

2015 Wisconsin Air Monitoring Network Plan Response to Comments

Comment	Commenter	Date of Comment	Comment	Response
1	Ken Schmitt	May 22, 2014	<p>“Reestablish the continuous atmospheric 2.5 monitors at Perkinstown and Eau Claire due to the increase in particulates from Frac-Sand mining in NW Chippewa County &amp; Barron County and the coming increase of mining in Trempealeau and Eau Claire Counties.</p> <p>Increase the sampling frequency from every 6th day to at least every 3rd day at Eau Claire and Perkinstown of the PM 2.5 monitors to better define regional impacts from the tremendous increase of sand facilities in western Wisconsin.</p> <p>Place a 2.5 monitor in the New Auburn area to determine new background levels (due to the increase of frac-sand facilities) for issuing air permits for additional future frac-sand facilities.</p> <p>Need is indicated by my fugitive dust complaint towards the end of March 2014 &amp; Heather Anderson’s complaint in April of 2014 of significant deposits with snow events in March and April as well as other anecdotal incidences of health issues of some neighbors to the mines and dust deposits on vehicles in the area.”</p>	<p>There are continuous PM2.5 monitors at Perkinstown and Eau Claire. These monitors have been operating since 3/16/11 and 11/21/03 respectively. The Perkinstown site is located at W10746 County Road M. The Eau Claire site is located at 5509 Highway 53 South in Eau Claire.</p> <p>The sampling frequencies are reviewed every year based on the most current data. If necessary, the sampling frequencies may be adjusted, based on federal requirements, to continue to ensure protection of public health based upon federal standards and guidelines.</p> <p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter of 10 microns aerometric diameter or less and particulate matter of 2.5 microns aerometric diameter or less, respectively (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR’s ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard.</p>
2	Patricia J. Popple	May 27, 2014	<p>“Because numerous silica mines are discharging pollutants in the form of freshly fractured crystalline silica dust as well as fugitive sources on a daily basis, continuous</p>	<p>The air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone,</p>

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			<p>atmospheric 2.5 monitors must be increased. While some mines have been permitted and are functioning, there are many more in the various stages of permitting that must be considered. Crystalline silica dust fresh from these mines is carcinogenic. Trempealeau, Buffalo, St. Croix, Eau Claire, Barron, Chippewa, Eau Claire, Dunn, Jackson, Clark, Waupaca, Crawford and more are impacted by the growth of sand mines. The State of WI is beholding to its people and more monitors must be mandatory particularly on the western part of the state. The plans in no way consider the safety and health of the people populating the area.”</p> <p>It is crucial that continuous monitoring be done in the Village of New Auburn at the northern edge of Chippewa Co. Freshly fractured crystalline silica dust has been discovered in the air handling system of the New Auburn Schools. There are 4 processing plants surrounding that school, the closest being Superior Silica Sands. It is two blocks away from the school. In addition, there are numerous trucks and trans-loading activities going on in the Village with the advent of such mines. The streets, the trucks, the rail beds and railcars and the air around these plants are demonstrating that fugitive dust is commonplace on the city streets, the county roads, and the driveways and sidewalks.</p> <p>I live a couple of miles SW of the EOG processing plant in Chippewa Falls, WI . I find fine sticky like brown and white grit on my car when I have it parked outside. In addition, I have a black tube used for a stray cat that frequents my area. When it rains, sand is</p>	<p>particulate matter (PM10 and PM2.5) and sulfur dioxide. Wisconsin utilizes monitoring methods and ambient air quality standards that are specified by EPA. There is neither a federal standard nor monitoring method for crystalline silica. Resource constraints limit WDNR’s ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard.</p>

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			<p>caught in a puddle on the top of that tube. With all the rains we have had, there are stains on my vehicle's windshield as well as car body from the sand in the air.</p> <p>The WDNR and the EPA must work together much more closely to improve the health and safety conditions for the people living in close proximity or even at a distance of the mines, processing plants and trans-load stations located throughout the region. The constant flow of trucks, railcars and the constant flow of dust off these mines is neither healthy for people or animals. Continuous running monitors should be placed at every site so people can read the levels of crystalline silica dust at any given moment. There should be no consideration for "cost" nor time.....if people are being exposed to silica dust and into developing silicosis in the future, we should make every attempt to find out what is in the air, set a standard of measurement for it, and then enforce those standards either by abruptly stopping the industry or making them comply with materials handling that stops the spread of the dust completely.</p> <p>The minimum standard that should be set by the State of Wisconsin should be no less than PM 2.5 and that standard must be enforced by the State and the WI DNR and/or EPA without fail."</p>	<p>WDNR is implementing a Federal Program and works closely with EPA to ensure that the ambient air monitoring network in Wisconsin is set up and operated according to federal regulation.</p> <p>Federal standards for PM2.5 and PM10 have been set by EPA. The standards are reviewed every 5 years. The process includes input from a scientific review panel to determine whether the federal standards continue to provide the federally mandated protection of public health and the environment. Wisconsin DNR monitors for both PM10 and PM2.5 across the state in accordance with federal requirements and utilizing federally accepted methods.</p>

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3	Jamie Schauer	May 29, 2014	<p>“...It would be unfortunate if these measurements were discontinued but I understand the constraint on EPA. I am currently not using any of the CSN data from Wisconsin but the attached papers were based on this data and are important to understanding the PM in Wisconsin.”</p> <p>Papers referenced above used speciation data from the Milwaukee-SER and Waukesha-Cleveland Ave. sites.</p>	<p>WDNR is currently working with EPA and Lake Michigan Air Directors Consortium (LADCO) to recommend that funding is retained for two of the three CSN sites that appear on the defund list. The Waukesha-Cleveland Ave. site is close enough to the Milwaukee-SER site to be considered somewhat redundant. However, the Perkinstown and Green Bay – East High CSN sites continue to provide critical data for understanding state and regional air quality issues. Furthermore, Wisconsin has signed on to a letter drafted by LADCO to the Office of Air Quality Planning and Standards (OAQPS) which asks EPA to consider continuing funding for these two sites.</p>
4	Michelle Guilette	June 3, 2014	<p>“...Having returned to Wisconsin four years ago to retire I am saddened that our high quality standards are now insufficient in some areas. What is particularly exasperating to me is the DNR’s deficiencies in overseeing and regulating the Frac Sand mining operations in our lovely state. I understand that the state has not been willing to fund the DNR’s request for 12 new positions and has only supported 2 positions. As a tax payer in this state owning properties in Madison and Vilas County I think our tax dollars would be well spent to continue to protect our air, our land and our water.</p> <p>Current regulations by the DNR are out of date as they regulate the small typical sand mines used for construction purposes, cranberry bogs, and roads not Frac Sand mining. I also learned in your presentation that mines regulate themselves by providing their readings from their own ambient air monitors. How can the DNR trust or regulate this? How does the DNR know this data provided from the mining company is accurate?</p>	<p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard. WDNR oversees regulatory industrial monitoring. Reports are submitted and</p>

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			<p>My concerns are following:            AIR : Crystalline silica dust, causes serious problems to workers and people living next to these mines. Bad reactions may not happen immediately but could 10 – 15 yrs. later, well after the mining companies are gone.            Interesting that MN. (PM-4) and TX. (PM-2.5) have much stricter standards/laws than WI.            WDNR and EPA need to really study this and put some meat into WI DNR regulations.            Please!”</p> <p>The comment letter also addressed land, water, and nuisance issues which are not part of the air monitoring network plan.</p>	<p>reviewed by WDNR. Additionally, WDNR performs independent start-up, shutdown, and annual audits on industrial monitoring equipment and reviews record keeping.</p> <p>Worker exposure is regulated by the Mine Safety and Health Administration (MSHA).</p> <p>Industrial monitors have been established at 11 sand mine facilities. All data to date indicate PM10 concentrations well within the federal standards.</p>
5	Charles Stanier	June 6, 2014	<p>“...I am a user of CSN data to understand the chemistry, evolution, interannual variability, and year-to-year trends in air pollution episodes in Wisconsin and throughout the upper Midwest.”</p> <p>“... The episodes are not a solved problem” and we rely on the CSN network to help understand them, particularly the balance between organics and ammonium nitrate during the episodes.”</p> <p>“...Green Bay is an important site and chemical speciation information is needed there.”</p>	<p>WDNR is currently working with EPA and Lake Michigan Air Directors Consortium (LADCO) to recommend that funding is retained for two of the three CSN sites that appear on the defund list. The Waukesha-Cleveland Ave. site is close enough to the Milwaukee-SER site to be considered somewhat redundant. However, the Perkinstown and Green Bay – East High CSN sites continue to provide critical data for understanding state and regional air quality issues. Furthermore, Wisconsin has signed on to a letter drafted by LADCO to the Office of Air Quality Planning and Standards (OAQPS) which asks EPA to consider continuing funding for these two sites.</p>
6	Patricia A. Cleary	June 11, 2014	<p>“...I am interested in pursuing some chemical speciation studies on PM2.5 in the region of Northwestern Wisconsin and would be very</p>	<p>WDNR is currently working with EPA and Lake Michigan Air Directors Consortium (LADCO) to recommend that funding is retained for two of the</p>

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			<p>interested in using data from the Perkinstown site, should it be maintained. My interest lies in conducting some chemical speciation tests with the equipment available in the Materials Science Resource Center at UW-Eau Claire, which I believe will complement the studies done by the CSN. The shutdown of the site would mean a loss of comparative studies between more local sites and a more remote site in Perkinstown. It is unfortunate that there are budgetary constraints on projects like these. I'm hoping it won't cause too much hardship in loss of valuable data."</p>	<p>three CSN sites that appear on the defund list. The Waukesha-Cleveland Ave. site is close enough to the Milwaukee-SER site to be considered somewhat redundant. However, the Perkinstown and Green Bay – East High CSN sites continue to provide critical data for understanding state and regional air quality issues. Furthermore, Wisconsin has signed on to a letter drafted by LADCO to the Office of Air Quality Planning and Standards (OAQPS) which asks EPA to consider continuing funding for these two sites.</p>
7	Fred Johnson	June 11, 2014	<p>"... We recognize that the changes outlined in the Network Plan 2015 do not directly impact St. Croix County. However, citizens have expressed concern about the health effects of Crystalline Silica as Frac Sand Mine operations are being opened in St. Croix County.</p> <p>The St. Croix County Health and Human Services Board met on June 10, 2014, and passed a motion to submit written comments on the monitoring network plan to the Department of Natural Resources and requests consideration of the following items:</p> <ul style="list-style-type: none"> <li>• Include a site for monitoring in St. Croix County (specifically the Glenwood City area or eastern side of the county)</li> <li>• Monitor for Crystalline Silica</li> <li>• Monitor for PM 2.5</li> <li>• Develop State methodology for monitoring PM2.5</li> <li>• Establish a State standard for monitoring PM2.5</li> </ul>	<p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter of 10 microns aerometric diameter or less and particulate matter of 2.5 microns aerometric diameter or less, respectively (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR's ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard.</p> <p>Wisconsin utilizes monitoring methods and ambient air quality standards that are specified by EPA. There is neither a federal standard nor monitoring method for crystalline silica.</p>

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8	Edie Ehlert	June 12, 2014	<p>“Please include in your air quality monitoring numerous sites in Western and Southwestern Wisconsin at industrial frac sand mines, processing sites, and railroad loading facilities.</p> <p>The industry has turned 1000s of acres of agricultural and recreational land into open pit mines. No air monitoring is required at most sites. The PM10 particle size monitoring is archaic and known to be scientifically inadequate, according to your own DNR studies.</p> <p>We need monitoring of silica sand at 2.5 pm and smaller at all open pit mines, processing facilities, and rail loading sites. To use our small town and rural populations as “test subjects” for an industry that employs few and profits greatly at the expense of quality of life for those of us who live in rural Wisconsin is unacceptable.</p> <p>In addition, there are people who’s health is daily affected by liquid manure fumes, particles, and pathogens from CAFOs. Those sites need air monitoring for toxins that are in raw manure as well.</p>	<p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter of 10 microns aerometric diameter or less and particulate matter of 2.5 microns aerometric diameter or less, respectively (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR’s ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard. PM10 is a current criteria pollutant that has a federal standard.</p> <p>PM10 is expected in larger quantities (as compared to PM2.5) at industrial sand facilities due to the mechanical processes associated with sand mining. PM2.5 is formed primarily through combustion and secondary formation in the air (when other compounds like sulfates and nitrates react in the air to form fine particles).</p> <p>Currently WDNR has no legal authority to require monitoring at CAFOs. A study conducted in 2010 investigated ammonia and hydrogen sulfide around several CAFOs in south central Wisconsin. The final report may be found at</p>

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			<p>I ask that you look at present day rural Wisconsin, count the hundreds of CAFOs and sand mining facilities, and get to work at protecting the health and welfare of those who live near operations that put toxins into the air.”</p>	<p><a href="http://dnr.wi.gov/topic/AirQuality/Monitor.html">http://dnr.wi.gov/topic/AirQuality/Monitor.html</a></p>
<p>9</p>	<p>Tracey Holloway</p>	<p>June 12, 2014</p>	<p>“I appreciate this opportunity to comment on the value of the Chemical Speciation Network (CSN) for particulate matter in Wisconsin. My students and research team at the University of Wisconsin- Madison actively use CSN data from Wisconsin for a wide range of research applications. With this letter, I hope to contribute some context for decision-making relevant to all Wisconsin CSN sites, including those at Green Bay East High, Perkinstown, and Waukesha.</p> <p>I lead an air quality research group at UW-Madison, where we use computer models from EPA and other sources (especially the Community Multiscale Air Quality Model, CMAQ), satellite data from NASA, and ground-based data from the EPA to understand the processes controlling ground-level air quality in the Upper Midwest and the US as a whole. We pay particular attention to links between energy choices and air quality, especially fine particulate matter (PM<sub>2.5</sub>). I also teach classes related to air quality at the UW-Madison that analyze PM<sub>2.5</sub> data, including data from the CSN sites in Wisconsin.</p> <p>The term PM<sub>2.5</sub> refers to solid particles or liquid droplets suspended in air, smaller than 2.5 microns in diameter. It is well known that</p>	<p>WDNR is currently working with EPA and Lake Michigan Air Directors Consortium (LADCO) to recommend that funding is retained for two of the three CSN sites that appear on the defund list. The Waukesha-Cleveland Ave. site is close enough to the Milwaukee-SER site to be considered somewhat redundant. However, the Perkinstown and Green Bay – East High CSN sites continue to provide critical data for understanding state and regional air quality issues. Furthermore, Wisconsin has signed on to a letter drafted by LADCO to the Office of Air Quality Planning and Standards (OAQPS) which asks EPA to consider continuing funding for these two sites.</p>

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			<p>PM<sub>2.5</sub> can be directly emitted ("primary" PM), like smoke from a BBQ or windblown dust, or formed in the atmosphere through chemical reactions among gas-phase ingredients ("secondary" PM). These ingredients can come from cars and trucks, power plants, agriculture, industry, natural sources like trees and plants, or other sources. CSN measurements help determine whether PM is primary or secondary, which sources and ingredients contributed, and where these sources were located.</p> <p>Wisconsin has a fair number of standard PM<sub>2.5</sub> monitors, about 20 across the state. These total PM<sub>2.5</sub> monitors are useful for assessing how much PM<sub>2.5</sub> is in the air. Unfortunately, these total PM<sub>2.5</sub> monitors do not tell us anything about where the PM<sub>2.5</sub> came from -- in-state or out-of-state? Trees or power plants? To answer these common-sense questions about PM<sub>2.5</sub> sources and sensitivities, we need information on particulate matter <i>chemical species</i>. The chemical make-up of PM has significant variability from day-to-day and place-to-place, so spatial coverage of the CSN monitors is valuable to research and teaching on air quality in Wisconsin.</p> <p>My group actively uses data from Wisconsin CSN data, with a few example projects are noted below:</p> <p><b>Examining the sources of PM<sub>2.5</sub> across the Upper Midwest.</b> This research project was funded in part by EPA, conducted as part of the Ph.D. work of Dr. Scott Spak,<sup>1</sup> who is</p>	

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			<p>now Assistant Professor at the University of Iowa. We published the results of this study in the <i>Journal of Geophysical Research</i>, in a paper entitled "Seasonality of speciated aerosol transport over the Great Lakes region" [Spak and Holloway, 2009<sup>2</sup>]. In this study, all chemical speciation data from the STN monitors in Wisconsin and neighboring states were used for model evaluation and analysis.</p> <p><b>Quantifying how Wisconsin state energy policies could benefit air quality.</b> This work was primarily funded by Wisconsin Focus on Energy, and supported the M.S. work of Steve Plachinski<sup>3</sup>, who is now an analyst with Short Elliott Hendrickson Inc. (SEH) based in Sheboygan. The work was published in the journal <i>Atmospheric Environment</i> in a paper entitled "Quantifying the emissions and air quality co-benefits of lower-carbon electricity production" [Plachinski et al., 2014].<sup>4</sup> In this study, nitrate and sulfate PM measurements in Wisconsin were used for model performance evaluation.</p> <p><b>Quantifying air impacts of shipping by truck versus rail in the Upper Midwest.</b> This work was primarily funded by the National Center for Freight Infrastructure Research and Education, a University Transportation Center of the US Department of Transportation, which supported the Ph.D. work of Erica Bickford<sup>5</sup>, who is now a fellow</p>	

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			<p>with the American Association for the Advancement of Science in Washington DC. The work was published in the journal <i>Environmental Science &amp; Technology</i> in a paper entitled "Emissions and Air Quality Impacts of Truck-to-Rail Freight Modal Shifts in the Midwestern United States" [Bickford et al.,2014].<sup>6</sup> In this study, elemental carbon PM measurements across the Midwest were used for model performance evaluation.</p> <p><b>Quantifying how PM<sub>2.5</sub> responds to weather and climate.</b> It is well established that weather and climate affect air quality, and that different types of particles respond to weather in different ways. Chemical speciation data is essential for this type of analysis, because sulfate particles form under different conditions than nitrate particles or secondary organic aerosols. We have a proposal in review with NASA (in response to solicitation number NNH13ZDA001N-HEALTH) that would evaluate weather-PM relationships in ground-based data (including CSN data) and compare with satellite estimates of particulate matter.</p> <p><b>Considering power plant dispatch to be used as an air pollution control strategy.</b> This work has been submitted to EPA for STAR Grant Funding under the solicitation EPA-G2014- STAR-G1. This work would expand on the research conducted by Ph.D. student Vikas Dawar that relied on sulfate PM data from STN sites in Pennsylvania and New York. (This work will be submitted to the</p>	

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			<p>journal <i>Environmental Science &amp; Technology Letters</i>, entitled " Methods to Determine Electricity Dispatch for Air Quality Control" [Dawar, Lesieutre, and Holloway, in preparation]). In the proposed work, we would uses sulfate PM measurements from a range of sites across the Eastern U.S., including Wisconsin.</p> <p>As a final example, I note the major scientific uncertainties around the health impacts of PM2.5 species. Although EPA regulates total PM2.5, there is evidence that individual species may have differentiated health impacts. Research on the species-specific health impacts of PM2.5 depends on the availability of speciated PM data. I am working with the UW-Madison School of Medicine and Public Health on epidemiological approaches to quantify the health impacts of individual PM sources. Such studies, especially those building on the Survey of the Health of Wisconsin<sup>7</sup>, would benefit from spatial coverage of speciated PM monitors in the state."</p>	
10	Donna Praza	June 12, 2014	<p>As a resident of this beautiful state I am very concerned about the rapid increase in frac sand facilities over the last five years. With the projected continued expansion of this industry, it becomes even more important that the Wisconsin DNR has the resources in funding and personnel to monitor these facilities and that our air and water laws are enforced and periodically reevaluated.</p> <p>Open-pit frac sand mining threatens the air quality not only for the workers, but also for the general public. Without state or national standards on airborne silica dust, health risks</p>	<p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter of 10 microns aerometric diameter or less and particulate matter of 2.5 microns aerometric diameter or less, respectively (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR's ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the</p>

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			<p>such as silicosis are not considered when mining permits are issued...”</p> <p>Additional comments related to water and land use were mentioned, which are not a part of the air monitoring network plan.</p>	<p>Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard.</p> <p>Worker exposure is regulated by the Mine Safety and Health Administration (MSHA). Wisconsin utilizes monitoring methods and ambient air quality standards that are specified by EPA. There is neither a federal standard nor monitoring method for crystalline silica.</p>
11	Barbara Flom	June 13, 2014	<p>“... * Please consider more monitors in the West Central WI (termed in EPA list as “SE MN-Lacrosse region”), Northwestern WI, and North Central WI regions, given the skyrocketing of industrial sand mine sites (from about half a dozen to 130+) in the former and the possibility of asbestiform releases with potential iron mining in the latter two. Western Wisconsin lists only three sites and the other two list 8 all together.</p> <p>*It appears that only some of the monitors in the above regions are measuring particulates at the PM2.5 size, and none at PM 10 size. Please consider measuring both at all existing sites, and installing more Particulate Matter measuring equipment in these three regions. Granted these regions are historically not industrial, so would be expected to generate less pollution. However, industrial sand mining is rapidly challenging the historical use of the land. Although we’ve lost the opportunity for baseline data in west central Wisconsin, we should still track regional air quality for current and future public health purposes. We need baseline data in the north prior to any potentially asbestiform-releasing</p>	<p>The ambient air monitoring network must be designed to satisfy federal requirements related to meeting the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter of 10 microns aerometric diameter or less and particulate matter of 2.5 microns aerometric diameter or less, respectively (PM10 and PM2.5) and sulfur dioxide. Resource constraints limit WDNR’s ability to establish new monitors at this time.</p> <p>Industrial monitors have been established at 11 sand mine facilities. Currently, all sand mines with permit-required ambient monitoring have operable PM10 monitors and are reporting their data to the Department. In addition, fugitive dust plans are a requirement in the air permits. The facilities must comply with the requirements of the fugitive dust plans to limit the amount of particulates that leave these sites. None of the available ambient monitoring data from sand mine monitors indicates violations of the PM10 standard.</p> <p>Wisconsin utilizes monitoring methods and ambient air quality standards that are specified by EPA. There is neither a federal standard nor monitoring method for crystalline silica.</p>

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			<p>mining activity there. The reason to collect at both sizes is that PM10 includes particles that do not deposit in lungs but still cause irritation in throat, eyes, mouth, etc. The most dangerous silica particulates in terms of lung health are sized from PM 2.5 to PM4, and even above that size they can cause health issues like eye and throat inflammation.</p> <p>*Please consider expanding the “PM2.5 chemical speciation” monitoring (i.e. breakdown of what particles are in the pollution) to include crystalline silica as well as the others they look for. The EPA does not require that at this time, and the industry argues there is no data showing it’s a public health hazard (contrary to CDC information warning families of silica workers to avoid contact with clothing, etc.) Yet several states, including Minnesota most recently, have concluded that the hazard is significant enough to have adopted an ambient air standard and measurement/engineering protocols to protect the public. In the absence of these here in WI, we should at least be gathering initial data. We need data to know whether this well-established deadly occupational hazard, from an enterprise (industrial sand mining) that nearly always occurs in the open air, is or isn’t a public health hazard...”</p>	<p>The number of monitoring sites indicated only takes into account DNR owned/operated sites. There are over 10 additional industrial sites located in Western Wisconsin that monitor for PM10 with DNR oversight.</p> <p>There is no federal/state ambient air quality standard or ambient air monitoring method for asbestiform. It is controlled at the source, through the state toxics rule.</p> <p>The Chemical Speciation Network (CSN) does not analyze for crystalline silica specifically. However, it is a fraction of the soil reported in the chemical speciation breakdown.</p>