

COPY

ORDINANCE: 2013-01
AMENDED: JUNE 17, 2013

STATE OF WISCONSIN
TOWN OF STOCKHOLM
Pepin County, Wisconsin

OPERATOR'S LICENSE FOR FRAC SAND OPERATIONS

Section 1. Findings, Purpose, Authority and Intent

(1) **Findings.** "Frac Sand" is hydraulic fracture grade silica sand used in the exploration, drilling, production and recovery of oil and gas. Industrial silica sand that can be processed into "frac sand" is found in many parts of Western Wisconsin including Pepin County. Unlike other nonmetallic mining operations, the mining, extraction, storage, processing and transportation of frac sand ("frac sand operations") in the Town of Stockholm ("Town"), can adversely affect the environment, health, safety and general welfare of Town residents, land owners, and members of the general public who come to the Town. Frac sand operations involve hundreds of heavy trucks each day transporting industrial silica sand and frac sand to and from mining sites, off site processing facilities, and rail and barge loading facilities. Unlike other nonmetallic mining operations, frac sand operations, because of their size and scope, will have adverse effects on the use and enjoyment of the many resources of the Town, including its groundwater, surface water, landscape, natural beauty, public roads and non-mining businesses, including farming and tourism, which exist in the Town. The Town's primary economic bases are farming and tourism. Tourists will not come to the Town to visit, shop, dine, and play, if they must compete for the use of the roads with heavy frac sand truck traffic. Many tourism jobs will be lost if hundreds of frac sand trucks each day travel the roads and highways that go through the Town. The presence of frac sand processing and trans loading facilities with their high volume of frac sand truck traffic on Town, County and State roads that run through the Town will cause a substantial decrease in property values in the Town. The loss of tourism jobs coupled with a decrease in property values in the Town will reduce the Town's and County's overall tax base and sales tax revenues. These losses will negatively affect the ability of Pepin County to provide essential government services to the residents of the Town.

While certain aspects of frac sand operations are subject to state or federal regulation, there is no comprehensive state or federal regulation of frac sand mining, extraction, storage, processing and/or transport. High volumes of daily truck traffic from frac sand operations can present safety issues and concern for the proper and timely maintenance of County and Town roads and exposures to nuisances of noise and dust. Without Town regulation of frac sand operations, as intended by this Ordinance, serious and irreparable harms to the health, safety and general welfare of the Town and its citizens, its environment, air and water quality and its economy are substantially certain to occur.

(2) **Purpose.** The purpose of this Licensing Ordinance is to provide standards for frac sand operations as set forth in Sections 4 and 6, below, and to require licensing of operators of frac sand operations in order to preserve and protect the health, safety, and general welfare of the people and communities within the Town consistent with the standards set forth and described in this Ordinance, and with the following goals:

- a. Preserve and protect the Town's natural beauty, farmland, and natural resources;
- b. Maintain a vibrant, rural farm-oriented community; and
- c. Encourage and support a viable economic climate.

(3) **Authority.** This Ordinance is adopted pursuant to the village and police powers granted to the Town under Wis. Stats. §§ 60.10, 60.22, 61.34, 66.0415, other authority provided to Towns under state statutes; and by the decision of the Wisconsin Supreme Court in its decision in *Zwiefelhofer v. Town of Cooks Valley*, 2012 WI 7 (February 8, 2012), upholding the Nonmetallic Mining Ordinance adopted by the Town of Cooks Valley. Any amendment, repeal or recreation of the statutes relating to this Ordinance made after the effective date of this Ordinance is incorporated by reference on the effective date of the amendment, repeal or recreation. As provided by *Zwiefelhofer*, this Ordinance will be applied to license applications on a case-by-case basis and the Town Board may prohibit or deny frac sand operations in the Town of Stockholm when such operations would not be in the best interests of its citizens nor consistent with the protection of public health, safety and the general welfare of its citizens.

Section 2. Interpretation, Application, Severability and Modification

(1) **Interpretation.** The provisions of this Ordinance are minimum requirements and shall be liberally construed in favor of the Town and shall not be deemed a limitation or repeal of any other power granted to the Town by Wisconsin Statutes.

(2) **Application.** The provisions of this Ordinance shall apply to all nonmetallic frac sand operations proposed for any location or site in the Town, including but not limited to the mining, extraction, storing, processing and transport of industrial silica sand and/or fracture grade frac sand intended for use in the exploration and drilling for oil and gas products.

(3) **Severability.** Should any part of this Ordinance be adjudged invalid, unlawful or unenforceable by a court of competent jurisdiction including appeals, such judgment shall not be applicable to any other part of this Ordinance, which parts shall remain in full force and effect.

(4) **Modification.** Any of the provisions of this Ordinance, with the exception of the General Standards described in Section 4, below, may be modified by the development of an Operator's Agreement between the Town and the Operator if the Town Board determines that the intent of this Agreement can be achieved through the use of alternative measures, and that the public health, safety and welfare will not be adversely affected thereby.

Section 3. Definitions

(1) **"Adjoining Landowner"** means any property owner with land within one mile of the proposed frac sand operation whether or not there is a residence or structure on the property.

(2) **"Frac Sand"**. "Frac Sand" is hydraulic fracture grade silica sand used in the exploration, drilling, production and recovery of oil and gas.

(3) The term **"frac sand operations"**, as used in this Ordinance, shall mean all of the following:

a. Operations or activities at a nonmetallic mining site for the extraction from the earth, at either an open pit mine site or by tunneling into an underground mine site, of mineral aggregates or nonmetallic minerals for sale or use by the mine operator as industrial silica sand to be processed and used as fracture grade frac sand.

b. Manufacturing processes carried out either at a mining site or at other non-mining off-site locations, related to the preparation or processing of industrial silica sand (mineral aggregates or nonmetallic minerals) obtained from mining site into frac sand, including but not limited to storage, blending, washing, blasting, grading, crushing, screening, scalping and dewatering of said industrial silica sand.

c. Transport of the industrial silica sand or the processed frac sand to and from any site, and of any waste materials from the extraction or processing sites.

The term **"frac sand operations,"** as used in this Ordinance, does not apply to the extraction or mining from the earth of nonmetallic mineral products such as stone, gravel or other aggregates, or their storage, processing or transportation when the products are not intended to be sold or used as frac sand.

(4) **"Landowner"** means the person or persons who have title to land in fee simple or who hold a land contract for the land.

(5) **"Mine site"** or **"site"** means land from or on which industrial silica sand will be extracted, processed, stored or transported for sale or use as fracture grade frac sand, including all land on which are or will be located any structures, equipment, storage facilities, stockpiles, washing or screening or drying facilities, private roads or haulage routes associated with frac sand mining or frac sand-related operations regardless of whether the materials come from on-site or off-site; and all contiguous lands to the frac sand operations under common ownership, control or possession of the owner or operator.

(6) **"Operator"** means any person or entity who is engaged in, or who has applied for a license to engage in frac sand mining, or a frac sand-related operation, whether individually, jointly or through subsidiaries, agents, employees, contractors or sub-contractors.

(7) "Operator's License" or "License" means the license required under this Ordinance for an operator of a frac sand mine or frac sand-related operation to undertake said mining or operations in the Town of Stockholm.

(8) "Town" means the Town of Stockholm, Pepin County, Wisconsin.

(9) "Town Board" means the Town Board of the Town of Stockholm.

(10) "Waste material" means non-marketable by-products of frac sand operations that result directly from or are displaced by extraction, or that are by-products of a manufacturing process, that are scheduled for disposal at the extraction site or some other site as part of a reclamation plan.

Section 4. General Standards Required for All Frac Sand Operations

(1) **Size.** No frac sand operations will be licensed for a site larger than 20 acres at any location in the Town. Where underground tunneling is employed to extract industrial silica sand intended for sale or use as frac sand, the below ground extraction shall not extend beyond the 20 acre subsurface property boundaries of any such site.

(2) **Number of Sites.** No more than two (2) frac sand operations will be licensed in the Town.

(3) Prohibited Activities

a. No washing or processing facilities for industrial silica sand intended for sale or use as frac sand and no rail or barge loading facilities will be licensed or permitted in the Town.

b. No frac sand operations closer than 1500 feet to any existing residence in Town.

c. No truck hauling of industrial silica sand intended for use as frac sand, processed frac sand, or any waste materials from the extraction or processing sites on public roads in Town in excess of 50 trucks per day.

d. No truck hauling of industrial silica sand intended for use as frac sand, processed frac sand, or any waste materials from any frac sand-related mining or processing sites on County Road J through Village of Stockholm or on County Road JJ through Town.

(4) **No Special Exceptions.** There will be no special exception granted from the requirements of the General Standards described in this Section.

Section 5. Operator's License

(1) **License Requirement.** No person shall operate a frac sand operation within the scope of this licensing ordinance in the Town of Stockholm without first obtaining an Operator's license from the Town Board. No frac sand operation is allowed in the Town except as provided in this ordinance. No person or entity shall start work on any frac sand operation without first obtaining an operator's license from the Town.

(2) **License Application Procedures.**

a. **Application Requirements.** All applicants for a frac sand operator's license shall submit the information requested on Appendix A: "Application for Frac Sand Operator's License." This includes ownership information, site information and maps, operation plan, information demonstrating compliance with minimum standards of operation as described in Section 6, below, and any requested special exceptions.

b. **Application/Administration Fee.** The applicant for an operator's license shall submit five (5) copies of the application together with the application/administration fee of \$25,000 to the Town Clerk. Payment of the application/administration fee shall be non-refundable, notwithstanding the disposition of the application. The application/administration fee is primarily intended to cover the full expense of any investigation, review and evaluation of the application including but not limited to the costs of professional consultants, engineers, environmental specialists and attorneys as deemed necessary by the Town Board. The fee will also be applied by the Town Board to its costs and fees incurred in its administration of the operator's license including, but not limited to, any monitoring of the frac sand operation licensed, and the review and evaluation of the annual report required in subsection [7] a, below, if a license is granted.

c. **Town Review of Application.** The Town's Plan Commission shall review and consider the application and make a recommendation to the Town Board. The Plan Commission's recommendation and the application shall be placed on the Town Board's agenda for a public hearing and decision by the Town Board. The Town Board's decision to issue or deny an operator's license to the applicant shall be based upon the Town Board's consideration as to whether the proposed frac sand operation described in the application is in the best interests of the Town and its citizens with regard to the health, safety and general welfare of its citizens; and whether, in the Town Board's judgment, the applicant has the experience, ability, financial stability and resources, and the commitment to comply with the provisions of this ordinance.

(3) **Further Duties and Obligations of Operators Issued Licenses.** Operators licensed under this ordinance must agree in writing to fully comply with all provisions in this ordinance, and with all County, State and Federal laws and regulations that apply to frac sand operations. No operator's license for any frac sand operation involving the transport of sand will be approved or issued by the Town Board until the applicant has reached a road maintenance agreement with any County and/or any town on whose roads the operator or its contractors will haul the operator's frac sand products.

(4) Transportation of Frac Sand from Locations Outside the Town. An operator's license as provided under this ordinance will also be required of all operators transporting frac sand or industrial silica sand on any roads running through the Town in excess of 50 truckloads per day from any mine or processing location whether or not said location is within the Town.

(5) License Term; License Transfer. An operator's license issued by the Town under this ordinance will run for a period of two years from its date of issue. It may not be transferred during the first two years of its term. Any proposed transfer will require an application for an amended operator's license following the application form and procedure in Section 5, sub. (2) Above. The Town Board shall determine, on a case-by-case basis whether any fee, and the amount thereof, shall be paid by the operator for the transfer of a license. In all cases, an operator's license may not be transferred without prior written approval of the Town Board.

(6) License Amendment. An operator's license may be amended during its term using the same process as required for the original license application. The Town Board shall determine, on a case-by-case basis whether any fee, and the amount thereof, shall be paid by the operator for the processing of the proposed amendment.

(7) Report and License Renewal.

a. Annual Report. Each year on the anniversary of the Town's grant of a license to an operator, the operator shall submit a report to the Town Board. This report will describe the activities and operations at the site for the previous year. The report will also demonstrate how the operator has been in compliance with all terms and conditions of the license and this ordinance, and describe any substantive changes or noncompliance in the operations and conditions approved by the Town Board in granting the license.

b. License Renewal. The operator may apply to renew its license to operate for an additional two year term every two years following the grant or the renewal of the license. This application must be submitted to the Town Board no later than 60 days prior to the expiration of the license. The applicant for a renewal of an operator's license shall complete the Operator's License Renewal Application Form attached as Appendix B and submit the form together with the application fee of \$5,000 to the Town Clerk. The fee will be applied by the Town Board to its costs and fees incurred in its review and evaluation of the renewal application including the costs of experts and attorneys as deemed necessary by the Town Board. The Town Board will follow the procedures described in Section 5, Sub. 2, above, in considering the renewal application.

(8) Revocation of an Operator's License.

a. Notice of Intent to Revoke Operator's License. The Town Board may revoke an operator's license issued under this ordinance based on its reasonable belief and factual finding that a violation of any provision of this ordinance, and/or a violation of County, State and Federal laws and regulations that apply to frac sand operations has occurred. Upon such belief and finding, the Town Board shall issue a Notice of Intent to

Revoke Operator's License to the operator setting forth the factual basis for the violation alleged to have occurred.

b. Operator's Right to Public Hearing. Upon receipt of any Notice of Intent to Revoke Operator's License, the operator shall cease all work on any and all operations licensed by this ordinance. An operator receiving a Notice of Intent to Revoke Operator's License may request a public hearing before the Town Board. Said request shall be in writing and shall describe with particularity the factual basis for contesting the allegation of the Town Board that a violation has occurred. Within ten (10) days following the public hearing, the Town Board shall issue a decision either sustaining or withdrawing the Notice of Intent to Revoke Operator's License and make appropriate factual findings supporting its decision.

c. Rights and Duties after Revocation. When an operator's license is revoked, all rights granted by this ordinance to the operator under said license shall terminate immediately. Following revocation and any subsequent proceedings related to the revocation, the operator shall be obligated to pay to the Town all costs, including expert and consultant fees, and attorneys' fees incurred by the Town Board in the license revocation process, including any court proceedings. Notwithstanding license revocation, the operator of a frac sand operation will still be required to fulfill any duties and obligations imposed by the operator's reclamation permit from Pepin County.

Section 6. Minimum Standards of Operation

Applicants for an Operator's License for Frac Sand Operations must agree to comply with the following minimum standards for operations:

(1) General Operating Standards

a. The operator shall stake or otherwise mark the borders of the entire site of its operation and shall secure the site by fencing or other appropriate measures.

b. No sand piles of frac sand or industrial silica sand intended for sale or use as frac sand in Town higher than 9 feet, or closer than 300 feet to public roads.

c. The operator shall demonstrate compliance with all of the other provisions of this ordinance.

d. No blasting shall occur at any frac sand mining site in the Town unless necessary to remove overburden material lying above the silica sand deposits to be mined. The operator shall have obtained a blasting permit from the Town for any blasting operation.

e. The operator shall demonstrate that all other applicable federal, state and local permits and approvals required for the frac sand mining or frac sand-related operations have been or will be obtained prior to commencement of the operation.

f. The operator shall provide prompt notice to the Town of any notices of violation, citations, or other enforcement actions taken by any other governmental body against the frac sand operation within the Town.

(2) Standards Regarding Off-Site Impacts

a. The operator shall undertake all measures necessary for the control of surface water runoff from frac sand operations in order to prevent pollution and erosion of sediment onto neighboring properties, surface water and groundwater, and shall also comply with the standards for erosion control under NR 216 and NR 151 as applicable.

b. In the event that the operations site contains areas adjacent to mining operations that are being used for agricultural, commercial or residential purposes, the operator shall undertake all measures necessary to control surface water runoff from those areas from entering mining operations or otherwise causing contamination of surface water and/or groundwater.

c. The operator shall provide a buffer area of a minimum of 500 feet along bordering property lines and public roadways.

d. The operator shall screen the frac sand operation from public view to the maximum extent practicable through the use of berms, additional setbacks or other measures.

e. The operator shall limit normal hours of operations to 10 hours per day Monday through Friday during daylight hours and not later than 6:00 p.m. to minimize off-site impacts to residents.

f. The operator shall ensure that trucks from the frac sand operations do not interfere with the safety of children being taken to or returned from school, or the safety of residents and travelers at times when traffic volume from commuters going to work, or tourists and travelers visiting businesses or community events is at its highest levels.

g. The operator shall limit night lighting on the site of all operations to that which is minimally necessary for security, and, wherever possible, night lighting shall be shielded from illuminating off-site areas. Every effort consistent with legal requirements for aerial safety shall be made to minimize illumination of the night sky and the neighboring properties. At a minimum, such measures shall include the use of full cutoff shrouds on all lights, restricted use of portable lighting only as necessary to illuminate temporary work areas, the use of berms of sufficient height coupled with other methods of visual screening to block light from neighboring properties with the design and location of access roads to minimize light from traffic and operations to neighboring properties.

h. The Operator shall utilize all relevant dust control measures specified in Wis. Admin. Code § NR 415.075. The Operator shall cover all trucks hauling with secured

tarps and shall have an established protocol for additional dust control measures when the National Weather Service has issued a high wind warning for the area. The Operator shall be required to monitor the ambient level of airborne particulate and shall install air monitors at all frac sand operations. The Operator shall be required to monitor the ambient level of airborne particulate matter and Total Suspended Particulates (TSP) as described in 40 C.F.R. part 50 (2011), or a method approved in writing by the Town. Monitors shall be installed and base line levels established for ambient level of airborne particulate matter and TSP prior to the commencement of frac sand operations at the site. The type and number of monitors needed, and the frequency and duration of the monitoring program shall be determined by agreement of the Operator, the Town Board and its consultant, but all costs associated with monitoring shall be borne by the Operator.

i. The operator shall control off-site noise levels to the maximum extent practicable to avoid adverse impacts to neighboring landowners. Noise levels at the boundaries of any frac sand operations site shall not exceed 60 dB, shall be reported monitored at the property boundaries by an independent testing company, and shall be reported to the Town not less than on a quarterly basis. The costs associated with noise level monitoring shall be borne by the Operator.

(3) Standards Regarding Groundwater and Surface Water

a. Impacts to Groundwater Quality

- (i) All operations involving mining or processing shall have at least three monitoring wells for every 20 acre site. At least one of these wells shall be down gradient of the groundwater flow. The monitoring wells shall be in place and shall establish baseline levels of any toxic metal or element present in the groundwater prior to the commencement of any frac sand operation. The Operator shall take quarterly samples for lead, arsenic, and any other toxic metal or element that may reasonably be believed to be present in the area or in the type of deposit from which the extraction will be made, or used in any processing or manufacturing process.
- (ii) No frac sand mining or other frac sand-related operation shall violate groundwater quality standards as set forth in Wis. Admin. Code Ch. NR 140.

b. Impacts to Groundwater Quantity

- (i) Mining operations shall not extract materials at a depth below the point that is 20 feet above the groundwater table.
- (ii) No operation licensed under this ordinance shall cause a significant reduction in the quantity of groundwater available for reasonable

use by current users within one mile of the operation site. A significant reduction is a drop in the water table that results in a substantial adverse impact on a private well including but not limited to the inability of a well to provide water on a continuous basis under normal water pressure.

c. Impacts to Surface Water Base Flow

No operation licensed under this ordinance shall cause a lowering of the groundwater table that results in adverse effects on surface waters within one mile of the operation site, including but not limited to, a reduction of water in streams and tributaries to or below base flows established prior to the beginning of any such operation.

d. Impacts to Surface Water Use

No operation licensed under this ordinance shall cause a lowering of the groundwater table that result in adverse impacts on surface water that serves as a critical source of water for agricultural or municipal functions such as fire protection within one mile of any such operation. Adverse effects include but are not limited to a reduction of water in streams and tributaries to or below base flows established prior to the beginning of any such operation.

(4) Hazardous Materials

a. All hazardous materials shall be stored, used and disposed of in accordance with applicable state and federal law.

b. The operator shall not use as landfill material or dispose of onsite, any waste material that contains a toxic amount of a hazardous chemical or a toxic residual.

c. The operator shall have a plan on file with the Town Board for responding to any spills on site that may contain hazardous materials.

(5) Special Exceptions

a. The operator can request a special exception from the minimum standards of operation set forth in this Section if it can demonstrate that the intent of this ordinance can be achieved through the use of alternative measures and that the public health, safety and general welfare will not be adversely affected thereby.

b. The Town Board can impose requirements in addition to or exceeding the minimum standards of operation set forth in this Section if it reasonably believes that the public health, safety and general welfare will not be adequately protected without the imposition of additional measures.

Section 7. Access, Observation, Enforcement Procedures and Penalties

(1) Access and Observation of Frac Sand Operations

a. Town Board members, their designated representatives, and experts retained to monitor and inspect operations licensed by this ordinance, upon producing proper identification, shall have the right to enter and inspect any such operation at any time for the purpose of determining compliance with the minimum standards of operation as set forth in Section 6 of this ordinance. The Operator will also comply with all federal Mine Safety and Health Administration (MSHA) inspection and access requirements for safety.

(2) Violations. The following are violations of this ordinance:

a. Engaging in any frac sand operation at any location in the Town without a valid operator's license as described in this ordinance.

b. Noncompliance with the minimum standards of operation or any other provision of this ordinance.

c. Providing false or misleading information to the Town during the license application or renewal process, or in response to any request or inquiry by the Town Board or its representative concerning any matter related to the operations licensed under this ordinance.

d. Failure to comply with, or take prompt and appropriate remedial action in response to, a notice of violation of this ordinance, or of any violation of federal, state or local law applicable to any operation licensed under this ordinance.

e. Any operator licensed under this ordinance who receives a notice of violation may request a public hearing before the Town Board. The request must state and describe the grounds for requesting the hearing, any factual evidence supporting those grounds and any outcome of the hearing the operator deems justified by the evidence. The request must be submitted to the Town Board within 30 days of the notice of violation. After the public hearing, the Town Board shall vote to sustain, modify or withdraw the notice of violation at issue.

f. After giving notice of a violation, the Town Board may suspend the operation licensed under this ordinance pending the Town Board's disposition of the notice of violation.

(3) Penalties

a. Any operator licensed under this ordinance found by the Town Board to have violated this ordinance shall pay a forfeiture of not less than \$5,000 nor more than \$50,000 per violation and shall not recommence its operations until it has demonstrated to the Town Board that it has fully remedied any part of its operation or conduct found to be in violation of this ordinance. The amount of the forfeiture imposed by the Town

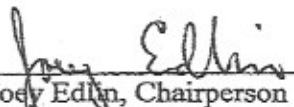
Board shall be reasonably related to the Town Board's assessment of the injury caused by the violation, or by the risk of injury posed by the violation. Any violation found by the Town Board to be a willful violation shall subject the operator to a penalty of three times the amount of the forfeiture ordered by the Town Board.

b. If an appeal is taken to circuit court and/or other higher court by the operator found liable under this Section, the operator shall pay the Town Board's attorney's fees and all costs, including expert fees, incurred by the Town Board in defending the appeal.

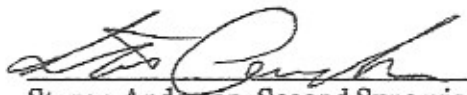
Section 8. Effective Date

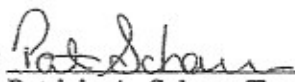
Following passage by the Town Board, this amended ordinance shall take effect the day after the date of publication as provided by Wis. Stat. § 60.80(2) and (3).

ADOPTED this 17 day of June, 2013


Jody Edlin, Chairperson

Lindsay Bergquist, First Supervisor


Steven Anderson, Second Supervisor

Attest: 
Patricia A. Scharr, Town Clerk

Published this _____ day of _____, 2013

The Town Clerk shall deliver a copy hereof to the Pepin County Clerk

APPENDIX A

APPLICATION FOR FRAC SAND OPERATOR'S LICENSE

All applicants for a frac sand operator's license shall submit the following information:

1. Ownership Information.

- a. The name, address, phone numbers, and e-mail address of the operator of the frac sand operation. Applicant shall also provide the names and addresses of all persons or entities with a 25% or greater ownership interest in the operator's corporation.
- b. The name, address, phone numbers and e-mail address of all owners or lessors of the land on which the frac sand operation will occur.
- c. If the frac sand operation is subject to a lease or third party agreement relating to any aspect of the operation, a copy of the fully executed lease and/or agreement between the operator, landowner and/or third party.
- d. Proof that all property taxes on the proposed site of the frac sand operation are current.

2. Site Information and Maps.

- a. Parcel identification numbers of all contiguous parcels owned by the same landowner/lessor on which the proposed frac sand operation will be located.
- b. An aerial photo of the proposed site and extending $\frac{1}{2}$ mile beyond the boundaries of the proposed site, at a scale of not less than 1 inch equals 660 feet signed by both the operator and the landowner of the frac sand operation site.
- c. A topographic map of the frac sand operation site and extending $\frac{1}{2}$ mile beyond the boundaries of the proposed site, at contour intervals no wider than 10 feet showing the boundaries of the site, the location and total acreage of the site, and the name of all roads within one mile of the site.
- d. The location within the site of all existing buildings and other structures, equipment, stockpiles, storage and parking areas.
- e. A map on which all residential, agricultural and municipal wells within $\frac{1}{2}$ mile of the boundaries of the site in all directions are marked and given a numerical identification of the location.
- f. The location and name of all surface waters, including any private or public ponds, streams, drainage ditches, wetlands, drainage patterns and other water features on

the site and within ½ mile of the site; and the base flow of the surface waters within ½ mile of the frac sand operation site as determined at the time of application.

g. The gradient and depth of the groundwater table shall be determined by existing wells (or other existing data) within ½ mile of the frac sand operation site.

h. If a mining operation is being proposed, a description of the distribution, depth and type of topsoil not only of the area of the site currently proposed for the frac sand mining operation and for which an operator's license application is being submitted, but also of the entire acreage of land contiguous with the proposed frac sand operation that is owned by the same landowner/lessor, as well as the geological composition and depth and width of the nonmetallic deposit which is proposed for extraction.

3. Operation Plan

a. Dates of the planned commencement and cessation of the frac sand operation.

b. If a frac sand mining operation, description of mining methods, machinery and equipment to be used for extraction of the industrial silica sand.

c. If a frac sand mining operation, estimated volume of material to be extracted over the life of the mine and for the next calendar year.

d. Location of road access points. The proposed location within the frac sand operation site of all proposed buildings and other structures, equipment, stockpiles, storage and parking areas.

e. Identification of all proposed off site trucking routes, together with the frequency of traffic to and from the site, and the common schedule of travel to be used for transporting extracted materials or products to or from the site.

f. A water budget, including an estimate of the amount of daily water use, water sources, and methods for disposing of water used or falling on the site, including methods used for infiltration and control of run-off.

g. A listing of any hazardous materials, including fuel supplies that will be stored on-site and a description of measures to be used for securing and storing these materials.

h. A listing of all flocculent and other chemicals used in the mining, manufacturing, or processing operations or in controlling dust, and a detailed description of expected releases and final disposal of each.

4. Information Demonstrating Compliance with Minimum Standards

a. Information necessary to demonstrate that the operation will comply with the

minimum standards set forth and described in Section 6 of this licensing ordinance.

b. Information establishing baseline conditions at the site before operations commence, including the following:

- i. the groundwater elevation across the site;
- ii. groundwater quality at the site for lead, arsenic, turbidity, total suspended solids, chlorides, nitrates;
- iii. specific conductivity and any chemical or residual of the chemical used as a flocculent;
- iv. any other toxic substance that may reasonably be believed to be present in the area or, if a mining operation, in the type of deposit from which the extraction will be made; and
- v. the base flow of surface waters within ½ mile of the site.

c. Information establishing background conditions for air quality at the site before operations commence.

5. Special Exceptions. The applicant may request a special exception from the application information requirements of this Appendix A if it can demonstrate that the information required can be provided by alternative means or is not necessary for an evaluation of the particular frac sand operation, and that the public health, safety and welfare will not be adversely affected.