



**Frac Sand Mining in Wisconsin:  
Legal Background for Citizens and Community Groups**

***Background:***

Sand mining in Western Wisconsin has exploded since 2009. The sand found along the Wisconsin stretch of the Mississippi has special qualities that make it especially valuable for hydraulic fracturing, a process of extracting natural gas from rock formations deep underground. Although the area has long hosted sand and gravel pits, the “frac sand” mines cover much more land and operate more intensively than traditional sand pits. The methods used to extract the frac sand vary from strip mines that bulldoze vegetation and soil, then scoop up the sand, to mines that operate primarily underground.

***Concerns:***

Many citizens and communities have serious concerns about frac sand mining. Dust, traffic, and water are at the top of the list. Frac sand mines have the potential to emit large amounts of dust. This dust goes unregulated because it is “fugitive” or released incidentally as winds blow over open trucks and across the mine pit. Wisconsin’s frac sand is particularly valuable because the high silica content makes each grain hard and round, which is perfect for hydraulic fracturing. This concerns mining neighbors because silica dust is especially harmful to the respiratory system, and can potentially cause heart damage. Silica is also a known carcinogen.

Traffic concerns center on the heavy sand-hauling trucks that roll over country roads not built to withstand the increased usage. Communities feel less safe with the increased truck traffic, and increased road repairs strain county budgets. More vehicles on the road and industrial air emissions threaten to degrade air quality.

Water contamination and water usage are also environmental concerns within the communities where frac sand mines are locating. A frac sand mine can use thousands of gallons of water, and many more if miners wash the sand, depleting local aquifers. The mining itself should steer clear of underground water reservoirs, but the filtering qualities of the sand and the risk of accidental contamination from mining operations – primarily from hydraulic fluid and diesel fuel leaks and spills - raise community concerns. Many individuals also fear that mining operations potentially affect the quality of their lakes and streams.

***Legal Opportunities***

The opportunities for a community to influence the establishment of a frac sand mine center on the powers of local county, city and township governments. Concerned citizens should understand mineral deposit registration, zoning, licensing, and mining

reclamation, and then choose a strategy that will work in their community. This information sheet provides background information on these topics.

### ***Nonmetallic Deposit Registration<sup>1</sup>***

State law allows any landowner with marketable nonmetallic mineral deposits to register his or her land. Before recording a deed notice in the county's registrar of deeds office, the landowner must send notice to all applicable zoning authorities. Registration is intended to prevent future land uses, such as the erection of permanent structures that would interfere with extracting the deposits. If the zoning authorities object to the registration, they must show within 60 days of receiving notice from the landowner that the deposit is not marketable or that mining is disallowed on the parcel through a zoning ordinance. If the landowner succeeds in registering their property, the zoning cannot be changed to prohibit mining on that parcel for 10 years. However, if during those 10 years the landowner does not proceed to develop the deposit, adopted zoning changes become effective the day the registration expires. Registration does not guarantee that the landowner will be able to obtain all the necessary permits for the development and mining of the land; rather, it only preserves existing zoning.

### ***Zoning***

Probably the most important and effective way to control mining in your city, town, or village is the proper use of zoning ordinances. In Wisconsin, zoning power is given to counties, towns, cities, and villages. Since the zoning process is a legislative one, local communities are given a broad array of powers to protect the health, safety, and welfare of people in their jurisdiction. Zoning ordinances generally consist of two main parts: a map of zones and a document describing the uses permitted in each zone.

According to Wisconsin's comprehensive planning statute, when a local government establishes or changes its zoning code, the code must be consistent with the comprehensive plan.<sup>2</sup> Although the statute does not require a comprehensive plan, local governments may not be able to enforce zoning ordinances without one. Local governments that have no zoning in place are advised to adopt a comprehensive plan as well. The plan must be in place if the town adopts zoning in the future, and the plan is a useful guide for government decision-making. Because of the potential implications of not having a plan, most local governments in Wisconsin have established one.

### ***Zoning and Mining***

A zoning ordinance can effectively prevent or discourage mining in a number of different ways. First, a zoning ordinance can disallow mining in a certain zone altogether, provided that mining is still part of an overall land use plan for the area. The ordinance could similarly designate specific zones where mining is permitted. A municipality could also amend its zoning ordinance to make mining a non-conforming use. That way, mining operations could not expand or re-open after a certain period of time of non-use. Another option is for a municipality to create what is called a floating zone to address mining. A floating zone is particularly useful in situations where a

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<sup>1</sup> [Wisconsin Administrative Code, Chapter NR 135. Subchapter VI](#). If you have difficulty following links to any of these codes or statutes, an Internet search of "Wisconsin NR 135," for example, will work.

<sup>2</sup> [Wisconsin Statutes Section 66.1001](#)

community wants to permit a limited number of specific land uses but does not want to determine the exact locations in advance. The municipality could also decide to allow mining by special use or conditional use permits only. To be considered as a conditional use, the use must be listed in the zoning ordinance as such along with standards that must be met in order for the permit to be granted.

### **Town Zoning**

Town zoning is often the main source of confusion for citizens. If the county has adopted a zoning ordinance, towns may simply adopt the county zoning ordinance. Town boards hold the authority to approve the county zoning ordinance. The town board must approve all subsequent amendments that the county makes to a zoning ordinance.

A town wishing to pass its own general zoning ordinance may do so in two ways:

- The first option applies only to towns located in counties that have not passed a county zoning ordinance.<sup>3</sup> A town board wishing to zone may petition the county to adopt a county ordinance. If within one year a county does not pass its own ordinance, a town may proceed to create its own zoning.
- The second option applies to towns located in counties that may or may not have a county zoning ordinance.<sup>4</sup> Town electors, meaning any eligible voters in the town, may pass a resolution at an annual town meeting directing the town board to exercise village powers. The town board then considers and passes a town general zoning ordinance under procedures available to cities and villages. If the county does not have a zoning ordinance the process is now complete and the zoning ordinance is enforceable.

On the other hand, if the county does have a zoning ordinance in place, two additional steps must be taken:

- The town electors, once again by resolution, must approve the decision to have town zoning at the annual town meeting.
- The county board must then approve the zoning ordinance in order for it to be effective and enforceable. As noted above, all zoning must be adopted in accordance with the local government's comprehensive plan.

### **Mining Ordinances**

Local communities may adopt other ordinances regulating nonmetallic mining. Ordinances can be zoning or nonzoning, such as an operator's license. A zoning ordinance regulates where a mine may be established or the activities that may occur in specific areas. A nonzoning ordinance does not regulate location; it sets "quality" standards to which the operator of a mine must adhere regardless of location.<sup>5</sup> An ordinance's type depends on its content, not its title. The distinction is vital because a community may not pass a zoning ordinance without going through the process to adopt or modify zoning. The Wisconsin Supreme Court recently established a test for whether a mining ordinance is zoning, or if it is a license or other nonzoning regulation.

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<sup>3</sup> [Wisconsin Statutes Chapters 60.61\(2\) - 60.61\(6\)](#)

<sup>4</sup> [Wisconsin Statutes Chapter 60.62](#)

<sup>5</sup> See the Court of Appeals of Wisconsin's decision in *Zwiefelhofer v. Town of Cooks Valley*, Page 4: <http://www.wicourts.gov/ca/opinion/DisplayDocument.html?content=html&seqNo=66539>

In 2008, the town of Cooks Valley passed an ordinance requiring any proposed nonmetallic mine to apply for a permit, pay a permit fee, and hold a public hearing before opening a mining operation. The ordinance grants the town authority to regulate things such as dust, noise and traffic. Local residents who stood to benefit from the mines filed a lawsuit claiming that the ordinance was actually a zoning regulation and needed to be approved through the appropriate zoning procedures. The Circuit Court agreed, in part because it regulates the devoted uses of property.<sup>6</sup>

The Wisconsin Supreme Court, however, held that the ordinance is not a zoning ordinance.<sup>7</sup> Instead, it is an authorized exercise of the town's non-zoning police powers. The Court examined the ordinance and compared it to the traditional functions and purposes of a zoning ordinance. Much of this analysis focused on the fact that zoning ordinances regulate **where** an activity can take place, not **how**. An important lesson from *Zwiefelhofer* is that a local permit restriction on nonmetallic mining can indirectly regulate where mines operate without zoning. The Court noted the ordinance's similarities to a zoning ordinance –for one, it regulates the use of land– but decided that this was not enough to make it a zoning ordinance. It is also important to distinguish the purpose of a local mining ordinance from the specific purposes of zoning, which include confining certain classes of buildings and uses to certain locations, comprehensively assigning compatible land uses to districts throughout the community, and separating incompatible land uses.

### ***Reclamation Ordinances***<sup>8</sup>

Wisconsin requires all nonmetallic mines to “reclaim” the mine site after operations cease. A proposed mine must have a reclamation permit approved by the state or local authority before it operates. The permit is issued after the mine operator submits an approved plan for post-operations restoration, such as vegetation types and grades. The public may request an informational hearing on the reclamation plan. All counties are required to adopt a reclamation ordinance that complies with the statewide program. Cities, villages, and towns may also adopt their own mining reclamation ordinance as long as it is in compliance with the statewide program. Regardless of who administers the program, reclamation standards are uniform across the state.

A reclamation permit is entirely separate from zoning or licensing. Every nonmetallic mine must have a reclamation permit, but the reclamation permit does nothing to regulate where a mine is placed or its impact on the community; it only regulates the post-mining performance of the site. In communities without zoning, a mining reclamation plan offers the only public opportunity to participate in the mine's establishment.

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<sup>6</sup> For background, see “Sand Mining Case Sent To High Court,” The Chippewa Herald, June 29, 2011: [http://chippewa.com/news/local/article\\_42d8fc0e-a264-11e0-bd32-001cc4c002e0.html](http://chippewa.com/news/local/article_42d8fc0e-a264-11e0-bd32-001cc4c002e0.html)

<sup>7</sup> The Wisconsin Supreme Court's opinion in *Zwiefelhofer*, 338 Wis.2d 488 (Wis. 2012): <http://www.wicourts.gov/sc/opinion/DisplayDocument.pdf?content=pdf&seqNo=77767>

<sup>8</sup> [Wisconsin Statutes Chapter 295](#)

The DNR publishes a guide to assist counties, cities, villages and towns in implementing a nonmetallic mining reclamation ordinance: <http://dnr.wi.gov/newurl.html>

### ***Mining Moratoriums***

Several communities have successfully enacted temporary moratoriums on the expansion of existing mines and on the establishment of new non-metallic mining operations and processing plants. These moratoriums give communities the time to study the advisability of amending their existing comprehensive plans, to consider the amendment or adoption of zoning or nonzoning ordinances, or to consider the adoption of a conditional use permitting ordinance.

In 2012, however, Wisconsin made it much more difficult to enact certain types of moratoriums. § 66.1002 sets very specific procedures for enacting a moratorium on requests for zoning or on approval of subdivisions or other divisions of land by plat or survey map.<sup>9</sup> These procedures include having statements from qualified experts attesting to the need for the moratorium. Fortunately, the Senate explicitly removed language in the act referring to moratoriums on land development and issuing conditional use permits, suggesting that the statute only applies to the specific moratoriums described above.<sup>10</sup> In any case, every moratorium must conform to other Wisconsin statutes, depending on which municipal action the moratorium temporarily halts.<sup>11</sup>

## ***What Can You Do?***

### ***Work to Pass a Zoning Ordinance***

You can make your voice heard regarding frac sand mines in your community. Zoning grants your community the power to regulate land uses. Without zoning, your community may only participate in decisions relating to reclamation of the site after mining ceases. If your community does not have a zoning ordinance now, you can organize the community to pass a zoning ordinance. If your community also doesn't have a comprehensive plan, organize to adopt a plan before adopting zoning.

### ***Work to Change a Zoning Ordinance***

If your community is already zoned, review the code to determine where nonmetallic mining is allowed. If you think the regulations don't adequately protect the health and safety of your community, you can work to change the zoning. Zoning is changed in two ways. The map of zoning districts may be redrawn or the description of permitted uses per zone may be rewritten. County or local zoning may be changed. Your city, town, or village ordinance may be easier to change than the county ordinance because

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<sup>9</sup> The final text of the bill can be found here: <http://docs.legis.wisconsin.gov/2011/related/acts/144>

<sup>10</sup> This Senate memo describes the bill itself and all amendments to the bill: <http://docs.legis.wisconsin.gov/2011/related/lcamendmemo/sb504.pdf>

<sup>11</sup> For example, the City of Dovre's broad moratorium on nonmetallic mining conforms to Wisconsin Statutes §§ 59.69(5)(e), 60.10(2)(c), 60.23, 60.62, 61.35, 62.23, 66.1001. This is because the power to establish a moratorium is an extension of a municipality's power to zone, to issue permits, etc.

county ordinances potentially impact many communities. At a minimum, notice must be issued and a hearing must be held. Check your local government's website or call the zoning board to learn the local rules for rezoning.

### ***Connect with Like-minded Individuals***

Other individuals and organizations in your area share your concerns. Working for change is easiest when you have a large group of committed citizens behind you. Several citizens across Western Wisconsin who are concerned with silica sand mines in their communities have contacted MEA. Contact us at [jparra@midwestadvocates.org](mailto:jparra@midwestadvocates.org) or 608-251-5047 ext. 5 and we'll put you in touch with others. MEA also has a downloadable "Guide to Community Organizing," which can help you organize your thoughts as well as people:

<http://www.midwestadvocates.org/media/publications/MEA%27SCitizen%27sGuideToCommunityOrganizing.pdf>

### ***Conduct Air Monitoring near Frac Sand Mines***

Air monitoring provides valuable data on the risks to public safety posed by frac sand mines. If you can organize your community to conduct air monitoring, you will have a much stronger case when you argue for greater restrictions on frac sand mining. Silica dust, a known carcinogen, is potentially released from frac sand mines. A citizen in West Central Wisconsin has purchased and installed his own air monitor to track particulate levels. If you are interested, he describes his monitors here:

<http://www.ccc-wis.com/page127/page127.html>

### ***Additional Resources and Organizations:***

- A professor at the University of Wisconsin-Eau Claire has produced a video on the health risks of silica exposure from sand mining:
  - Video link: <http://desi.uwec.edu/PIERCECH/>
  - Text Link: <http://people.uwec.edu/piercech/SilicaVideo1.doc>
- This guide to Wisconsin community planning contains a useful chapter on zoning:  
<http://www.lic.wisc.edu/shapingdane/resources/planning/library/book/contents.htm>
- The DNR has published a fact sheet on mining deposit registration:  
<http://dnr.wi.gov/topic/Mines/Deposit.html>
- Concerned Citizens of Chippewa County has resources on its webpage:  
<http://wisair.wordpress.com/>
- A group of citizens in Barron County host an informative website:  
<http://www.tunnelcitysandmine.org/>

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