

officers, partners, employees, agents, contractors, subcontractors, guests and/or invitees shall have the unrestricted right of ingress and egress to and from the Leased Premises for Lessee, its officers, partners, employees, agents, contractors, subcontractors, guests and/or invitees subject to the rights of all owners and holders of legally recorded servitudes, rights of way, easements, restrictions and mineral interests, and existing as of the commencement date of the Primary Term that may encumber or otherwise affect all or any part of the Leased Premises.

19. **Force Majeure.** Should Lessee be prevented, by any cause beyond Lessee's control (including, without limitation, fire, cave-in, flood, windstorm, other damage from the elements, strike, riot, scarcity of or inability to obtain necessary equipment or materials, unavailability of transportation, any federal or state law or any order, rule or regulation of governmental authority, litigation, act of God, or act of public enemy), from complying with any express or implied covenant of this Lease, then, while so prevented, and for thirty (30) days thereafter, Lessee's obligation to comply with such covenant shall be suspended. Lessee shall, within a reasonable period of time, notify Lessor of the beginning and ending date of each such period of force majeure.

20. **Permitting:** Lessee shall be responsible for obtaining and/or maintaining all required permits (except for the reclamation permit) and licenses, if any, related to all excavation and sand processing activities. Lessor hereby agrees to cooperate with Lessee (in any all respects) in applying for and obtaining any other required zoning and other governmental classifications, permits, approvals, licenses and documents reasonably required in connection with the lawful conduct of Lessee's business and operations on the Leased Premises; provided, however, that Lessor shall not be obligated to incur any expense in connection therewith and Lessee shall reimburse all reasonable expenses therefore. Lessor hereby agrees to execute all documentation necessary to obtain the necessary permits, government classifications, approvals, licenses and documents required in connection with the lawful conduct of Lessee's business and operations on the Leased Premises.

21. **Confidentiality.** Neither Party, nor any employee nor agent of a Party, will, during the term of this Lease, disclose to any person all or any part of any Confidential Information received from the other Party or its officer, employee or agent, and will not at any time act unreasonably or fail to act reasonably so as to cause the loss of Confidential Information. As used herein, Confidential information means the content of this Lease, and other information about either Party, its clients, customers, knowledge about pending sale agreements, sand test/analysis data, production records and the planned assignment and responsibilities of this Lease to a third party. Confidential Information does not include (i) information that is now or becomes available to the public, (ii) information that is otherwise required by law, rule or regulation to be disclosed, or (iii) information that is required to be disclosed to a lender of Lessor or in conjunction with the Lessor's farming operations on the Leased Premises.

22. **Insurance:** Lessee and its contractors will carry Commercial General Liability Insurance (occurrence form), covering bodily injury and property damage liability, including contractual products and completed operations with minimum limits of \$5,000,000 per occurrence, \$5,000,000 Aggregate Products - Completed Operations, and \$5,000,000 General Aggregate. In addition, contractors will carry Comprehensive Automobile Liability covering owned, hired,

and non-owned vehicles with minimum limits of \$1,000,000 per person and \$1,000,000 per accident for bodily injury and \$1,000,000 property damage or combined single limit of at least \$1,000,000. During the term of this Lease, such insurance can not be terminated without the consent of Lessor.

**23. Assignment By Lessee.** Lessee may assign its interest in this Lease without the prior written consent of Lessor, but Lessee must give Lessor prior written notice of such assignment. Upon assignment by Lessee of this Lease, in whole or in part, the assignee will succeed to all rights and be subject to all liabilities, claims, obligations, penalties, and the like, heretofore incurred by the assignor, including any liabilities to Lessor for unpaid Royalties. However, such assignment will not have the effect of releasing the assignor from any liability, claim, obligation, penalty, or the like, theretofore accrued in favor of Lessor. In addition, upon any assignment of this Lease by Lessee, the assignee assumes, for the benefit of Lessor, the obligation to fulfill all provisions and covenants of this Lease, both expressed and implied. Assignee, as used in this section, shall also include any successor, devisee, legal representative or heir of an assignee who acquires any right or obligation initially held by that assignee under this Lease.

**24. Assignment By Lessor.** Except for (i) the assignment of Lessor's interest in this Lease, or any portion thereof, to Lessor's lender, provided that such lender agrees to assume Lessor's obligations hereunder upon any exercise of its interest herein at the time of such exercise; or (ii) the assignment of Lessor's interest in this Lease in connection with the sale of the Leased Premises, and provided that such assignee assumes Lessor's obligations hereunder, Lessor shall not assign or transfer any interest in this Lease or sublease or allow any third party to use any portion of the Leased Premises, to the extent that any such sublease or allowance would conflict with Lessee's rights pursuant to the terms of this Lease, without the prior written consent of Lessee, which consent shall not be unreasonably withheld, conditioned or delayed by Lessee. Lessor must give Lessee prior written notice of any such assignments.

**25. Authority.** Each Party to this Lease represents and warrants to the other that such Party has full power and authority to enter into this Lease and that such Party's execution, delivery, and performance of this Lease has been fully authorized and approved, and that no further approvals or consents are required to bind each Party and that such agreement when executed will be the binding of such Party.

**26. Recording.** This Lease will not be recorded with the Register of Deeds office. A mutually acceptable memorandum of this Lease will be duly recorded in the real estate records of \_\_\_\_\_ County, Wisconsin. Within thirty (30) days of the termination of this Lease, Lessee hereby agrees to place of record a release of this Lease with the Register of Deeds of \_\_\_\_\_ County, Wisconsin.

**27. Taxes.** Lessee agrees to pay prior to delinquency all severance taxes, if any, due from the sale and removal of Minerals from the Leased Premises and shall pay prior to delinquency any ad valorem taxes assessed against Lessee's property. Lessor shall pay prior to delinquency all ad valorem taxes assessed against the Leased Premises. Each party agrees to pay its own severance taxes and ad valorem taxes. Each Party agrees to provide the other Party with copies of paid tax receipts or other proof of payment of all such taxes, such copies or other proof to be delivered

to the other Party prior to the date on which the taxes in question become delinquent if not paid. Lessee hereby agrees to pay for any increase in Lessor's taxes due to Lessee's use of the Leased Premises and its operations hereunder.

**28. Lessor's Lien Waiver and Subordination.** Lessor waives any contractual, constitutional, or statutory lien in all goods, wares, equipment, fixtures, furniture, inventory, accounts, contract rights, chattel paper, and any other personal property of Lessee located at the Leased Premises, and, if Lessee is not in default, Lessor, within ten (10) days of Lessee's written request, will sign and deliver an estoppel letter to Lessee and/or any third party confirming this waiver.

**29. Consent by Lender/Subordination.** Lessor will use its best efforts to obtain a consent to this Lease from its current lender(s), and will obtain a (i) consent to the Lease as to any future lender, agreeing that any liens, security interests, judgment liens, charges or other encumbrances upon the Leased Premises shall be and remain inferior and subordinate to this Lease, or (ii) a subordination and non-disturbance agreement with Lessor's lender in form and substance acceptable to Lessee. Notwithstanding anything in this Lease, if Lessor is unable to obtain such consent, Lessee has the absolute and unconditional right to terminate this Lease.

**30. Counterparts.** This Lease may be executed in one or more counterparts, each of which, when so executed will be deemed to be an original and such counterparts together will constitute but one and the same instrument.

**31. Notices.** All notices, unless otherwise provided for herein, shall be in writing and delivered in person or by U.S. certified mail, return receipt requested to the respective Parties at their respective addresses set forth below or such other address as shall be specified in a notice given by such party to the other in accordance with this Section. Lessee may send any and all payments and Royalty accounting statements to Lessor by first class mail postage prepaid or as otherwise provided for herein. All said notices shall be deemed properly given at the time when delivered to the party to which such notice is directed in person or four (4) business days after being deposited in the United States Postal Service or nationwide overnight delivery service, properly addressed to such party, at such party's mailing or direct delivery address set forth hereinabove with postage or delivery prepaid, sent by certified mail or overnight delivery, return receipt requested.

All notices and other communications to Lessor shall be addressed as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

With a copy to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

All notices and other communications to Lessee shall be addressed as follows:

Glacier Sands, LLC  
17730 Breconwood Road,

Wayzata, Minnesota 55391

Attn: Brian Iverson

With a copy to:

Jackson Walker L.L.P.  
777 Main Street, Suite 2100  
Fort Worth, Texas 76102  
Attn: Carrie B. Miller

**32. Change in Writing.** This Lease comprises the entire agreement between the Parties hereto with respect to the subject matter hereof and may only be changed or modified by an agreement in writing executed by all parties

**33. Conflict Provision.** In the event any provision of this Lease conflicts with any law under which this Lease is to be construed or if any such provision is held invalid or unenforceable by a court with jurisdiction of the parties to this Lease, such provision shall be deemed deleted from the Lease and the Lease shall be construed to give effect to the remaining provisions thereof.

**34. Condemnation.** If, during the lease term, or any extension of the lease term, all or a part of the Leased Premises are taken for any public or quasi-public use under any governmental law, ordinance, or regulation or right of eminent domain, or are sold to the condemning authority under threat of condemnation, this lease will terminate, and any royalties owed for the unexpired term of this lease, or extension thereof, will be forgiven.

**35. Drafting.** No provision of the Lease will be interpreted for or against any Party on the basis that such Party was the draftsman of such provision, both Parties being deemed to have participated equally in the drafting of the Lease, and no presumption of burden of proof will arise favoring or disfavoring any Party by virtue of the authorship of this Lease.

**36. Governing Law:** This Lease shall be construed and governed by laws of the State of Wisconsin. In the event any action is brought to interpret or enforce this Lease, then the prevailing party in such action shall be entitled to recover from the other party attorney's fees and court cost incurred in such action.

**37. Final Agreement.** This Lease Agreement and exhibits attached hereto constitute the entire agreement between the parties. Except as stated herein, there are no other promises, representations (express or implied), warranties or agreements made by the Lessor or Lessee.

**THIS LEASE has been executed by the duly authorized representative of the Parties as of the date first hereinabove set forth.**

Lessee

Glacier Sands, LLC

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Lessor

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

**EXHIBIT A**

RYAN THOMAS

cressontx@gmail.com

T: 817.255.4366

235  
Glacier Sands

333 E. Prairie View Rd #135

Chippewa Falls, WI 54729



IKE THOMAS

ikethomas50@gmail.com

T: 817.219.4700

Glacier Sands

333 E. Prairie View Rd #135

Chippewa Falls, WI 54729



*Offers to neighbors  
of a proposed project -  
w/ payments of \$ 35,000 - 40,000*

COOPERATION AGREEMENT

THIS REIMBURSEMENT AGREEMENT (the "Agreement") is made as of May 2012, (the "Effective Date") between VISTA SAND, a Texas corporation, ("Company") and

STATEMENT OF FACTS

- A. The Company intends to develop, construct and operate a transload facility (the "Facility") on real property located in Memomnie Township, Dunn County, Wisconsin, and which is depicted on Exhibit A attached hereto (the "Property").
- B. The Owners are the owners of that certain real property located at: \_\_\_\_\_ in the vicinity of the Property (the "Adjacent Property").
- C. In recognition of the potential for impacts arising from Company's use of the Property and in exchange for the Owners' cooperation and support in obtaining all necessary approvals from applicable governmental authorities for the Facility, the Company has agreed to compensate the Owners upon the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Owners hereby agree as follows:

1.) Cooperation. As a material inducement to the Company executing this Agreement, the Owners shall fully cooperate with Company in the pursuit of all approvals deemed necessary by the Company for its intended use of the Property and for the construction and operation of the Facility (the "Governmental Approvals"). The Owners shall fully cooperate with Owners in the pursuit of the Governmental Approvals including, without limitation, publicly confirming, orally or in writing as requested by the Company, their support for the construction and operation of the Facility.

For purposes of this Agreement, "Final Approval" shall be the date when: (i) all of the Governmental Approvals have been reviewed and finally approved by the appropriate governmental agencies, (ii) any ordinances with respect thereto have taken effect, (iii) the time has passed for appeal of all Governmental Approvals, (iv) no notice of referendum or initiative with respect to any Governmental Approval has been published or publicized and (v) any appeals or litigation with respect to (iii) or (iv) above have been prosecuted and resolved in a manner which is satisfactory to the Company and are not subject to remand to lower courts or governmental agencies.

- 2.) **Payment.** Provided that the Owners and all other family member occupants of the Adjacent Property have fully complied with all of the provisions of this Agreement and further provided that Company obtains Final Approval, the Company shall pay the Owners in cash within thirty (30) days after Final Approval.
- 3.) **Remedies.** Should Owners or the Company default in any of their respective obligations under this Agreement, the other party(s) shall be entitled to exercise all remedies available at law or equity. If any party(s) defaults under any of the terms of this Agreement, all costs and expenses, including without limitation reasonable attorneys' fees of the non-defaulting party(s) incurred in enforcing collection or performance under this Agreement shall be payable by such defaulting party.
- 4.) **Termination.** This Agreement shall terminate upon the earlier to occur of (a) the date that Company pays Owners pursuant to Section 2 above; or (b) the date that any or all of the Owners abandon, convey or otherwise transfer, lease or sublease all or any portion of their interest in the Property.
- \* 5.) **Confidentiality.** Owners shall keep the existence of the terms of this Agreement, and all information disclosed by Company or its employees, agents or representatives to Owners confidential, except to the extent required by law. This section shall survive the termination of this Agreement.
- 6.) **No Assignment.** This Agreement is personal to Owners. Owners shall not transfer, convey, assign or otherwise dispose of all or any partial interest in this Agreement and any attempt to do so shall be null and void and of no effect.
- 7.) **Miscellaneous.** This Agreement shall be governed by the laws of Wisconsin. This Agreement is the entire understanding between the parties and supersedes any prior agreements or understandings whether oral or written. This Agreement may not be amended except by a written instrument executed by both parties. If any provision of this Agreement is found to be invalid or unenforceable, the validity and enforceability of the remaining provisions of this Agreement will not be affected or impaired. Each party represents to the other that the person signing on its behalf has the legal right and authority to execute, enter into and bind such party to the commitments and obligations set forth herein. This Agreement may be executed simultaneously in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Facsimile or email copies shall be deemed originals.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS OF THE FOREGOING, the parties hereto have caused this Agreement to  
be executed as of the Effective Date.

COMPANY:

VISTA SAND

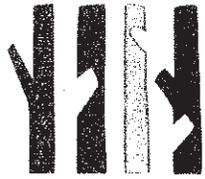
By: \_\_\_\_\_

Its: \_\_\_\_\_

OWNERS:

\_\_\_\_\_

\_\_\_\_\_



Midwest  
Environmental  
Advocates

## Speaker Event Report Form

Speaker Name: Kim Wright

Date of event: 2/24/2015

Location of the event: Town of Howard, Town hall

Number of contacts/people in attendance: 55

Short summary of event purpose or topic: DNR strategic analysis  
public event on scoping

Other details?

*Please return to Stacy on the next business day after your event.*



February 24, 2015

To Wisconsin Department of Natural Resources,

We would like to see a study done on the effects that silica dust may be having on those of us living near sand mines. We are concerned that as more and more sand mines are opened up, there will be negative physical effects from silica dust including allergies, asthma and other lung diseases and cancer.

We are also concerned about surface water quality as we have witnessed first hand, on our property, the run off that occurs from under regulated mines. Because the mines are required to have ponds only big enough to hold water from a 20 year rain event, we have ended up with sediment laden water from the EOG DS mine running across our property nearly the entire spring and summer of 2014. On September 3, 2014 we had a 4 inch overnight rainfall and had EOG discharging water containing over 12,000 ml/liter for 10 consecutive days and it followed a path into Running Valley Creek to Eighteen Mile Creek and finally into the Red Cedar River. I have included pictures that I took on September 4, 2014. From talking to DNR personnel this is not limited to this one mine but is actually quite a widespread practice. What effect is this having on our waterways? I do not think it can be good. Groundwater is a great concern, with the operations mining very near groundwater levels or even in the groundwater. All of us in this area depend on this groundwater. We are very concerned about the heavy metals and acryl amide that could be entering both our surface and groundwater. We feel this should be monitored by the DNR not the mining operations themselves.

Also, what effect are these operations having on wildlife, most of these mines are in what were once forested areas. As a hunter and outdoors person I am concerned about the impact on deer, bear, turkey and grouse, not to mention the diverse numbers of song birds and many smaller mammals found in these areas.

What is the cumulative effect of having so many sand mines in one area. Should the number of mines or the number of acres being mined at any one time be limited? Can the area withstand so many sand mines without long term consequences?

What will the effect of all these issues be? Along with reduced real estate values, traffic and noise have on those of us living near these mines?

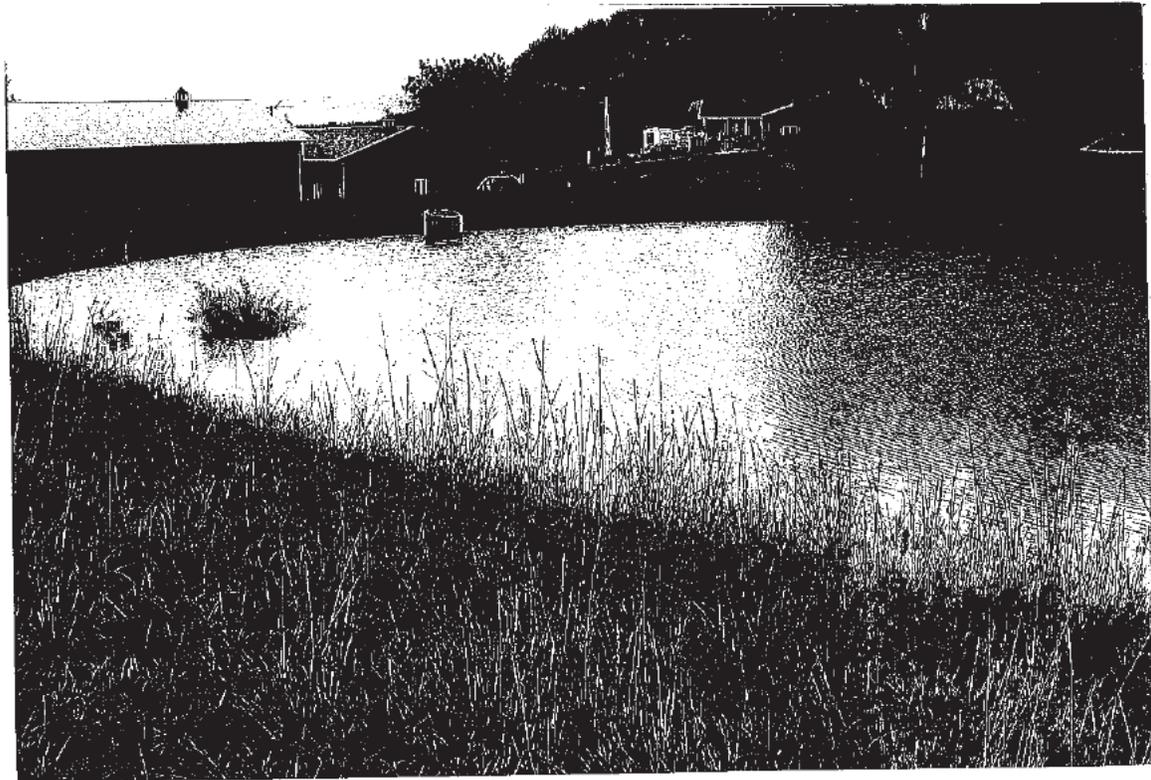
Sincerely,

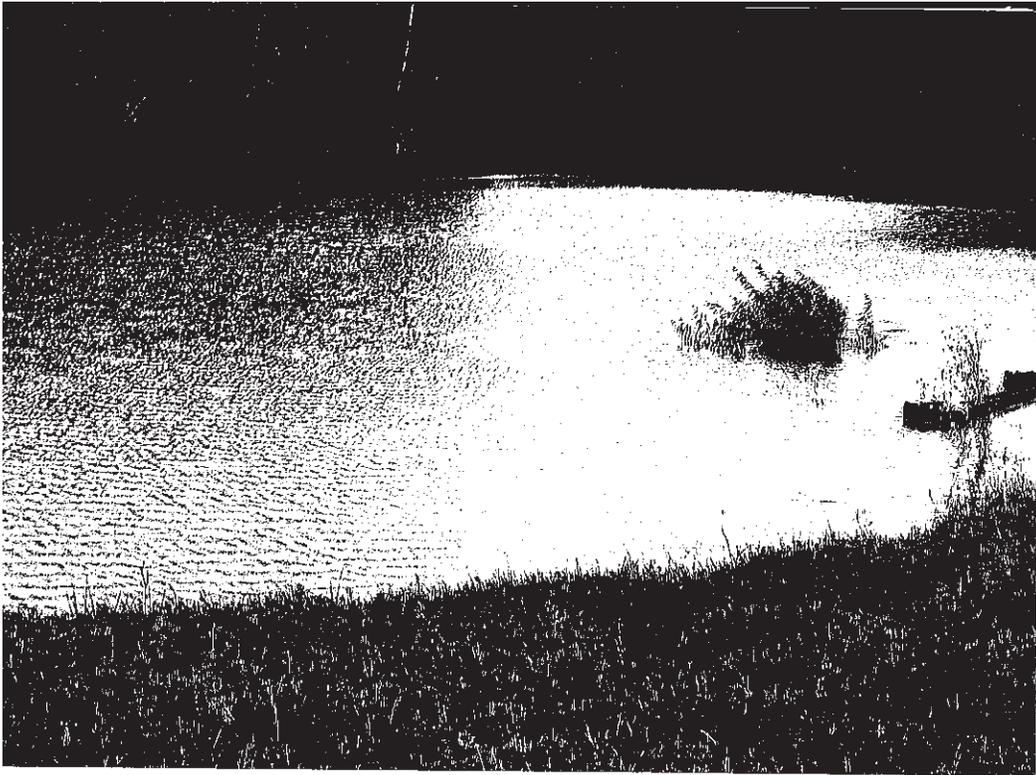


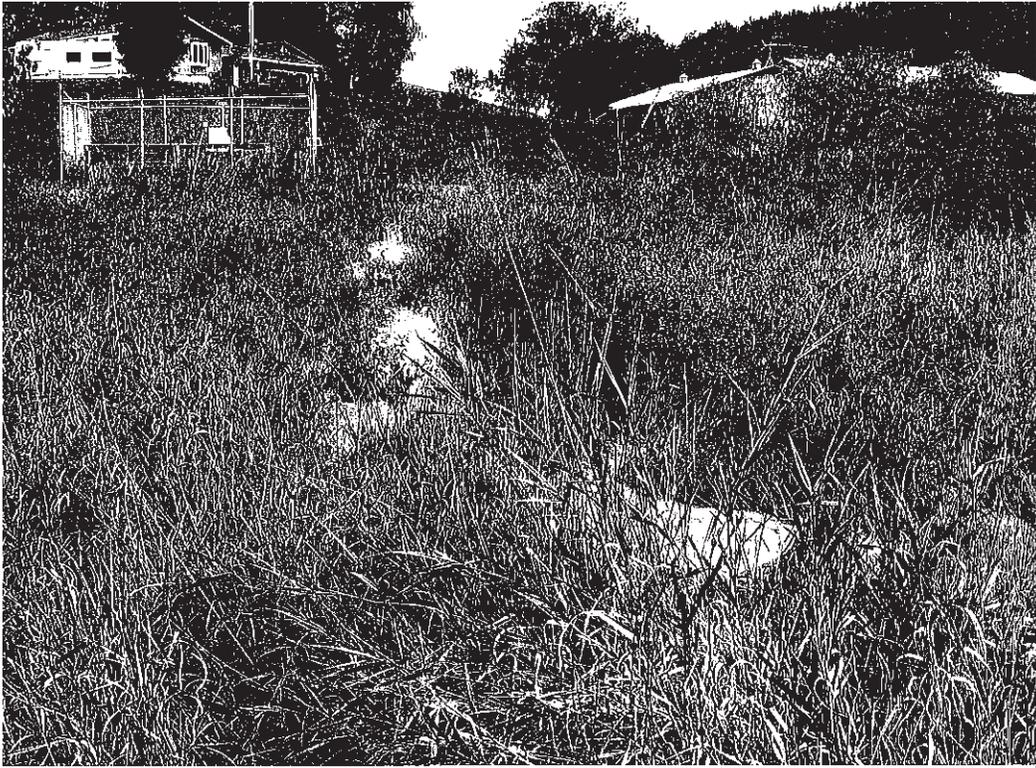


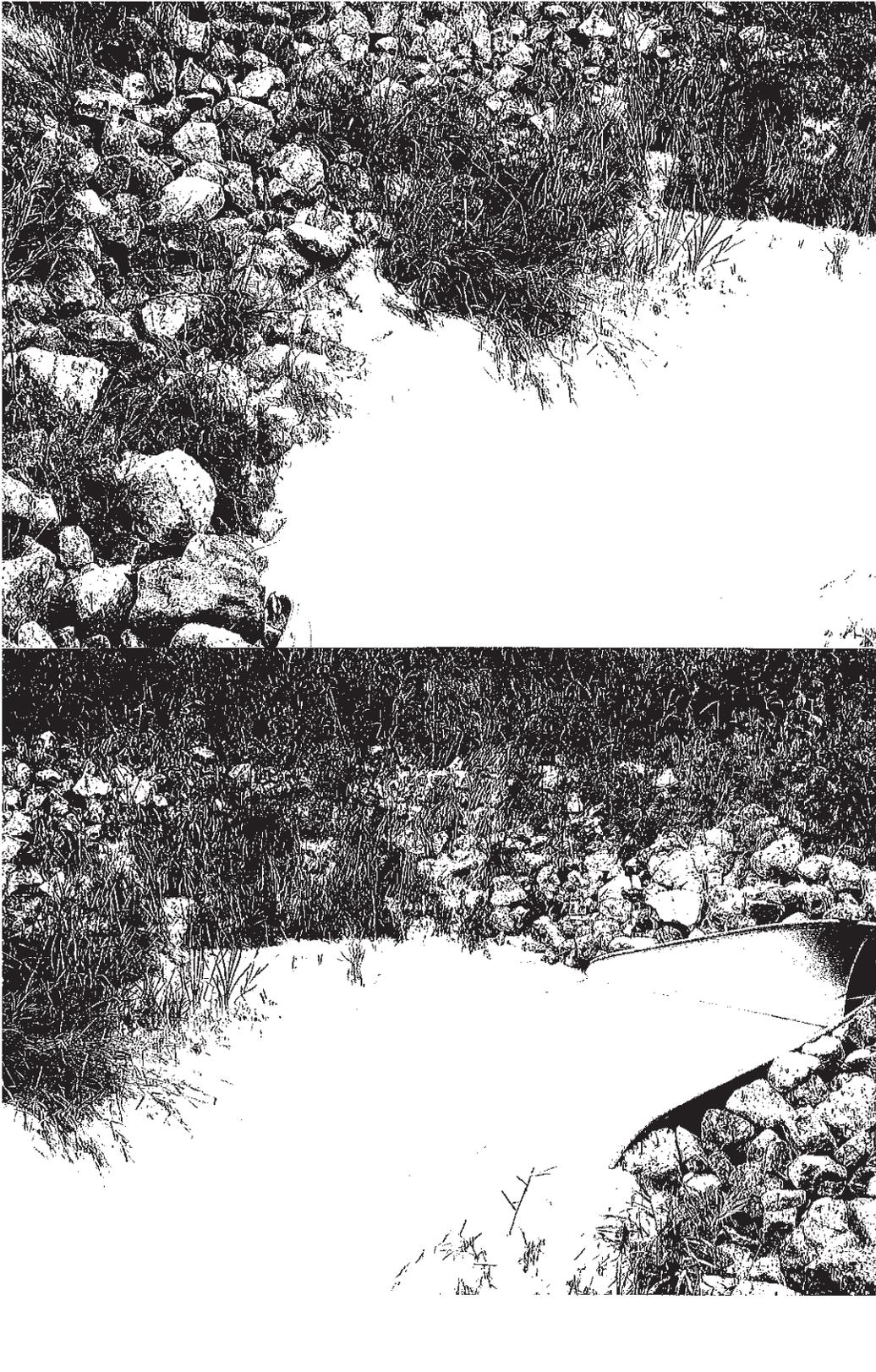
# Creek (Running Valley) Pictures

Water being discharged after the Sept. 3, 2014 storm. This water was discharged from the EOG <sup>DS</sup> mine for 10 days and was a month before Running Valley Creek and Eighteen mile creek became clear again.









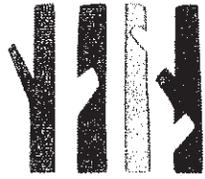








Sediment laden water from east branch of Running  
Valley Creek merging with the clear water of the  
west branch of Running Valley Creek.



Midwest  
Environmental  
Advocates

## Speaker Event Report Form

Speaker Name: Frac Sand Scoping Comment Meeting / Jimmy Parua

Date of event: 3/2

Location of the event: Mondovi, WI

Number of contacts/people in attendance: ~50

Short summary of event purpose or topic:

Other details?

*Please return to Stacy on the next business day after your event.*

Date: March 2, 2015



Are you speaking:

- for yourself
- on behalf of an organization

GJB

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date:



5:18

Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date:



Are you speaking:

for yourself

on behalf of an organization

(3rd)  
5:20

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

see my submitted comments.

Date: 3-2-15



Are you speaking:

- for yourself
- on behalf of an organization

4th  
5:28

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

PM 2.5 —  
adopt California's standards on fugitive crystalline "dust".

Date: 3-2-15



Are you speaking:

for yourself

on behalf of an organization

574  
5:38

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

1. Settlement pond waste from (wash plants) should be considered toxic waste and not be allowed to be spread on land during reclamation
2. 4 or 2.5 m monitors - not 10
3. Cumulative effects of water use in surrounding areas (irrigators, other high capacity wells)
4. Land/property value agreements

Date:



Are you speaking:

for yourself

on behalf of an organization

6074  
*[Handwritten signature]*

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Impacts, including cumulative impacts of other past, present & foreseeable activities in the affected area.

Sufficiency of baseline data, potential impacts, mitigation measures, regulations, monitoring, enforcement & penalties

Date: 3/2/15



Are you speaking:

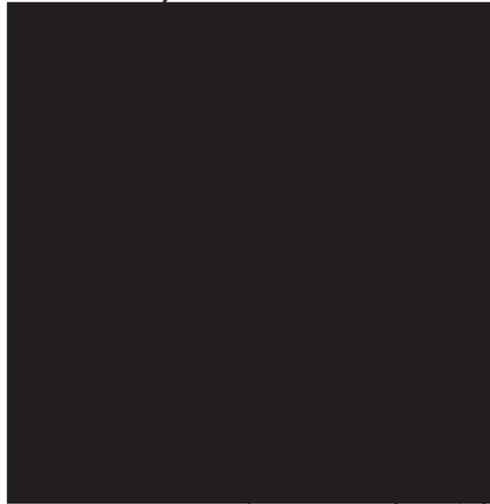
for yourself

on behalf of an organization

774  
5:50

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

THERE MUST BE MORE CONTROL OF WATER USED ESP. WHEN THERE ARE WASH PLANTS IN CLOSE AREAS. THE DNR MUST START TO LOOK AT CUMULATIVE EFFECTS.



0th 5:55  
~~5:55~~

Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 2 March 2015



Are you speaking:

for yourself

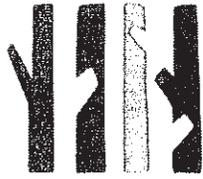
on behalf of an organization

9th Cir  
6/17

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Trempealeau Co. Health Study (Moratorium) Report

Research the validity of the "sand = jobs" claim by advocates of frac sand mining.



Midwest  
Environmental  
Advocates

## Speaker Event Report Form

Speaker Name: Frac Sand Scoping Comment Meeting / Jimmy Parua

Date of event: 3/2 77

Location of the event: Mondovi, WI

Number of contacts/people in attendance: ~50

Short summary of event purpose or topic:

Other details?

*Please return to Stacy on the next business day after your event.*

Public Hearing

Make available to website

- Acrylamide
- Reclamation methods
- CRW/ERW
- Air
- Crystalline silica
- fugitives
- waste from settlement ponds
  - ⇒ no reclamation use
- monitors be at least PM 2.5 + 4 micron
- cumulative impacts of water use
- Area Land + Property value agreements or guarantees
- Annihilation
- Social ties
- performance of existing mines / promise mines
- sand = jobs claims - is it true?



Date: 3/2/15



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

GROUNDED WATER!!  
My Biggest Concern  
I ALSO HAVE CONCERN  
WITH THE RECLAIM OF  
THE LAND AFTER THE  
MINING IS DONE.

Date: 3/21/15



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Concerns  
of the safety of  
our Water!!

The Loss of our  
rolling hills !!

~~Rich~~

The Loss of  
wild life to the  
area

Date:

3-2-15



Are you speaking: -NO

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- water usage
- air quality
- traffic issues
- noise pollution
- cancer causing chemicals used.
- economic devaluation of the county when mines operate

Date: 03/03/2015



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

*All those indicated  
in the Petition.  
To emphasize & preserve  
local control and land-use  
regulation not imposed  
state standards.*

Date:

March 2 2015



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3-2-15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

1. Silica dust (respirable)  
How much? Sources? Levels safe for human health?
2. Water  
Impact on groundwater supply of high-capacity wells.  
Flocculants - How they break down, toxicity, disposal of residue  
Failure of impoundments - impact on surface & ground water & wildlife  
Hydrology of reclaimed areas
3. Loss of wildlife habitat  
Impact on specific species  
Economic impact
4. Short-term economic gains vs. long-term risks to farming, tourism & other businesses
5. Effective enforcement of regulations & agreements - what would it take to →

provide DNR with enough personnel?  
Is there an existing model of effective  
mine regulation? How can cost of  
enforcement be borne by mines?

Date: Mar 2, 2015



Are you speaking:

No

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- ① Cumulative impact of:
  - High Capacity wells
  - PM 2.5 Air pollution
- ② Baseline air & water monitoring
- ③ We are not guinea pigs!  
Monitor, test, verify & prove before allowing this industrial activity to impact our health and our environment

Date:

3-2-15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Citizens are looking to the DNR to provide firm guidelines and restrictions ~~on~~ for existing mines as well as standards for new mines.

Thank you so very much for helping us to preserve the environment.

Date: 03-02-15



Are you speaking:

- for yourself  
 on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Local water supplies have been placed at great risk due to this process. The mining companies have deliberately divided our small rural communities and too often not hesitated to bribe our decision makers. So when we try to get good rules in place to protect

our families, we must fight to be heard.

Furthermore, the sand functions much the same as a coffee filter, cleaning our water supply as it percolates its way to the water table.

Mining companies have already strip mined & blasted 4000 acres of the Appalachian Mountains. Our driftless area is but a drop in the bucket for this greedy, amoral industry.

Date: 3-2-15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

~~Waste water~~  
~~Waste water~~ I want the entire use of ~~frac~~ water in sand mines to be studied.

- Do those holding ponds keep contamination out of the ground water?
- What if a pond leaks?
- Effects on ground water and surface water?
- Mines use a lot of water - what happens to surrounding wells? Who is responsible if a neighbor well runs dry or is contaminated?
- What happens to affected wild life - birds, deer, fish?

Date: *March 2*



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

## **DNR Frac Sand Mining Public Input Meeting**

Mondovi, WI 3/2/15

[REDACTED] We currently have one operational frac sand mine in our Town.

I would like to request the DNR to study the potential environmental effects of the materials used in processing industrial frac sand, particularly the polyacrylamide flocculent products used to settle out fine material when the sand is washed.

My understanding is that polyacrylamide (abbreviated PAM) is a compound that is widely used in industry and agriculture. It is generally claimed to be relatively stable and safe. However, acrylamide (AMD) [one of the raw ingredients used in the manufacture of polyacrylamide, and sometimes present in minute quantities in the PAM product] can cause neurological damage and there is suspicion it may be a carcinogen.

I have seen conflicting claims about whether it is possible for PAM to break down to AMD in the environment. I am requesting the DNR do a long term study to determine whether the PAM present in the fine material processing waste, when returned to a frac sand mine for storage and eventual use in reclamation of the mine site, may eventually break down to AMD. I would like this study to evaluate what the risk is that groundwater may eventually be contaminated by acrylamides, and what health risks that might pose for the mine's neighbors who drink that groundwater.

Here is some more background information on the frac sand mining situation in the Town of Frankfort.

In 2011, Greg Bechel Trucking & Excavating LLC took over the lease on a small existing limestone quarry. They applied for, and received from Pepin County, a revised reclamation permit for a 43 acre open pit non-metallic mining operation that would remove 100' of limestone overburden to extract the sandstone layer below.

This mine was converted from a very sporadically operated neighborhood lime quarry to an industrial scale sand extraction operation that relies on frequent, intense blasting. This operation was, and remains, controversial and very unpopular with the immediate neighbors, some of whom live within only a few hundred yards of the mine.

In 2012 the Town of Frankfort adopted a comprehensive plan and a non-metallic mining licensing ordinance, then negotiated a non-metallic mining Operating Agreement with Bechel. Bechel also signed a County Highway Upgrade and Maintenance Agreement with Pepin County.

The Pepin County reclamation permit and the Town's Operating Agreement both state there will be no sand processing at the mine site. Raw materials from the Bechel mine are trucked to the Muskie Proppant LLC processing plant on Highway 10 west of Plum City.

The Town's Operating Agreement also specifies that there will be no fine materials (processing plant waste) returned to the mine site unless and until a Fine Materials Handling Plan (FMHP) is negotiated and signed.

In 2013 Frankfort spent several months attempting to negotiate a FMHP. We were proposing a robust testing regime that would have tested the fine materials for acrylamide (AMD) at the processing plant; in storage piles; and when incorporated into the soil during reclamation. If AMD consistently tested at below 2.0 parts per billion for five years, our proposal would have allowed the frequency and geographic intensity of testing to gradually diminish over time. If levels of AMD increased, possibly indicating breakdown of the PAM, we were proposing continued testing to monitor whether AMD levels would continue to increase.

For reasons they have never fully disclosed, Bechel and Muskie chose to discontinue their participation in the FMHP negotiations. In early 2014 they received permission from Pierce County to begin hauling fine materials to a non-operational sand and gravel pit in Pierce County, for use in eventual reclamation activities. Pierce County did not require them to do any kind of testing on these fine materials.

While we in Frankfort are glad that we don't currently have to worry about acrylamide accumulating in our community, we are sorry if the residents of another town may now be subject to possible groundwater contamination.

It is my understanding that the state Natural Resources Board has directed the DNR to conduct a strategic analysis of the impacts of frac sand mining in Wisconsin. I suggest that such an analysis should include a well-designed, rigorous series of tests to determine whether polyacrylamide flocculents can break down in the environment to potentially toxic acrylamides, and to evaluate any human health risk these substances may pose if they accumulate in our precious groundwater supplies.

Thank you,





March 2, 2015

Midwest Environmental Advocates and  
Wisconsin DNR

Re: DNR Study on Frac Sand Mining Impacts

Dear MEA and DNR staff:

My husband and I own 82 acres in northwestern Trempealeau County. We are very concerned about the adverse impacts of frac sand mining on Trempealeau County. We know people whose property values have been reduced by the proximity of their property to operating and permitted sand mines. We also know people who have had their health adversely impacted by the noise and light emitted by nearby mines.

We are concerned about the effects of sand mining on groundwater due to the depletion of topsoil and sand, and we are concerned about the health impacts of airborne crystalline silica on air quality.

We urge that the DNR study include air quality, groundwater quality, surface water quality, light pollution, noise pollution, the impact of chemicals used in processing, and the impact of mining on property values and communities.

We urge the DNR to supplement its own agency resources, which have been decimated by underfunding and additional proposed budget cuts, by taking advantage of University of Wisconsin faculty expertise and potential research opportunities which could be created as part of students' senior "Capstone" projects.

Sincerely,



To: Wisconsin DNR  
Cc: Midwest Environmental Advocates  
Re: DNR Frac Sand Strategic Analysis

Date: March 2, 2015

My concern about the mining of frac sand is the threat that it poses to the blufflands of southwestern Wisconsin. This region – known as the Driftless Area, has a beautiful and unique landscape that should be protected, not destroyed.

The name – The Driftless Area – refers to the fact that this area has never been covered with glaciers. As a result, the land is very rugged, with steep hills and narrow valleys. And it has unique natural communities which aren't found anywhere else, and which have many rare species.

The communities most at risk from mining activities are Dry Prairie, Oak Openings, and Dry-mesic Prairie.

These plant and animal communities are considered either rare or extremely rare both in Wisconsin, and globally.

**Dry Prairie** is a rare natural community that is more common in Wisconsin than other states. Most of it is on the steep, south-facing bluffs in the Driftless Area – these areas are often called 'Goat Prairies'. According to the DNR website, Dry Prairie is classified as S3 in Wisconsin, which means that it is "rare or uncommon" in the state. And as G3 globally, which indicates that it is rare and "vulnerable to extinction throughout its range".

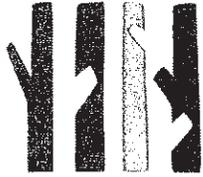
**Dry-mesic Prairie** is an even rarer community, because most prairies with moderate moisture were plowed and converted to agriculture. Dry-mesic prairies can still be found on lower slopes of Driftless Area bluffs. According to the DNR website it is considered S2, which means that it is "imperiled in Wisconsin because of rarity...making it very vulnerable to extirpation from the state". It's also ranked as G3 globally – rare and "vulnerable to extinction throughout its range".

**Oak Openings** are extremely rare. Very few examples of this community even exist. One of the problems with having so few of them around is that it's hard to know exactly what they were like, and what kinds of plants and animals they supported. In the driftless area we actually still have examples of this rare community. It is considered S1 – “critically imperiled in Wisconsin because of extreme rarity”. And G1 – “critically imperiled globally”.

If these plant and animal communities are destroyed by mining, they can't be replaced. They are unique places that deserve to be protected. I hope that the DNR will help us to protect our natural heritage.

Respectfully submitted,





Midwest  
Environmental  
Advocates

## Speaker Event Report Form

Speaker Name: Stacy Harbaugh

Date of event: 3/4/15

Location of the event: Black River Falls, Ho-Chunk

Bingo Hall

Number of contacts/people in attendance: 80

Short summary of event purpose or topic: DNR Strategic Analysis  
public event on scoping

Other details?

*Please return to Stacy on the next business day after your event.*

re: 3/4/15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

> Impact of water table

> Impact of quality of water

> Impact of funds on school district due to change in tax status.

we have heard that some schools have lost several thousand dollars due to sand mines in the area.

> what consequences will the sand mines have for face when violating ordinances that affect the environment.

we do citizens have fines if we shoot a deer out of season.

Wisconsin  
Grass  
Nei



**and Transp**

duced at each point of frac sand mining process and how far  
?

Ad

Are you speaking:

for yourself

on behalf of an organization

*De Forest Area Progressives*

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

long trackage when sand train passing and when other trains  
(passed)  
road?  
(and not leaking)?

out back?  
highway?  
(and not leaking)?

out back?  
on county road?  
(and not leaking)?

out back?  
on state highway?  
(and not leaking)?

out back?  
(closed top) – any road?  
: respirable crystalline silica (<2.5 microns), diesel exhaust, all  
O frac sand activity)

etter or drier in "sand country"?  
other words, do facilities need to plan for bigger events more  
*er and larger waste water ponds?*  
idered when any Hi-Cap well permit is being reviewed  
on of the "waters of the State"?  
s to DOJ? Right now, they do not  
be released into the waters of the state and make these  
er containing such chemicals be lined with impervious

## Suggestions for Strategic Study of Frac Sand Mining:

### Particulate Matter Produced by Sand Mining, Processing and Transport

- What is size, type, and volume of particulates produced at each point of frac sand mining process and how far from the facility boundary is the public impacted?
  - Mining when no blasting needed?
  - Mining when blasting is required?
  - Processing – dry process?
  - Processing – wet process?
  - Transload – truck to rail?
  - Transload – truck to pile?
  - Transload – pile to anything?
  - Transload – anything to a pile?
  - Conveyor spillage?
  - Blowing off storage pile?
  - Rail transport? (meaning measurement along trackage when sand train passing and when other trains pass on same track after sand train has passed)
  - Truck transport (dump truck) – on county road?
    - “Legal” truck (with load covered and not leaking)?
    - “Illegal” truck
      - Load not covered?
      - Load covered but leaking out back?
  - Truck transport (dump truck) – on state highway?
    - “Legal” truck (with load covered and not leaking)?
    - “Illegal” truck
      - Load not covered?
      - Load covered but leaking out back?
  - Truck transport (bulk hauler-top open) – on county road?
    - “Legal” truck (with load covered and not leaking)?
    - “Illegal” truck
      - Load not covered?
      - Load covered but leaking out back?
  - Truck transport (bulk hauler-top open) – on state highway?
    - “Legal” truck (with load covered and not leaking)?
    - “Illegal” truck
      - Load not covered?
      - Load covered but leaking out back?
  - Truck transport (bulk hauler-bottom dump-closed top) – any road?
- Particulate TYPES to be measured need to include: respirable crystalline silica (<2.5 microns), diesel exhaust, all others to compare vs pristine towns (those with NO frac sand activity)

### Water Considerations

- Are Wisconsin precipitation patterns becoming wetter or drier in “sand country”?
- Is there any consistency of precipitation events? In other words, do facilities need to plan for bigger events more frequently? *For example, for deeper and larger waste water ponds?*
- ~~All water users in a town or county should be considered when any Hi-Cap well permit is being reviewed~~
- ~~Who is responsible for maintenance of the condition of the “waters of the State”?~~
- ~~Can the DNR automatically refer frac sand polluters to DOJ? Right now, they do not.~~
- ~~Identify all chemicals used in processing that could be released into the waters of the state and make these publicly known.~~
- ~~Require that all settling ponds accepting wastewater containing such chemicals be lined with impervious substances to state specs (such as concrete)~~

Date: 3/4/15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

The DNR should have Adequate staff to properly monitor air and water quality.

Appropriate funding to finance these positions should be available

The funding could come from the mining companies by paying a fee per ton of sand extracted from the state.

If they are willing to take our resources, they should be willing to responsibly compensate the citizens of Wisconsin for those resources.

Date:

3/4/15

555  
4



Are ~~you~~ speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

yes

559  
5

Date:

3-4-15



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3-4-15

Ph  
~~600~~  
600  
60



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

AIR QUALITY

WATER QUALITY

DESTRUCTION OF ECOSYSTEMS

DESTRUCTION OF QUALITY OF LIFE.

605  
7

Date: 3-4-15



Are you speaking:

yes?

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

608  
8

Date:



Are you speaking:

- for yourself *yes*
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3/4/15

612  
9



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: MARCH 4, 2015



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

① THE DNR MUST ADDRESS THE FACT THAT THE HOCHUNK NATION ON THE BASIS OF INTERNATIONAL LAW WILL INVARIABLY PROCEED WITH DECLARING AN EXTRATERRITORIALITY BOUNDARY AROUND ITS TRUST LANDS.

② FURTHERMORE, LAST YEAR THE FEDERAL GOVERNMENT DISSOLVED FOR 16 DAYS AND TRIBES BECAME TOTALLY SOVEREIGN AGAIN, CONGRESS HAS YET TO ADDRESS THIS INTEREGGNUM.

(OVER)

③ THE DNR IS LIABLE FOR ANY DAMAGES PERPETRATED UPON THE STATE OF WISCONSIN PRIOR TO HAVING CONDUCTED A FEASIBILITY STUDY AND GRANTING APPROVAL, WITHOUT STUDY AND APPROVAL, SAND MINING'S WIDESPREAD ENVIRONMENTAL IMPACT SHOULD CEASE IMMEDIATELY

④ THE SAND MINING PRODUCT USED IN NORTH DAKOTA HAS CAUSED COUNTLESS OIL SPILLS. IN THE FALL OF 2013 A FREAK BLIZZARD SWEEP THROUGH NORTH DAKOTA, A NUMBER OF CATTLE HUDDLED TOGETHER ON THE SIDE OF A BLUFF FOR WARMTH & FROZE TO DEATH. WHEN THE SNOW MELTED IT WAS DISCOVERED THAT THEY DROWNED IN OIL. A VIETNAM VETERAN MARINE FROM 2/1/1 CONFIRMED THAT MORE THAN 300 SUCH INCIDENTS HAD OCCURRED BUT NOT REPORTED.

⑤ HOCHUNK ABORIGINAL RESOURCES SHOULD NOT BE USED TO PERPETRATE HARM ON MEMBERS OF THE 3 AFFILIATED TRIBES IN NORTH DAKOTA WHERE THE BAKKED SHALE MINING OPERATION IS LOCATED, THIS COULD BE CONSTRUED AS VIOLATION OF OUR TRIBAL TREATY/TREATIES CONDITIONS, ETC, ETC, ETC.

623

Date: 3/14/15

11



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Ph  
628  
12

Date:



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

*air quality*  
*water quality*

Date:

3/4/15

Yes

1034



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

①  
ing the sand mine  
corporations that  
to extract oil  
from the Earth.  
for being in business  
much money as  
Earth and from  
resent hate the  
ural Resources.

②  
iting your nose  
usiness telling  
n and cannot do.  
ratic governmental  
ations that steal  
e call you radical  
tremist tree huggers.  
contempt for you.  
trees and hills  
tons of sand  
our banks.

①

I'm here representing the sand mine owners and the oil corporations that use the free sand to extract oil and natural gas from the Earth. Our main goal for being in business is to extract as much money as possible from the Earth and from you consumers. ~~we are not interested in the environment~~  
~~we are not interested in the environment~~

The people I represent hate the Department of Natural Resources.

②

you're always sticking your nose in our private business telling us what we can and cannot do. We hate bureaucratic governmental rules and regulations that steal our profits. We call you radical environmental extremist tree huggers. We have only contempt for you. When we look at trees and hills we see logs and tons of sand and money in our banks.

We do not believe in global warming and take no responsibility for causing it with our accelerating production of fossil fuels. We hate solar and wind ~~and clean~~ energy because they are a threat to our stock holders profits. We will do anything to stop clean energy. Another thing we hate is organized labor and higher wages for workers.

We call ourselves the job creators. ④  
 The truth of the matter is we are not in the business to create jobs, we're in the business to create large profits for ourselves. Workers work for us, workers have no right to work, we would rather build robots than hire workers. <sup>Workers and robots</sup> ~~they~~ do what we tell them to do just like the

(5)

politicians ~~are~~ being ~~with~~ our  
 unlimited champagne contributions.  
 and we hate paying taxes —  
 that's why we have lawyers,  
 lobbyists, loopholes, corporate  
 welfare and over sea banks <sup>and</sup> bailouts.  
 We the corporate people control  
 government. We always have.  
 Our forefathers built the railroads,  
 killed the buffalo, and confined the  
 Indians to the reservations to

make way for progress and profits. (6)  
 We built America and we built  
 our business and will continue to  
 do so. If anyone gets in our way  
 we will bulldoze them down.  
 We will stop at nothing to get  
 everything we want. The only  
 thing that has even a remote chance  
 of stopping us ~~from~~ now is the one  
 thing the people I represent hate the  
 most — and that's love — and the

people who love more than money. We hate people who love clean air, clean water, clean land, clean energy. The people who love their home and community and take local action and love true democracy. The people who love mother earth and father sky. We hate the people who love God and the good with all their hearts, souls and minds and love their neighbors as much as they love themselves. ⑦

The people I represent have ⑧ no real love but they already have most of the money.

They want to buy your love and turn it into more money. The question is - how much is your love worth and are you going to protect it? If you sell your love it's gone forever.

Only host can stop  
them now.



3/4/15

9

051  
141

Date: 3/5/15



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Hx = Research act

Regulate =

- 1) Water
- 2) Air -
- 3) Land <sup>silicosis cancer</sup>
- 4) Health Study / outcome
- 5) Chemicals / (as in tobacco)
- 6) ~~contamination~~ contamination of wells (they should pay)
- 7) Wildlife
- 8) taxed - pay for land

7

(Fund the DNR) - employees  
 Township: presentation -  
 maint Agreement / ordinance

Do what they are required  
 to do. It is their job

2 (Note Income - tax)

SOLAR POWER PANELS USE

THE SAME SAND EXPORTED TO MDAR FOR FOSSIL FUELS FOR ELECTRICITY, ~~THE~~ OIL & GAS. TO CONTRIBUTE TOWARD THE ELIMINATION OF CLIMATE CHANGE A SECURING A FUTURE FOR GENERATIONS TO COME & CREATION OF A WISCONSIN-BASED SOLAR ENERGY PANEL INDUSTRY IN THE STATE OF WISCONSIN.

- 3) Health Study / outcome
- 6) Chemicals / (as in tobacco)
- 7) ~~the~~ Contamination of wells (they should pay)
- 8) Wildlife
- 9) taxed - pay for land

7 (Fund the DNR) - employees Township: presentation - maint Agreement / ordinance

Do what they are required to do It is their job

2 (Note Income - individual)

PHY 657  
15

Date: 3/4/2015

x-25



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Silicosis —  
Community disruption —

700  
110

Date: 3/4/15



Are you speaking:

for yourself

on behalf of an organization

Echo Valley Hope

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- AIR Quality STUDIES
- Water Quality
- distance of silica travel
- effect of silica on children
- effects on ~~let~~ livestock
- effects on wildlife
- restoration process - what can we expect?

March 4, 2015

Date: March 4, 2015 18



of private markets, should it  
- govern government action."  
("Progressive Reform")  
- government action and  
well being of its citizen  
- client people play a crucial  
- private & public sector decisions  
- protection of consumers,  
- and the environment.

Are you speaking:

for yourself

on behalf of an organization

- water resource decision  
- water resources belong to  
- commodities to be sold,  
- protected. We have a  
- preserve water resource

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Wair, Wis - Town of Preston,  
for 35 years. My concern  
high capacity wells in our  
with the ~~accumulative~~ effect  
in a small area - in  
surface water & ground-  
we dare the DNR have to



March 4, 2015

"Economic efficiency of private markets should it be the only value used to govern government action." (quoted from the Center for Progressive Reform)

I support thoughtful government action and reform to advance the well being of its citizen and environment. I believe people play a crucial role in enabling both private & public sector decisions that result in improved protection of consumers, public health and safety, and the environment.

I'm concerned how water resource decisions are made, namely that water resources belong to the public. They are not commoditized to be sold, but natural assets to be protected. We have a collective responsibility to preserve water resources for future generations.

I've lived outside of Blair, Wis - Town of Preston, County of Trempealeau for 35 years. My concern is the vast number of high capacity wells in our county. Do you consider the accumulative effect of these multiple wells in a small area - in regard to its aquifer & surface water & ground-water. What considerations does the DNR have to this question?



Date:

4 March 2015 20  
Ph 219



to protect the most vulnerable people—the very  
young people confronting health issues, and those

Are you speaking:

for yourself

on behalf of an organization

regarding environmental and land use policies and

protecting another vulnerable people—those who

I would like the Wisconsin Department of Natural  
Resources strategic analysis of frac sand mining  
activity to include the following issues in the scope  
of its study:

nearby tallic silica sand mines. Residents of the Town

are concerned about the accumulative effect of silica in the air that

exists in a 10 mile radius of a friend's former home

(name, Mary Anne, Mary D)

because it makes no difference anymore because no

area will be contaminated with silica sand.

DNR Hearing—Black River Falls  
4 March 2015

We as Christian people, take it upon ourselves to protect the most vulnerable people—the very young in developmental stages, our elderly wisdom people confronting health issues, and those who have handicaps.

Those individuals who are writing and implementing environmental and land use policies and those who do not enforce the regulations are creating another vulnerable people—those who live and breathe the air contaminated by non-metallic silica sand mines. Residents of the Town of Preston are surrounded by sand mines.

Who is responsible for studying and monitoring the accumulative effect of silica in the air that we and our animals breathe?

This map shows the establishment of sand mines in a 10 mile radius of a friend's former home in the Town of Preston. (City of Blair, my home, Mary Anne, Mary D)

Prevalent winds in this area are from the NW. But it makes no difference anymore because no matter from which direction the winds come, all will be contaminated with silica sand.

We want and we need your help!  
Thank you.

Date: 3-4-2015

123  
21



Are you speaking:

yes

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Ph  
22

Date: 3/4/2015



### frac Sand Mining Study Update

prior or current work for mining companies.  
ence and research.  
is, but cumulative as well.  
level, but as they may impact neighbors,

in the following areas:

Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

See ATTACHED

gen. It's a fact and it can't be disputed  
g, current standards don't test for most  
a relationship between PM10 and PM  
ring off site, down wind, etc.  
exposure may require special clothing and  
ld suggest limits based on time exposed.  
potentially exposed 24 hours a day, 7 days  
e with auto-immune and respiratory  
member who suffers from one, and twice  
ed to open a sand mine just over 100  
n... directly upwind.  
2.5 on livestock? Wildlife?  
has been working to answer some of these  
orce for this update.

opsoil quality.  
ful reclamation. Can it be returned to  
forestry? Can it be suitable and stable  
nstruction and use?  
utilize chemical fertilizer application?  
ind and water.

and the effects of the mining process

the facility and it's effects on:  
volume, quality, flows  
ess itself by removing/altering hills/slopes:  
water volume, quality, flows  
water recharge areas

## **Comments Regarding DNR Frac Sand Mining Study Update**

- Use independent researchers with no prior or current work for mining companies.
- Provide and utilize peer reviewed science and research.
- Evaluated not just as individual impacts, but cumulative as well.
- Cumulative impacts not just at the site level, but as they may impact neighbors, community, county and region.
- Should include research/evaluations in the following areas:
  - Air Quality:
    - This is a human carcinogen. It's a fact and it can't be disputed
    - On and off site monitoring, current standards don't test for most dangerous size. Is there a relationship between PM10 and PM 2.5? Testing and monitoring off site, down wind, etc.
    - Standards for employee exposure may require special clothing and respiratory protection, and suggest limits based on time exposed. Standards for neighbors potentially exposed 24 hours a day, 7 days a week? Effects on those with auto-immune and respiratory illness? I have a family member who suffers from one, and twice my neighbor has petitioned to open a sand mine just over 100 yards from my living room... directly upwind.
    - Effects of PM 10 and PM 2.5 on livestock? Wildlife?
    - Crispin Pierce of UWEC has been working to answer some of these issues, should be a resource for this update.
  - Soil:
    - Effects of stockpiling on topsoil quality.
    - Appropriate and successful reclamation. Can it be returned to successful agriculture or forestry? Can it be suitable and stable enough for residential construction and use?
    - Filtering and use ability to utilize chemical fertilizer application?
    - Erosion concerns, both wind and water.
  - Water
    - Both usage by the facility and the effects of the mining process itself.
    - Hi capacity well usage by the facility and it's effects on:
      - surface and groundwater volume, quality, flows
    - Effects of the mining process itself by removing/altering hills/slopes:
      - surface and groundwater volume, quality, flows
      - effects on groundwater recharge areas

- effects on filtering ability
- Cumulative effect of high capacity well and altered environment on surface and groundwater volume, quality, and flows.
- Effects and encroachments on ASNRI areas... Area of Special Natural Resources Interest. Some areas are so sensitive, that going public with the information is too much of a risk. The general public has to submit formal requests to find out what is there, and still may not find out.
- Habitat
  - Deforestation, how it affects habitat and short and long term animal movements and migrations. Can they be brought back?
  - Loss of large acreages in small areas
  - Effects on endangered resources such as Karner Blue Butterfly, Eagles, etc
  - Effects on sustainably managed resources that provide social, economic, and cultural benefits. Deer, upland and wetland game birds, fish.
- In closing, I am also a Jackson Co delegate to the Conservation Congress. Here is a copy of a resolution that is on the state ballot for the spring hearings. It seeks a study update suggesting some specific methods and sources. I'm hoping that the goals and visions in this resolution could also be included in this study.

Citizen Resolution # 270214

(For Hearing Officer completion)

**Silica Sand Mining in Wisconsin Study Update**



270214

Each year the Conservation Congress accepts written resolutions from the public, in each county throughout the state regarding natural resource issues of statewide concern. These resolutions are introduced by the public in attendance during the Conservation Congress county meeting that is held annually in conjunction with the DNR Spring Fish and Wildlife Hearings in April.

In order for a resolution to be accepted for further consideration by the Conservation Congress and for public vote at the annual Conservation Congress county meeting, all resolutions introduced must meet the following requirements:

1. The concern must be of statewide impact.
2. The concern must be practical, achievable and reasonable.
3. The resolution must have a clear title.
4. The resolution must clearly define the concern.
5. Current state statutes and laws must be considered, with reasonable cause for change being presented.
6. The resolution must clearly suggest a solution to the concern and a description of further action desired.

WHEREAS, silica sand mining in Wisconsin continues to grow and will impact thousands of acres of Wisconsin's landscape; and,

WHEREAS, the WDNR report on Silica Sand Mining in Wisconsin was completed in January 2012 and should be updated and expanded to include the most current information available; and,

WHEREAS, silica sand mining is particularly concentrated in West Central Wisconsin and the WDNR report does not include a technical analysis of the potential cumulative impacts of the loss of open space, wooded hills as water filters, air quality, or wildlife habitat, nor does the report specify a process by which WDNR will consider such cumulative impacts; and,

WHEREAS, the WDNR report provides no technical evaluation of the long-term impacts that silica sand mining and related activities have on the character, productivity, and future use of soils.

**BE IT RESOLVED**, that the WDNR partner with other State and Federal agencies to conduct an independent evaluation of silica sand mining in Wisconsin, which includes: opportunities for local official and public participation; lessons learned from recent mine violations in Wisconsin; monitoring and regulatory approaches from Iowa and Minnesota; a technical analysis of the cumulative and long-term environmental and soil impacts; and an expanded discussion of non-environmental impacts (e.g., archeological, tourism economy, nearby property values). The report shall also include recommended best practices for the planning, regulating, and monitoring of silica sand operations, including the cumulative impacts of such operations, for use by State, county, local, and tribal governments.

Dianne Richardson  
N12855 Poplar Rd  
Fairchild, WI 54741  
715-597-6717  
Jackson County

Signature: Dianne Richardson

Please print your resolution on 8 1/2 X 11 white paper (one-sided) and provide the WCC County Chair with TWO COPIES at the spring hearing. Only the individual author or designated representative may present the resolution. The

Date: 3-5-15

742  
23



Are you speaking:

for yourself

on behalf of an organization  
Women's Int'l League for Peace & Freedom

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- Psychological & Stress related effects of conflict, dust, light, vibration
- Social & spiritual disruption of rural communities.
- Long term effects on Nature from
  - loss of diversity
  - drawdown water tables
  - chemical contamination
- Long term effects on people, our children & grandchildren
- Rights of Nature & Future generations have ~~status~~ Standing in International Law

Ph 7460  
24  


Date: 3-7-15

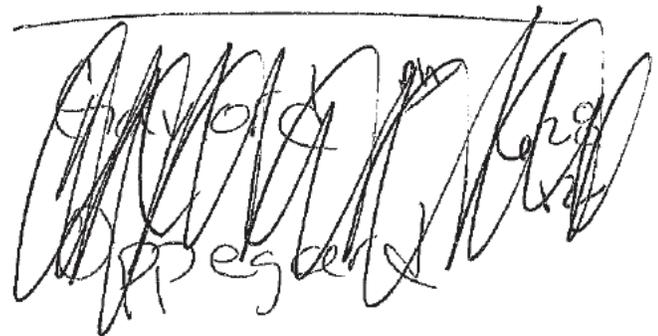


Are you speaking:

- for yourself
- on behalf of an organization

I myself

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

  
Gregory

752  
25

Date: 03/04/2015



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- is there a thru environmental study done on the impact of Sand Mining?
- at what cost to the local community ~~at~~
- who pays for wear on the roads leading to and from area?

757  
26

Date: 3-4-2015



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Water impact & certain species affected

803  
27

Date: 3/4/15

Name (please print) Carolyn Scott

Signature

Address

Full Farm  
in  
Pike

Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3-4-15



- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Air quality  
Water quality  
Road Safety  
The cumulative air effect on many mines and also water.

Date: 3/4/15

PK  
812  
28



Are you speaking:

for yourself

on behalf of an organization

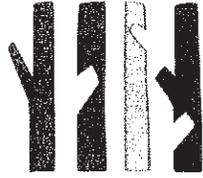
I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Air Quality Act  
Water Quality Act  
Trucks hauling sand -  
what is in the trail  
of dust they leave  
behind.

Trains - Regulate the  
number of trains  
travelling through small  
rural towns.

Proper  
DNR - Have staff to conduct  
the Analysis.

Analysis of how silica dust  
affects animals - endangered  
species. As well as the  
human consumption



Midwest  
Environmental  
Advocates

## Speaker Event Report Form

Speaker Name: Stacy Harbaugh

Date of event: 3/4/15

Location of the event: Black River Falls, Ho-Chunk

Bingo Hall

Number of contacts/people in attendance: 80

Short summary of event purpose or topic: DNR Strategic Analysis  
public event on scoping

Other details?

*Please return to Stacy on the next business day after your event.*

623

Date: 3/14/15

11



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

March 4, 2015

Date: March 4, 2015

715  
18

private markets should not govern government action." (Proposition "Reform")  
- government action and well being of its citizen  
- citizens play a crucial role in public sector decisions  
- protection of consumers, and the environment.

water resource decisions water resources belong to be protected. We have a preserve water resource

Lair, Wis - Town of Preston, or 35 years. My concern is the cumulative effect in a small area - in surface water & ground - does the DNR have to



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:



Date:

3/4/15

555  
4

Date:

MARCH 4, 2015



Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

yes

Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3-4-15



Are you speaking: *No*  
 for yourself  
 on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date: 3-4-15



Are you speaking: *NO*  
 for yourself  
 on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date:

3-4-15

Date:

3/4/15



Are you speaking:

NO

for yourself

on behalf of an organization

~~NA~~

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

No comment at this time.

Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Date:

3-4-15

re:

3/4/15

N  
S  
A



Are you speaking:

for yourself

on behalf of an organization

yes?

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

Are you speaking:

for yourself

on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- > Impact of water table
- > Impact of quality of water
- > Impact of funds on school district due to change in tax status.  
we have heard that some schools have lost several thousand dollars due to sand mines in the area.
- what consequences will the sand mines have face when violating ordinances that affect the environment.  
we do citizens have fines if we shoot a deer out of season.

PH  
~~6009~~  
6000  
60

Date: 3-4-2015

Date: 3-4-15



Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- Water quality (surface)
- Water quality (sub-surface)
- Air quality (2.5 PM silica)
- Impacts on dust or smaller
- Road traffic <sup>to Chetek</sup> culture and
- Road damage relationship to land
- Loss of habitat
- Impacts on Wildlife
- Increased rail line impact
- Impacts from processing of frac sand
- Impacts on community cohesion
- lack of remediation of frac sand mine requirements

Are you speaking:

- for yourself
- on behalf of an organization

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- AIR QUALITY
- WATER QUALITY
- DESTRUCTION OF ECOSYSTEMS
- DESTRUCTION OF QUALITY OF LIFE.

700  
110

Date: 3/4/15



Are you speaking:

for yourself

on behalf of an organization

Echo Valley Hope

I would like the Wisconsin Department of Natural Resources strategic analysis of frac sand mining activity to include the following issues in the scope of its study:

- AIR Quality studies
- Water Quality
- distance of silica travel
- effect of silica on children
- effects on ~~the~~ livestock
- effects on wildlife
- restoration process - what can we expect?