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Testimony to the Wisconsin Natural Resources Board, October 29, 2014
Sarah Williams, Midwest Environmental Advocates Staff Attorney

I'm here today to speak for the countless citizens I've worked with over the past couple of years who have shared their stories of concern about the frac sand boom. More than any other issue, we hear from people concerned about the visible and not so visible impacts of frac sand mining on public health, the environment, and the local economy. Citizens are frustrated by unanswered questions and the DNR's failure to carefully study this industry, while permitting more and more facilities at an alarming rate. I hope to convey to you the urgent need for action to protect Wisconsin citizens.

Those living with the effects of frac sand mining are surprised to learn that the DNR has never conducted an environmental assessment or environmental impact statement for a frac sand facility. One of the core functions we expect our natural resource agency to provide is to be the expert on natural resources issues such as frac sand mining. But the DNR has repeatedly refused to act on citizen concerns, not because the DNR is certain additional regulation is not warranted, but because the DNR doesn't have the necessary information about potential impacts. These include air pollution from silica and particulate matter emissions, harm to endangered and threatened species, and contamination of groundwater and surface water with sediment, chemicals used in processing, and heavy metals. After allowing this industry to expand at a breakneck pace for over three years, it is time to take a closer look at the impacts this is having on our state.

On behalf of the over 1100 Wisconsin citizens who support this petition, I urge you all to consider this request for a strategic analysis of frac sand mining and to put the matter on the agenda for your December meeting.

The DNR created the strategic analysis process earlier this year when it changed its procedures for complying with the Wisconsin Environmental Policy Act. A strategic analysis is basically a comprehensive environmental study and alternatives analysis of a complex issue or policy. The purpose is to inform decision makers and the public. Because the regulations don't require an EA or EIS for individual frac sand facilities, and the DNR has chosen to use its discretion not to do any, an industry-wide strategic analysis is likely the only way to get this information.

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The public and decision makers need answers from our state environmental agency. What we know at this point, and the lack of information, is troubling.

The media has reported frac sand facilities discharging large amounts of sediment, operating without a permit, or otherwise violating their permits.¹ In some cases the DNR has taken enforcement action.² But in others, DNR statements suggest that the existing regulatory program is not sufficient. For example, several frac sand facilities have discharged what appear to be large amounts of sediment to wetlands and creeks, but the DNR has concluded those are legal under the general stormwater permit.³ The DNR has acknowledged in other media reports that the stormwater general permit they've used for frac sand facilities "doesn't work well."⁴ We understand that the DNR is working to develop a new stormwater general permit for frac sand facilities. But in the meantime, the DNR continues to issue coverage under the expired general permit that it has admitted is not sufficiently protective.

A petitioner and resident of Colfax, Wisconsin, Mark Berge, sent us the photos of sediment-laden water that we've included in your packet of information.⁵ In his comments on why he signed the petition, Mr. Berge stated that he is concerned about cloudy water running through his property and ultimately into 18-mile creek in Chippewa County, a designated trout stream.

In addition to water pollution issues, air pollution from these facilities is a serious concern. These facilities may be emitting silica dust, a fine particle that is known to cause cancer. Unfortunately, we don't know in what concentrations this silica dust can be found around these facilities. What we do know is that silica concentrations have exceeded health based standards for workers at fracking facilities where frac sand is used, according to an OSHA study.⁶

Other fine particles, known as PM_{2.5} and PM₁₀, are regulated at the state and federal level, and frac sand facilities need permits that limit these pollutants. However, based on scant data, the DNR has refused to require monitoring for PM_{2.5} at any facility and is no longer requiring monitoring for PM₁₀.

¹ See e.g., Kate Prengaman, *Frac Sand Industry Faces DNR Violations, Warnings*, Wisconsin Center for Investigative Journalism, available at <http://wisconsinwatch.org/2013/03/frac-sand-dnr-violations/>; Rich Kremer, *DNR Revisits Stormwater Regulation Following Frac Sand Spill*, Wisconsin Public Radio, available at <http://www.wpr.org/dnr-revisits-stormwater-regulation-following-frac-sand-spill>.

² See e.g., Rich Kremer, *Frac Sand Companies to Pay \$80K for St. Croix River Spill*, Wisconsin Public Radio, available at <http://www.wpr.org/frac-sand-companies-pay-80k-st-croix-river-spill>.

³ Rich Kremer, *DNR Revisits Stormwater Regulation Following Frac Sand Spill*, Wisconsin Public Radio, available at <http://www.wpr.org/dnr-revisits-stormwater-regulation-following-frac-sand-spill>.

⁴ Joe Knight, *Water Coming From Sand Mines Clouding Streams*, Leader-Telegram, available at http://www.leadertelegram.com/news/front_page/article_75385050-79a6-5d85-bc2c-9a17a267c547.html.

⁵ See photos attached.

⁶ Occupational Safety & Health Administration, *Hazard Alert: Worker Exposure to Silica during Hydraulic Fracturing*, available at https://www.osha.gov/dts/hazardalerts/hydraulic_frac_hazard_alert.html.

For example, a study of a frac sand mine in Ontario, Canada showed that emissions were contributing to higher concentrations of particulate matter.⁷ We have also just learned that a peer-reviewed study of PM_{2.5} concentrations around frac sand mines in Wisconsin will be published in a November 2015 issue of the *Journal of Environmental Health*. An abstract of the article summarizing the results of research by University of Wisconsin faculty indicates that some 24-hour samples taken around frac sand mines and processing facilities were above both the annual average and 98th percentile 24-hour ambient air standards for PM_{2.5}.⁸ While this is not definitive evidence that these frac sand mines are exceeding air standards, it is certainly cause for concern and heightens the need for further study.

We know there are good DNR staff people who are doing their best to monitor these facilities, enforce the law, and protect citizens. They need more information and better tools in the form of adequate regulations and permits in order to do their jobs. We're asking you to consider ordering a study that would move us in the right direction. Thank you for your time.

⁷ Michael Ladouceur, Air Scientist, Provincial Officer 143, Ministry of the Environment, *Air Quality Impacts of Unamin Ltd. On Kasshabog Lake near the Town of Havelock, Ontario* (Feb. 15 2013), available at http://www.pcchu.ca/wp-content/uploads/2013/04/Unimin_Report-of-a-PO-Original-Signed-byMEL.pdf.

⁸ Pierce et. al, *PM_{2.5} Airborne Particulates near Frac Sand Operations*, abstract available at <http://minds.wisconsin.edu/handle/1793/70099> (accepted for publication in the *Journal of Environmental Health*, Nov. 2015).