

1 **Draft Notes for November 3, 2014, SSRAP Meeting**

2

3 Discussion on Notes from October

- 4 . Need to send out Katie's notes [NOTE: posted with October notes on web page]
- 5 . Kelley would like Jeff's email from violations in Wisconsin included in this month's notes (page 8)
- 6 . Al's comments in the chat on the WebEx - make sure they were received. Things were included
- 7 when they lead to discussion in the room.

8 Realistic Success

- 9 . Better communication between state agencies and LGUs, understanding of the issues and which
- 10 need to be addressed where. Collaboration.
- 11 . Environmental issues and impacts on citizens are considered and impacts on LGUs
- 12 . Way for the state to enforce the rules
- 13 . Technical assistance team is used in every step
- 14 . Rules that strengthen environmental review based on sound science
- 15 . Rules based on sound scientific need; practical and workable for existing operations
- 16 . Resulting rules don't have onerous enforcement practices on LGUs or unfunded mandates; workable
- 17 . Decisions are made with science, not emotion
- 18 . Rules look like a product of the group's work and disagreements were heard in the room
- 19 . Communication - share scientific studies from industry. Inform and show additional studies.
- 20 . See the tradeoffs but an overall benefit to the rule language from the efforts of the group; everyone
- 21 gets something, compromise
- 22 . Rules that protect human health, environment, land; understandable and usable to citizens
- 23 . Rules that protect the health, safety and well-being of the people of Minnesota and prioritize that
- 24 over corporate profits
- 25 . Understand pressures on LGUs and how much help they need - communication and working
- 26 together and timing (it's very short, only industry can ask for extensions)
- 27 . Everyone feels heard and knows their input is valuable
- 28 . Rules output reflects the input received
- 29 . Rule is better to address issues than it was when we started

30 EQB Rule Discussion

- 31 . Where does this go?
  - 32 o 4410 is general
- 33 . Definition of disturbance or mine area?
  - 34 o There will be new definitions
  - 35 o Disturbance.
    - 36 § Before we talked more about excavation than disturbance - Erik read a new
    - 37 definition, likely to exclude access roads
    - 38 § Compaction is missing
    - 39 § Would disturbance be for new and existing?
      - 40 § Yes, it would also be for expansion.
      - 41 § OK with it for mine acreage, but disturbance could be an issue - like a
      - 42 stormwater pond

- 1 § But remember that environmental review NEEDS a governmental
- 2 action, so if the disturbance does not need a permit it will not need
- 3 environmental review
- 4 § 20 acre disturbance is small for a big facility
- 5 § Mine plan changes over time and needs permit mods, which can change
- 6 where things are located within the site but all within an area that has
- 7 already been studied
- 8 § Hard to decide what should be included and why
- 9 § A mine is likely to disturb a whole parcel
- 10 § A general disturbance EAW looks at 80 acres
- 11 § Generally is moving from excavation to something broader, like disturbance,
- 12 helpful?
- 13 § Needs to be clearly defined
- 14 § Seems to be some idea that it is helpful
- 15 § How does this work for a tunnel mine?
- 16 § Right now an EIS for any underground mine
- 17 ○ Mine area is all areas where material is removed or deposited
- 18 § Should rail spurs be considered?
- 19 § When looking at impacted land use areas for residential development, look at all
- 20 thing necessary for the proposed project
- 21 ○ Concern about spillover to customers - those who use sand who have piles, etc.
- 22 § They could be pulled in by disturbance more than excavation
- 23 . RGU
- 24 ○ Is there a change? No.
- 25 ○ When the Agency is assuming a review, is there an underlying permit decision that must be
- 26 made?
- 27 § And what kind of permits? MPCA has issued individual permits most recently.
- 28 ○ The RGU should be the one with substantial permitting authorities under law
- 29 ○ Some people may want a stronger role for state agencies, but some LGUs have done lots of
- 30 work and may not want to delegate back to the state, especially where there is the potential
- 31 for large land use issues
- 32 ○ EQB and DNR reps came to visit - township board was very concerned about LGUs being left
- 33 out of the process
- 34 § But need support!
- 35 § The locals are the ones who have to live with it
- 36 ○ Issuing and pulling the permit is the only authority locals have
- 37 ○ What is the capacity of the LGU? Some don't have it.
- 38 § The RGU definition is only for environmental review; does NOT impact permitting
- 39 authority - so LGUs can add information in to the permit
- 40 § RGU should default to the MPCA unless the LGU petitions for it.
- 41 § Concern that if LGUs try to pass it up to the state makes them feel that they
- 42 are giving up authority
- 43 § Needs to be collaborative and it needs to have early communication
- 44 § But concern that the input from LGUs won't be there; the 30 day comment
- 45 period is difficult when a County Board only meets once a month
- 46 § Some concerns about capability and capacity of state agency - they often
- 47 comment late on local EAWs

- 1           § How can locals be heard when everything is in St Paul? And state agencies don't
- 2           know history.
- 3       ○ Make the technical team mandatory
- 4           § Note: The tech team is set up in statute and is for use under LGU request only
- 5       ○ MDH needs to be on team
- 6       ○ What about joint responsibility?
- 7           § RGU and PCA have joint authority
- 8           § Who would make the adequacy determination?
- 9           § TEP type process as a model
- 10   · Limited language
- 11       ○ Some assumptions seem to be already built in - definitions, criteria, thresholds - so hard to
- 12       see what is being proposed
- 13           § Is current language being continued? The additional information?
- 14       ○ Expansion? Percentage by which expansion would result in change of RGU.
- 15           § Implies that there is expansion
- 16   · Should not suggest that air quality is the only impact, the scale is really important
- 17       ○ Need high quality upland landscapes
- 18   · 20 acres
- 19       ○ Not a lot of room
- 20       ○ How does 20 acres of ancillary disturbance at a mine look different from that kind of
- 21       disturbance at any new other type of facility?
- 22       ○ Some think any mine should have an EAW
- 23       ○ Some want this focused only on new, because rule language already talks about expansion
- 24           § What is interaction with the three year "look back" or whatever in Subp. 1?
- 25           § Don't want/need to do environmental review for setback changes or other minor
- 26       changes
- 27       ○ Role of current permits or permitted operations?
- 28   · TEP style panel
- 29   · EQB as RGU
- 30       ○ But they can let the LGU do it
- 31       ○ Or EQB deciding who should be involved
- 32       ○ State agencies may already have ability to get consultants more easily
- 33   · New vs expansion
- 34       ○ When you evaluate a new mine, you want to look at everything
- 35       ○ Maybe need to separate out new and expansion, because having the 20 acres for an
- 36       expansion only for silica sand doesn't fit with other kinds of operations
- 37       ○ Expansion - what is the expansion of the mining excavation?
- 38       ○ Mine area vs ancillary impacts
- 39       ○ Expanding into the already disturbed area versus expanding into a previously disturbed area
- 40           § Expansion into disturbed areas wouldn't trigger additional review
- 41   · Cumulative effects and density as a trigger
- 42   · EIS threshold
- 43       ○ They go together
- 44   · Processing plants
- 45       ○ Once constructed, new mines might send material
- 46       ○ Temporal variable - what if the facility operates much longer than expected?
- 47       ○ 200,000 tons
- 48           § Over what time frame? How long do these plants last?

- 1           § Too high. 100,000
- 2           § Should be an EIS threshold, with a lower EAW threshold
- 3       ○ Allow for an EAW/EIS that was done for bigger than permitted to stand for a later expansion
- 4           up to the level of that original review
- 5       ○ How big is this on trucks?
- 6           § Erik read some info
- 7       ○ Increases complexity of site and possible problems
- 8       ○ Again, TEP type team
- 9       ○ 50% expansion - would that eventually add up and trip?
- 10          § If there are multiple expansions under 50%
- 11       ○ Need protection via environmental review for standalone processing because a plant will
- 12          draw mines
- 13   · Trans loading
- 14       ○ Raw or pre-processed material?
- 15       ○ Enclosure?
- 16          § Dust is more if open vehicles
- 17          § Less local concern if a totally enclosed facility than totally open, so may warrant an
- 18            exemption
- 19          § Or if trucks are covered
- 20       ○ OSHA hazard alert identified 7 top sources, and three or four are sand movers, conveyors,
- 21          transportation
- 22          § So this is a key area that poses risk
- 23       ○ TEP style, include MnDOT
- 24       ○ 50% expansion - is that of the originally permitted amount?
- 25          § Rather than operating amount?
- 26       ○ Like intent of moving to PCA, but need an intermediary, movement between LGUs
- 27       ○ Need to be sure rules are followed
- 28       ○ All facilities are not equal -Unimin is state of the art, and everything enclosed, and it is
- 29          amazing
- 30          § Need to come up with the SONAR and can't treat everyone the same
- 31       ○ What is trans load? Going from one mode to another (truck to truck, truck to rail, rail to rail)
- 32          § Load out - internal and on site movement
- 33            § Versus pipeline to load out to a conveyor
- 34            § Shouldn't be needed for solely internal operation
- 35          § Double handling?
- 36          § What the end? Industry would view trans load as being finished product
- 37            § Maybe raw material
- 38            § Vehicle, mode specific
- 39          § Handling, not part of processing?
- 40          § Trying to get at hub and spoke issues
- 41          § What about the key being transfer of responsibility?
- 42            § Probably not. Railroad takes ownership of material on site.
- 43       ○ RGU, expansion issues
- 44       ○ EIS threshold needed
- 45       ○ Will all these facilities need a permit? If not, no environmental review
- 46       ○ 50% may not be the right number, but it is important to get material coming in from other
- 47          places
- 48       ○ Expansion needs to be defined

- 1                   § Cumulative
- 2           ○ Define raw and processed
- 3           ○ Lowest common denominator
- 4   · Storage piles
- 5           ○ 7500 tons
- 6   · Trout stream
- 7           ○ Setback permit + 5 acres of disturbance
- 8               § Exclude some smaller operators - animal bedding, etc.
- 9           ○ Size in acreage isn't sufficient here to get at impacts on trout stream
- 10           § Close to karst feature, etc.
- 11           ○ Keep legislative with no threshold
- 12           ○ Because environmental review should be before the permit, it should get done and be able
- 13           to inform - it will cover some of the same ground
- 14               § Environmental review will help with public comment
- 15               § It may also cover more ground
- 16               § We have decided as a state that this is risky, so it should be reviewed
- 17               § Does DNR permit review cover quantity and quality in the hydro review?
- 18               § Recreation not included - aesthetics
- 19           ○ Permit has two tiers
- 20               § Dry mine has to do 1 year of hydro study
- 21               § Below water table has to do 2 years of hydro study
- 22               § Tries to cover quality and quantity
- 23               § Doesn't cover traffic, noise, etc.
- 24               § Only excavation/mining, not storage or processing
- 25               § High water events or sedimentation could result from processing or storage
- 26           ○ Some suggestion that there should be tiers for the trout stream for every kind of action
- 27               § But what are they for other industries?
- 28               § Other discussion that it would bring in lots of others
- 29               § But maybe limited because permit limited to Paleozoic plateau
- 30           ○ Impact on economy is considered in environmental review and not just in the hydro study
- 31           ○ Again, threshold should just be requiring the setback permit
- 32               § Acreage not relevant, because disruption nearby can have big consequences
- 33           ○ The heavier the disturbance within the buffered area, the greater the impact to fish and
- 34           stream quality
- 35   · Groundwater and mining below the water table in an aquifer, especially when aquifer is used for
- 36   drinking water
- 37           ○ Should be a mandatory category
- 38   · Forested and sensitive shore land
- 39           ○ Disturbance rather than excavation
- 40           ○ May not need to be a distinction here for silica sand compared to other mines in sensitive
- 41           shore land areas
- 42           ○ Or a need to be separate from the 80 acre disturbance levels
- 43           ○ What is naturally vegetated?
- 44           ○ Use county zoning - 4410 defines it related to lakes
- 45           ○ This is important, we don't know cumulative impacts, so acreage needs to be kept low
- 46               § ER provide input to reclamation plan
- 47           ○ GIS layers
- 48   · EIS triggers for all categories

- 1       o Processing, etc.
- 2       o Any mine that goes into drinking water
- 3   · Remember that EAW now has much more about groundwater, so they look much more like EIS
- 4       o Scientific basis for cutting to 80?
- 5       o EIS covers mitigation
- 6           § EAW adequacy decision does require mitigation, and it is the first step of an EIS, so
- 7           these questions will be asked and an EIS can be required if needed
- 8           § But some RGUs may not know what to ask
- 9       o EIS for Paleozoic plateau, karst, any sinkhole - well and drinking water issues
- 10   · Quantity and intensity of activity
- 11       o Bigger mine =higher potential for problems, so more in depth examination

12 MPCA

- 13   · Applicability
- 14       o Today's assumptions - if you are in, you will need an individual air permit and will have to do
- 15       stack tests and other things like those in the concept document (monitoring, etc.)
- 16           § Some want every facility to have an air permit
- 17           § There are still other triggers for permits
- 18       o Indicator
- 19           § Throughput, amount of silica sand arriving or leaving a facility
- 20           § Considered together
- 21       o Averaging Time
- 22           § Daily, monthly, annual
- 23           § Seasonal?
- 24           § Daily averaging paints a better picture of the activity
- 25           § LGUs had these discussions - some excluded based on where it was being
- 26           used, some based on the likely throughput of those activities
- 27           § 1 or 2 trucks a day is the level for some of the LGUs. 15 tons per truck, so 15
- 28           to 30 tons per day
- 29           § Some send 2 to 3 trucks per day to a shingle provider and 500 tons per day
- 30           to a glass foundry
- 31           § Longer average decreases margin of area
- 32       o Level
- 33           § Tons, trucks, yards
- 34           § Some think it looks high for a trigger, every facility should need a permit
- 35           § Know that some will come in just under the threshold once there is one
- 36           § Feds look at 25 tons for hour
- 37           § Shouldn't be 3x higher than in Wisconsin
- 38           § Smaller facilities may have bigger problems managing their dust, so it may be better
- 39           to have them in.
- 40           § How many are there?
- 41       o Basis
- 42           § Actuals versus potentials
- 43           § PTE - not looking at PTE or impacts
- 44           § Permitting already look at PTE
- 45           § Other types of standards, performance standards, look at throughout or
- 46           other metrics rather than PTE

- 1       ○ Variable for length of time a facility will be open
- 2           § Because inhalation is cumulative
- 3       ○ What is basis?
- 4           § USGS 2012 data - can get at 95% of production with 64% of the facilities
- 5           § Trying to exclude the smallest facilities, as mentioned for local roads, local
- 6           construction, maybe animal bedding
- 7           § Really focus on key facilities
- 8       ○ Want us regulating for fracking
- 9           § They could come in at any size facility
- 10       ○ Consider population around the facility as a permit trigger
- 11           § Others don't like it
- 12           § Maybe differences for mines with no one within 3 miles
- 13       ○ Concern about impact on aggregate, which could reach these higher levels of throughput
- 14           § Metrics need to be very specific to type of material
- 15       ○ Statistical point of who is in or out, but applicability ought to relate to potential to exceed an
- 16       emission limit or ambient levels
- 17           § Relate to monitoring data?
- 18           § Using processes on site to decide if applicable?
- 19           § Other industries that are more complicated regularly determine if there is a
- 20           significant risk or threat to some standard
- 21           § Modeled parameters to estimate ambient concentrations
- 22       ○ Truck trips today should be round trips
- 23           § Add cubic yards, so people know what they have
- 24       ○ Have scalars to deal with things like stacks, stack height, number of piles
- 25           § Not one size fits all
- 26           § Maybe not trucks, but throughput and others
- 27           § How many models show something different than reality?
- 28       ○ Monitoring
- 29           § Have only looked at industry sponsored monitoring (Dr. Richards), not public health
- 30           sponsored monitoring (Dr. Pierce)
- 31           § The latter shows results that would exceed MDH standards
- 32           § If we use monitoring, these need to be reconciled
- 33           § An area that LGUs need help
- 34       ○ The assumption about daily averaging is flawed because it underestimates demand
- 35       ○ What are the requirements for a general permit, on those who don't meet the threshold
- 36       ○ De minimis is like house construction, not the high level listed here
- 37           § And remember people build to right below the threshold
- 38           § Need a smaller applicability threshold. 33 tons per day.
- 39       ○ Any chance to enforcement?
- 40       ○ Use tables for Midwest from minerals yearbook
- 41           § Not national data
- 42           § Will ask USGS
- 43           § Suggesting we call local governments and ask
- 44       ○ De minimis based more on the activities we know we don't want to cover
- 45       ○ Land use vs air quality thresholds

46

1 · Kelley S. asked the MPCA to attach Jeff Hedman's email exchange with Marty Sellers regarding  
2 violations Marty cited in Wisconsin (see below):

3 **From:** Sellers, Marty F - DNR [<mailto:Marty.Sellers@wisconsin.gov>]  
4 **Sent:** Tuesday, October 07, 2014 10:22 AM  
5 **To:** Hedman, Jeffrey (MPCA)  
6 **Cc:** [stanagek@gmail.com](mailto:stanagek@gmail.com); Sellers, Marty F - DNR  
7 **Subject:** RE: News Article Dated 3/3/2013

8  
9 Hello Jeff

10 That quote of mine was reproduced in many other news outlets, including the Wall Street Journal.  
11 And it was accurate based on my visits to sand mines, processing plants and transfer stations between  
12 November, 2011 and March, 2013.

13  
14 To explain, I am an air engineer and so the violations pertain to only the air rules and any air permits the  
15 facilities might have received from WDNR. Our water program has issued numerous violation letters as  
16 well, but I am not current with their numbers.  
17 The violations I found were quite varied, and in many cases each violation letter cited more than one  
18 violation. From my memory the violations were as follows:

19  
20 Two sand mines were found constructing prior to applying for and receiving an air permit.

21  
22 Four mines or processing plants failed at least one or more initial emissions tests required by their air  
23 permit and performed by third party contractors.

24  
25 Many of the sand mines were found to have constructed differently than they were permitted based on  
26 their permit application. Some of these differences were minor, such as stack dimensions used in air  
27 modeling; but some were quite significant, including several sand driers and screening processes found  
28 to have been constructed and to be operating without having installed the air pollution control  
29 equipment required by the air permit.

30  
31 Numerous mines were also cited for failing to take precautions to control fugitive dust (based on my  
32 visible observations), failing to develop and implement Fugitive Dust Control Plans and Malfunction  
33 Prevention and Abatement plans, and failing to submit and implement an ambient air monitoring plan.

34  
35 I began inspecting sand mines and processes in the fall of 2011 as they were just developing, and these  
36 inspections were an add-on to my scheduled work, which was focused on inspecting major sources of air  
37 emissions as defined by EPA and for EPA. My quote was based on inspecting about a dozen mines and  
38 processing plants in a 16-month period. Beginning in July, 2013, I was assigned to inspect only major  
39 sources of air emissions to satisfy Wisconsin's commitment to EPA, and I am no longer inspecting sand  
40 mines and facilities.

41  
42 I hope this helps. Feel free to call to discuss further.

43  
44 **We are committed to service excellence.**

45 Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

46  
47 **Marty Sellers**



1 Phone: (608) 785-9975  
2 [marty.sellers@wisconsin.gov](mailto:marty.sellers@wisconsin.gov)  
3  
4 **From:** Hedman, Jeffrey (MPCA) [<mailto:jeffrey.hedman@state.mn.us>]  
5 **Sent:** Thursday, October 02, 2014 3:17 PM  
6 **To:** Sellers, Marty F - DNR  
7 **Cc:** [stanagek@gmail.com](mailto:stanagek@gmail.com)  
8 **Subject:** News Article Dated 3/3/2013  
9

10 Hi Marty,

11  
12 I work in the Air Quality section of the Minnesota Pollution Control Agency. A citizen recently brought a  
13 news article to my attention regarding noncompliance in the silica sand industry. I have copied the  
14 citizen on this email. The article appears here: [http://wisconsinwatch.org/2013/03/frac-sand-dnr-](http://wisconsinwatch.org/2013/03/frac-sand-dnr-violations/)  
15 [violations/](http://wisconsinwatch.org/2013/03/frac-sand-dnr-violations/) In the article, you are quoted as sending "...letters of noncompliance to 80 to 90 percent of  
16 the sites."  
17

18 Is this quote accurate? If so, can you elaborate on the nature of the noncompliance? Was it constrained  
19 to any one media (e.g. air, water), process, or equipment type? Any additional information you can  
20 provide would be helpful.

21  
22 Jeff Hedman, P.E.  
23 Engineer  
24 Industrial Division  
25 MPCA  
26 [jeffrey.hedman@state.mn.us](mailto:jeffrey.hedman@state.mn.us)  
27 651-757-2416  
28  
29  
30