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April 4, 2014

Citizen's Environmental Quality Committee  
Winona, Minnesota 55987

Dear Committee Members:

The next meeting of the Citizens Environmental Quality Committee meeting will be held on **Tuesday, April 8, 2014 at 4:00 p.m. in the Wenonah Room of City Hall.**

1. Call to Order
2. Approval of Minutes – February 25, 2014
3. Air Quality Monitoring
4. Other Business
5. Adjournment

Sincerely,

A handwritten signature in black ink, appearing to read "Carlos Espinosa", with a horizontal line drawn underneath it.

Carlos Espinosa  
Assistant City Planner

## ENVIRONMENTAL QUALITY COMMITTEE MEETING NOTES

DATE: February 25, 2014

TIME: 4:00 p.m.

PRESENT: Hoffman, Meyer and Dr. Nosek

STAFF: Mark Moeller, City Planner; Carlos Espinosa, Assistant City Planner

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The meeting began at 4:00 p.m. with an introduction from staff stating that member from the Winona Area Citizens Concerned about Silica Mining (CASM) group had requested this meeting with the CEQC. Mr. Espinosa then asked if everyone in the room would introduce themselves. Individuals from CASM included Dale Shauer, Marie Kovesci, Craig Thompson, Mike Kennedy, Steve Schild, and Wendy Larson. Also present was Tesla Rodriguez from the Winona Daily News, Wendy Davis from the Planning Commission, and Jeff Faulk.

Next, Committee member Hoffman asked the following questions:

1) What was the sequence of events that lead to the air monitoring on top of the YMCA?

Mr. Espinosa responded that after the CEQC's air monitoring recommendations were sent to the Planning Commission, the Commission requested that a staff person from the MPCA attend a meeting to help answer questions. City staff then sent a list questions that might be asked at a meeting to the MPCA, and the agency responded with the letter that included the proposal for air monitoring.

2) Which silica sand facilities in Winona are currently active?

Mr. Espinosa explained that activity has been low due to the season, but the Winona Port operation has recently been active as well as 370 West Second Street. Mr. Espinosa stated that the Gould street operation was also active late last fall.

3) Is there a retroactivity clause in the silica sand CUPs that have been issued?

Mr. Espinosa responded that there is language in the CUPs which would require operators to retroactively comply with any new air quality monitoring regulations.

4) When is the MPCA meeting to finalize air quality regulations?

Mr. Espinosa stated that the EQB is meeting on March 19<sup>th</sup> to take the next step in finalizing their "Tools to Assist Local Governments in Planning for and Regulating Silica Sand Projects" document.

Next, CASM members thanked the CEQC for agreeing to meet and stated that their main questions have to do with process and how the committee feels about the communication between themselves and the Planning Commission.

CASM member Mike Kennedy asked if the CEQC members had seen the letter from the MPCA. The CEQC members said that hadn't. Mr. Espinosa stated he could forward the letter to the committee members.

Mr. Kennedy stated that when it comes to fence line monitoring all parties are still learning a lot.

Ms. Kovesci stated that Dr. Crispin Pierce at the University of Wisconsin Eau-Claire has stated that fence line monitors at silica sand operations are likely to have higher particulate readings than non site-specific air monitors.

Next there were questions about data on the City's website and how long the monitors would be running. Mr. Espinosa responded that he could put the links to the air quality information in a more prominent location on the City's website, and that he would inquire about the exact dates for the air monitoring.

There were also questions about the posting of CEQC minutes on the City's website. Mr. Espinosa stated that the City does its best to get everything on the website.

Mr. Kennedy asked if the CEQC had a Chairperson. Dr. Nosek stated that the committee does not have a chair, and that it has been quite some time since there was a chairperson on the committee. Dr. Nosek stated that there is a need for better lines of communication between the CEQC and the Planning Commission and that he's sure a better procedural connection could be made. Mr. Espinosa affirmed this statement.

Dr. Nosek also stated that since CASM is showing appreciation to those who helped establish the air monitoring at the YMCA, Dr. Holly Lenz should be contacted.

Ms. Kovesci asked how agenda items come to the CEQC. Dr. Nosek stated that recently agenda items had come from the Planning Commission and city staff.

Mr. Kennedy noted that according to City Code, it's the responsibility of the Planning Commission to designate the chair of the CEQC, and a member of the Planning Commission is supposed to be on the committee. Mr. Moeller stated that this has been an issue – not only with the CEQC, but on other city committees simply because of the time involved in serving on two groups. Mr. Moeller also stated that the CEQC can initiate projects and respond to Planning Commission requests.

Ms. Hoffman stated that she liked the idea of improving communications and it would help to have a CEQC member present recommendations of the group to the Planning Commission.

Dr. Nosek stated that it would also help if the CEQC's membership was rounded-out a bit.

Ms. Kovesci asked about fence-line monitoring and if the CEQC saw itself following up on this part of their recommendations.

Dr. Nosek stated that the group's original recommendations deferred to the MPCA and the group doesn't have greater weight than the Planning Commission. Dr. Nosek also said that he didn't feel as though he could state that all of the recommendations must be followed. Dr. Nosek stated the group did not take offense to what the Planning Commission did with the recommendations. Mr. Espinosa clarified that both the CEQC and the Planning Commission are advisory bodies – that often the Planning Commission's recommendations are overruled by the City Council.

Mr. Schild asked if the CEQC's recommendations went away after the Planning Commission did not recommend them in full. Mr. Espinosa stated that both the CEQC's original recommendations and the Planning Commission's recommendations went to the City Council for their consideration.

Ms. Kovesci asked again what would be happening with the original CEQC recommendations. Dr. Nosek stated that he doesn't see the current situation as the end of the line and the group could take another run at it. However as of now, the committee hasn't gotten beyond the monitoring at the YMCA.

Ms. Kovesci asked about additional monitoring along truck routes. Dr. Nosek stated that was examined but logistics cancelled it out.

Ms. Hoffman stated that if the CEQC re-sends the recommendations, perhaps it would be a good opportunity to discuss them with the Planning Commission.

Next, Mr. Espinosa and the committee members decided to wait to meet again until after the EQB reviews the silica sand "tools" document on March 19. At the next meeting the group could discuss reiterating and re-supporting their original recommendations.

There being no further discussion, the meeting was adjourned at 5:35 p.m.

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Carlos Espinosa  
Assistant City Planner

## Citizens Environmental Quality Committee

**AGENDA ITEM:** 3. Air Quality Monitoring

**PREPARED BY:** Carlos Espinosa

**DATE:** April 8, 2014.

At the last CEQC meeting, committee members decided to meet after the EQB had finalized its recommendations in the document entitled "Tools to Assist Local Governments in Planning for and Regulating Silica Sand Projects". The document was finalized and approved by the EQB on March 19<sup>th</sup>. The recommendations for monitoring (Attachment A) are essentially the same as proposed in the draft document. According to the final document, the recommendations are for consideration by local governments, they are not requirements. The state is working on new *requirements* for silica sand operations through its rulemaking process. An advisory panel has been assembled to work with the MPCA and the DNR on this endeavor. More information on the advisory panel and rulemaking process are available here:

<http://silicasand.mn.gov/>. It is anticipated that this process will result in new state requirements pertaining to silica sand and air quality. According to an excerpt from an MPCA request for comments on the rulemaking process, "*The Agency may amend Chapters 7011 (standards of performance for specific types of facilities), 7001 (water permitting), 7007 (air permitting), 7009 (air standards), 7017 (air testing), 7050 (water standards), or other related and affected chapters*".

In addition, CASM has submitted the letter provided in Attachment B.

Attachments:

- A) "Tools to Assist Local Governments in Planning for and Regulating Silica Sand Projects," Pages 33-34. March 19, 2014.
- B) CASM Letter
- C) CEQC Recommendations to the Planning Commission

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### c. Recommendations, Standards, Criteria, Considerations

The proposed standards, criteria, and considerations are informed by both the processes within the proposed silica sand project and the geographic location of the project. The monitoring plan for a silica sand project should include the following:

What to monitor:

- Every silica sand project involving a mine of any size should conduct monitoring for Total Suspended Particulate, PM<sub>4</sub>-silica, and meteorological data.
- Every silica sand project involving processing should monitor for PM<sub>10</sub>, PM<sub>4</sub>-silica, and meteorological data; the term 'processing' means washing, cleaning, screening, crushing, filtering, sorting, stockpiling, and storing silica sand.
- Every silica sand project involving over-the-road transportation should monitor for PM<sub>2.5</sub>, PM<sub>4</sub>-silica, and meteorological data at each site where silica sand is either loaded or unloaded from a transportation carrier (e.g. truck, rail, barge).

Note that if a silica sand project involves one or more of the above activities, then the monitoring plan should reflect all of the indicated monitors (e.g. a project that encompasses a mine, processing facility, and over-the-road transportation should monitor for TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, and PM<sub>4</sub>-silica).

When to monitor:

- All silica sand projects should conduct ambient monitoring prior to startup of the project. The pre-construction monitoring period should continue until at least one year of valid data is collected.
- All silica sand projects should conduct ambient monitoring after startup of the project. The post-construction monitoring period should continue until at least three (3) years of valid data are collected.

How often to monitor:

- Each TSP sampler should run for a 24-hour midnight-to-midnight period once every six days on the schedule found here: <http://www.epa.gov/ttnamti1/calendar.html>
- Each PM<sub>10</sub> analyzer should run on a semi continuous (hourly) basis
- Each PM<sub>2.5</sub> analyzer should run on a semi continuous (hourly) basis
- Each PM<sub>4</sub> sampler should run for a 24-hour midnight-to-midnight period once every six days on the schedule found here: <http://www.epa.gov/ttnamti1/calendar.html>

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Which monitor and test method should be used:

- Each TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> monitor should be one that has been designated as a Federal Reference Method (FRM) or as a Federal Equivalent Method (FEM); an electronic list of monitors that hold this designation is available at <http://www.epa.gov/ttnamti1/files/ambient/criteria/reference-equivalent-methods-list.pdf>
- Each PM<sub>4</sub> monitor should be approved by the MPCA on a case-by-case basis. The silica test method should be NIOSH 7500.

#### Monitor Siting

- Historical wind patterns (direction, intensity) from nearby meteorological stations and the on-site meteorological station should be compiled to inform the siting conditions in order to construct 'upwind / downwind' monitor placement. The monitors should be placed as close to the facility as possible while remaining in ambient air. This is typically the fence line of the facility.
- Monitor sites should meet criteria laid out at 40 CFR pt. 58, Appendix E. This appendix contains information such as vertical and horizontal placement, spacing, distance from obstructions, and more.

#### Data Reporting

- All data should be sent to the MPCA and the LGU
- TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, and Crystalline Silica data should be reported on a quarterly basis no later than one month following the end of each quarter.
- Data may be provided in a written report but must also be provided in an electronic format that can be directly read into a spreadsheet or database
- For parameters that are measured hourly or sub-hourly, electronic data submissions should include hourly averaged data
- The silica sand project proposer should notify both the MPCA and the LGU within 24 hours of receiving sample results exceeding ambient standards. The notification should include the date of the exceedance, the concentration of the sample, and a summary of the measures taken by the proposer to reduce emissions at the silica sand project.

## **A.2. DUST CONTROL & CONTAINMENT OF SAND**

### **a. Description of Silica Sand Project Concerns**

Virtually all stages of silica sand mining, processing, and transportation may emit particulate matter, which is commonly known as dust. The control strategies share a common feature: they

April 8, 2014  
Citizens' Environmental Quality Committee

We would like to submit the following questions and issues for possible discussion at the April 8, 2014 meeting of the Citizens' Environmental Quality Committee:

Now that the state Environmental Quality Board has presented its suggested rules and guidelines for local governments to use in the regulation of silica sand mines and processing operations, it would seem appropriate to revisit the issue of fence-line air monitoring which your committee originally recommended to the City of Winona. Here are a few quotations from that report which support your original recommendations:

"Every silica sand project involving a mine of any size should conduct monitoring for total suspended particulates, PM 4-silica, and meteorological data."

"Every silica sand project involving processing should monitor for PM 10, PM 4, and meteorological data; the term 'processing' means washing, cleaning, screening, crushing, filtering, sorting, stockpiling, and storing silica sand."

"Every silica sand project involving over-the-road transportation should monitor for PM 2.5, PM 4-silica and meteorological data at each site where silica sand is either loaded or unloaded from a transportation carrier (e.g. truck, rail, barge)."

These recommendations seem pretty forceful in pushing the need for monitors. Therefore:

1. Since you have earlier made recommendations that the City should require fence-line monitors at all frac sand facilities in the city to be paid for by the operators of those facilities, and since the MPCA earlier had included information about such requirements in a letter to Carlos Espinosa, and since in the *Winona Daily News* of 3/2/14 Rick Strassman, the MPCA air monitoring expert, according to the writer of the article, indicated that in comparison to the YMCA monitors "more accurate measurements would come by placing monitors at fence lines adjacent to operations" (Strassman said "Bottom line, the closer to facility the higher the concentration"), should we, or **how can we move toward implementing the installation of such monitors?**
2. The installation of such monitors would take some time and wrangling to implement. Therefore, would it not be sensible to take advantage of the state rules allowing us to impose a year long **moratorium** to thoroughly investigate this matter? Just today in the *Winona Daily News* we learn that Wabasha has extended their moratorium in order to "get more complete information on things like air quality, truck traffic and environmental concerns." Would you recommend such a **moratorium?**

Jane Cowgill for CASM

## **CEQC Air Monitoring Recommendations**

1. We recommend monitoring, but defer to the MPCA for protocols, expertise, and resources. A final decision on air quality standards should be determined by the MPCA.
2. The City of Winona should conduct interim monitoring for crystalline silica if action to commence monitoring is not immediately available from the MPCA.
3. Interim monitoring at facilities should commence as soon as possible and use an annual average of  $3\mu\text{g}/\text{m}^3$  PM<sub>4</sub> as a limit for ambient crystalline silica exposure.
4. Any firm hired to complete interim monitoring should be selected and hired by the City of Winona in consultation with the MPCA.
5. Any costs associated with monitoring should be paid by the industry.
6. Interim monitoring should also include baseline 2.5 particulate monitoring along truck routes.
7. Baseline data for air quality monitoring along truck routes should start now. The monitoring should be done at 4-5 sites in the city.
8. The City of Winona should make a formal request to the MPCA for an Air Emissions Risk Analysis and a Community Air Improvement Project.
9. In addition to information from truck routes, air quality data from silica sand facilities should be obtained using the annual silica threshold of  $3\mu\text{g}/\text{m}^3$ .