lowest standard established in any United States or other jurisdiction shall be the applicable standard. If standard is lowered elsewhere, the Minnesota standard shall be lowered accordingly.</p>	<p>MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.</p>

Minn. Stat. 116C.99

	Covering of trucks, railcars and barges required; covering of process functions such as loading; blasting dust control with water, chemicals (other means?).	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
	Permitting shall require modeling that demonstrates compliance with air quality standards; baseline levels to be determined and no increase from baseline is permitted.	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
	Watering, chemical treatment of roads, sufficient to keep dust at safe level at mining and processing property boundary and on haul routes. Pending establishment of this dust standard by the State of Minnesota, the lowest standard established in any United States or other jurisdiction shall be the applicable standard. If standard is lowered elsewhere, the Minnesota standard shall be lowered accordingly.	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
	Mine shall be surrounded by berms at least 10 feet tall, and conifer trees at least 8 feet tall and sufficiently close to form continuous solid barrier to contain dust. Project responsible for maintaining berm and live trees.	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
	Mine loading areas and processing unloading, processing, and loading areas shall be covered and utilize water and chemical treatment to minimize dust.	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
	Mitigation plan for mining, processing and transportation dust.	County road agreement; MPCA Rulemaking related to silica sand projects, Minn. R. 7001, 7007, 7009, 7011, 7017, 7050, et seq.; but see Laws 2013, Chapter 114, Article 4, Section 107, regarding fugitive emissions, Minn. R. 7005.0100, Subp. 35a.
(6) Noise testing and mitigation plan requirements		
	Mining and processing activities shall be conducted within the MPCA's noise limits. Blasting (impulsive) noise shall at all times be lower than 50 dBA at the property boundary.	Minn. R. 6112.2900; Minn. R. 7030.0030 NOISE CONTROL REQUIREMENT; 7030.0040 NOISE STANDARDS; see also Dustman, Summit EnviroSolutions p. 27-28
	Berm and trees, as above, for noise mitigation as well as dust mitigation.	

Minn. Stat. 116C.99

	<p>Mitigation plan -- see e.g. Dustman, p. 28 • Taking into consideration local receptors during preliminary and final design of the mine plan (because the excavation of sand and the creation of high walls can greatly reduce noise behind the wall, but may amplify noise in the opposite direction);</p> <ul style="list-style-type: none"> • Leaving existing trees at the property boundary; • Building berms between noise sources and receptors; • Using strobe signals rather than audible systems for back-up alarms on heavy machinery (when permitted by the federal Mine Safety and Health Administration); • Enclosing generators and other mobile equipment; • Notifying nearby residents 48 hours prior to blast events; • Using vibration monitors with sensors capable of measuring three mutually perpendicular peak particle velocities, with the peak particle velocity being the largest of these measurements; and • Installing continuous noise monitors that meet the specifications in American National Standards Institute S1.4-1983. 	<p>Dustman, Summit Enviroolutions p. 28</p>
<p>(7) Blast monitoring plan requirements</p>	<p>Blast Monitoring Plan shall include project specific requirements requested by permitting agency, and shall include: 1) Describe the anticipated blast process;</p> <p>2) Discuss industry standards and establish standards in terms of acceptable limits of ground vibrations and air blasts established to provide protection to infrastructure and structures;</p> <p>3) Establish a monitoring program for the project that will provide the framework for documentation of the existing condition of adjacent structures, set forth blasting standards protective of structures and infrastructure adjacent to the site, establish monitoring as a means to collect ground vibration and air blast data, establish a schedule for submission of independent experts analysis and their expert opinions on the process that can be submitted to the County and the RGU for review; develop contingency actions to be followed in the event a blasting standard is not achieved, including but not limited to revocation of the permit.</p>	<p>Minn. R. 6112.2900; see Scott County Blast Monitoring Plan: http://www.co.scott.mn.us/ParksLibraryEnv/Environment/EnvReview/greatplainsminingaw/Documents/GPS%20Draft%20Blast%20Monitoring%20Plan.pdf; see also Dustman, Summit Enviroolutions, p. 27-28.</p>
<p>(8) Lighting requirements</p>	<p>Lighting shall be downward lighting, and mine, processing and transfer facilities shall not operate after dusk. Permit Application shall provide lighting plan with application for approval by permitting agency.</p>	<p>Local permitting, EIS Minn. Stat. Ch. 116D (MEPA).</p>

Minn. Stat. 116C.99

(9) inspection requirements	In sync with state and federal agencies, MSHA, OSHA	Assure permittee is in compliance with permitting conditions, with active enforcement, and if non-compliant, project to be assessed fines and costs of enforcement.	See permit for conditions
	Full funding for inspection agencies and local governments		
(10) Containment requirements for silica sand in temporary storage to protect air and water quality			NIOSH on silica sand hazards: http://www.cdc.gov/niosh/docs/2004-108/pdfs/2004-108.pdf
(11) containment requirements for chemicals used in processing	Identification/disclosure of chemicals to be used and their degradation products -- the range of chemicals expected would include:	Hydrochloric Acid, Ammonium Chloride, Isopropanol/formic acid, Polyacrylamide, Polydadmac, Methanol and/or Ethylene Glycol, Guar Gum, Petroleum distillate, Biocide (eliminates bacteria in the water that produces corrosive by-products, Corrosion inhibitor/winter stabilizer, Friction reducer, Gelling agents	Depends on sand resource: p. 9, Frac Sand Mining & Use, Green & Brown: http://wvwrpc.org/Frac_Sand/Gen_Info_Comp_Reports/fracsand-green-brown-uwex.pdf
	Containment Plan		
(12) Financial assurance requirements	Preliminary projection of costs for reclamation and decontamination to be included with any permit application.	Individual liability, no limited liability	Pollution worries abound in frac sand waste streams, Strib: http://m.startribune.com/news/?id=215335701&c=y
	Post bond sufficient to cover all damages and costs associated with any possible calamity or disaster.		County development agreement; permit condition; Pollution worries abound in frac sand waste streams, Strib: http://m.startribune.com/news/?id=215335701&c=y
	Decommissioning fund with County		County development agreement; permit condition; Pollution worries abound in frac sand waste streams, Strib: http://m.startribune.com/news/?id=215335701&c=y

Minn. Stat. 116C.99

(13) Road and bridge impacts and requirements		Not to exceed design capacity of roads (average daily trips as established by MnDOT), observe seasonal weight limits, local road usage fees. Development agreement between permittee and DOT and/or local government with jurisdiction over roads designating haul routes, daily trip limits.	MnDOT design capacity
			See e.g., Goodhue County road agreement for wind projects
(14) Reclamation plan requirements as required under the rules adopted by DNR		Ongoing reclamation, replacing overburden with haul back material as active mine site moves. Protocol for monitoring, testing for flocculant and other contamination, and documentation of haul back material to prevent contamination.	Feb. 6, 2013 Letter, MDH to Winona County; Public comments and responses of Winona County; see Dustman, Summit Envirosolutions p. 34-53.
		Financial assurance for reclamation, and reclamation shall restore to condition at least equivalent to previous use.	
		See DNR rules in development... no mining operation shall be permitted until DNR rules promulgated.	Minn. Stat. 116C.99

[REDACTED]

To:

[REDACTED]

[Smyser, Jeff \(MPCA\)](#)

Subject:

Possible Amendments to Rules Governing the Environmental Review Program

Date:

Wednesday, August 14, 2013 12:29:26 PM

Jeff:

Please add me to your list of persons interested in receiving a copy of these draft rules, when available.

Thanks,

Paul Eger

[REDACTED]

Confidentiality Notice: The information contained in this e-mail and any attachments are confidential. If you are not an intended recipient, you are hereby notified that any dissemination, distribution or copying of this e-mail is strictly prohibited. If you have received this e-mail in error, please notify the sender by returning it to the sender or calling 952-912-2661 and permanently delete the e-mail and any attachments immediately. You should not retain, copy, distribute, or use this e-mail or any attachment for any purpose, nor disclose all or any part of the contents to any other person. Thank you for your cooperation.

To: [Smyser, Jeff \(MPCA\)](#); [Patton, Bob \(MDA\)](#); [Frantz, Kate \(MPCA\)](#); dave.fredrickson@state.mn.us
Subject: "EQB Standards & Criteria, Minn. Stat. 116C.99"
Date: Friday, August 16, 2013 1:18:06 PM

To All Concerned.

I am requesting that a Rulemaking Advisory Committee be formed for the MPCA, DNR and EQB rulemakings, again, to have input BEFORE the draft rules are issued for comment. I'm also requesting that NO permitting be allowed until Standards and Criteria and Rulemaking is complete.

Please use the Minn. Stat. §116C.99 with suggested language for EQB Standards and Criteria for consideration by the Environmental Quality Board as a starting point for discussion. To be clear, these suggestions are not all inclusive, nor do they signal acquiescence to permitting silica sand mining in Minnesota. My position is that the state should enact a ban on silica sand mining immediately. Minn. Stat. §116C.991 establishes the lower bound of environmental review for two years, perhaps intended to be in place during rulemaking. However, the requirements of Minn. Stat. §116C.991 must extend beyond two years through incorporation into the EQB Standards and Criteria, the EQB, DNR and MPCA rules, and the MDH value. No silica sand permitting should go forward until these rulemakings are completed and environmental review requirements and standards and criteria are established.

Sincerely

MaryBeth Garrigan
[REDACTED]

To: [REDACTED] [Smyser, Jeff \(MPCA\)](#)
Subject: Fracking in MN
Date: Monday, August 19, 2013 10:00:28 PM

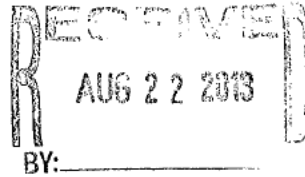
DO NOT WANT.

-Kyle

29263 Ingot Drive
Fountain, MN 55935
(507)-867-4846

August 20, 2013

Mr. Jeff Smyser



Dear Mr. Smyser:

With regard to the silica sand mining issue, there are many concerns voiced by citizens in many meetings that are not being adequately addressed by either township, county, or state agencies.

The potential for significant surface and groundwater pollution needs to be thoroughly studied prior to any commercial silica sand mine operations being allowed to begin. The effects of removal of significant amounts of surface filtration formations over fractured layers of limestone and dolomite have the very likely potential to destroy the very groundwater we depend upon for our lives and livelihoods. The disturbance to these formations increases the likelihood of adjacent runoff and warmer surface water entering the very sensitive cold-water trout habitat in this part of the state, endangering not only the fisheries but also the much larger tourism industry that depends upon it.

Air quality is another area of great concern. The health effects of sequestration of small particles in mammalian lung tissue is well documented, but virtually nothing is known about the long-term effects of living near a sand mine that is operating 24/7 nearly 365 days a year. How close is too close? Is age a factor in sensitivity? What about very low levels of long-term exposure to micron size particles? These are some of the questions that need to be answered up front, not 40 years from now when it's too late.

Noise pollution is another issue that has a definite effect on our daily environment. Most of the time, the rural environment is relatively quiet, but the introduction of industrial sand mining will certainly disturb the ambience of the countryside with the noise of the mining operations and several hundred trucks per day per mine hauling sand on the roads, the latter causing noise and air pollution as well as increased traffic hazards far from the actual mining site.

The rural road infrastructure has been built up over a long period of time to carry the seasonal products of agriculture to markets and to accommodate the machinery to produce these products. Silica sand mining operations will literally destroy the rural road systems faster than they can be maintained or rebuilt. Studies for Winona County in 2013 showed that roads will lose about 2/3 of their life expectancy if truck traffic from sand mines is allowed on them.

All townships are not created equal when it comes to deposits of silica sand sought by the mining industry. In order to limit the amount of chaos, there needs to be number limits to the geographical and geological locations in which mines can operate. A single silica sand mine in a township has the potential for a lot of disruption and consequences. More than that will exponentially magnify the problems of air, water, noise, road damages, safety, and health associated with such mining operations. Fillmore County currently has a limit of 4 county-wide, but three of them (currently in the EIS process) are located in a single township adjacent to a township in Winona County with several other projected mines. How wise is this??

If sand mining operations are going to be allowed to proceed, a sound reclamation plan needs to be in place before the operation begins and the monies for the implementation of the plan need to be sequestered in an escrow account. It does absolutely no good to say one will reclaim in there is no means to do it.

These are just some of the issues that have been discussed over the time that we have been aware of the silica sand mining industry, but none have been adequately addressed. We hope your agency will take the time to thoroughly do so and consider all of the long and short term consequences for all of us.

Sincerely,

Paul V. LeDuc

Minnesota Department of Health
Minnesota Environmental Quality Board
Minnesota Pollution Control Agency

August 21, 2013

Dear Manager Kelly, Mr. Smyser, Mr. Cooley and Ms. Miller

My name is Collin Johnson, I reside near St. Charles in Winona County where silica sand mining and processing sites are being or have been proposed. I was fortunate enough to be in attendance at the August 2, 2013 Silica Sand Legislation meeting in Winona but felt that the personal nature of my story would best be presented out of the public forum.

My concern is of the lack of available data regarding the effects that exposure to silica sand dust will have on persons with auto-immune and/or kidney diseases. Research and risk assessment has focused almost exclusively on the relationship between long term silica dust exposure and silicosis, but has not begun to fully consider or evaluate the consequences fugitive silica dust has on the acute response of our body's immune system. This concern is specifically relevant for those of us living with auto-immune and kidney diseases.

I have a kidney based auto-immune type disease called IgA Nephropathy where exposure to silica dust at even moderate to low levels will likely put my health at risk. Not only has silica exposure been linked to causing kidney damage and disease, but silica exposure is also a known potent activator of the immune system. Both events of which would contribute significantly to the decline of kidney function in susceptible populations such as those of us with IgA Nephropathy. In fact evidence seems to be surfacing that as a result of silica exposure, kidney disease may emerge as perhaps a higher risk than either mortality from silicosis or lung cancer. That theory is also supported by research which indicates that, when tested, workers who have even short term exposure to silica will likely display subclinical signs of kidney dysfunction. I have spent considerable time exploring the expected effect(s) fugitive silica dust will have on my immune system and ultimately my kidney function yet have been largely unable to find conclusive data which would either dismiss my concerns or support what I feel is a very real threat to my health. I have contacted the CDC, the Minnesota Department of Health (Dr. Carpenter) and numerous other experts who focus on the field of public health and/or epidemiology. To date, no one has been able to offer any significant information related to risks silica sand exposure has on those of us with auto-immune disease. With that, I continue to seek data (or in the least expert opinion) which would offer some assurance of my health due to the proposed silica sand mining and processing in my area.

Absent of conclusive data, I have had to base my concern on the basic pathophysiology of our immune systems normal response to silica exposure and the effect immune dysfunction has on my kidneys. As noted above, silica is a potent activator of our

immune system, and part of that normal response is the increased production of Immunoglobulin A (IgA) which is an antibody that helps neutralize invading pathogens, in this case silica. That response would be of little or no detriment to a healthy individual because IgA passes through the kidney when it clears your body of the invading pathogen. With IgA Nephropathy, Immunoglobulin A (for whatever reason) gets stuck in the kidney, mistakes healthy tissue for invading pathogens and ends up destroying the filtering cells of the organ. Generally, inhaled viral or bacterial based pathogens trigger the problematic IgA production, but our bodies also react in a similar manner to other environmental pathogens such as silica dust. My fear is that silica exposure at even nominal levels will unduly stress my immune system and contribute significantly to the demise of my already compromised kidney function. I would welcome any information, either actual or theoretical to dispel my fears, but as of now and based on everything I have read and been told, I can only conclude that silica dust exposure will likely contribute significantly to the prognosis of my disease.

I ask for consideration by the Department of Health to further study the potential effects of silica dust exposure on those of us with auto-immune and kidney disease and develop, in the very least hypothetical, conclusions based on the unique risks susceptible populations are at. I also ask that my story not get overlooked as an isolated case. There are people in all corners of this state that suffer from more than 70 other types of auto-immune disease, all of which could be negatively influenced in different ways by silica exposures activation of the immune system.

Presently, Minnesota acknowledges and adheres to an Air Quality Health Based Value that almost exclusively references the risk of healthy people developing silicosis with very little mention of other risks associated with silica exposure. The critical study behind the HBV Toxicological Summary published July 2013 (OEHHA 2005 report) clearly notes that the final determination of 3ug/m³; “Adequately protects **most** members of the general population.” Of what consequence is that to those of us who might be considered less than healthy? In my case, the largest silica sand processing plant in North America was proposed 550 feet from where I live and assuming that facility were to, at all times stay in compliance with the 3ug/m³ value, I would have no defense in protecting my health if in fact silica exacerbates my disease. I also have concern that local officials will become blinded by subjective numbers and assume that everyone’s health will be preserved if the HBV is not exceeded.

The core of Minnesota’s environmental Policy (116D.02 - State Responsibilities - 2) states; “**Assure** for **all** people of the state, healthful, productive and aesthetically and culturally pleasing surroundings.” Similarly the Minnesota Department of Health Mission Statement states; “To protect, maintain and improve the health of **all** Minnesotans.” My emphasis on the words **all** is self-explanatory. The bold word **Assure** (ance) summarizes what I am desperately in search of. I sincerely believe that based on any available data that I have either seen or been presented with, there is (to date) NO assurance that I would not experience a measurable decline in my immune system/kidney health if exposed to even small amounts of freshly fractures crystalline silica dust.

The meeting in Winona was very encouraging and it would be discourteous for me not to thank all the agencies for their hard work on this very contentious issue. It was unfortunate however that I left the Winona meeting feeling a bit frustrated, confused and even jealous. Jealous because I wasn't a trout that had an entire State affording me the luxury of controlling any potentially dangerous activity up to one mile away from where I lived. And frustrated that mining is being permitted in Winona County with no air monitoring requirements. And even worse, no assurances are being offered that the health of ALL citizens will be protected from the ill effects if silica sand exposure.

Sincerely

Collin Johnson



RECEIVED
AUG 23 2013

BY: _____

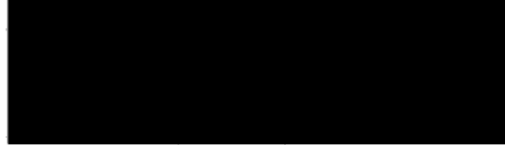


SOUTHEASTERN MINNESOTANS FOR ENVIRONMENTAL PROTECTION

August 21, 2013

Jeff Smyser

Minnesota Environmental Quality Board



Re: Public Comments on Possible Amendments to Rules Governing the Environmental Review of Silica Sand Projects – Revisor's ID Number R-04196

Dear Mr. Smyser:

The purpose of this letter is to provide the EQB with the comments of members of Southeastern Minnesotans for Environmental Protection (SEMPEP) regarding proposed rule-making by the Minnesota Environmental Quality Board (EQB) for environmental review of silica sand projects. As you are aware, Fillmore, Houston and Winona counties are in the heart of the proposed silica sand mining activity area that could occur in southeastern Minnesota. These residents have been involved in actively opposing silica sand projects in their respective communities since 2011. These residents have toured active silica sand mining, processing and transfer facilities in western Wisconsin and Winona, Minnesota, and are fully aware of the numerous environmental, economic, water, air, traffic impact, land use and governance problems of this rapidly growing market-driven, boom-or-bust industry. We believe we have considerable expertise to respond to this request for public comments, and to identify environmental review solutions to proposed silica sand projects.

We request that the EQB consider the following proposed amendments to rules governing the environmental review of silica sand projects:

1. We believe that the intensity of this highly industrial activity justifies requiring environmental review on the EAW level of every proposed silica sand mining, processing and transfer facility. We recommend that an EAW be required for all silica sand projects, without consideration of the size of the proposed operation. Environmental review of silica sand projects, at the initial or EAW level, does not justify a size threshold.
2. We recommend that the mandatory threshold contained in Minnesota Rule 4410.4400, subp. 9B, for EIS evaluation of silica sand projects be lowered to 80 acres from the current 160 acres.

3. We recommend that the designated responsible government unit (RGU) for all silica sand projects requiring environmental review, at any level, be the Minnesota Pollution Control Agency (PCA). The PCA is designated as the RGU for silica sand projects, for 2 years, in the recent legislative amendment to Minnesota Statute § 116C.991. We believe the PCA should be permanently designated as the RGU for all mandatory EAW and EIS reviews of proposed silica sand projects. The PCA is clearly the state's best and independent science agency staffed with people who can adequately review the impacts of this industry on bluffs, trout streams, wetlands, wellhead protection, groundwater and surface water quality and quantity, dust control, traffic, chemicals containment, particulate emissions, air monitoring, cumulative and related environmental impacts, economic impacts, and noise mitigation. Local government agencies are scientifically incapable of adequately reviewing these concerns about silica sand activity. Local government agencies are often unable to assess the quality, independence and accuracy of engineering and environmental materials submitted to them by engineering consultants of mining project developers. The PCA is capable and experienced at determining the quality, independence and accuracy of these engineering and environmental submissions.

4. We recommend that the potential economic impact of proposed silica sand projects on the surrounding community be included as a mandatory topic for study and review in both EAW and EIS level environmental reviews. The recent legislative amendments to Minnesota Statute § 116C.991 requires that environmental review of silica sand projects include *an assessment of compatibility of the project with other existing uses*. We believe that this amendment intends a study of the potential economic harm that proposed silica sand projects could impose on residential, commercial, recreational and visitor uses and activities in the communities in which these silica sand projects are proposed.

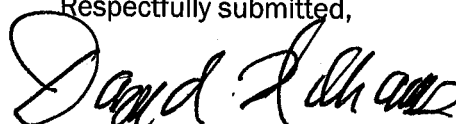
5. We recommend that environmental review of silica sand projects, at all levels, should aggressively address air particulate monitoring. The EAW and EIS should define online, real time instrumentation architecture for monitoring air quality at the project site. During environmental review, an air particulate baseline should be required at the proposed site using the online, real time instrumentation architecture for monitoring air quality.

6. We recommend that environmental review of silica sand projects, at all levels, should include the establishment of a water quality baseline test, at sensitive locations on and near the project site, for contaminants before operations begin.

7. On August 2, 2013, the Winona County Citizens Concerned About Silica Mining (CASM) proposed to the EQB that a Rulemaking Advisory Committee be convened by the EQB for the purpose of assisting the EQB, DNR and PCA in rule-making regarding silica sand projects. We support this request for the convening of a Rulemaking Advisory Committee, because the committee would include southeastern Minnesota residents opposed to silica sand projects who could assist rule-making efforts by proposing stricter environmental review and regulation of mining activity.

If the EQB has any questions regarding our comments, please contact us. We would be pleased to discuss our comments further with the EQB.

Respectfully submitted,

A handwritten signature in black ink that reads "David Williams". The signature is written in a cursive, flowing style.

David Williams

RECEIVED
AUG 23 2013

August 22, 2013

BY: _____

Department of Natural Resources

Sec. 66. (103G.217) Driftless area Water Resources

To: Someone in Charge

Handwritten signature/initials

Re: Environment and Agriculture Omnibus Finance Bill – House File 976

Legislation has been passed allowing the DNR Commissioner to require A PROJECT PROPOSER to do a hydrogeological evaluation and collect any other information necessary to assess potential impacts to hydrogeological features, including private and public drinking water supply wells.

What?

You care that little about the water resources of your state? You would put the research in the hands of those who want to suck up/pollute our incredibly valuable water supply? Have you forgotten that we are a part of the Great Lakes water resource? In this world of diminished water supply, we in this region have already been identified by the scientific community to fill the future's need for specifically created innovative food that will make use of our invaluable, carefully guarded water – food production for our nation and the world, made possible because of our invaluable, carefully guarded water supply.

What was that again?

You would put the research in the hands of outside, nonagricultural interests who want to suck up this state's incredibly valuable water supply? Please, for a few minutes, could you look at the big picture here?

This isn't just Southeastern Minnesota pleading for nondestruction of our trout streams, or Southeastern Minnesota pleading for support of a thriving, recognized tourist-based economy, or Southeastern Minnesota battling for regulation against intensity of mine density. The action on your part to allow tainted research is something that a young school child would never do: For an easy example: Even a school child would never put the winning of his/her team in the hands of ruffians or referees from the pockets of the opposing team. When in doubt about high level decisions based on principle, you need look no further than to our young people. They know what is smart, fair, and will stand up under scrutiny. Also, young people know early on what constitutes "The American Way".

What could the legislators have been thinking?

Did you discourage them from this approach? Did you request a third party to do the research? Did you push for money from outside interests to pay for the research? Without valid, uncompromised research, the perceived reality of the DNR's protection, guidance, modeling, initiative, and regulatory mission falls flat on its face. Or sends a dark message. Or fails to stand tall for our great state. When we need you the most. Please.

Beverly Crowson



Handwritten signature: Beverly Crowson



August 22, 2013

RECEIVED
AUG 26 2013

TO: Mr. Jeff Smysers BY: _____

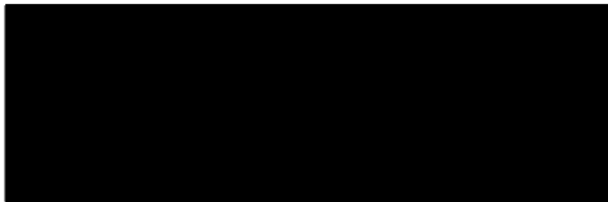
PCA

520 Lafayette Road North

St Paul, MN 55155

RE: Southeast Minnesota Fine Sand

FROM: ROY HOUSE



Dear Mr. Smysers:

I'm writing to comment relevant to fine sand mining regulations for Southeast Minnesota. I live in Pilot Mound Township on the north border of Fillmore County in a region south of where Olmsted County and Winona County converge - We're extraordinary in that our farms meld with the natural landscapes in a way

that forms a beautiful composite where one complements the other and adds to the wonderment of our treasured Southeast Minnesota.

Here, man and nature exist in productive harmony fulfilling social, economic and contentment requirements of present and future generations -- all by happenstance. Mr. "National Environmental Policy Act" eat your heart out -- we've already accomplished what you were enacted to do. If you don't believe me come to our township road (Idle Drive), proceed past the turkey farm on State 30, turn right onto County 11 to Fountain, then take County 8 to Jamesboro. This top

of the ridge drive will take your
breath away; cleanse your soul
and renew your spirit.

You can't imagine how important
your work at the Environmental Quality
Board is going to be! " At no point
will you be able to say, 'Our work
is finished' "... (Rachel Carson - Silent Spring).
As long as big money can be made
from frack sand our environment will
be threatened.

Enough! Let's get down to business.
Think EAW's, EIS's, NPDES (National Pollutant
Discharge Elimination System) permits,
karst bedrock, hydrogeologic impacts,
designated trout streams (and others),
ground water aquifers, air quality,
silicosis, 80,000 pound loaded silica
hopper transport trucks pushing

weight limits while negotiating sharp curves, reclamation and more.

First on the list or at least near the top is transparency. Who has what kind of material or family interest in frac sand mining and fracking for oil? Engineers contracted to develop Environmental Impact Statements (EIS) should have no material interests in sand mining or oil mining... direct or tangential. This holds true for anyone whose work or vote determines outcome relevant to frac sand mining. Members of the EOB should submit a full disclosure including stocks with frac sand mines and oil companies as financial determinants. As a case in point, last I knew, ex-Governor Jim Pawlenty serves on the board of Pennsylvania-based

5

Smart Sands, Inc which operates a 1,100 acre frac sand facility in Oakdale, Wisconsin, about 60 miles east of La Crosse.

State permitting and state permitting requirements for frac sand mining operations should become a science. I imagine included will be construction storm water permits, air quality permits, NPDES permits and, if any water is transferred away from riparian property, non-riparian permits.

** Imperative is knowledge about Southeast Minnesota's geology and hydrogeology.

I suspect there's going to be a significant learning curve. Basically, what is the composition and order of geologic layering within the aquifer which underlies our region? What are the aquifer's dimensions? What is the flow quotient? What are the natural recharge and discharge characteristics?

6

What will be the impact of numerous and sustained withdrawals each in excess of 1000 gallons per minute? How well can toxic contamination be handled? Remember; our karst bedrock provides a direct conduit to this aquifer. Fractures in it are such that our Fillmore County already has in the neighbor hood of 10,000 sink holes.

In Pilot Mound Township our sandstone sits above the ground level in the form of undulating hills, mounds, or "bumps" (as I think the Nisbits call their proposed mining site). One particularly large mound, standing alone as a sentinel, became the first ~~sighting~~ sighting for the "Westward Ho" wagons out of Rushford. It became Pilot Mound Township's namesake.

These structures are all sandstone and contain a significant amount of the

99% pure St Peter formation. The St Peter has been and still is used for decent purposes by the glass and chemical silicate industries. Pilot Mound's sandstone is the easiest in the world to extract making us a prime target for frac sand mining. All of the new mines allotted by Fillmore County are proposed for locations in our township. Right across our north border in Winona County there are for three more frac sand mine proposals. The ¹congestion from large sand transport trucks, ²the machinery noise, ³the night light pollution, ⁴the silica dust, ⁵the loss of wild life habitat, ⁶the surface water contamination and its threat toward Trout Run Creek, ⁷the depletion of ground water and its contamination, and ⁸the unforeseen are all descending upon us full force. Our fulfillment of the directives as put forth in our "National Environmental Policy Act" will be a thing of the past as we change into an "industrial frac sand mining range". Our natural character and rural way of life will vanish.

*** - A limit on the clustering of free sand mines will help to mitigate some of the effects this disaster poses. -

Hopefully this can be done at the state level.

- * As the EQB wades through the complexities of free sand mining I can't help but think consultation with Wisconsin's counterparts to our DNR and MPCA is in order. Surely they've gained some insight.
- * Likewise the wisdom and expertise of our own Department of Health should prove invaluable with respect to airborne silica dust and water contamination. Toxic spills at the mine site are a subject in and of themselves.
- * Inexperienced and unqualified drivers for the 80,000 pound hopper transport trucks spell disaster. There can be up to 300 trucks per day per mine which

are too many; especially, when seven mines have been proposed in close proximity within or near Pilot Mound Township.

Odd to this the factor inclement weather brings which can effect visibility and road traction. Both create accidents. Overloaded trucks make it worse yet.

* * Department of Transportation is needed in order to help with inspections, limits, guidelines and weights. Counties can't do it!

* Nearly neighbors cannot be ignored. All the issues affect them the most. Think; besides truck traffic there are issues with property values, blasting, unsightliness, runoff, dust, noise from the steady back-up beeps from equipment and more. Notation needs to be taken of their names and addresses.

* Whenever frac sand mining has taken place a reference to the fact should be indicated on the property's deed.

In closing may I say with appreciation that I am --

Yours truly,
Roy House

Thursday, August 22, 2013

Jeff Smyser

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Re: Public Comments on Possible Amendments to Rules Governing the Environmental Review of Silica Sand Projects – Revisor’s ID Number R-04196

Dear Mr. Smyser:

On August 12, 2013, a group of residents of Fillmore, Houston and Winona counties met in Rushford at a meeting hosted by the Houston County Protectors, a local environmental advocacy organization. The purpose of the meeting was to discuss and propose public comments to rule-making being conducted by the Minnesota Environmental Quality Board (EQB) regarding the environmental review of silica sand projects. This meeting was held in response to the request for comments issued by the EQB on July 17, 2013. Several of the residents attending this meeting had participated at the state agency-hosted meeting on silica sand mining held on August 2, 2013 in Winona.

The purpose of this letter is to provide the EQB with the comments of the residents attending the meeting on August 12, 2013. As you are aware, Fillmore, Houston and Winona counties are in the heart of the proposed silica sand mining activity area that could occur in southeastern Minnesota. These residents have been involved in actively opposing silica sand projects in their respective communities since 2011. These residents have toured active silica sand mining, processing and transfer facilities in western Wisconsin and Winona, Minnesota, and are fully aware of the numerous environmental, economic, water, air, traffic impact, land use and governance problems of this rapidly growing market-driven, boom-or-bust industry. We have considerable expertise to contribute in responding to this request for public comments, and identifying environmental review solutions to proposed silica sand projects.

We request that the EQB consider the following proposed amendments to rules governing the environmental review of silica sand projects:

1. We recommend that an EAW be required for all silica sand projects, without consideration of the size of the proposed operation.

The intensity of this highly industrial activity justifies requiring environmental review of every proposed silica sand mining, processing and transfer facility. Environmental review of silica sand projects, at the initial or EAW level, does not justify a size threshold. Small mining, processing and transfer facilities can create substantial harmful and toxic impacts on our communities.

2. We recommend that the mandatory threshold contained in Minnesota Rule 4410.4400, subp. 9B, for EIS evaluation of silica sand projects be lowered to 40 acres from the current 160 acres.

We have learned that small acreage of silica sand mining and processing sites poses a severe potential threat to the environment. Silica sand projects are very different than the typical nonmetallic mineral mining projects contemplated by Minnesota Rule 4410.4400, subp. 9B. Aggregate mineral production is a clearly different mining process than silica sand mining and processing. The Minnesota Legislature understood that difference when it passed Minnesota Statute § 116C.991. The Legislature understood that traffic impacts from hauling silica sand, water consumption from washing and processing silica sand, water pollution from the discharge of silica sand and its processing chemicals, and air particulate emissions from storing and moving around silica sand – all present dangers, threats and hazards that are not present from the mining of aggregate materials. These dangers, threats and hazards are present in 40 acre projects and require intense analysis beyond the EAW level.

3. We recommend that the designated responsible government unit (RGU) for all silica sand projects requiring environmental review, at any level, be the Minnesota Pollution Control Agency (PCA).

The PCA is designated as the RGU for silica sand projects, for 2 years, in the recent legislative amendment to the environmental review rules. We believe the PCA should be permanently designated as the RGU for all mandatory EAW and EIS reviews of proposed silica sand projects. The PCA is the state's science agency for reviewing, monitoring and enforcing pollution control and environmental rules. The PCA is staffed with scientists who can adequately review the impacts of this industry on people, bluffs, trout streams, wetlands, wellhead protection, groundwater and surface water quality and quantity, dust control, traffic, chemicals containment, particulate emissions, air monitoring, cumulative and related environmental impacts, economic impacts, and noise mitigation. Local government agencies are scientifically incapable of adequately reviewing these concerns about silica sand activity. Local government agencies are often unable to assess the quality, independence and accuracy of engineering and environmental materials submitted to them by engineering consultants of mining project developers. The PCA is capable and experienced at determining the quality, independence and accuracy of these engineering and environmental submissions.

4. We recommend that the potential economic impact of proposed silica sand projects on the surrounding community be included as a mandatory topic for study and review in both EAW and EIS level environmental reviews.

The recently enacted Minnesota Statutes § 116C.991 requires that environmental review of silica sand projects include *an assessment of compatibility of the project with other existing uses*. We believe that this legislation intends a study of the potential economic harm that proposed silica sand projects could impose on residential, commercial, recreational and visitor uses and activities in the communities in which these silica sand projects are proposed.

5. We recommend that during environmental review, an air particulate baseline should be required at the proposed site using the online, real time instrumentation architecture for monitoring air quality.

Environmental review of silica sand projects, at all levels, should aggressively address air particulate monitoring. The EAW and EIS should define online, real time instrumentation architecture for monitoring

air quality at the project site. This requirement would be consistent with Minnesota Statutes § 116C.991, which declares that environmental review must include *“an air quality impact assessment that includes an assessment of the potential effects from airborne particulates and dust ...”*

6. We recommend that environmental review of silica sand projects, at all levels, should include the establishment of a water quality baseline test, at sensitive locations on and near the project site, for contaminants before operations begin.

The EAW and EIS should define online, real time instrumentation architecture for monitoring water quality at and near the project site. This requirement would be consistent with Minnesota Statutes § 116C.991, which declares that environmental review must include *“a hydrogeologic investigation assessing potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water ...”*

7. On August 2, 2013, the Winona County Citizens Concerned About Silica Mining (CASM) proposed to the EQB that a Rulemaking Advisory Committee be convened by the EQB for the purpose of assisting the EQB, DNR and PCA in rule-making regarding silica sand projects. We support this request for the convening of a Rulemaking Advisory Committee, because the committee would include southeastern Minnesota residents opposed to silica sand projects who could assist rule-making efforts by proposing stricter environmental review and regulation of mining activity.

Conclusion

If the EQB has any questions regarding our comments, please contact us. We would be pleased to discuss our comments further with the EQB. You can reach our representative, David Williams, [REDACTED].

Respectfully submitted,

Jackie Baker
Cory Baker
Bryan Van Gorp
Charles Avila
Kelley Stanage
Daniel Draskowski
Kent Holen
Cheryl Holen
David Williams
Sherry Berg
Rhiannon Fisher
Guerra Peterson
Marlene Fisher
Dale Forster

Sue Van Gorp
Donna Buckbee
Mark Larson
Drue Fergison
Sarah Wexler-Mann
Michael Fields
Gretchen Cook
Elizabeth Reedy
Vernon Crowson
Beverly Crowson
Roy House
Bruce Kuehmichel
Jackie Mechtel
Ceil Allen

Copy: Bob Patton, Executive Director

RECEIVED
AUG 22 2013

29263 Ingot Drive
Fountain, MN 55935
(507)-867-4846

BY: _____

August 20, 2013

Mr. Jeff Smyser

Dear Mr. Smyser:

In the process of developing rules for silica sand mine location and operation, please consider the following:

- Any rules made must be enforced with meaningful and appropriate consequences. The financial burdens of enforcement should be placed on the industry up-front in the form of performance bonds or similar. The bonds should be large enough to cover all operations, including reclamation, so the public do not become victims of the industry. If the industry is unable or unwilling to secure such bonds because no bonding agency will offer or back such, that ought to be a clear signal that the whole enterprise of silica sand mining needs to be rethought.
- Processing flocculants such as polyacrylamide (PAA) must be prohibited and groundwater extracted for processing must be both limited and recycled. The chemical stability of PAA has been shown to vary widely under field conditions (influenced by oxygen concentration, metal/metal ion ratios, hydrogen sulfide presence, salinity/hardness, chemical additives, biocides, etc.) and there are numerous forms of PAA (cross-linked degree, linear chains), each with its own characteristics. But one thing the various formulations all have in common is the presence of acrylamide, which is a recognized carcinogen (with zero EPA tolerance in drinking water) and also is a recognized toxin. In studies of PAA degradation, research laboratories have needed to do more than three methanol precipitations in order to remove contaminations of acrylamide in meaningful quantities from the PAA formulations tested. Use of PAA for processing silica sand is not in the best interests of the public.
- Reclamation fill materials must be monitored. Any haul-back fill materials must be verified for both sourcing and content. Out-sourced materials with hazardous contaminants must not be placed into mine pits or transported/distributed onto rural lands.
- The depth above aquifers to which mining is allowed must be specified and must take into account the characteristics of the geological formations overlying the aquifer. Although Fillmore County has put in place regulations allowing silica sand mining to within ten feet of the water table, that distance becomes meaningless when the extraction is done in the St. Peter Sandstone (The lower twenty feet of the formation has previously been recognized and described as fractured.) and the Shakopee Oneota limestone layers beneath it above the underlying aquifer is known to contain fractures. To say that this situation can be overcome by filling and mounding over the extraction pit during reclamation is not true. We need only look at the history of West Valley, New York (pp. 78-87, *Country Journal*, January, 1984), in which water infiltrated subsoil pits with extensive clay till bottoms despite being capped with a mound of eight feet of impermeable soil. Infiltration was believed to have come from layers of sandy soil adjacent to the pit. That type of soil layering is characteristic of SE Minnesota. Having silica sand pits here so close to groundwater aquifers is a recipe for direct conduits of travel through horizontal strata of sand layers into and from the pits. In West Valley, New York, contaminants which were projected to migrate no more than half an inch in 24,000 years actually had moved two miles in the first 10 years. The State of Minnesota is asking for similar problems if it allows sand mines to be excavated in karst countryside. Pits must not negatively affect the water that life needs for its sustenance, whether ground or surface sourced, for humans and wildlife, or for aquatic organisms such as trout.
- The list above is not exhaustive. I could write much more about my concerns with regard to commercial silica sand mining and air quality, traffic, disruption of the local agricultural economy and the peaceful countryside, ponding of water on-site, and the legacy we are about to leave to future generations. But you will probably hear that one hundred times over from someone else. So I close with this plea: Please act to preserve our resources rather than spend your time writing rules with the intention of mitigating possible negative consequences.

Sincerely,

Rita LeDuc
Rita LeDuc

[REDACTED]
August 22, 2013

Mr. Jeff Smyser
Minnesota Environmental Quality Board
[REDACTED]

Re: Public Comments on Possible Amendments to Rules Governing the Environmental Review of Silica Sand Projects
– Revisor's ID Number R-04196

Dear Mr. Smyser,

I was appointed to the Houston County Frac Sand Study Committee in the spring of 2012. I have toured the Preferred Sands mine sand mine in Blair, Wisconsin in Trempealeau County, visited with both industry and county officials there, and have been studying this industry and its effects on communities since December, 2011.

What we can learn from what has happened in Wisconsin is that regulations on frac sand mining must be more stringent than those for construction sand mining. In Wisconsin local and state government are unable to adequately monitor industry activities to enforce regulations aimed at protecting residents, businesses and communities from adverse impacts. A high degree of caution and transparency is required in the regulation of this industry. Rules must also be aimed at facilitating monitoring to enable enforcement.

The volume and intensity of frac sand mining is far greater than what we have seen in the past. It therefore poses more complex problems, problems that require more sophisticated study in order to avoid harm to residents and resources. The simplistic data required in an EAW is insufficient to uncover potential adverse impacts on water, air, transportation and economic resources. Therefore, an EIS should be required instead.

Currently, thresholds for environmental review are based solely on acreage to be mined. Southeastern Minnesota's Bluff Country is a sensitive area, including features such as karst geology, trout streams, and a variety of unique examples of biodiversity. Using solely an acreage threshold as a trigger for environmental review does not take this into account. Rules should be revised to make an EIS mandatory for any frac sand mining project in all karst areas, and all areas with unique biological features (as defined in the Minnesota Counties Biological Survey).

Further, weather patterns are becoming less predictable due to global climate change. There have been four one-thousand-year floods since 2004 in Minnesota. Because of this, an EIS should be mandatory for any project in a 1,000-year floodplain.

The complexity of the problems caused by frac sand mining coupled with inadequate staffing to provide ongoing monitoring of compliance, make automation essential. Environmental rules should include systems and instrumentation architectures that will enable ongoing, automatic air and water monitoring and transparent publication of the data monitored. These standards should be integrated into the rules, and utilized in required baseline studies on air and water prior to the commencement of any frac sand mining project. Compliance with agency rules can then be monitored remotely through the duration of projects. Local governments do not have the capabilities to design such standards, but the State of Minnesota has the expertise to do so with, for example, resources such as the Office of Enterprise Technology.

Thank you for your serious consideration of these suggestions to protect the residents, resources and economy in Southeast Minnesota from the adverse effects of frac sand mining.

Sincerely,



Kelley Stange



August 22, 2012

Jeff Smyser



Smyser:

Unimin Corporation is submitting this letter to formally comment during the Environmental Quality Board's public comment period for silica sand rulemaking. Unimin has a long-history and ongoing presence in the silica sand industry in Minnesota, which makes Unimin an interested stakeholder in this rulemaking process. Unimin has substantial experience complying with Minnesota's environmental review process and Unimin maintains working relationships with Minnesota's environmental regulatory agencies. To date, Unimin has conducted 4 EISs and 8 EAWs since the early 1980s and Le Sueur County has served as the RGU during all of these environmental reviews. Both Unimin and Le Sueur County view their on-going relationship as successful and both believe industry and the environment are benefited by a process that identifies impacts and resolves them early by thorough review. Much of the perspective offered in this letter has been expressed by Unimin during recent environmental review comment periods for numerous proposed silica sand operations in the state. Through this letter, Unimin, given its experience and position in the industry, is seeking to be both a resource and a participant in this rulemaking process.

Unimin maintains that Minnesota's existing environmental review process offers a comprehensive framework for examining potential environmental impacts when the proposer provides an accurate and transparent assessment of a project's scope. Current Minnesota rules require an EAW for a proposed silica sand mine if it will result in excavation of 40 acres or more of land to a mean depth of 10 feet or more during its existence (Minn. R. 4410.4300, subp. 12). An EIS is required if a project will result in excavation of 160 acres or more of land to a mean depth of 10 feet or more during its existence (Minn. R. 4410.4400, subp. 9). Recent experience suggests that some proposers have been negatively incentivized to misrepresent projects as falling below these thresholds.

Given this possibility of misrepresentation, current Minnesota rules require that multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in determining whether mandatory thresholds are met (Minn. R. 4410.1000, subp. 4). Phased actions are defined as two or more projects by the same proposer that an RGU determines will have environmental effects on the same geographic area and are substantially certain to be undertaken sequentially over a limited period of time (Minn. R. 4410.0200, subp. 60). Connected actions are projects that are directly induced by another project, projects that are a prerequisite for other projects and not justified by themselves (Minn. R. 4410.0200, subp. 9c). Projects may be connected even if they have different owners or timing.

Despite the comprehensiveness of Minnesota's environmental review process, there has been increasing concern due to projects that are artificially segmented (i.e., mining carried out by A, truck hauling by B, processing by C, shipping via rail or barge by D). This segmentation makes determination of a project's actual scope difficult. A project that will mine, process, and ship all from one location also reveals a possible oversight

under current rules; namely the relationship between a project's excavation footprint and processing capacity. An RGU should be skeptical of a proposer whose excavation footprint does not provide sufficient mineral reserves to ensure a proper return on investment for the project's capital expenditures (e.g. processing facility and equipment). This example would suggest the proposer actually intends to mine a greater area than is being proposed. Unfortunately, the current mandatory thresholds do not address this relationship. Therefore, if a processing facility is so sized that it will be associated with mining of an area larger than the mandatory excavation thresholds over a normal facility life, more stringent environmental review should be triggered.

Proper environmental review would be better assured if proposers are strictly required to provide RGUs with transparent information regarding a silica sand project's actual scope, including elaboration on all phased actions, connected actions, and cumulative impacts. RGUs would be better equipped if further training and technical support was provided by the EQB on these matters. Your upcoming rulemaking should also consider whether it is necessary to create additional mandatory environmental review thresholds to prevent proposers from artificially segmenting projects. This would allow RGUs to require the necessary level of environmental review and to understand fully all environmental impacts.

Under current rules, in the event the RGU determines a project may have the potential for significant environmental effects, a discretionary EAW may be required (Minn. R. 4410.1000, subp. 3). The RGU's power to require a discretionary EAW should also be available if at any point in this process the RGU is uncomfortable with its understanding of a project's environmental impacts. Again, better EQB training and guidance for RGUs would be highly desirable, especially if an EAW reveals impacts warranting advanced review under the EIS process. Often, because of the cost and time involved in an EIS, the RGU is under pressure not to require additional environmental review. All of the environmental review is to be completed at the expense of the proposer, yet even with cost recovery, many RGUs lack the experience and staffing to handle major projects. EQB could provide a technical team to work with RGUs on scoping and EIS preparation, to alleviate this problem.

In summary, Unimin supports environmental review rules that fully examine the impacts of silica sand projects. Despite the comprehensive nature of existing rules, recent concerns regarding unclear phased/connected actions, artificially segmented projects, RGU expertise, and the relationship between excavation footprint and processing capacity may require further review measures. Unimin would like to receive any publicly available updates on the rulemaking process, serve as a resource, and participate in this ongoing rulemaking process.

Respectfully,

A handwritten signature in black ink, appearing to read 'D. Losee', with a long horizontal flourish extending to the right.

Doug Losee
Operations Manager Environmental/Public Affairs
Unimin Corporation



Date: August 23, 2013

To: Minnesota Environmental Quality Board

From: Friends of Wabasha

Subject: Environmental Review Program

While we do not know whether reviews of other types of projects face a similar problem, we can report that the regulations implementing the Environmental Assessment Worksheet process are lacking in a critical area related to truck traffic generated by the silica sand industry.

The National Environmental Policy Act specifically requires that economic, social **and** environmental impacts be considered when a project is reviewed. But Minnesota's regulations for EAWs direct a look only at potential environmental impacts.

Yet, according to your *Citizens Guide*, the purpose of an EAW is to "provide information to guide other approvals and permitting decisions" including whether a full Environmental Impact Statement should be required on a project.

In Wabasha, the impacts of silica sand hauling and transfer go far beyond the natural environment. In fact, perhaps the most serious impacts will be on the social fabric in terms of a deteriorated quality of life and on the local economy, which is heavily dependent on tourism. Yet when Friends of Wabasha petitioned the EQB to require an Environmental Assessment Worksheet on a project that will bring up to 560 truck trips through our town each week day, we were informed that an EAW would **not** address these social and economic impacts.

This omission from the substance of an EAW seems to us to substantially diminish an EAW's value to decision-makers. And it certainly curtails the rights of citizens who wish to have full consideration given to the ignored categories.

We strongly encourage a modification to the EAW rules to require assessment of social and economic—as well as environmental—impacts of a proposed project.

Craig Falkum
Sharon Burke
Ellen Brown
For Friends of Wabasha



LAND
STEWARDSHIP
PROJECT



Dave Frederickson, Chair
Environmental Quality Board
Commissioner of Department of Agriculture



August 23, 2013

RE: Request for Comments on Rules Governing the Environmental Review of Frac Sand Facilities

Dear Commissioner Frederickson,

The Land Stewardship Project would like the Environmental Quality Board (EQB) to consider the following as it moves forward with determining how environmental review can be improved to best prevent the frac sand industry from harming Minnesota's environment and to allow for improved public participation. We have seen from studying the frac sand industry's rapid growth in Wisconsin and its more recent push into Minnesota that it too often operates with little respect for the health and well being of the local community and consistently violates local and state rules. Frac sand facilities, if allowed in Minnesota, must be required to be designed and operated to the highest standards. Environmental review is a critical part in ensuring this.

To that end, LSP strongly supports making the provisions of Minnesota Statutes, section 116C.991, part of the environmental review requirements for frac sand projects with the following additions to strengthen them:

Rules on connected and phased actions should be clarified and strictly enforced by the EQB. In at least one instance in southeast Minnesota, a company proposing several frac sand mines attempted to avoid an Environmental Impact Statement (EIS) by claiming that the separate landowners of each mine site were the project proposers. Some of these mines were also being proposed within a few miles of each other but across county lines. Because of the nature of the industry, the determination of whether projects are phased or connected actions should be made and enforced by the Environmental Quality Board. In the southeast Minnesota case mentioned, the phased action rule was not being followed until EQB became the RGU for the project. EQB should review all frac sand mine proposals to determine whether there are phased or connected actions involved.

All frac sand projects should require an Environmental Assessment Worksheet (EAW), unless an EIS is required. Any frac sand facility will have the potential for significant environmental impacts and should undergo an EAW. Frac sand mining and processing is a new industry that has already caused extensive environmental harm in Wisconsin. There must be a thorough analysis of a project's environmental harm and how it can be mitigated before it is permitted. Environmental review is the only established process to do this that allows for public input.

Mandatory EIS Categories for frac sand facilities should include:

- **Any frac sand project that has the potential to require a groundwater appropriation permit.** Groundwater availability is increasingly a problem. Using over one million gallons of water a year on an activity that is destructive to the environment, public health and local economy must be very closely scrutinized. Requiring an EIS sends the signal to the industry that Minnesota will demand the highest standards when frac sand facilities propose to use large quantities of our increasingly limited groundwater supplies.
- **Frac sand facilities that require a DNR Trout Stream Setback Permit.** These sensitive areas need a full and thorough environmental review in the form of an EIS in addition to the DNR Trout Stream Setback Permit. The EIS will allow for public participation in the process, which is not currently part of the proposed process for the DNR Trout Stream Setback Permit.
- **Any frac sand mine proposed in a karst area.** Disruption of the soil and blasting in karst areas poses the real threat of opening up new sinkholes and creating direct conduits for surface pollution to reach groundwater.
- **Frac sand mines over 40 acres.** The current 160-acre standard was established before the frac sand industry existed and is geared towards traditional aggregate mines. Frac sand mines pose environmental and economic harms that aggregate mines do not, including traffic impacts from constant hauling of frac sand, water consumption from washing and processing frac sand, water pollution from the discharge of frac sand and its processing chemicals, and air particulate emissions from storing and moving around frac sand.
- **Frac sand processing facilities.** The chemicals used in washing, the potential to expose neighbors to unsafe levels of silica dust, and constant semi-truck traffic warrant an EIS.

A public comment period for EAW's of at least 60 days. Thirty days does not allow citizens enough time to thoroughly participate in the comment period. With family and work it is very hard to review a lengthy EAW and prepare comments. If someone has questions they must find time during the work day to contact the appropriate government official. A key component of environmental review is to allow for public input and this short 30-day time period is in direct contradiction to this goal. EAW's have gotten much longer since the comment period was originally established. The comment period should be extended to 60 days at a minimum. This is true of all EAW's, but especially true for frac sand facilities where there is heightened public interest.

Full disclosure of ownership and operation of the frac sand facility. An EAW and EIS should require that who will own and who will operate the facility be fully disclosed. This is necessary in making a determination of the proposer's ability and likelihood to follow through on plans to mitigate negative environmental, health and economic impacts. It must be taken into consideration when assessing the potential negative impact on the community of whether the proposer or operator has a history of violations. Requiring this information will also help prevent frac sand companies from presenting the landowner as project proposer in an attempt to avoid being considered a connected or phased action.

The MPCA should be the RGU on any frac sand proposal that is located in more than one county and on any EIS. Local units of government do not have the expertise or jurisdictional authority to do this. In fact, there is a real question of whether counties in southeast Minnesota have the expertise and resources to conduct even an EAW. For example, Winona County's efforts at environmental review of frac sand facilities revealed a lack of resources and experience by county staff to adequately do environmental review. It was only through aggressive citizen pressure and state agency intervention that problems were resolved. In addition, counties do not have the scientists on staff to adequately assess and judge the accuracy of information submitted by project proposers. MPCA does have this expertise.

The EQB should form a Rulemaking Advisory Committee for the purpose of assisting the EQB, DNR and PCA in rule-making regarding frac sand projects. The committee should include southeastern Minnesota residents who have been engaged in working to keep the frac sand industry from harming their communities. Many citizens in southeast Minnesota have dedicated hundreds of hours to learning about the negative impacts of the frac sand industry and have expertise that should be included in the drafting of proposed rules beyond this comment period. This is critical to make the process of drafting the proposed rules a public one. There is strong interest from citizens of southeast Minnesota and organizations working to limit the harm of frac sand to be on such a committee.

Sincerely,

A handwritten signature in black ink that reads "Bobby King". The signature is written in a cursive style with a large, stylized "K" at the end.

Bobby King

CC: Jeff Smyser

To: [REDACTED]; [Frantz, Kate \(MPCA\)](#); [Smyser, Jeff \(MPCA\)](#)
Subject: RE: Silica Sand and ER categories
Date: Friday, August 23, 2013 4:30:33 PM

Dear Mr. Smyser and Ms. Franz:

Please forgive the informality of the following comments, but I understand that this is just the beginning of a longer process during which I will have the opportunity to expand upon my brief comments here.

My comments are concerned both with environmental review and rulemaking concerning silica sand mining and other non-metallic mineral mining in the area of the southeast Minnesota known as the Paleozoic Plateau. Please consider these comments as being made in response to both requests for comments.

Given the unique and fragile coldwater surface and groundwater resources found in the Paleozoic Plateau, it is important that extensive environmental review and investigation be performed on all non-metallic mineral mining and processing operations in this area. In this region, whenever non-metallic mineral mining or processing activities are proposed to occur within 25 feet of the static water level (as measured at the project site) an EIS should be required to be prepared, regardless of the acreage of the site. Additionally, whenever silica sand mining or processing activities are proposed to occur within one mile of any spring, class 2A water, trout stream, designated trout stream or perennial tributary of class 2A water, trout stream, or designated trout stream, an EIS should be required to be prepared, regardless of the acreage of the site. Additionally, whenever non-metallic mineral mining or processing activities are proposed to occur within one mile of any spring, class 2A water, trout stream, designated trout stream or perennial tributary of class 2A water, trout stream, or designated trout stream, an EAW should be required to be prepared, regardless of the acreage of the site.

The requirements of 116C.991 should continue to apply indefinitely.

Thank you for your consideration.

John

John P. Lenczewski
Executive Director

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

RECEIVED
AUG 26 2013
BY: _____



August 23, 2013

Jeff Smyser
Environmental Quality Board
520 Lafayette Road North
St. Paul, MN 55155

Re: Minnesota Industrial Sand Council Comments on Possible Amendments to Environmental Review Rules Governing Silica Sand Projects

Dear Mr. Smyser:

The Minnesota Industrial Sand Council appreciates the opportunity to submit these comments in response to the Minnesota Environmental Quality Board request for comments on possible amendments to rules governing environmental review for silica sand mining and processing facilities (referred to by the EQB as the "Silica Sand Rulemaking"). The rulemaking is a product of very significant discussions of a variety of silica sand mining and processing issues during the 2013 session of the Minnesota Legislature. The Council worked very actively with legislators, state agencies, EQB staff and interest groups during the session and is committed to continuing to work with the EQB and its members agencies through EQB's rulemaking process.

The Minnesota Industrial Sand Council was formed to promote safe, environmentally responsible sand mining and processing by developing and adopting the highest standards and practices for mining, processing and reclamation. We are committed to promoting fact-based discussions regarding our industry at all levels of government as well as in the communities where we operate. We are also committed to engaging the industry in fostering environmentally responsible mining operations and promoting safe work environments, safe communities and livable wage careers.

Our members are very experienced in the environmental review process in Minnesota. Our recent experience ranges from permitting and constructing a facility following a Minnesota Pollution Control Agency decision that an Environmental Assessment Worksheet was not required to developing an Environmental Impact Statement for facility that will be published for comment in the near future. We are very attuned to the needs of our local and state regulators to thoroughly review our proposed projects and provide good information and an opportunity to comment to members of our communities. Our comments are based on this deep experience and we hope that the EQB will consider us a resource as it proceeds with its rulemaking plans.

The 2013 Legislature adopted two environmental review provisions related to the silica sand industry that are now law. The first created two new temporary mandatory EAW thresholds for silica sand projects and mandated that the EAWs include information on six industry-specific topics.¹ The second requires the EQB to amend its rules to consider whether the temporary mandatory categories should remain part of

¹ Laws 2013, chapter 114, article 4, section 92

the environmental review requirements for silica sand projects and whether the requirements should be different for different geographic parts of the state.²

The Council supports amending EQB environmental review rules to include the temporary mandatory EAW categories and the related information requirements in those EAWs that were created by the legislature. Those provisions are the product of discussions between a variety of parties including state agencies, the Council and environmental advocacy groups and were adopted after significant legislative discussion. All parties involved were focused on establishing proper mandatory thresholds to ensure that environmental review will be required for the projects that might have the potential for significant environmental effects. Equally important, the new information requirements for the mandatory EAW's were very widely supported by all parties in the process.

Due to the extraordinarily cooperative work done by state agencies, legislators and interest groups during the 2013 legislative session, the Council respectfully suggests that the EQB refrain from adopting additional mandatory EAW or EIS categories for the silica sand industry during the Silica Sand Rulemaking. The new mandatory EAW requirements have been in effect for less than two months. No EAW has been prepared pursuant to the new law and, to our knowledge, no new projects have been proposed that indicate that the new thresholds are incorrect. It is therefore premature to consider additional requirements.

Regarding mandatory EIS categories, the Minnesota legislature considered and rejected a proposal for a new mandatory EIS category for silica sand projects. That decision did not create any significant controversy and no attempt was made to reverse it as discussions occurred and decisions were made to finalize the new legislative provisions. A new EIS category is not required since the MPCA, as the newly appointed RGU for the mandatory EAW categories created by the legislature, is certainly capable of utilizing the EAW to determine whether an EIS is required.

Our recommendations are consistent with the January 2013 "Mandatory Environmental Review Categories" report prepared by the EQB in cooperation with EQB member agencies.³ That report was mandated by the legislature and required an analysis of whether mandatory categories should be "modified, eliminated or unchanged."⁴ The EQB did not recommend any changes to the mandatory categories for nonmetallic mineral mining.

The Council is very familiar with the impetus for the legislative directive that EQB consider whether environmental review requirements should be different for different parts of the state. The most significant public concerns regarding silica sand projects have arisen in the southeastern portion of the state and the new silica sand laws reflect those concerns. The new legislation requires a "Silica Sand Trout Stream Setback Permit" for projects in a section of southeastern Minnesota within a mile of a designated trout stream.⁵ It also directs the to EQB to set different model standards and criteria for

² Laws 2013, chapter 114, article 4, section 105

³ "Mandatory Environmental Review Categories," Minnesota Environmental Quality Board in Cooperation with the Department of Transportation, Department of Natural Resources and Pollution Control Agency with the Assistance of the Department of Commerce and Department of Agriculture (January 2013)

⁴ Laws 2012, chapter 150, article 2, section 3.

⁵ Laws 2013, chapter 114, article 4, section 66

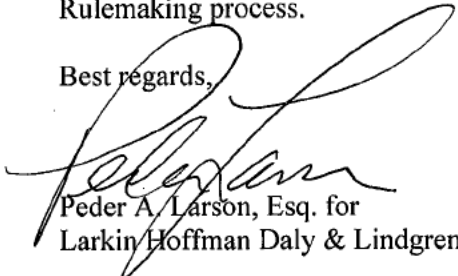
different parts of the state, specifically noting the unique conditions and landforms of southeastern Minnesota.⁶

The Council does not at this time have any technical recommendations on how the EQB should proceed in its consideration of whether environmental review requirements should vary for different parts of the state. The Council simply requests that the EQB commit to making decisions based on facts and good science and recognize that many, if not most, potentially significant environmental effects arise from unique circumstances arising from the location of a particular project.

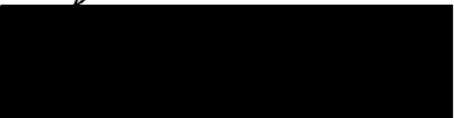
Some individuals and groups that have been very active in opposing silica sand projects might suggest that the EQB adopt substantial new environmental review requirements or model standards for the industry. In considering those suggestions we commend to you a wise comment a local government unit submitted to you for your mandatory category report: "controversy or the lack of it shouldn't be the determining factor for preparing environmental review, but rather the purpose should be to obtain a better understanding of the potential impacts associated with projects."⁷

We appreciate the opportunity to comment and look forward to continued participation in the Silica Sand Rulemaking process.

Best regards,



Peder A. Larson, Esq. for
Larkin Hoffman Daly & Lindgren, Ltd.



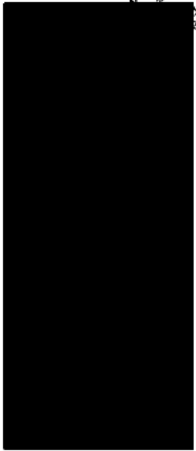
C: Dennis Egan, Executive Director
Minnesota Industrial Sand Council

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⁶ Laws 2013, chapter 114, article 4, section 91

⁷ "Mandatory Environmental Review Categories" report at A 2.

**Larkin
Hoffman**
ATTORNEYS



RECEIVED

AUG 26 2013

BY: _____

Jeff Smyser
Environmental Quality Board
520 Lafayette Road North
St. Paul, MN 55155

RECEIVED
MPCA Information Center
of pieces _____

AUG 23 2013

Time in _____ a.m. p.m. by RSF

To: [Smyser, Jeff \(MPCA\)](#)
Cc: [Patton, Bob \(MDA\)](#); [David Williams](#)
Subject: EQB Comment Letter/David Williams
Date: Friday, August 23, 2013 8:15:31 AM

Dear Jeff,

The Save-The-Bluffs Citizen's group in Goodhue County fully supports the seven proposed amendments in the letter sent to you from David Williams regarding "the rules governing the environmental review of silica sand projects" on behalf of citizens in his area. They clearly are the identical to the suggestions of our citizen's group as well.

Sincerely,

Jody McIlrath
Save-The-Bluffs Chair