Wedron Silica Company

National Pollutant Discharge Elimination System (NPDES) Permit
Responsiveness Summary

Regarding

June 12, 2014 Public Hearing

Illinois Environmental Protection Agency
Office of Community Relations

December 22, 2014
Wedron Silica Company
National Pollutant Discharge Elimination System (NPDES) Permit
Responsiveness Summary

Table of Contents

Illinois EPA Permit Decision........................................................................................................3

Pre-hearing Public Outreach........................................................................................................3

Public Hearing of June 12, 2014..................................................................................................4

Background of Facility Owner......................................................................................................5

Responses to Comments, Questions and Concerns

  NPDES Permit .........................................................................................................................6
  Antidegradation Assessment/ Water Quality Standards.........................................................12
  Groundwater Issues..................................................................................................................13
  Enforcement/Compliance Issues...............................................................................................14
  Outside the Scope of the NPDES Permit................................................................................15

Acronyms and Abbreviations.......................................................................................................17

Distribution of Responsiveness Summary .................................................................................18

Who to Contact for Answers ......................................................................................................18

December 22, 2014
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Wedron Silica Company.
Modified Permit
Permit Number IL0001759

ILLINOIS EPA PERMIT DECISION

On December 22, 2014, the Illinois Environmental Protection Agency approved a modified NPDES permit for Wedron Silica Company.

The following changes were made to the permit after the public notice of December 10, 2013:

1. DO monitoring was added to the permit on Page 2;
2. Phosphorous monitoring was added to the permit on Page 2;
3. Special Condition 19 has been added to the permit (page 12);
4. Former Special Condition 19 has been renumbered to Special Condition 20 (page 12);
5. The Construction Authorization was revised by deleting reference to withdrawing water from Buck Creek (page 15); and,
6. The flow rate for outfall 004 has been lowered to the original rate of 0.58 MGD as the applicant withdrew their request to increase that flow (page 15).

PRE-HEARING PUBLIC OUTREACH

The notice of the NPDES permit public hearing was published in the Ottawa Times on April 11, 18, and 25, 2014.

The hearing notice was mailed or e-mailed to:
   a) LaSalle County officials;
   b) Municipal officials in Wedron;
   c) Illinois Chapter of the Sierra Club (hearing requestor); and,
   d) Those who have requested to be notified of these hearings.

The hearing notice was posted on the Illinois EPA website:
http://www.epa.state.il.us/public-notices/2013/wedron-silica-company/hearing-notice.pdf

Hearing notices were posted at the Illinois EPA headquarters in Springfield.
JUNE 12, 2014 PUBLIC HEARING

Hearing Officer Dean Studer opened the hearing June 12, 2014, at 6:04 p.m. at the Serena High School located at 2283 North 3812th Road, Serena, Illinois.

Wedron Silica Company Presentation: none presented

Dean Studer provided the opening hearing statement

Illinois EPA Hearing Participants:

Joanne Olson, Assistant Counsel, Bureau of Water
Scott Twait, Standards Section, Bureau of Water
Bill Buscher, Groundwater Section, Bureau of Water
Thaddeus Faught, Permit Engineer, Bureau of Water

Comments and questions were received from the audience.

Hearing Officer Dean Studer closed the hearing at 7:33 p.m. on June 12, 2014.

Illinois EPA personnel were available before, during and after the hearing to meet with elected officials, news media and concerned citizens.

Approximately 14 persons representing neighbors, local government, businesses, miners, elected officials, environmental groups, interested citizens, and Wedron Silica Company participated at and/or attended the hearing. A court reporter prepared a transcript of the public hearing which was posted on the Illinois EPA website


The hearing record remained open through July 9, 2014.
Background of Wedron Silica Company

The Illinois EPA Bureau of Water has made a determination to modify a National Pollutant Discharge Elimination System (NPDES) permit for Wedron Silica Company to discharge into the waters of the state. The facility is located at 3450 East 2056th Road, Wedron 60557, in LaSalle County.

The subject facility has applied for a modification to an NPDES permit to expand the industrial silica and sand mine. The facility is engaged in mining and processing of industrial silica sand. Overburden is mechanically removed; the underlying rock is removed via hydraulic jetting and/or by the use of explosives. The rock is removed from the mine pits, is processed into a slurry and pumped to the processing portions of the mine where it is washed, dried, coated, and packaged.

Buck Creek receives the effluent from the Outfall 002 and an unnamed tributary of the Fox River receives the effluent from Outfall 004.

Plant operations will result in an average discharge of 0.1 MGD of storm water, process water, and pit pumpage from Outfall 001; 5.04 MGD of storm water, process water, and pit pumpage from Outfall 002; 0.01 MGD of storm water, process water, and pit pumpage from Outfall 003, and 0.58 MGD of storm water, process water, and pit pumpage from Outfall 004.

The following modifications were proposed as indicated in the December 10, 2013 public notice (unless otherwise noted):

Approximately 500 acres are being added to the permit area. The discharge rate for Outfall 002 is increasing from 1.44 MGD to 5.04 MGD. The discharge rate from Outfall 004 is not increasing. Since the time of the draft permit, the applicant has indicated they are withdrawing their request for increased flow from this outfall and asked for the permitted flow rate of 0.58 million gallons per day be maintained at Outfall 004. Special Condition 5 has been replaced with Special Condition 12. Special Condition 13 has been revised. Special Conditions 14 and 17 have been added.

The stream segments receiving the discharge from Outfalls 001, 002, and 004 are not on the 303(d) list of impaired waters and are not biologically significant streams on the 2008 Illinois Department of Natural Resources’ (IDNR) publication Integrating Multiple Taxa in a Biological Stream Rating System. The stream segment receiving the discharge from Outfall 003 is on the 303(d) list of impaired waters and is on the 2008 Illinois Department of Natural Resources’ Publication of Integrating Multiple Taxa in a Biological Stream Rating System. The following is the parameter that has been identified as the pollutants causing impairment: PCBs affecting fish consumption.
Responses to Comments, Questions and Concerns

Comments, Questions and Concerns in regular text
Agency responses in bold text

NPDES Permit

1. Buck Creek has been designated with a “B” rating for integrity and has been rated “A” under the BSC system. Very few stream segments within Illinois are given a rating of this stature and as such pollution to Buck Creek must be mitigated at all costs. We are concerned that the character of the receiving waters has not been properly considered in allowing a two-fold increase in pollutant loading. The proposed increase in effluent will impact the fish species, degrade the habitat, and impact other members of the fragile ecosystem. The impact caused by the addition of effluent will permanently impair Buck Creek.

The BSC system has been discontinued by IDNR since the underlying data has not been updated since 1993. It has been replaced with a new rating system for integrity, diversity, and significance. Buck Creek is not listed on the final 2012 Illinois Integrated Water Quality Report and Section 303(d) List. Buck Creek is also not listed on the updated 2014 303(d) list. Aquatic Life use has been assessed by the Agency and determined to be fully supported. Total Suspended Solids (TSS) is the primary contaminant of concern. The concentration of TSS will not change; however, the loading to the receiving stream will increase. Since the concentration of TSS is not increasing, the fish species will not be impacted and the habitat will not be degraded. The Illinois EPA has performed the antidegradation assessment of the increased discharge to Buck Creek and has determined that the increased discharge is compliant with the antidegradation standard of 35 Ill. Adm. Code 302.105.

2. What evaluation has the IEPA performed to determine that these multiple changes to the hydrology of the high quality Buck Creek will not adversely impact the aquatic life use of the creek?

The elevation of groundwater in the mining area has been reduced due to the current operations. The extent of the area where the groundwater elevation is reduced will increase due to the expansion of the mining operations. This will increase the potential for movement of water from the creek into the aquifer. The Illinois EPA evaluated the impact of the increase in pollutant loading associated with increased discharge from outfall 002 in the antidegradation assessment and determined that aquatic life use will be protected.

3. Wedron Silica is operating under an existing permit. When was that permit issued?
Illinois EPA issued the NPDES permit on September 26, 2013.

4. The permit talks about water withdrawals from Buck Creek with the proposed expansion of the mine. Is Wedron going to also expand the withdrawal of water from Buck Creek?

The applicant does not propose to withdraw water from Buck Creek. The language in the construction authorization about withdrawing water has been deleted.

5. How will the mining operation affect the quantity of water in Buck Creek? What effect will this have on local groundwater?

The elevation of groundwater in the mining area has been reduced due to the current operations. The extent of the area where the groundwater elevation is reduced will increase due to the expansion of the mining operations. This will increase the potential for movement of water from the creek into the groundwater.

6. Does the Illinois EPA play any role in permitting water withdrawals? And if not, which Agency does?

The Illinois EPA does not regulate water withdrawals. The State does not have permit authority for Wedron’s withdrawal of water. The permittee, whose property adjoins the banks of the Fox River and Buck Creek, has riparian rights to withdraw water.

7. If Wedron Silica decides they no longer need to discharge water from Outfall 004, where will that water go?

Any water not discharged would remain on site and may be used as process water on-site.

8. What are flocculants and which ones will be allowed in the discharge?

Flocculants are settling aids used to increase settling of suspended solids. They bind solids together to allow for more efficient settling of suspended solids. The applicant has proposed using three different flocculants from Neo Solutions: NS 3450P, NS 6850P, and NS 6350P.

9. What are the dosage rates for the three flocculants the company proposes to use?

For NS 3450P, the applicant has proposed a dosage rate of 1 part per million. For both NS 6850P and NS 6350P the applicant has proposed a dosage rate of 0.25 parts per million.
10. Does the permit allow for a change in the amount or type of flocculants being used, or will Wedron need to file to modify their permit?

Any increase in the proposed dosage rate or use of a different flocculant must be approved by the Illinois EPA.

11. Are flocculants biodegradable? If so, how far downstream can the flocculants potentially travel before they settle or biodegrade?

The Material Safety Data Sheets (MSDS) for the flocculants state that they are not readily biodegradable. The flocculants are expected to bind to the solids within the settling ponds on the mine site and settle within those ponds.

12. Has the Agency evaluated whether the use of any of these flocculants poses a risk to the attainment of the enhanced DO standards of Buck Creek?

As part of the permit review, the Illinois EPA water quality standards staff determined that the proposed dosage rates would not cause any toxicity or impairment of the receiving streams. It is expected that use of flocculants would improve dissolved oxygen through the reduction of Biochemical Oxygen Demand through the settling of solids and associated organic matter prior to discharge to Buck Creek.

13. Will these flocculants collect in a wetland? What if the flocculants collect on someone else’s property? Will Wedron be responsible for cleaning the property or will the owner?

The flocculants are expected to bind to the solids within the settling ponds on the mine site and settle within those ponds. The Illinois EPA does not expect the flocculants to collect in a wetland. If clean-up were required, determination of responsible parties would be determined based on the circumstances of the flocculant release.

14. What data does the IEPA have that shows that the flocculants used at this facility are safe for freshwater mussels at the concentrations that will be in the mine’s discharges?

The Illinois EPA reviewed the proposed dosage rates for the flocculants which are all below the acute toxicity estimates listed on the MSDSs for each flocculant. Therefore, no adverse effects to aquatic life are expected to occur. Also see response 13 above as the discharges are expected to have much less flocculant present in them than the already non-toxic dosage rate of flocculant.
15. Are Benzene, Toluene, Xylene, and Ethylbenzene (BTEX) the only things monitored in the discharges from the site?

In addition to BTEX, the discharges are monitored for pH, total suspended solids, dissolved oxygen, phosphorous and offensive conditions.

16. Is there any BTEX found in the discharge?

At the June 12, 2014 hearing, the Illinois EPA noted several discharges with very low levels of BTEX present, the highest levels being 2 micrograms per liter for xylene and 1 microgram per liter for benzene, ethylbenzene and toluene. Since the hearing the Illinois EPA has been made aware that those levels were reported at the detection limit for those parameters. However, the applicant provided laboratory analysis sheets that reported BTEX at less than the detection limits. So, based on monitoring data provided by the applicant, BTEX was not detected in the discharges from this site.

17. Is there a certain limit of BTEX that, once reached, Wedron must report to the EPA?

Through the monthly Discharge Monitoring Reports (DMR), the applicant is required to report any concentration of BTEX that is found in their discharge.

18. Why did the Illinois EPA place monitoring conditions for BTEX in the permit when it was reissued in 2013? What were the Agency’s concerns? Can you tell us what the results have been since that monitoring went into the permit in 2013?

The Illinois EPA added BTEX monitoring to the NPDES permit due the presence of a narrow band of BTEX contamination in the groundwater in the village. The groundwater beneath Wedron flows toward Wedron Silica’s pond immediately west of the village, so the company’s NPDES discharge may contain some of those contaminants. No BTEX constituents were detected in discharges from the mine site. See response 16 above regarding NPDES monitoring results. In order to address the groundwater contamination, the U.S. EPA has replaced several private wells in town and the Illinois EPA is investigating potential source areas for the BTEX contamination. The goal is to conduct remediation to remove the source of the contamination. The Illinois EPA presently works with the county health department to monitor private wells to ensure residents are not being exposed to BETX contamination in their well water.

19. What type of settling device or structure is allowed under the permit? Are the currently designed settling ponds under Wedron’s NPDES permit a design that has been used for a long time in the industry? Are there better designs out there? Could Wedron use a structure other than a settling pond?
The applicant has proposed using existing settling basins. The settling basins have been used for a long time and are a common method used to remove suspended solids. There may be other designs and treatments available to remove suspended solids. However, the existing treatment system is adequate based on review of data, including total suspended solids, in the existing discharges that show the applicant has not had any exceedances of total suspended solids (or other parameters) since June 2009. The Illinois EPA has determined that the settling ponds provide adequate treatment to meet effluent limits required by the permit.

20. Are these settling ponds constructed to protect public health to the highest extent possible?

The ponds are constructed to meet applicable discharge effluent limitations of Title 35 Ill. Adm. Code Subtitle D and federal regulations.

21. Is any lining required for the settling ponds and, if so, what are the specifications?

Liners are not required for the settling ponds.

22. Is there any way to engineer so that there is no settling or sediment coming out of the outflows at all? If we raise wherever the suction point is, the head point of the pump, or make the settling pond another 20 feet deeper, will that eliminate or cut in half the potential amount of sediments coming through the outflow?

The applicant has designed the structure to provide treatment in order to meet the effluent limit for suspended solids in their permit. The applicant is required to meet the current effluent limit for this permit. The discharges were reviewed in accordance with water quality regulations, including the antidegradation standard in 35 Ill. Adm. Code 302.105(f). Based on that review, it was determined that the discharges met applicable regulations and water quality standards will be met.

23. If we were able, potentially in the future, to get an effluent design limit change, could the company engineer it to make it perform better than the current standards?

If effluent limits were to change, the applicant would be required to provide treatment necessary to meet the new effluent limits required by their permit.

24. What is the structure or shape of the grains of sand? Can this be made part of the permit?

The Illinois EPA does not have information on the structure or shape of the grains of sand for this project. The Illinois EPA does not have authority to specify sand grain structure or shape in the permit. The structure or shape of the sand grains are not relevant to the treatment required.
25. Is there an asphalt concrete facility on this mine site?

   No.

26. Should there be a phosphorous limit placed in this permit? What is the level of phosphorus in discharges from the mine?

   The Illinois EPA has added phosphorus monitoring to the permit. Recent data from the applicant indicates that phosphorous levels in the discharges ranged from 0.35 mg/L to 1.7 mg/L. The Illinois EPA also added a condition to the permit that states the permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved Total Maximum Daily Load (TMDL) study or an approved Fox River Watershed Water Quality Improvement Implementation Plan.

27. Why is the Agency granting Wedron Silica the permit if it will increase discharge amounts?

   The proposed increase in discharges was reviewed in accordance with Illinois antidegradation regulations in 35 Ill. Adm. Code 302.105(f) to assure the increased discharge will result in attainment of water quality standards and that all existing uses of the receiving streams will be maintained.

28. To what extent does the Illinois Department of Natural Resources (IDNR) sign off on the permit?

   The Illinois EPA does not need to obtain IDNR’s approval before issuing an NPDES permit. However, the Illinois EPA did consult with the IDNR regarding threatened and endangered species. IDNR terminated consultation on September 25, 2013 indicating that impacts to threatened and endangered species are not likely. IDNR does have permit authority under the Surface Mined-Land Conservation and Reclamation Act (225 ILCS 715). These IDNR permitting requirements are separate from NPDES regulations.

29. Are there any acid-producing materials onsite in the drainage?

   Neither the Illinois EPA nor the applicant is aware of any acid-producing materials on-site in the drainage. It should also be noted that the permit includes an effluent limit that requires pH to be at or above 6.5. The submitted discharge monitoring reports do not indicate any discharges with a pH below this level.

30. Why is there a reference to non-coal outfalls in Special Condition 13? Are any coal seams present in the mine permit area?
The Illinois EPA is not aware of any coal seams in the mine permit area. Since the mine is not a coal mine and coal is not present, the outfalls are referred to as “non-coal” outfalls.

Antidegradation Assessment/Water Quality Standards

31. It does not appear from the draft fact sheet, antidegradation assessment, or draft permit that a complete characterization of the proposed pollutant load to the receiving waterbodies has been conducted.

The proposed pollutant load was characterized as an increase in total suspended solids in the antidegradation assessment. The Illinois EPA has performed the antidegradation assessment on the increased discharge to Buck Creek and determined that the increased discharge is compliant with the antidegradation standard of 35 Ill. Adm. Code 302.105.

32. Downstream communities rely on these waters for their drinking water supply and would be detrimentally impacted by any future pollution that would compound water quality issues already present.

The applicant is required to meet effluent limits required by the NPDES permit. The discharges were reviewed in accordance with water quality regulations, including the antidegradation standard in 35 Ill. Adm. Code 302.105(f). Based on that review, it was determined that the discharges met applicable regulations and water quality standards will be met.

33. The draft permit fails to protect Buck Creek as a stream subject to enhanced dissolved oxygen (DO) standards. Please explain why no monitoring and limits for dissolved oxygen are included in the draft permit.

The Illinois EPA has added monitoring for DO to the permit.

34. Have you ever required Wedron Silica to monitor biochemical oxygen demand (BOD) or dissolved oxygen (DO) in their discharges to Buck Creek?

The Illinois EPA requested DO data from the applicant. The data provided by the applicant indicates that the DO in the discharges to Buck Creek ranged from 9.23 mg/L to 10.85 mg/L.

35. Under Illinois’ antidegradation rule, applicants are required to include a characterization of the impacted body of water in their permit application (35 Ill. Adm. Code 302.105 f1A)). Why has the Agency not required Wedron Silica Company to characterize conditions and existing uses for the unnamed tributary receiving stormwater, process water, and pit pumpage discharges?
The discharge to the unnamed tributary from Outfall 004 is not increasing. Since the time of the draft permit, the applicant has indicated they are withdrawing their request for increased flow from this outfall and requested the existing permitted flow rate of 0.58 million gallons per day be maintained at Outfall 004.

36. Under anti-degradation, we can certainly set limits that are more stringent than the federal categorical limits on the proposed pollutant load and limits on suspended solids; and given the high integrity of Buck Creek, I think that’s something that we need to be considering.

The Illinois EPA has determined that more stringent limits are not necessary to comply with water quality standards including the antidegradation standard of 35 Ill. Adm. Code 302.105.

37. How safe will the water in Buck Creek be to swim in?

The Illinois EPA is not aware of any chemical parameter in the discharge that would make the water unsafe for swimming.

38. Where does the water Wedron uses for their process come from? Are they taking this water out of the river or is it coming from deep water wells?

Wedron obtains their process water from the on-site ponds within the mine.

39. According to Title 35, Sub[title] C of the Water Pollution Control Board, you state that a NPDES permit should not be issued if discharge would, in the judgment of the Secretary of the Army acting through the chief engineer, impairs the water and would not have the ability for anchorage. Does the Army Corps of engineers sign off on any part of this permit application at any juncture? Do they have any oversight on this permitting process at all?

The U.S. Army Corps of Engineers was provided a copy of the NPDES public notice on November 15, 2013. No comments from the Corps of Engineers were received.

Groundwater Issues

40. Has the Illinois EPA considered the potential for contamination in the groundwater and soil as the mine expands to lead to the contamination of surface waters, both in the present area where there is known contamination and the actual expansion area?
Yes. The Illinois EPA, due to known contamination of BTEX near the existing mine site, added BTEX monitoring to the permit for the existing site. The expansion of the mine is not located in the area of known contamination, so there should not be impacts to surface water from this expansion relative to known contamination. Discharges to surface water from the area where the mine is expanding are addressed in the NPDES permit.

41. Does the company have a well onsite that they use for the watering process ever?

The company does not use well water for processing. They do have a well onsite that they utilize for drinking and for restrooms in their office.

42. We are concerned with the lack of groundwater monitoring required in the permit. Due to the proximity of nearby wells, as well as the sensitivity of Buck Creek and the Fox River, the draft permit must acknowledge the potential for loading of pollutants to waterways through groundwater connection.

The elevation of groundwater at the mine site has been reduced due to the current mine operations. The ground water level near the river and Buck Creek is at an elevation of approximately 500 feet above mean sea level (MSL). The elevation of the groundwater near the processing area is approximately 485 feet above MSL. The extent of the area where the elevation of groundwater is reduced will increase due to this expansion of the mining area. Due to the movement of groundwater away from Buck Creek and the Fox River there is minimal potential for movement of pollutants from the mining area towards these waterways.

43. The current setback distances from private and public wells do not ensure that groundwater sources will be protected and monitoring wells must be included to protect the communities surrounding this site.

The extent of the area where the groundwater elevation has been reduced will increase due to the expansion of the mining area. The potential for the proposed mining area to impact potable wells is minimal due to the flow of groundwater towards the mining area which is estimated to have a floor elevation of between 410 and 435 feet MSL. Groundwater elevations are expected to be maintained at levels at or below 435 feet MSL in the proposed mining area.

Enforcement/Compliance Issues

44. According to the permit, the only way that the Illinois EPA is going to know if Wedron Silica accidentally pumps too much into Buck Creek is if they report it to the Agency. How does IEPA know that Wedron is going to do what they say?
Wedron is required to comply with their NPDES permit which includes discharge monitoring requirements. Discharges that do not comply with the permit are unauthorized and illegal. Non-compliance with the NPDES permit could lead to enforcement actions. The Illinois EPA also does site inspections and responds to citizen’s complaints that could lead to the discovery of permit violations. It should also be noted that falsification of a discharge monitoring report is a crime under state and federal regulations.

45. Is an environmental impact statement required?

An environmental impact statement is not required pursuant to state or federal regulations.

46. To the Agency’s knowledge, has Wedron Silica complied with the terms of the July 17th, 2012 consent decree? What are the conditions of the Decree?

The July 17th, 2012 consent decree included requirements for Wedron to implement two Supplemental Environmental Projects (SEP#1 and SEP#2) and pay a civil penalty. To the Illinois EPA’s knowledge, Wedron has complied with these requirements as specified in the consent decree. In addition, the consent decree stated that Wedron should cease and desist from future violations of the Illinois Environmental Protection Act and Illinois Pollution Control Board regulations that were the subject matter of the complaint. Wedron reported a pipe failure that caused a discharge in April 2013. The Illinois EPA subsequently issued a violation notice for that discharge. Wedron immediately fixed the faulty pipe and ceased the discharge.

Outside the Scope of the NPDES Permit

47. Further in the south there are piles of white sand, which blows directly at us. Will the mine be addressing ways to prevent the white sand from blowing off of the piles onto others’ properties?

Emissions of sand from piles are being addressed by the Illinois EPA, Bureau of Air. Wedron Silica Company reports that it has recently covered and seeded the highest elevations of the southernmost sand pile. Historically, the source has operated with two sand storage piles. The northernmost pile at the source has been removed, leveled to grade, and covered. These actions will reduce emissions from the sand piles. Complaints regarding dust emissions should be directed to the Illinois EPA, Bureau of Air, Field Operation Section, which can be contacted at 847-294-4020.
48. In a comment letter from January, the Illinois Chapter of the Sierra Club requested that the Agency place as a special condition in this permit the same special condition language that’s being placed in all permits issued in the Fox River watershed that deal with local watershed stakeholder efforts to address water quality problems in the Fox River. The first condition states that the permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved total maximum of a daily load study or an approved Fox River implementation plan. The second asks that the permittee participate in the Fox River study group to resolve problems with loads on the oxygen levels and offensive conditions in the Fox River.

The Illinois EPA has added the first condition regarding TMDLs as Special Condition 19 of the permit. The Illinois EPA has also added phosphorous and DO monitoring requirements to the permit.

49. We request that requirements for good mining practices be placed in the permit which would require Wedron Silica to eliminate the blowing of sand which is contributing to water pollution as well as adversely impacting neighbors to the mine.

See response 47 above. The NPDES permit contains conditions that require control of water pollution from facility discharges in accordance with water quality standards and effluent limitations.
### Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEX</td>
<td>Benzene, Toluene, Xylene, and Ethylbenzene</td>
</tr>
<tr>
<td>DO</td>
<td>Dissolved Oxygen</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical Oxygen Demand</td>
</tr>
<tr>
<td>IDNR</td>
<td>Illinois Department of Natural Resources</td>
</tr>
<tr>
<td>IEPA</td>
<td>Illinois Environmental Protection Agency</td>
</tr>
<tr>
<td>mg/L</td>
<td>Milligrams per liter</td>
</tr>
<tr>
<td>MSL</td>
<td>Mean Sea Level</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>pH</td>
<td>A Measure of Acidity or Alkalinity of a Solution</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
</tr>
<tr>
<td>TSS</td>
<td>Total Suspended Solids</td>
</tr>
</tbody>
</table>
DISTRIBUTION OF RESPONSIVENESS SUMMARY

An announcement, that the NPDES permit decision and accompanying responsiveness summary is available on the Agency website, was mailed to all who registered at the hearing and to all who sent in written comments. Printed copies of this responsiveness summary are available from Barb Lieberoff by calling (217) 524-3038 or by email to Barb.Lieberoff@illinois.gov.

WHO CAN ANSWER YOUR QUESTIONS

Illinois EPA NPDES Permit:

Illinois EPA NPDES permit decisions ........ Thaddeus Faught .... 217-782-3362
Legal questions ........................................... Joanne Olson ........ 217-782-5544
Water quality issues ..................................... Scott Twalt .......... 217-782-0610
Groundwater issues ....................................... Bill Busher .......... 217-785-2762
Public hearing of June 12, 2014 ....................... Dean Studer .......... 217-558-8280

The public hearing notice, the hearing transcript, the NPDES permit and the responsiveness summary are available on the Illinois EPA website (please copy and paste this link into your web browser):

http://www.epa.illinois.gov/public-notices/2013/npdes-notices/index#wedron-silica-company