From:	Eric Pierson
To:	*EQB_Silica Sand
Subject:	Comment on draft tools for LGUs
Date:	Monday, January 27, 2014 12:42:36 PM
Attachments:	Frac sand MN EQB letter.doc

I also attach my comments and suggestions as a separate Word document.
Eric Pierson, Wabasha, MN

Re: Draft tools for local government units
January 27, 2014

Thank you for your time and effort so far. You are on the right track, and I hope you will carefully consider the following concerns:

Please include discussion of performance bonding (including health care cost bonds), insurance, indemnity and hold-harmless agreements. This is a significant omission.

Please list adopting a total ban as an option. Also, considering the pace at which the science is developing, please recommend the use of moratoriums to gain time to obtain more facts.

Please discuss zoning (including the district overlay approach) in more detail.

The chart at page 116 is a good start on an excellent idea, i.e., showing the range of setbacks required. The chart would be more useful to LGUs if it showed when and where the high and low setbacks were adopted. For example, if some LGUs required minimal setbacks years ago when relatively little was known, but more recently, better-informed LGUs require greater setbacks, this would be helpful to know. This could be done with footnotes or hyperlinks.

Please mention that LGUs have authority to require 'no adverse impact' on ground water quality. If LGUs have similar authority with regard to air quality, ground water quantity, or other factors, please say so.

I understand that MN-DNR has never denied a high-volume well permit in southeast Minnesota. If DNR won't seriously protect ground water quantity, LGUs should know whether and how they can step in with caps on quantity of groundwater use.

Please discuss LGU options regarding reclamation. This topic deserves its own section heading in the table of contents. Mere grading and sowing grass seed is not reclamation. I understand that no mining land has ever been reclaimed so that it can grow a marketable crop.

Please discuss how LGUs can incorporate new knowledge, whether by best available control technology (BACT) or other means. Our current state of scientific and medical knowledge will soon be outdated. Frac sand facilities may operate for decades, yet LGUs may be stuck with 2014 standards that will soon seem quaint and naive. For example, we have data on 10- and 2.5- picometer sized particles, but it is now being proven that ultrafine airborne particulates (down to nanometers) are more hazardous to health than previously thought, back when we lacked the technology to measure ultrafine particles. This is a problem for fugitive ultrafine silica dust, which is an agitant and may facilitate absorption of diesel particulates through cells in human lungs. The larger problem is how LGUs can continue to protect their citizens' health as scientific and medical knowledge advance.

Please make clear that ambient air quality standards are not self-enforcing, and that LGUs can require continuous monitoring in multiple locations with data streamed in real time to a publicly-accessible site. Also, please specify that expense of equipment and personnel to monitor air quality should be made the responsibility of the permit holder. Finally, please make clear that LGUs have the option to use regulatory standards as process control standards. For example, a silica sand processing facility can be required to adjust in real time to changes in wind speed and direction, number of trucks on the road, etc. Please make clear that a LGU has authority to immediately shut down a facility for violation.

Thank you for your careful attention to these concerns.

Eric Pierson