2011 DRAFTING REQUEST

Bill

Received: **12/27/2011**

Received By: **mshovers**

Wanted: **As time permits**

Companion to LRB:

For: **Kathleen Vinehout (608) 266-8546**

By/Representing: **David Lovell; 6-1537**

May Contact:

Drafter: **mshovers**

Subject: **Local Gov't - zoning**

Addl. Drafters:

Extra Copies: **EVM**

Submit via email: **YES**

Requester's email: **Sen.Vinehout@legis.wisconsin.gov**

Carbon copy (CC:) to:

Pre Topic:

No specific pre topic given

Topic:

Notice requirements for zoning ordinances related to frac sand mining

Instructions:

See attached

Drafting History:

Vers.	Drafted	Reviewed	Typed	Proofed	Submitted	Jacketed	Required
/?							Local
/1	mshovers 01/06/2012	mduchek 01/09/2012	jfrantze 01/09/2012		sbasford 01/09/2012	ggodwin 01/13/2012	

FE Sent For: at intro 1-27-12

<END>

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/?	mshovers						
/1	MES 1/6/12	1/9/12	1/9	1/9			

FE Sent For:

/1

<END>

STATE OF WISCONSIN – LEGISLATIVE REFERENCE BUREAU – LEGAL SECTION
(608–266–3561)

Sen. Vinehout
Joel Nikestuen 66102   David Covell 61537

(#1) Before a LGU may take action on an application for a frac sand mining, they must give a class one notice in 30 days before the meeting at which the LGU schedules any action on the application

LGU must also sent notice by 1st class mail to owner or occupant of any land/parcel located w/in 1 mile of where the activity is proposed

#2 ~~In any zoning ord. relating to agricultural use frac sand mining must be listed as prohibited or cond. use; In any zoning ord. related to residential use, frac sand mining must be listed as a prohibited use~~

Wont mine go thru a cond. use permit process except it res.

Shovers, Marc

From: Nilsestuen, Joel
Sent: Friday, January 06, 2012 12:22 PM
To: Shovers, Marc
Subject: FW: non-metallic mining inquiry
Attachments: Definition of Frac Sand - Info Request - Dec 2011.pdf

Per our discussion.

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Nilsestuen, Joel
Sent: Tuesday, January 03, 2012 12:20 PM
To: Lovell, David
Subject: FW: non-metallic mining inquiry

David,

Attached and in an e-mail to follow are the results of my search for a technical description of frac sand. I don't see a single source that yields a technical (i.e. particle size) definition that fits our purpose, but I wanted to share the information and get your thoughts. The information from CRS "Reservoir Stimulation" seemed most helpful. I've seen "northern white sand" used as a frac sand descriptor elsewhere, maybe this could be our route.

Kathleen had a few conversations with individuals who advocated a definition that relied on the use of the sand. She mentioned the possibility of going this route if we can't settle on a physical description of the sand.

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Jacquelyn Pless [mailto:jacquelyn.pless@ncsl.org]
Sent: Wednesday, December 21, 2011 11:42 AM
To: Nilsestuen, Joel
Subject: RE: non-metallic mining inquiry

Hi Joel,

My research response is attached here for you. I hope you find this information helpful, and please do not hesitate to contact me if you have any further questions!

Best,

Jacquelyn Pless

Energy Policy Associate
National Conference of State Legislatures (NCSL)
Phone: 303.856.1509 | Email: jacquelyn.pless@ncsl.org

From: Nilsestuen, Joel [mailto:Joel.Nilsestuen@legis.wisconsin.gov]
Sent: Tuesday, December 13, 2011 9:50 AM
To: Jacquelyn Pless
Subject: RE: non-metallic mining inquiry

That will work fine. Thank you, Jacquelyn. --Joel

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Jacquelyn Pless [mailto:jacquelyn.pless@ncsl.org]
Sent: Tuesday, December 13, 2011 10:48 AM
To: Nilsestuen, Joel
Subject: Re: non-metallic mining inquiry

I don't have any information on this at hand, but I will pull what I can together for you. I'm out of the office today and tomorrow and will get something to by the end of the week!

Best,
Jacquelyn

On Dec 13, 2011, at 9:04 AM, "Nilsestuen, Joel" <Joel.Nilsestuen@legis.wisconsin.gov> wrote:

> Hi Jacquelyn,
>
> Thank you for your assistance. I don't have a hard deadline. That said, we are currently drafting and need a definition to proceed.

Also, I'd like to find a definition that does not rely upon the intended use of the product. Our preference would be to characterize frac sand itself (particle size, other physical attributes perhaps?).

Thank you again for your help. It is very much appreciated and I look forward to working with you. Please contact me with any questions or concerns. --Joel

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Jacquelyn Pless [mailto:jacquelyn.pless@ncsl.org]
Sent: Monday, December 12, 2011 6:24 PM
To: Nilsestuen, Joel
Subject: FW: non-metallic mining inquiry

Hi Joel,

Your request for information on the legal definition of frac sand was forwarded to me. I'd be happy to help you with this—are you working under a deadline I should keep in mind?

Best regards,

Jacquelyn Pless

Energy Policy Associate
National Conference of State Legislatures (NCSL)
Phone: 303.856.1509 | Email: jacquelyn.pless@ncsl.org

From: Nilsestuen, Joel [mailto:Joel.Nilsestuen@legis.wisconsin.gov]
Sent: Monday, December 12, 2011 11:13 AM
To: bruce.feustel@ncsl.org
Subject: non-metallic mining inquiry

Mr. Feustel,

My name is Joel Nilsestuen and I do policy/legislative work for Wisconsin state Senator Kathleen Vinehout. I am writing with the hope that you can put me in touch with one of your policy analysts who might assist our office. We are currently drafting legislation relating to non-metallic mining, specifically sand to be used in hydraulic fracture mining. I am particularly interested in establishing a legal definition of "frac sand". Is this a matter in which NCSL could be of assistance?

Sincerely,

Joel Nilsestuen

Office of Sen. Kathleen Vinehout

PO Box 7882

Madison, WI 53707-7882

(608) 266-8546

Joel.Nilsestuen@legis.wisconsin.gov

NATIONAL CONFERENCE *of* STATE LEGISLATURES

The Forum for America's Ideas

7700 East First Place Denver, CO 80230
ph (303) 364-7700 fax (303) 364-7800
www.ncsl.org

Definition of Frac Sand
December 21, 2011
Jacquelyn Pless

Thank you for contacting NCSL in regards to defining frac sand, specifically a definition that does not rely upon the intended use of it but rather its characteristics.

I ran a search on state statutes as well as recent state legislation for a legal definition of frac sand, but my search did not yield any results.

NCSL is able to provide data on the legislative issues surrounding natural gas and fracking legislation; however, the scope of this request may be more suitable for a different organization to answer, such as a mining or industrial association. Nonetheless, below are a few outside resources that may be helpful and guide you to the information you are seeking.

External Resources

DelSol Industrial Services Inc. provides some information on the characteristics of frac sand: http://www.delsolservices.com/frac-sand/57-frac-sand-is-my-sand-frac-sand.html. I recommend contacting them at 830-935-4430 for more information on the detailed requirements which may help guide your legislative definition.

Furthermore, the Industrial Minerals Association North America provides some insights: http://www.ima-na.org/industrial-sand.

Sand Dollars—Mining Frac Sand in the River Valley:
http://www.bigrivermagazine.com/fracsand.pdf

Technical Data: http://www.hexion.com/products/technicaldatasheet.aspx?id=4660.

I hope you find this information helpful. Please do not hesitate if you have any questions or if you would like more information on the legislative issues that are arising in state legislatures.

He emailed it instead.

Good reading.

kj

From: Anthony Andrews [mailto:AANDREWS@crs.loc.gov]
Sent: Wednesday, December 14, 2011 3:40 PM
To: Jackelen, Karrie
Subject: Proppants for hydraulic fracturing

Karrie,

I've attached a couple pages discussing properties of proppants. The pages are from Schlumberger's "Reservoir Stimulation" 3rd ed.

I'll see what other references I can find.

Anthony Andrews
Specialist in Energy & Defense Policy
Resources, Science & Industry Division
Congressional Research Service
202-707-6843
aandrews@crs.loc.gov

Shovers, Marc

From: Nilsestuen, Joel
Sent: Friday, January 06, 2012 12:21 PM
To: Shovers, Marc
Subject: FW: Proppants for hydraulic fracturing
Attachments: Proppants_001.pdf; proppants_02.pdf; proppants_03.pdf

Per our discussion.

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Nilsestuen, Joel
Sent: Tuesday, January 03, 2012 12:20 PM
To: Lovell, David
Subject: FW: Proppants for hydraulic fracturing

CRS info on frac sand.

Joel Nilsestuen
Office of Sen. Kathleen Vinehout

PO Box 7882
Madison, WI 53707-7882

(608) 266-8546
Joel.Nilsestuen@legis.wisconsin.gov

From: Jackelen, Karrie [mailto:Karrie.Jackelen@mail.house.gov]
Sent: Wednesday, December 14, 2011 3:52 PM
To: Nilsestuen, Joel
Subject: FW: Proppants for hydraulic fracturing

Proppant grain roundness is a measure of the relative sharpness of the grain corners, or grain curvature. Particle sphericity is a measure of how close the proppant particle or grain approaches the shape of a sphere. If the grains are round and about the same size, stresses on the proppant are more evenly distributed, resulting in higher loads before grain failure occurs. Angular grains fail at lower closure stresses, producing fines that reduce fracture conductivity.

Proppant density has an influence on proppant transport because the settling rate increases linearly with density. Therefore, high-density proppants are more difficult to suspend in the fracturing fluid and to transport to the top of the fracture. Placement can be improved in two ways: using high-viscosity fluids to reduce settling or increasing the injection rate to reduce treatment time and the required suspension time. Also, high-density proppants require more mass of material to fill a given fracture volume.

7-7.2. Classes of proppants

Sand is the most commonly used proppant. It is the most economical, is readily available and generally provides sufficient fracture conductivity for closure stresses less than 6000 psi. Its specific gravity is about 2.65. Depending on the overall balance of physical properties, sand can be subdivided into groups:

- northern white sand
- Texas brown sand
- Colorado silica sand
- Arizona silica sand.

American Petroleum Institute (API) standards can be used to similarly qualify and group any sand source.

Resin coatings are applied to sand (usually northern white sand) to improve proppant strength and to reduce flowback during production. Resin-coated sand is stronger than conventional sand and may be used at closure stresses less than 8000 psi, depending on the type of resin-coated sand. At closure stresses greater than 4000 psi and without adverse fluid effects on the resin, resin-coated sand has a higher conductivity than conventional sand. The resin helps spread the stress over a larger area of the sand grain and reduces the point loading. When grains crush, the resin coating helps encapsulate the crushed portions of the grains and prevents them from migrating and plugging the flow channel. In some cases, resin-coated proppant may be used as an alternative to ISP, which is discussed next. Resin-coated sands have a specific gravity of about 2.55.

The resin coating on some RCPs is cured (at least partially) during the manufacturing process to form a nonmelting, inert film. Proppants processed in this fashion are called precured-resin-coated proppants. The major application for precured-resin-coated proppants is to enhance the performance of sand at high stress levels.

A curable resin coating may also be applied to sand or other types of proppants. The major application of curable-resin-coated proppants is to prevent the flowback of proppants near the wellbore. The curable-resin-coated proppants are mixed and pumped in the later stages of the treatment, and the well is shut in for a period of time to allow the resin to bind the proppant particles together. Theoretically, the RCP cures into a consolidated, but permeable, filter near the wellbore.

Although they provide versatile and reliable performance, RCPs contain components that can interfere with common fracturing fluid additives, such as organometallic crosslinkers, buffers and oxidative breakers. These undesirable interactions have been reported to interfere with the crosslinking of organometallic crosslinkers, suppress fracturing fluid cleanup by consuming oxidative breakers and compromise proppant-pack bonding, leading to reduced permeability, proppant flowback and increased proppant crushing (Dewprashad *et al.*, 1993; Nimerick *et al.*, 1990; Stiles, 1991; Smith *et al.*, 1994). Fiber technology, as discussed in Section 11-6.4, is an alternative technique for proppant flowback problems that introduces no chemical compatibility issues or special curing requirements for time and temperature. Guidelines for minimizing the undesirable effects of RCPs are listed in Sidebar 7C.

ISP is fused-ceramic (low-density) proppant or sintered-bauxite (medium-density) proppant. The sintered-bauxite ISP is processed from bauxite ore containing large amounts of mullite. This is in contrast to a high-strength proppant, which is processed from bauxite ore high in corundum. ISP is generally used at closure stresses greater than 5,000 psi, but less than 10,000 psi. The specific gravity of ISP ranges from 2.7 to 3.3.

High-strength proppant is sintered bauxite containing large amounts of corundum, and it is used at closure stresses greater than 10,000 psi. High-strength

7C. Minimizing the effects of resin-coated proppants

To minimize the effects of curable-resin-coated proppant and fluid interactions, the following guidelines are recommended.

- Use fiber reinforcement.
- Minimize the amount of RCP. If proppant flowback control is required, consider alternate materials for addressing the problem. Card *et al.* (1994) described the incorporation of fibers in the proppant pack as a means to prevent flowback.
- Use precured-resin-coated proppants. These materials are cured (at least partially) and are typically less reactive with fracturing fluid additives than fully curable-resin-coated proppants.
- Avoid using curable-resin-coated proppants in conjunction with high concentrations of oxidative breakers. RCPs decrease breaker effectiveness. Conversely, oxidative breakers can compromise the strength development of an RCP. The reactivity of RCPs with oxidative breakers varies, and some RCPs have little effect on breaker activity. Additional breaker may be required when using RCPs to ensure adequate cleanup.
- Always determine the compatibility of the fracturing fluid and the RCP before the treatment. Typically, 30%–60% of the curable-resin coating can be lost to the fluid. Resin loss does not behave in a straightforward manner with changes in temperature or time at temperature. Resin loss increases as exposure to shear increases.
- Never batch mix RCPs in fracturing fluids. Minimize handling of RCPs to keep dust levels low. Solid resin is a good emulsion stabilizer and can create an emulsion with the fracturing fluid that is not miscible in water.

proppant is the most costly proppant. Its specific gravity is 3.4 or greater.

7-8. Execution

During the fracturing treatment, fluid chemistry comes together with proppant handling, mixing and pumping equipment to create the desired propped fracture. The field environment is often quite different from the ideal laboratory conditions in which the fracturing fluid or additive was developed. The following sections address the field environment.

7-8.1. Mixing

Fluids may be batch mixed or continuously mixed. Batch mixing has slightly different meanings, depending on the fluid prepared. For oil-base fluids, it means that all ingredients (except fluid-loss additive, breaker and proppant) are blended together in the fracture tanks (typically, 500-bbl capacity) before pumping begins. The tanks are usually mixed the day before pumping because the gel takes several hours to form. A fluid-loss additive and a breaker are added on the fly as the gel is pumped. These materials are added on the fly to prevent the fluid-loss additive from settling out in the fracture tanks or the breaker from prematurely reducing the gel viscosity prior to pumping.

For batch-mixed, water-base fluids, the bactericide, polymer, salt, clay stabilizer, etc., are mixed together before pumping. The polymer is given sufficient time to hydrate in the tanks before the job begins. The pH of the gel is adjusted for optimum crosslinking. Crosslinker is added on the fly in the case of transition metal (Ti and Zr) crosslinkers. Because borate crosslinking occurs only at a high pH, boric acid can be added to the polymer in the tanks, and a base such as NaOH can then be added on the fly to raise the pH and to initiate crosslinking.

As discussed later, batch mixing affords the best opportunity for quality assurance. Unfortunately, it also results in wasted materials. There are always tank bottoms, the fluid that cannot be drawn out of the fracture tanks. Typically, tank bottoms represent at least 7% of the total volume of fluid in the tanks, resulting in the waste of 7% of the batch-mixed chemicals and requiring costly disposal. Also, this fluid must be broken and the fracture tanks should be cleaned. If the job is postponed and the gel degrades because of bacterial action, the entire batch of gel may have to be discarded. From a cost standpoint, continuously mixed fluid is more desirable. In this mode, all materials are added on the fly, so there is no wasted fluid and no unnecessary expense. Polymer slurries (concentrated suspensions of guar or HPG in diesel) were developed so that polymer could be accurately metered and so that it would disperse and hydrate rapidly enough for continuous mixing (Constien *et al.,* 1988; Yeager and Bailey, 1988). This type of operation requires accurate metering of all materials and makes quality assurance more difficult. Techniques for on-site rheology measurement have been developed so that the linear (precrosslinked) gel viscosity can be closely monitored. Because of environmental considerations and disposal costs, most aqueous-based fluids are now continuously mixed.

Reservoir Stimulation
Third Edition

Editors

Michael J. Economides
University of Houston, USA

Kenneth G. Nolte
Schlumberger Technology Corporation, USA

JOHN WILEY & SONS, LTD
Chichester • Weinheim • New York • Brisbane • Singapore • Toronto

IMA-NA Industrial Minerals Association North America

There's more to industrial minerals than you think!

Did you know?

Industrial minerals are environmentally responsible and are used in hazardous materials landfill liners, chemical-spill absorbents, and air and water filtration.

Return to About Industrial Minerals

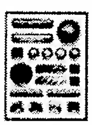
Industrial Sand

What Is Industrial Sand?

Industrial sand is a term normally applied to high purity silica sand products with closely controlled sizing. It is a more precise product than common concrete and asphalt gravels. Silica is the name given to a group of minerals composed solely of silicon and oxygen, the two most abundant elements in the earth's crust. In spite of its simple chemical formula, SiO2, silica exists in many different shapes and crystalline structures. Found most commonly in the crystalline state, it also occurs in an amorphous form resulting from weathering or plankton fossilization.

Quartz is the most common silica crystal and the second most common mineral on the earth's surface. It is found in almost every type of rock; igneous, metamorphic and sedimentary. While quartz deposits are abundant, and quartz is present in some form in nearly all mining operations, high purity and commercially viable deposits occur less frequently. Silica sand deposits are most commonly surface-mined in open pit operations, but dredging and underground mining are also employed. Extracted ore undergoes considerable processing to increase the silica content by reducing impurities. It is then dried and sized to produce the optimum particle size distribution for the intended application.

For industrial and manufacturing applications, deposits of silica yielding products of at least 95% SiO2 are preferred. Silica is hard, chemically inert and has a high melting point, attributable to the strength of the bonds between the atoms. These are prized qualities in applications like foundries and filtration systems. Quartz may be transparent to translucent and has a vitreous luster, hence its use in glassmaking and ceramics. Industrial sand's strength, silicon dioxide contribution and non-reactive properties make it an indispensable ingredient in the production of thousands of everyday products.

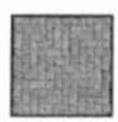


Glassmaking: Silica sand is the primary component of all types of standard and specialty glass. It provides the essential SiO2 component of glass formulation and its chemical purity is the primary determinant of color, clarity and strength. Industrial sand is used to produce flat glass for building and automotive use, container glass for foods and beverages, and tableware. In its pulverized form, ground silica is required for production of fiberglass insulation and reinforcing glass fibers. Specialty glass applications include test tubes and other scientific tools, incandescent and fluorescent lamps, television and computer CRT monitors.

MetalCasting: Industrial sand is an essential part of the ferrous and non-ferrous foundry industry. Metal parts ranging from engine blocks to sink faucets are cast in a sand and clay mold to produce the external shape, and a resin bonded core that creates the desired internal shape. Silica's high fusion point (1760°C) and low rate of thermal expansion produce stable cores and molds compatible with all pouring temperatures and alloy systems. Its chemical purity also helps prevent interaction with catalysts or curing rate of chemical binders. Following the casting process, core sand can be thermally or mechanically recycled to produce new cores or molds.

Metallurgical: Industrial sand plays a critical role in the production of a wide variety of ferrous and non-ferrous metals. In metal production, silica sand operates as a flux to lower the melting point and viscosity of the slags to make them more reactive and efficient. Lump silica is used either alone or in conjunction with lime to achieve the desired base/acid ratio required for purification. These base metals can be further refined and modified with other ingredients to achieve specific properties such as high strength, corrosion resistance or electrical conductivity. Ferroalloys are essential to specialty steel production, and industrial sand is used by the steel and foundry industries for de-oxidation and grain refinement.

Chemical Production: Silicon-based chemicals are the foundation of thousands of everyday applications ranging from food processing to soap and dye production. In this case, SiO2 is reduced to silicon metal by coke in an arc furnace, to produce the Si precursor of other chemical processes. Industrial sand is the main component in chemicals such as sodium silicate, silicon tetrachloride and silicon gels. These chemicals are used in products like household and industrial cleaners, to manufacture fiber optics and to remove impurities from cooking oil and brewed beverages.



Building Products: Industrial sand is the primary structural component in a wide variety of building and construction products. Whole grain silica is put to use in flooring compounds, mortars, specialty cements, stucco, roofing shingles, skid resistant surfaces and asphalt mixtures to provide packing density and flexural strength without adversely affecting the chemical properties of the binding system. Ground silica performs as a functional extender to add durability and anti-corrosion and weathering properties in epoxy based compounds, sealants and caulks.

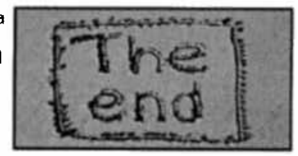
Paint and Coatings: Paint formulators select micron-sized industrial sands to improve the appearance and durability of architectural and industrial paint and coatings. High purity silica contributes critical performance properties such as brightness and reflectance, color consistency, and oil absorption. In architectural paints, silica fillers improve tint retention, durability, and resistance to dirt, mildew, cracking and weathering. Low oil absorption allows increased pigment loading for improved finish color. In marine and maintenance coatings, the durability of silica imparts excellent abrasion and corrosion resistance.

Ceramics & Refractories: Ground silica is an essential component of the glaze and body formulations of all types of ceramic products, including tableware, sanitary ware and floor and wall tile. In the ceramic body, silica is the skeletal structure upon which clays and flux components attach. The SiO2 contribution is used to modify thermal expansion, regulate drying and shrinkage, and improve structural integrity and appearance. Silica products are also used as the primary aggregate in both shape and monolithic type refractories to provide high temperature resistance to acidic attack in industrial furnaces.

Filtration and Water Production: Industrial sand is used in the filtration of drinking water, the processing of wastewater and the production of water from wells. Uniform grain shapes and grain size distributions produce efficient filtration bed operation in removal of contaminants in both potable water and wastewater. Chemically inert, silica will not degrade or react when it comes in contact with acids, contaminants, volatile organics or solvents. Silica gravel is used as packing material in deep-water wells to increase yield from the aquifer by expanding the permeable zone around the well screen and preventing the infiltration of fine particles from the formation.

Oil and Gas Recovery: Known commonly as proppant, or "frac sand," industrial sand is pumped down holes in deep well applications to prop open rock fissures and increase the flow rate of natural gas or oil. In this specialized application round, whole grain deposits are used to maximize permeability and prevent formation cuttings from entering the well bore. Silica's hardness and its overall structural integrity combine to deliver the required crush resistance of the high pressures present in wells up to 2,450 meters deep. Its chemical purity is required to resist chemical attack in corrosive environments.

Recreational: Industrial sand even finds its way into sports and recreation. Silica sand is used for golf course bunkers and greens as well as the construction of natural or synthetic athletic fields. In golf and sports turf applications silica sand is the structural component of an inert, uncontaminated, growing media. Silica sand is also used to repair greens and to facilitate everyday maintenance like root aeration and fertilization. The natural grain shape and controlled particle size distribution of silica provides the required permeability and compaction properties for drainage, healthy plant growth and stability.



State of Wisconsin
2011 - 2012 LEGISLATURE

LRB-3710/P?
MES

RMR

PRELIMINARY DRAFT - NOT READY FOR INTRODUCTION

med

D-NOTE

WANTED: Tues 1/10

AN ACT ...; relating to: ~~??~~ notice requirements for zoning actions related to frac sand mining.

Gen

Analysis by the Legislative Reference Bureau

Under current law, a political subdivision (a city, village, town that is authorized to exercise village powers, or county) is authorized to enact zoning ordinances that regulate and restrict the height, number of stories, and size of buildings and other structures, the percentage of lot that may be occupied, the size of yards and other open spaces, the density of population, the location and use of buildings, structures, and land for various purposes, and the areas in which agriculture, industry, mining, and other activities may be conducted.

any at least e 1

Under this bill, before a political subdivision may take any action on an application for a frac sand mine, the ~~board~~ must publish a class one notice 30 days before the meeting, and must also send written notice of the meeting, by first class mail, 30 days before the meeting, to the owner or occupant of land that is located within one mile of the proposed mine.

governing body

at least

The bill defines frac sand as a type of industrial sand that could be used in deep well applications to prop open rock fissures and increase the flow rate of natural gas or oil.

For further information see the ***local*** fiscal estimate, which will be printed as an appendix to this bill.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 59.69 (4i) of the statutes is created to read:

59.69 **(4i)** FRAC SAND MINING. (a) *Definition.* In this subsection, "frac sand" means a type of industrial sand that could be used in deep well applications to prop open rock fissures and increase the flow rate of natural gas or oil.

(b) *Notice requirements.* The board may not take any action on an application for a frac sand mine unless the board gives notice of the meeting at which it plans to take action on the application by publishing a class 1 notice, under ch. 985, at least 30 days before the meeting. The board must also send written notice of the meeting by 1st class mail, at least 30 days before the meeting, to the owner or occupant of any parcel of land that is located within one mile of the site where the proposed frac sand mine is to be located.

SECTION 2. 60.61 (3e) of the statutes is created to read:

60.61 **(3e)** FRAC SAND MINING. (a) *Definition.* In this subsection, "frac sand" means a type of industrial sand that could be used in deep well applications to prop open rock fissures and increase the flow rate of natural gas or oil.

(b) *Notice requirements.* The town board may not take any action on an application for a frac sand mine unless the board gives notice of the meeting at which it plans to take action on the application by publishing a class 1 notice, under ch. 985, at least 30 days before the meeting. The town board must also send written notice of the meeting by 1st class mail, at least 30 days before the meeting, to the owner or occupant of any parcel of land that is located within one mile of the site where the proposed frac sand mine is to be located.

SECTION 3. 62.23 (7) (hj) of the statutes is created to read:

62.23 **(7)** (hj) *Frac sand mining.* 1. In this paragraph, "frac sand" means a type of industrial sand that could be used in deep well applications to prop open rock fissures and increase the flow rate of natural gas or oil.

2. The governing body of a city may not take any action on an application for a frac sand mine unless the governing body gives notice of the meeting at which it plans to take action on the application by publishing a class 1 notice, under ch. 985, at leas 30 days before the meeting. The governing body must also send written notice of the meeting by 1st class mail, at least 30 days before the meeting, to the owner or occupant of any parcel of land that is located within one mile of the site where the proposed frac sand mine is to be located.

SECTION 4. Initial applicability.

(1) This act first applies to to an application for a frac sand mine that is filed with a political subdivision on the effective date of this subsection.

(END)

D-NOTE

DRAFTER'S NOTE
FROM THE
LEGISLATIVE REFERENCE BUREAU

LRB-3710/1dn
MES:...:...
ned

Date

or it is

Senator Vinehout:

Please review this draft very carefully to ensure it meets your intent. The drafting instructions did not contain a definition of frac sand or a time limit for when the notice must be mailed out to land owners. For the time limit for mailing out notice to land owners or occupants, I chose 30 days because it's the same limit as the class one notice requirement. Is that OK?

1

The definition for frac sand that I created is based on information I found on industrial sand from the Industrial Minerals Association North America website. An email Joel Nilsestuen send me, with information on frac sand which he received from NCSL, mentioned IMA-NA as a possible source of information. Is this definition consistent with your intent?

Marc E. Shovers
Managing Attorney
Phone: (608) 266-0129
E-mail: marc.shovers@legis.wisconsin.gov

DRAFTER'S NOTE
FROM THE
LEGISLATIVE REFERENCE BUREAU

LRB-3710/1dn
MES:med:jf

January 9, 2012

Senator Vinehout:

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Marc E. Shovers
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Godwin, Gigi

From: Larson, Benjamin
Sent: Friday, January 13, 2012 3:59 PM
To: LRB.Legal
Subject: Draft Review: LRB 11-3710/1 Topic: Notice requirements for zoning ordinances related to frac sand mining

Please Jacket LRB 11-3710/1 for the SENATE.