

Quality Sand Products, LLC

Court Proceeding

Taken on: June 17, 2014

**JENSEN LITIGATION SOLUTIONS**

180 North LaSalle Street

Suite 2800

Chicago, IL 60601

312.236.6936

877.653.6736

[www.jensenlitigation.com](http://www.jensenlitigation.com)



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

A PUBLIC HEARING

Before:

AN ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PANEL

Regarding:

NEW POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

APPLICANT: QUALITY SAND PRODUCTS

NPDES Number: IL0080047

LaSalle Peru Township High School  
Tuesday, June 17, 2014  
6:00 p.m.

Illinois Environmental Protection Agency Panel

DEAN STUDER  
Hearing Officer

STEPHANIE FLOWERS  
Division of Legal Counsel

DARREN GOVE  
Division of Water Pollution Control  
Facility Planning Unit

BRIAN T. KOCH  
Standards Section, Bureau of Water

Court Reporter:  
Brenda Zeitler, CSR-RPR  
License #084-004062  
JENSEN LITIGATION SOLUTIONS

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

I N D E X

Page

WITNESS:

BRAD BROWN .....	14
LYDIA JORDAN .....	16
MONTY WHIPPLE .....	19
ASHLEY WILLIAMS .....	23
ROGER RYNKE .....	25
COLLEEN SMITH .....	26
RANDY JURAS .....	31
WILLIAM SPECK .....	33
NORM DUDEK .....	36
DAN EITEN .....	39
EDMUND THORNTON .....	42
RICH COLEMAN .....	45
TOM WALSH .....	49
MARK BERNABEI .....	51
BRUCE MARKWALTER .....	55
AUDREY FISCHER .....	59
MIKE KASAP .....	64
NORM DUDEK .....	66
AUDREY FISCHER .....	66
LYDIA JORDAN (for COLLEEN SMITH) .....	67

EXHIBITS:

Exhibit Number 174 .....	34
Letter from Waltham Township	
Exhibit Number 175 .....	42
Two Photographs	

1 HEARING OFFICER STUDER: Good evening. My  
2 name is Dean Studer. I'm the hearing officer for the  
3 Illinois Environmental Protection Agency. Can  
4 everyone in the back hear me?

5 (Audience responds: "No.")

6 HEARING OFFICER STUDER: We've got seats up  
7 front. You may want to consider moving. I'm  
8 projecting as loud as I can. The PA system is turned  
9 up as loud as we can get it without getting feedback.

10 I want to welcome everyone here to this  
11 hearing. My purpose here is to ensure that these  
12 proceedings run properly and according to rules. To  
13 that end, I will not be responding to technical  
14 issues; but I will assist those making comments to  
15 ensure that we stay focused on issues under the  
16 purview of the Illinois Environmental Protection  
17 Agency, Illinois EPA, for this permitting action and,  
18 consequently, that the issues are appropriate for this  
19 hearing.

20 This is an informational hearing before the  
21 Illinois EPA in the matter of a New Pollutant  
22 Discharge Elimination System permit for Quality Sand  
23 Products, NPDES Number IL0080047. The Illinois EPA  
24 believes that the public hearings that we hold are a

1 crucial part of the permit review process.

2 The issues relevant to this hearing include  
3 compliance with the requirements of the federal Clean  
4 Water Act and the rules set forth in 35 Illinois  
5 Administrative Code, Subtitle C.

6 Other relevant issues include the potential  
7 impacts to receiving waters from the proposed  
8 discharge and the water quality in the receiving  
9 waters as it relates to the discharge of waste water.

10 The Illinois EPA has made a preliminary  
11 determination that the Applicant has met the  
12 requirements for obtaining a permit and has prepared a  
13 draft permit for review.

14 The purpose of this hearing is for the  
15 Illinois EPA to accept comments from the public on the  
16 draft permit. This public hearing is being conducted  
17 according to the provisions of the Illinois EPA's  
18 Procedures for Permit and Closure Plan Hearings, which  
19 can be found in 35 Illinois Administrative Code, Part  
20 166, Subpart A and under 35 Illinois Administrative  
21 Code Part 309. Copies of these regulations are  
22 available at the Illinois Pollution Control Board  
23 website, [www.ipcb.state.il.us](http://www.ipcb.state.il.us); or, if you do not have  
24 easy access to the web, you may contact me, and I can

1 get a copy for you.

2 An informational hearing means exactly that.  
3 This is strictly an informational hearing. It is an  
4 opportunity for you to provide information to the  
5 Illinois EPA concerning this permitting action. This  
6 is not a contested case hearing.

7 I'd like to explain how tonight's hearing is  
8 going to proceed. First, I will have the Illinois EPA  
9 panel introduce themselves and provide a sentence or  
10 two regarding their involvement in this permit review  
11 process.

12 Next, Darren Gove, an engineer in the  
13 Division of Water Pollution Control Facility Planning  
14 Unit, will give a brief overview of the draft NPDES  
15 permit.

16 If you have not yet signed a registration  
17 card, please see either Barb Lieberoff or Mara  
18 McGuinness in the registration area. Either one of  
19 them can provide you with a card for registration.  
20 You may indicate on the card that you would like to  
21 make oral comments.

22 Everyone legibly completing a registration  
23 card or submitting written comments during the comment  
24 period will be notified when the Illinois EPA reaches

1 a final decision in this matter. A responsiveness  
2 summary will be made available at that time.

3 In the responsiveness summary, the Illinois  
4 EPA will answer all relevant and significant issues  
5 that were raised at this hearing or submitted to me  
6 prior to the close of the comment period.

7 The responsiveness summary will also be  
8 posted on the Illinois EPA website in the same place  
9 where the hearing notice and draft permit have been  
10 posted. I will also arrange for the transcripts of  
11 this hearing to be posted on that web page. The  
12 timing of such posting will depend largely on when I  
13 get the transcript back from the court reporter.

14 The written record in this matter will close  
15 on July 2, 2014. I will accept written comments as  
16 long as they are postmarked by July 2. EPA comments  
17 will be accepted by email provided the following three  
18 conditions are all met:

19 1.) They are sent to  
20 epa.publichearingcom@illinois.gov.

21 2.) They are received by the close of the  
22 reCORD in this matter. Again, that is July 2, 2014.

23 3.) The subject line of the email contains  
24 either the words "Quality Sand NPDES" or contains the

1 permit number, which is IL0080047, in it.

2 Note that I will not be accepting emails  
3 originating on third-party systems or servers intended  
4 for submittal of multiple emails of the same or nearly  
5 the same content without my prior written approval.

6 Illinois EPA is committed to resolving  
7 outstanding issues and reaching a final decision in  
8 this matter in an expeditious manner. However, the  
9 actual decision date will depend upon a number of  
10 factors, including the number of comments received,  
11 the substantive content of those comments, and other  
12 factors.

13 During the hearing and comment period,  
14 relevant comments, documents, and data will be placed  
15 into the hearing reCORD as exhibits. Please send all  
16 written documents or data to my attention. That's  
17 Dean Studer, Hearing Officer, regarding Quality Sand  
18 NPDES, Illinois EPA, 1021 North Grand Avenue East,  
19 P.O. Box 19276, Springfield, Illinois, 62794. This  
20 address is also given on the public notice for the  
21 hearing tonight as is the email address for submitting  
22 comments by email.

23 Again, please indicate "Quality Sand NPDES"  
24 or "IL0080047" on your comments to help ensure they

1 become part of the hearing reCORD.

2 I will now ask the Illinois EPA panel to  
3 introduce themselves. Following introductions, Darren  
4 Gove will make a brief opening summary of the program.

5 MS. FLOWERS: Hi. I'm Stephanie Flowers,  
6 the Division of Legal Counsel for Illinois  
7 Environmental Protection Agency.

8 MR. KOCH: Brian Koch, I'm a toxicologist  
9 from the Water Quality Standards Section.

10 MR. GOVE: Good evening. My name is Darren  
11 Gove. I work for the Illinois Environmental  
12 Protection Agency as an engineer in the Permit  
13 Section.

14 I'd like to welcome everybody here to this  
15 public hearing regarding the draft NPDES permit number  
16 IL0080047 for Quality Sand Products, LLC, in LaSalle  
17 County.

18 The purpose of this new NPDES permit is to  
19 regulate surface discharges to waters of the state  
20 from the proposed surface mining facility identified  
21 as the Quality Sand Products mine.

22 The draft facility covers an area of  
23 approximately 147 acres in LaSalle County, located  
24 roughly two miles north of the city of North Utica.

1 The facility's operations include blasting, crushing,  
2 screening, wet processing, and stockpiling of  
3 processed sandstone in preparation for truck  
4 transportation off site.

5 The draft permit includes one outfall,  
6 outfall 001. Outfall 001 will discharge effluent  
7 consisting of groundwater seepage, storm water and  
8 process water at an average discharge rate of 1.25  
9 million gallons per day from the facility's main  
10 settling pond to Pecumsaugum Creek, a tributary of the  
11 Illinois River.

12 The draft permit includes effluent  
13 limitations and monitoring for this discharge. Water  
14 used in the processing of the sandstone will be  
15 treated and returned to the sedimentation ponds for  
16 further treatment.

17 Storm water that is generated on site will  
18 be directed to the settling ponds. The draft permit  
19 includes authorization for storm water discharges from  
20 certain areas of the proposed facility that are  
21 covered by the facility's storm water pollution  
22 prevention plan. Thank you.

23 HEARING OFFICER STUDER: Thank you, Darren.

24 They did turn the fan off. Is it better as far as

1 being able to hear us with that off?

2 AUDIENCE: (Responding affirmatively.)

3 HEARING OFFICER STUDER: Again, if you  
4 absolutely can't hear, let me know, and we'll work  
5 with that at the time and see what we can do.

6 As Hearing Officer, I intend to treat  
7 everyone here with respect and in a professional  
8 manner. I ask the same respect be shown by the  
9 hearing panel and by members of the audience.

10 You may disagree with or object to some of  
11 the statements and comments made; but this is a public  
12 hearing, and everyone has a right to express their  
13 comments on this draft permit and issues related to  
14 it. Arguing or prolonged dialogue with others will  
15 not be permitted at this hearing.

16 I remind everyone that we have a court  
17 reporter here taking a verbatim reCORD of tonight's  
18 hearing. For her sake and in the interests of  
19 obtaining an accurate transcript for this hearing, I  
20 ask that background noise levels in the room be kept  
21 to a minimum. Applause and other reactionary  
22 responses are inappropriate and are not allowed during  
23 this hearing.

24 Written comments may be submitted at any

1 time within the public comment period. And, again,  
2 that ends on July 2, 2014.

3 This hearing is the only time that Illinois  
4 EPA will accept oral comments on this permitting  
5 action. If you have lengthy oral comments, it will be  
6 helpful to submit them to me in writing before the  
7 close of the comment period; and I will ensure they  
8 are included in the hearing reCORD as an exhibit.

9 Please keep your comments relevant to the  
10 issues involved with this permitting action. If your  
11 comments fall outside the scope of this hearing, I may  
12 ask you to proceed to your next relevant issue.

13 For the purpose of allowing as many as  
14 possible to make comments this evening, I will  
15 initially allow everyone four and a half minutes to  
16 make comments. We want to avoid repetition. If  
17 anyone before you has already presented a statement or  
18 comment that is contained in your comments, please  
19 skip over those issues when you speak. If someone has  
20 said what you intended to say, you may pass when I  
21 call your name to come forward.

22 Once a point is made it makes no difference  
23 if the point is made 99 times. It will be considered  
24 on its merit and addressed only once in the

1 responsiveness summary.

2 The issues that are relevant in the Illinois  
3 EPA final decision are those directly related to the  
4 contents of the permit and the regulations governing  
5 the issuance of a permit. Simply stating opposition  
6 or support for this project will not impact the  
7 Illinois EPA decision in this matter.

8 Illinois EPA decision making is limited to  
9 those items associated with environmental issues and  
10 other items as determined by state and federal law.  
11 In this case, relevant issues must relate to the water  
12 discharge permit in some way.

13 The notice for this hearing contained the  
14 following statement. "Those recommending denial of  
15 this permit application should be prepared to state  
16 the regulation that is the basis of their  
17 recommendation." Doing exactly that will go a long  
18 way in making a credible argument for those wanting  
19 denial.

20 If the applicant meets the requirements for  
21 obtaining a permit, Illinois EPA is mandated to issue  
22 a permit under state law. Illinois EPA decision will  
23 not be based upon how many people support a permit or  
24 on how many people oppose a permit for this facility.

1                   When it is your turn to speak, I will call  
2 your name. Please come forward to the microphone up  
3 front. I will then call a second name, and that  
4 person should be prepared to come forward once the  
5 person currently at the mike has completed their  
6 comments.

7                   When I call your name, if you do not desire  
8 to speak or if someone has already said what you were  
9 prepared to say, you may pass; and I will announce  
10 another name.

11                   When providing your comments, please speak  
12 clearly and loudly into the microphone. State your  
13 name and, if applicable, any governmental body,  
14 organization, or association that you represent. If  
15 you are not representing a governmental body, an  
16 organization, or an association, you may simply  
17 indicate that you are a concerned citizen or a member  
18 of the public.

19                   For the benefit of the court reporter, I ask  
20 that you spell your last name. If there are alternate  
21 spellings for your first name, you may also spell that  
22 if you desire.

23                   Comments are to be directed to members of  
24 the hearing panel. This will help ensure that an

1 accurate transcription of your comments is made for  
2 the reCORD. Dialogue with the hearing panel or with  
3 others in attendance will not be allowed.

4 Are there questions regarding the procedures  
5 that will be used tonight for conducting this hearing?

6 (No response.)

7 HEARING OFFICER STUDER: Let the record  
8 indicate that no one raised their hand.

9 Since no one raised their hand, we will  
10 start with Brad Brown. Mr. Brown will be making a  
11 statement on behalf of the applicant. Mr. Brown,  
12 please come forward to the microphone.

13 MR. BROWN: Good evening, everyone. My name  
14 is Brad Brown. I'm an engineer with Anderson  
15 Environmental Engineering Company. We are working  
16 with Quality Sand Products on the environmental  
17 permitting that is required for the proposed mine.

18 As a representative of Quality Sand  
19 Products, we want you to know that there is a high  
20 level of commitment from the management team to be a  
21 responsible corporate citizen and a good steward of  
22 the environment.

23 Quality Sand Products has been involved in  
24 the mining and processing of raw materials for over 25

1 years and has a successful track reCORD of managing  
2 mining and processing sites within the environmental  
3 permit requirements.

4 As you are fully aware, the mining and  
5 processing of LaSalle's high-quality sand has been a  
6 long-term economic force in the region providing  
7 employment opportunities for residents of the area and  
8 beyond.

9 The proposed mining operation is designed  
10 with large settling ponds to ensure that the discharge  
11 is well within the strict water quality standards of  
12 the permit. The processing operation will utilize the  
13 latest technology available, which allows the  
14 processed water to be recycled and requires very  
15 little additional water to be added to the system,  
16 thereby reducing the amount of discharge from the  
17 site.

18 We thank you all for being here tonight and  
19 look forward to your input and comments regarding the  
20 NPDES permit for the mine. Thank you.

21 HEARING OFFICER STUDER: Thank you,  
22 Mr. Brown.

23 Lydia Jordan is the first member of the  
24 public making a comment, and she will be followed by

1 Monty Whipple.

2 MS. JORDAN: Good evening, Mr. Hearing  
3 Officer and Illinois EPA representatives.

4 Thank you for the opportunity to comment on  
5 this draft permit. My name is Lydia Jordan, L-y-d-i-a  
6 J-o-r-d-a-n. I work for the Environmental Advocacy  
7 Center at the Bluhm Legal Clinic, part of Northwestern  
8 University School of Law.

9 We represent Conserve Our Rural Ecosystems,  
10 CORE, a community group made up of residents of  
11 LaSalle County, primarily in the Village of North  
12 Utica and Utica and Logan Townships.

13 Tonight, you will also hear from several  
14 individual members of CORE. Many CORE members enjoy  
15 the natural beauty of Pecumsaugum Creek and frequently  
16 use the adjacent Illinois and Michigan Canal State  
17 Trail for recreation. Many members also rely on well  
18 water drawn near the proposed discharge.

19 Because well water is so important to CORE  
20 members and the surrounding community, CORE suggests  
21 amending the permit to include requirements for  
22 groundwater quality monitoring as well as measurement  
23 of static groundwater levels. This information is  
24 essential to protect the current groundwater use and

1 to understand the hydrology of the area.

2 Another concern related to groundwater is  
3 the presence of radium in water pumped from deep wells  
4 in the area. Based on the possibility that well water  
5 used at the facility may contain high levels of  
6 radium, CORE recommends including a requirement to  
7 test the discharge for radium.

8 CORE members are concerned about the effects  
9 on Pecumsaugum Creek and recommend revisiting the  
10 permit to better protect the creek's existing uses.  
11 Not only does the Pecumsaugum Creek currently support  
12 an important diversity of species, including the  
13 slippershell mussel and weed shiner, but it also flows  
14 into the I & M Canal, which is important to recreation  
15 for CORE members, other residents of the area, and  
16 visitors.

17 CORE members ask Illinois EPA to consider  
18 alternatives to discharging into Pecumsaugum Creek,  
19 including full retention of waste water, connection to  
20 municipal groundwater treatment facilities, or  
21 discharge to a water body better suited to receive the  
22 discharge.

23 Alternatively, CORE members ask the permit  
24 be modified to better protect the current use of the

1 creek as crucial habitat to important species.

2 The permit should incorporate a requirement  
3 for stream water quality testing. Also, the permit  
4 should set and enforce a limitation for heat added to  
5 the creek. Mussels in particular are very sensitive  
6 to heat, and the use of the creek as a mussel habitat  
7 may be negatively affected without proper precautions.

8 Mussels, clams, insects, and fish are all  
9 very sensitive to sedimentation as well. The permit  
10 should inCORPORate a requirement to reduce siltation  
11 not only from storm water runoff, but also from direct  
12 discharge.

13 The permit should also include requirements  
14 to slow the flow of discharge to prevent disturbance  
15 of the creek bed.

16 CORE members also encourage Illinois EPA to  
17 alter the permit to better protect existing uses of  
18 aesthetic appreciation and recreation. CORE members  
19 are particularly concerned about the effects on  
20 recreation from the additional flow that may  
21 exacerbate flooding along the I & M Canal State Trail.  
22 Recent flooding has been costly and left significant  
23 damage to the trail. CORE members recommend adding  
24 requirements to the permit to divert or attenuate the

1 flow of the discharge so that existing recreational  
2 uses to downstream waters are protected.

3 To the extent that the Illinois EPA may  
4 consider the holistic impact of the facility when  
5 considering whether the risk of adverse impacts of the  
6 gross discharge are warranted, the members of CORE  
7 urge you to consider possible negative impacts such as  
8 flooding, depletion of groundwater, damage to roads  
9 due to increased truck traffic, and opportunity costs  
10 of other more socially beneficial developments.

11 Thank you for the opportunity to comment and  
12 for considering how this proposed discharge will  
13 affect the community.

14 HEARING OFFICER STUDER: Thank you. Next up  
15 is Monty Whipple, and Mr. Whipple will be followed by  
16 Ashley Williams.

17 MR. WHIPPLE: Monty Whipple, M-o-n-t-y  
18 W-h-i-p-p-l-e. Once again, I thank the members of the  
19 board for listening to our comments this evening.

20 I am also a member of CORE and a very  
21 concerned citizen. I living in very close proximity  
22 to the mine we are discussing here tonight.

23 I think many of you probably are familiar  
24 with the area, just like a lot of people in the back

1 of me are. This is an area that is surrounded by  
2 present and former industrial sites that have since or  
3 before become contaminated. Contaminated soil and  
4 water is a major concern in this area from other  
5 situations that have occurred in the past.

6 We have many cities in the neighborhood that  
7 have water problems, drinking water problems  
8 particularly; and we are trying to do everything we  
9 can to head those off.

10 I'm sure you're familiar with the problems  
11 with Ottawa's water situation, radium and so on.  
12 Wedron Silica Mine has a present problem that is very  
13 important and something we don't want to see happen  
14 here.

15 Utica, which is the closest town to me,  
16 their water is always under a boil order, which  
17 doesn't give you a whole lot of confidence.

18 There are Superfund sites in the area as  
19 well, which we all are aware of and take very much to  
20 heart. The importance of clear water, clean air, and  
21 clean groundwater is very important to us.

22 Personally, I have two family farms, where  
23 my dad farms and where my uncle farms. They are side  
24 by side. Where I live, which is off the farm, all

1 three sites are within a half a mile of the Quality  
2 Sand Mine.

3 What is important to me is that all three  
4 sites have shallow wells. Water is down less than 40  
5 feet, and I know the pits that they are digging in  
6 will be down lower than that. They talk about  
7 groundwater seepage, seepage down to the aquifer.

8 What will happen is: That water will have  
9 to be discharged as waste water so it doesn't  
10 accumulate. But I also wonder: Whatever chemicals  
11 and so on are accumulating down there, are they also  
12 seeping back into the groundwater at the same time,  
13 which would possibly affect the quality of water that  
14 we have?

15 I understand that the mines don't drill in  
16 one spot forever. Sooner or later, one area will  
17 become abandoned; and they will move down the road a  
18 little bit and start another area. In the meantime,  
19 that shallow pit will remain there. It fills up with  
20 water and just lays there.

21 You can pass by the existing mines that have  
22 been kind of forsaken and see various colors of water  
23 that is nowhere near clear. It just sits there, and I  
24 just wonder about the contamination of the aquifers in

1 those areas.

2 Now, they do say that if you're close enough  
3 to a mine, they will present a water agreement with  
4 you to drill a new well or to help you out in that  
5 situation. But if you're surrounded by several mines,  
6 who is to take the blame for it being their fault?  
7 That bothers me a little bit.

8 Who is to say that the water quality where  
9 they dig down will be as good as what I have now?  
10 Right now, I've got excellent water from a shallow  
11 well. I know they are talking about digging down 300  
12 or 400 feet to get to a different aquifer, but a lot  
13 of the water that is being pumped from those type of  
14 aquifers is not nearly as good and certainly has some  
15 problems. So I ask you to keep that in mind.

16 One other comment, just a little bit off the  
17 subject. If you do approve this permit and they are  
18 allowed to disperse the water into the Pecumsaugum and  
19 into the canal, maybe they can be convinced through  
20 the goodness of their heart or some encouragement to  
21 direct some of that canal water toward Utica. The  
22 canal is now very stagnant because all the water is  
23 flowing toward LaSalle. There's nothing going back  
24 toward Utica. That part of the canal is really an

1 ugly eyesore.

2 We do take pride in the canal as being a  
3 historic tourist place for people to walk and see and  
4 so on. But, right now, all the water is directed  
5 toward LaSalle.

6 If you're going to dump that much water into  
7 it from this treatment plant and if you find that the  
8 water is safe and clean enough to be used in that  
9 regard as a recreational purpose, I'd like to see it  
10 directed back toward Utica. Maybe they can split the  
11 discharge, and we could have a free-flowing canal that  
12 would be something to be proud of.

13 Thank you for your time.

14 HEARING OFFICER STUDER: Thank you. Next up  
15 is Ashley Williams. Ms. Williams will be followed by  
16 Laurel and Henry Hayes that have registered to speak.

17 MS. WILLIAMS: Ashley Williams,  
18 W-i-l-l-i-a-m-s, Ottawa member of CORE.

19 Ladies and gentlemen of the IEPA, a primary  
20 concern of mine is that the high volume of waste water  
21 produced from Quality Sand Products operations, an  
22 estimated 1.25 million gallons per day, will pollute  
23 Pecumsaugum Creek.

24 I do not believe monthly outfall testing is

1 adequate enough to safeguard our residents. It must  
2 be done on a daily or weekly basis, perhaps with the  
3 help of community involvement such as IVCC Chemistry  
4 Club.

5           Additionally, the discharge may adversely  
6 affect the state and federally endangered Indiana Bat  
7 that makes its home in the Blackball Caves, the  
8 largest bat hibernacula in Illinois. These bats are  
9 key to our well-being. Due to their voracious  
10 appetites, they save farmers millions of dollars in  
11 crop damage yearly and allows them to refrain from  
12 pesticide use.

13           However, urbanization continues to threaten  
14 their species. Even the slightest intrusions can  
15 spell disaster for these bats. Their body  
16 temperatures can plummet into the 40-degree range in  
17 winter. There must be stronger protection in place  
18 for these bats in the permit as I believe the current  
19 protections may fail to safeguard them.

20           The discharge of such large volumes of water  
21 could potentially result in bank erosion along the  
22 creek and disrupt wildlife spawning areas. A small  
23 temperature change can be lethal to fish. For  
24 instance, trout only get oxygen from cold water in the

1 range of 45 to 55 degrees. Trout size and quantity  
2 decline as water temperature increases.

3 Water quality may be negatively impacted by  
4 sediment resulting from discharges of waste water.  
5 Sediment can commonly contain the flocculant  
6 acrylamide which is a potential neurotoxin that can  
7 lead to paralysis, cancer, and infertility. The  
8 discharge should be tested for acrylamide as well as  
9 the flocculant DADMAC, as these chemicals are being  
10 used in these operations.

11 Please take these critical concerns into  
12 consideration before you issue this NPDES permit.  
13 Thank you.

14 HEARING OFFICER STUDER: Thank you. We had  
15 Laurel and Henry -- I said Hayes. It looks like it's  
16 actually Mayes. Please come forward.

17 AUDIENCE MEMBER: Pass.

18 HEARING OFFICER STUDER: They passed. All  
19 right. Roger Rynke. While he's coming up, the person  
20 following him will be Colleen Smith.

21 MR. RYNKE: Hi. I'm Roger Rynke, R-o-g-e-r  
22 R-y-n-k-e. I work for the Illinois Department of  
23 Transportation, but I'm not here in an official  
24 capacity. I'm Environmental Unit Chief; so I did a

1 little bit of background check on the area with the  
2 resources and databases that I have at my disposal.  
3 I'm also here -- I live in Peru, and I'm a concerned  
4 citizen.

5 Just a brief review of some of the areas. I  
6 saw in the handout that the stream was not rated. It  
7 was just listed as a tributary to the Illinois River.  
8 It's a pretty high-quality stream. There's a lot of  
9 unique fish and mussels. It outflows into the  
10 Blackball Mines Nature Preserve, which is about a mile  
11 downstream.

12 I really don't have much to add, but I just  
13 would like -- I'm more concerned with the process  
14 water than the groundwater seepage and storm water run  
15 off. Thank you.

16 HEARING OFFICER STUDER: Thank you. Next up  
17 is Colleen Smith. She will be followed by Kenneth --  
18 is it (unintelligible)?

19 AUDIENCE MEMBER: I'll pass. I've been  
20 covered.

21 HEARING OFFICER STUDER: Okay. Thank you.

22 MS. SMITH: Good evening. I'm Colleen  
23 Smith, C-o-l-l-e-e-n. I'm here representing the  
24 Illinois chapter of the Sierra Club and all of our

1 members in LaSalle as well as throughout the county  
2 that uses these waterways for recreation and other  
3 purposes.

4 I'd like to mainly spend my four and half  
5 minutes or so asking questions of the panel. I'm  
6 going to voice many of the same concerns as Ashley and  
7 Lydia before me and probably others throughout the  
8 evening.

9 Primarily our concerns are with the large  
10 amount of discharge to this small and sensitive creek.

11 I'd like to first ask as far as the  
12 pollutant loading is concerned, has any quantification  
13 of the current total suspended solids been assessed or  
14 increases of TSS been conducted?

15 MR. GOVE: Since there's no discharge yet,  
16 we don't have a quantification from the actual mine;  
17 but the groundwater itself is high quality. The  
18 stream survey did collect TSS data. I can't recall  
19 what it was, but I remember thinking it was relative  
20 low.

21 MS. SMITH: On that same topic, we are  
22 concerned that there has not been a great enough  
23 assessment of the impact to the Pecumsaugum Creek.  
24 The antidegradation assessment only concerns the storm

1 water discharges, but the 1.25 million gallons a day  
2 also includes process water and groundwater seepage.  
3 Has there been any assessment of those discharges in  
4 the antidegradation?

5 MR. GOVE: The Applicant did do an  
6 assessment of groundwater. What we considered  
7 anticipated discharge is represented above the  
8 groundwater. It was taken from wells that were  
9 drilled. Those results all showed that there was no  
10 exceedances expected of water quality standards.

11 MS. SMITH: Thank you. On that similar  
12 vein, do you happen to know the percentage of the  
13 total discharge volume that is expected to be process  
14 water and groundwater seepage versus just storm water,  
15 of that 1.25 million gallons?

16 MR. GOVE: I believe 0.29 MGD of the 1.25  
17 will be process water. The remainder will be storm  
18 water.

19 MS. SMITH: I would also like to ask about  
20 the use of flocculants that Ashley Williams brought  
21 up. As many of you have mentioned, this creek has a  
22 lot of very important species, high IBI and QHEI  
23 scores. The state endangered and state-listed species  
24 are particular concerns for the residents in this

1 area.

2 Has there been any toxicity testing on the  
3 polymers?

4 MR. GOVE: Yes, there has.

5 MS. SMITH: Can you enlighten me on the  
6 results?

7 MR. GOVE: Yeah. Each product, there were  
8 LC50 estimates, which is the lethal concentration in  
9 50 percent of the organisms. Each product was found  
10 to have a threshold above 100 milligrams per liter,  
11 which means that anything below 100 milligrams per  
12 liter exhibits no effect whatsoever from an acute  
13 lethality point of view.

14 The species that were tested were the zebra  
15 fish, which is of the family Cyprinidae, which is  
16 related to the weed shiner, the endangered fish that  
17 was found in the stream. I believe Daphnia Magna, a  
18 common invertebrate, was used in testing and then also  
19 a certain algae species. Again, all tested organisms  
20 were found to be not sensitive to the polymers.

21 Again, 100 milligrams per liter was the  
22 objective threshold. Anything above 100 could be an  
23 issue. They are applying the product at a maximum of  
24 1.25 milligrams per liter. And their acrylamide

1 polymer is only a small percentage of that actual  
2 dosage.

3 MS. SMITH: Just to clarify. The 100  
4 milligrams per liter is -- anything above that is  
5 above the threshold for the LC50, and you are saying  
6 that they are applying the polymer at 1.25 milligrams  
7 per liter?

8 MR. GOVE: That's correct. 100 milligrams  
9 per liter and then 1.25 milligrams per liter. And,  
10 again, the 100 milligrams per liter, that was  
11 essentially a bench test. It was a range-finding  
12 test. They are trying to find out how lethal the  
13 product could be. At 100 milligrams per liter, there  
14 was no toxicity; so they didn't have a need to go any  
15 lower. So 1 milligram per liter was not tested  
16 because 100 milligrams per liter was not toxic.

17 MS. SMITH: Thank you. Does IEPA consult  
18 with IDNR as to the use of these flocculants?

19 MR. GOVE: No. Not with regards to  
20 flocculant usage.

21 MS. SMITH: Thank you, very much. That  
22 answered all my questions.

23 HEARING OFFICER STUDER: Thank you. Next  
24 up, Randy Juras. He will be followed by William Speck

1 (phonetic).

2 MR. JURAS: My name is Randy Juras, 14351  
3 Oak Trail, Homer Glen, Illinois. I'm with the  
4 Environmental Committee of Homer Glen.

5 We have had numerous issues within our area  
6 with regards to environmental impact studies or lack  
7 of them.

8 To the best of my knowledge, I haven't seen  
9 an awful lot of work with regards to what will you  
10 guys do about the displacement of certain  
11 environmental creatures and whatnot due to 1 million  
12 250 thousand gallons of stuff every single day.

13 We have had issues with IDOT with regards to  
14 inadequate, by our terms, environmental impact  
15 studies. In our particular area, we do have the  
16 Hine's emerald dragonfly. And we have, in fact, had  
17 issues with IDOT with regards to wanting to put the  
18 high-speed rail train in.

19 I was wondering how much you guys are going  
20 to do moving forward, presuming the permit is issued,  
21 in keeping track of just what is being dumped into the  
22 creek or the creek area and the impact that it is  
23 going to have over time with the continued dumping of  
24 who knows what.

1                   From what I've seen, this is very similar to  
2 what IDNR is skirting with regards to what fracturing  
3 solutions are going to be allowed to be dumped back  
4 into who knows where. And that's the sticking point  
5 at the moment still in Springfield.

6                   Do you guys anticipate continuously  
7 monitoring what they do dump into the creek?

8                   MR. GOVE: The permit requires monitoring of  
9 their discharge at a monthly rate. The parameters  
10 that are listed in the public notice are primarily the  
11 parameters that are required to be reported to us.  
12 They must meet a certain limit of total suspended  
13 solids. Total suspended solids for this type of  
14 facility need to meet the standards of 25 milligrams  
15 per liter.

16                   There are other monitoring parameters, and  
17 we do track those for a period of time; but there's no  
18 cumulative analysis of that data.

19                   MR. JURAS: Is the IEPA going to be doing  
20 the monitoring, or is it going to be contracted out?

21                   MR. GOVE: The Applicant or the Permittee is  
22 required to do the monitoring.

23                   MR. JURAS: Is there any set parameters for  
24 how often their equipment is checked?

1 MR. GOVE: None that I know of. I can  
2 check, though, and get back to you.

3 MR. JURAS: It's up to them?

4 MR. GOVE: Yes.

5 MR. JURAS: Thank you.

6 HEARING OFFICER STUDER: There's one more  
7 issue that you wanted to say on the last comment?

8 MR. KOCH: I believe there's a metal  
9 monitoring condition. Those would be contracted out  
10 to a lab. The labs go through all the proper QIQC.  
11 These people's jobs depend on producing accurate  
12 results. Those results would be unbiased.

13 The only thing I believe that the Applicant  
14 would measure would be TSS and flow, if that's a  
15 requirement. I'm not quite sure whether requirements  
16 are in there for the Permittee to do. The analytical  
17 work is contracted out to local labs.

18 MR. JURAS: Thank you.

19 HEARING OFFICER STUDER: William Speck  
20 (phonetic). As he's coming forward, it looks like  
21 he'll be followed by Norm Dudek.

22 MR. SPECK: My name is William Speck. I am  
23 here as a concerned citizen, a CORE member, and as  
24 Waltham Township Supervisor. We approved a letter

1 that we want to put into your testimony group. I have  
2 it here. I can present it at this time, if you'd  
3 like.

4 HEARING OFFICER STUDER: Sure. I'll go  
5 ahead and enter it as an exhibit in the record, or you  
6 can hand it to me when you're done making comments,  
7 either way.

8 MR. SPECK: I'll let you put it into the  
9 record here. That way, I have the number for it, and  
10 I can go from there.

11 HEARING OFFICER STUDER: Very good. We'll  
12 enter that as Exhibit 174.

13 MR. STACK: Now, as Supervisor of the  
14 Township, we presented our testimony; and we'll let  
15 that stand as it is.

16 As a concerned citizen myself, I live on a  
17 farm in the middle of the Township; and the  
18 Pecumsaugum Creek comes right up the middle of the  
19 farm.

20 With the discharge amounts -- of course, I  
21 know you don't have control over the volumes -- what's  
22 it going to do to the 100-year floodplain upstream --  
23 not downstream -- upstream from the discharge?

24 If it affects the 100-year floodplain,

1 chances are good that my cattle operation would be in  
2 danger of maybe what you would call a toxic spill kind  
3 of thing, excess waste in the water.

4 If you approve this and it goes through, I  
5 just want you to make sure that my cattle operation  
6 does not get affected by the 100-year floodplain if  
7 that's an issue coming backward on us in the middle of  
8 the township.

9 We do drain a whole bunch of acreage up in  
10 that end of the township. We'd appreciate any  
11 assistance you could have in getting us maybe some  
12 kind of a general rule as to how much -- with the  
13 proposed 1.25 million gallons per day, what that's  
14 going to do to the volume backed up as we get spring  
15 rains and creek flow and tile drains running into this  
16 creek.

17 It's a big tributary. When the water comes  
18 up, it comes up in a hurry; and there is a potential  
19 for flood. We have some 100-year floodplains just  
20 half a mile from my place right along the creek.

21 Please look into things as you go forward  
22 with the floodplain and access backwards up the creek  
23 from the proposed mine. With that, I thank you for  
24 your hearing and the chance to speak on behalf of

1 concerned citizens and myself.

2 HEARING OFFICER STUDER: Thank you. Norm  
3 Dudek, and he'll be followed by Dan Eiten.

4 Let me raise the microphone. Is that  
5 better? Is that okay now?

6 MR. DUDEK: My name is Norm Dudek,  
7 D-u-d-e-k. I have lived in the area for 80 some  
8 years; and, of course, I'm very proud of it. I have  
9 belonged to the Chamber for probably 45 years and  
10 worked with the aesthetics of the area and so forth  
11 and maintaining it and tourism.

12 I am concerned with -- and I don't quite  
13 understand the million and a half gallons -- or  
14 million and a quarter -- of water each day being  
15 pumped from the aquifer. Is that each day?

16 When you speak of recycling and so forth in  
17 the sediment ponds, how much of that is recycled; or  
18 is that actually a utilization of 125- or 250,000 of  
19 fresh water each day?

20 MR. GOVE: That's a combination of pit  
21 pumpage from groundwater seepage into the pit. They  
22 do have to dewater at a certain point. So it's a  
23 combination of groundwater seepage, storm water that's  
24 been accumulated in the pit, as well as process water.

1 It's not all process water, but it equates to about  
2 200 gallons per minute.

3 MR. DUDEK: Would you say then that 1  
4 million 250 thousand is being dispensed into the  
5 rivers or the Pecumsaugum and so forth each day  
6 including groundwater?

7 MR. GOVE: That's accurate.

8 MR. DUDEK: Okay. Well, I live about half a  
9 mile from the pit. My concern is -- we have great  
10 water and so forth. We have the sand mine to the east  
11 of us, which is probably less than a half a mile and  
12 then down in Utica. We have enjoyed great water. We  
13 are able to hook up to Utica if we so desire; but at  
14 this particular time, I wouldn't want any part of it  
15 because of its contamination and problems that they  
16 have had. I would like to retain the quality of our  
17 water.

18 I would prefer, rather than the Company  
19 itself monitoring this water and so forth, that it  
20 would be an outside source that would come and inspect  
21 and draw that water for its inspection or -- what do  
22 you want to say -- determining what its content is.

23 My other concern is that, with the floods  
24 that we have periodically and with the dispensing of

1 this million and a quarter gallons of water during the  
2 flood season, what happens in that case? Is there any  
3 provisions made to withhold that water until such a  
4 time that the flood or the waters have receded.

5 If they don't and they continue to dispose  
6 of this water, at that time does that mean that we  
7 have to put up with a flooding condition for another  
8 two or three days? Or does it just go up another foot  
9 or whatever? That's another concern that I have.

10 Who will be monitoring the aquifer? How do  
11 we determine that, to know if our wells and water and  
12 so forth are being preserved for future generations?

13 With the 42 mines and pits that we have in  
14 the area, has any consideration been given to a water  
15 reclamation facility?

16 I've come through this area where our rivers  
17 have been polluted with the Chicago waste water -- our  
18 streams and so forth. And it gives me a great deal of  
19 pleasure to state at this particular time and in my  
20 lifetime to be able to see some headway that we have  
21 achieved in those years.

22 Now I feel that we have beckoning at our  
23 doorstep to go backwards again with our canals and  
24 with our roads and so forth.

1                   Therefore, I highly recommend consideration  
2 be given to all of the up and coming or proposed frac  
3 mines to have a water reclamation. We can do it for  
4 cities, and we can do it for Chicago. We should keep  
5 our areas and streams clear. That's the cost of doing  
6 business, such as with all of the other regulations  
7 that have been imposed to keep our country safe and  
8 preserve all of our water for future generations.  
9 Thank you.

10                   HEARING OFFICER STUDER: Dan Eiten is up.  
11 He'll be followed by Edmund Thornton.

12                   MR. EITEN: My name is Dan Eiten, E-i-t-e-n.  
13 I'd like to start, if I could, by sharing a  
14 few photos with the folks on the EPA.

15                   HEARING OFFICER STUDER: If you want us to  
16 consider these, you would have to leave them as an  
17 exhibit in the record.

18                   MR. EITEN: No problem.

19                   HEARING OFFICER STUDER: Okay. Please give  
20 some background on them.

21                   MR. EITEN: I did do some chicken scratches  
22 on the back for your record, but I'll run you through  
23 them.

24                   I believe the one that Mr. Koch is looking

1 at shows the damage to the Illinois & Michigan Canal  
2 Trail that happened back in mid April of last year. A  
3 portion of the Illinois & Michigan Canal Trail was  
4 completely destroyed subsequent to heavy rain and  
5 flooding.

6 If you take a look at the other picture,  
7 that shows the bridge on the I & M Canal Trail that  
8 goes over Pecumsaugum Creek. That bridge was  
9 obstructed by some deadfall and also a considerable  
10 amount of gravel that you see on the left-hand side of  
11 the picture. That gravel was never there before. You  
12 can completely walk across the canal. It had  
13 previously been full of water.

14 So I guess, in reading the draft permit -- I  
15 read the draft permit, and absent from the permit is  
16 any mention of the Illinois & Michigan Canal or the  
17 Trail. So what I would like folks on the Illinois EPA  
18 to consider in the draft is: What could be done to  
19 decrease the likelihood of that happening again?

20 You made mention of increased water flow, of  
21 course, and siltation. If that happened last year, I  
22 would certainly believe that, if this permit goes  
23 through and they start draining into Pecumsaugum  
24 Creek, that that would be more likely to happen in the

1 future.

2 I guess what I would like to do is ask that  
3 the Illinois EPA consider the Illinois & Michigan  
4 Canal Trail before they potentially permit the mine to  
5 drain to Pecumsaugum Creek.

6 I guess I would like to ask a question. If  
7 something like this were to happen a few years down  
8 the road, if the mine is permitted to drain into  
9 Pecumsaugum Creek, how would that be handled? Would  
10 the mine be "on the hook," so to speak? Would they  
11 have to take steps to prevent that from happening?  
12 How might that be handled?

13 MR. GOVE: I believe your question falls  
14 under the category of water quantity, which the Agency  
15 does not regulate. As far as finding who caused the  
16 damage or whatnot, we'd have to look into that and get  
17 you a better answer.

18 MR. EITEN: I think it's also a question of  
19 siltation. That was mentioned a few times and  
20 potential disturbance to the water, which could  
21 increase, you know, siltation. It's obviously already  
22 happening.

23 MR. GOVE: Thank you.

24 MR. EITEN: Thank you.

1 HEARING OFFICER STUDER: I will go ahead and  
2 enter those two photographs into the record as Exhibit  
3 175.

4 Next is Edmund Thornton. He'll be followed  
5 by Rick Coleman.

6 MR. THORNTON: Thank you. Mr. Chairman, my  
7 name is Edmund Thornton, T-h-o-r-n-t-o-n. I reside at  
8 1415 US 6 East, Ottawa.

9 My concerns, in a rather rambling fashion  
10 this evening, have been brought up by the many  
11 spokesmen or spokespersons for the petition; so I will  
12 not enumerate those in any detail. But I will say  
13 that I have served as the President and Chief  
14 Executive Officer of Ottawa Silica Company for a  
15 period of some 25, 27 years. The current owner is now  
16 US Silica. That's a term you probably are familiar  
17 with.

18 I am extremely familiar with silica mining  
19 in this county. My grandfather started the mining  
20 process here in 1900, and it has gone through three  
21 generations. Mining is a very major, significant  
22 economic factor to the economy of our county.

23 It has suddenly boomed into public awareness  
24 because of market circumstances generated by the need

1 for the oil and gas economy in the Western United  
2 States and in Pennsylvania, Ohio, and so forth.

3 Quite apart from that fact, I also have  
4 served as Chairman of the Illinois Michigan Canal  
5 Heritage Corridor Commission.

6 I'm very familiar with both the economy and  
7 the flowage of that river, of that stream. It's a  
8 highly volatile stream. It drains a great portion of  
9 this part of central LaSalle County, far beyond the  
10 site of this proposed sand mine. It goes far north.  
11 Many farms, probably -- I don't have the figures, but  
12 it's probably several hundred acres, at least. It may  
13 be larger.

14 But in any case, I would hope that the  
15 Agency will look at the drainage pattern of the  
16 Pecumsaugum Creek. It's not a small dendritic stream  
17 that comes time and again and drains away and dries up  
18 and is gone. It has boomed down through that canyon  
19 and flooded up the I & M Canal, backed up water as far  
20 as Utica, and certainly blown out the canal so bad  
21 several times over the last 15 to 20 years, almost on  
22 a predictable basis.

23 The concern I guess I have is the volume of  
24 water that's going to be dumped into the Pecumsaugum

1 Creek. It's a natural drainage. It goes back for  
2 hundreds and thousands of years, perhaps -- hundreds  
3 certainly.

4 As an economic impact, it was the major  
5 feeder to the I & M Canal when the Canal was a  
6 historic waterway. It's been silted up; so it's no  
7 longer a viable waterway. But putting a million  
8 250,000 additional gallons a day into that stream,  
9 particularly given the unpredictable nature of the  
10 stream and the circumstances of high water, which is  
11 usually in the spring or the fall of the year -- those  
12 are when the unpredictable heavy rainfall hits this  
13 part of northern Illinois. Any of you who are farmers  
14 or property owners know the impact of those unexpected  
15 deluges.

16 I guess the question I would have -- and I  
17 would respectfully defer to the Chairman and the  
18 committee here, the Commission, the Agency -- has  
19 there been an effort to determine whether the  
20 Applicant has designed and built into its processing  
21 operation sufficient reserve capacity for when you  
22 have an extreme high water flooding coming in from the  
23 natural flow of the Pecumsaugum? Are there sufficient  
24 retaining basins drawn into the design of the plan?

1           Now, I know it's not necessarily an EPA  
2 concern. It's a design and engineering question. But  
3 having been involved with mining in the Ottawa area,  
4 it's terribly important to be able to have sufficient  
5 what we call "overflow basins" or capacity such that  
6 you can take an extraordinary unanticipated natural  
7 flowage as well as your own demands. It's a matter of  
8 design and corporate planning.

9           The stream itself is certainly able to  
10 handle the volume under normal conditions. But, again  
11 -- and it's been raised by other persons -- the  
12 quality of the discharge and the volume of the  
13 discharge are two of the major concerns that I have.

14           Again, I thank you for your attention.

15           HEARING OFFICER STUDER: Thank you. Rick  
16 Coleman, is he here? Mr. Coleman is coming to the  
17 microphone. Tom Walsh will follow Mr. Coleman.

18           MR. COLEMAN: Rich Coleman, C-o-l-e-m-a-n.

19           I'd like to thank Mr. Thornton first. He is  
20 very involved and has been in the silica mining, as he  
21 stated, for years. His words were wonderful. I hope  
22 you listened because he is a man that knows from his  
23 experience.

24           I live north of Utica, in Waltham Township.

1 The Pecumsaugum Creek goes right through our farm. I  
2 grew up hunting and fishing and ice skating and all  
3 that on the creek. The creek, as I said, goes right  
4 through our farm. We're not able to farm the land  
5 around the creek because it does flood.

6 Right next to me is also the KOA Campground.  
7 The KOA campground floods four or five times a year  
8 because of the flooding downstream and heavy rains  
9 that we receive. Of course, our concern is with the  
10 discharge.

11 If you add up the 1.25 million gallons per  
12 day, it comes out to 500 million gallons of water per  
13 year. I am not a hydrologist or an engineer, but I  
14 think that possibly 500 million gallons of water into  
15 that stream would cause the water level to raise  
16 somewhat.

17 With the rains that we've had in the last  
18 few years, rains that we're told only happen once  
19 every hundred years but have been happening every  
20 couple of years, we've had washouts of the I & M.

21 I have grown into a competitive runner and  
22 cyclist. I spend three to five days a week on the  
23 I & M. I've witnessed the lack of engineering that  
24 has gone on to try and control these things. The IDNR

1 tells us they don't have the money to fix it. The  
2 washout east of Utica has been washed out probably  
3 five of the last seven years. They can't fix it.

4 The wash out that Dan Eiten spoke about, it  
5 was washed out for months. The local running clubs,  
6 biking clubs could not participate in their usual runs  
7 on it.

8 It is a state park. That state park cannot  
9 be repaired if it washes out one time. It was  
10 repaired last year to be able to run the Canal  
11 Connection 10K race in November because of the  
12 pressure that the local running group put on the State  
13 to fix it.

14 I spend a lot of time on the towpath. I go  
15 to Utica, and I stop and look at families going out to  
16 bike and to run. Last summer there was a family  
17 taking their bikes off their cars. We went over and  
18 asked them, "What are you doing?" They told us: "We  
19 are going for a bike ride." I said, "You can't; the  
20 path is closed and washed out."

21 They said, "We'll go the other direction."  
22 I said: "You can't; it's washed out."

23 They said, "Well, why?" I said, "Because  
24 this is Illinois, and we can't fix anything. The IDNR

1 says we can't fix it."

2 That is local tourism. That is dollars.  
3 That is businesses in Utica that will not get families  
4 to come back and ride their bikes and participate in  
5 running, walking, and hiking because the towpath is  
6 washed out. Those people will go to Morris. They'll  
7 go to Seneca. They'll go to Channahon.

8 If this creek has now a greater potential to  
9 wash out and damage a state park, that is going to  
10 take local dollars away from businesses. It is damage  
11 to a state park that now taxpayers in Illinois have to  
12 repair that was caused by a private business. That is  
13 wrong. That is completely wrong.

14 We should not be burdened to have to repair  
15 a state trail because a private business and 500  
16 million gallons of water a year to a small creek  
17 caused a washout that can't be fixed. I hope you take  
18 that into consideration.

19 I don't know what can be done. I believe  
20 Quality Sands to be partially responsible for this  
21 somehow, whether it be engineering, more studies, more  
22 time to see what we can do on it.

23 Thank you very much for your time.

24 HEARING OFFICER STUDER: Tom Walsh?

1 Mr. Walsh will be followed by Mark Bernabei.

2 MR. WALSH: Tom Walsh, W-a-l-s-h.

3 My family is a landowner in Waltham Township  
4 and has great concerns over the situation.

5 AUDIENCE MEMBER: Speak louder, please.

6 HEARING OFFICER STUDER: Speak into the  
7 microphone.

8 MR. WALSH: Some of my questions are: Are  
9 levels of radium that would be released into the deep  
10 water wells as a result of using that type of well  
11 water -- is that going to be monitored in any way  
12 before it's released into the river?

13 MR. GOVE: With regard to radium, there are  
14 no plans to require monitoring of radium.

15 MR. WALSH: Is it understood that there's  
16 quite a high level of contamination in this area where  
17 there is concerns by many of the cities that have to  
18 actually have processing done prior to the time that  
19 the water is used on a potable basis?

20 MR. GOVE: We'll note the concerns of radium  
21 and look into that.

22 MR. WALSH: Okay. Another thing is how the  
23 radium gasses may be released at the same time as a  
24 result of that. Whether or not that would leach over

1 and contaminate the water, I don't know. Those are  
2 questions I had.

3 Is there any level of capacity deluge-wise  
4 put on by your agency in relationship to the retention  
5 pits or ponds that are going to be used by this company?

6 MR. GOVE: Are you asking if we require a  
7 certain capacity to be there?

8 MR. WALSH: Right.

9 MR. GOVE: Basically, we get the  
10 application; and whatever they propose as a capacity,  
11 we use our best engineering judgment to determine  
12 whether or not it's sufficient.

13 MR. WALSH: So there is no standard then?

14 MR. GOVE: There is no standard.

15 MR. WALSH: What has been established for  
16 this location?

17 MR. GOVE: Pond capacity-wise?

18 MR. WALSH: Right.

19 MR. GOVE: Approximately ten acres of pond  
20 capacity, four different ponds that will receive storm  
21 water runoff and groundwater pumpage.

22 MR. WALSH: And that will, according to  
23 calculations --

24 MR. GOVE: They are sedimentation ponds; so

1 we anticipate they will meet the water quality  
2 standards for total suspended solids.

3 MR. WALSH: I don't mean to be repetitive;  
4 but back to the 100-year flood concept, where are we  
5 standing on that? Has that been given consideration  
6 as far as the downstream flow is concerned off the  
7 Pecumsaugum?

8 MR. GOVE: Right. The Illinois EPA doesn't  
9 have authority regarding floodways or floodplain  
10 protection.

11 MR. WALSH: Thank you.

12 HEARING OFFICER STUDER: Thank you,  
13 Mr. Walsh. It is Mark Bernabei, to be followed by  
14 Bruce Markwalter.

15 MR. BERNABEI: My name is Mark Bernabei,  
16 B-e-r-n-a-b-e-i.

17 HEARING OFFICER STUDER: Can you step  
18 forward to the microphone.

19 MR. BERNABEI: Sure. I apologize.

20 My family owns a farm in Section 16 of Utica  
21 Township. Some of our concerns that we have are with  
22 outflow water. If it enters Clark Run, which bisects  
23 the family farm, we're concerned that flocculants  
24 could end up on the family's farm and that, over time,

1 a collection of flocculants could cause a potential  
2 flocculant pollution on the site.

3 If we ever needed to mine the property, some  
4 of our concerns are: If we mine the silica underneath  
5 that site, we would not want somebody else's  
6 flocculants ending up on our property. When we use  
7 flocculants ourself, potentially, in our mining  
8 process, we would not want the flocculants that we  
9 didn't put there, from some other source that was  
10 permitted by the IEPA regarding this pit, ending up on  
11 our property and in our discharge that we would have  
12 to deal with.

13 I'm sure anybody else downstream would have  
14 the same concerns if they were here tonight.

15 I'm going to give comments and questions.  
16 Please bear with me because I have some erratic flow  
17 here.

18 A question is: If a petroleum storage tank  
19 would become compromised on the mining site, would  
20 outflow pumping be immediately stopped until there was  
21 remediation regarding a compromised structure that  
22 held any petroleum material on the site, whether it  
23 was hydraulic fluid, diesel fluid, gasoline, so on and  
24 so forth.

1 I don't want to beat a dead horse here, but  
2 back with what Edmund Thornton was discussing: Would  
3 any outflow be allowed during a rain event or flood  
4 event?

5 My family is highly concerned about that as  
6 well as anybody who is farming down there. If the  
7 outflow is not stored on the site, then would it be  
8 becoming part of these flood waters, increasing the  
9 flooding of our properties down in the Illinois River  
10 Basin?

11 We would ask if it's at all possible  
12 engineering-wise to control the outflow from being  
13 discharged during a rain event, prior to that rain  
14 event, during the rain event, and after the rain event  
15 until it could be released appropriately where it  
16 would not affect the flooding of Illinois farm ground  
17 or potential mines that are downstream.

18 We do not want to be used as a toilet bowl  
19 for this mining site or any other mining site that may  
20 be permitted in the future, and we believe that the  
21 mining operation should have a design capacity to  
22 store their outflow until the flood waters recede.

23 If the outflow is allowed to enter Clark's  
24 Run via the Illinois Michigan Canal -- to enter that,

1 it would have to flow easterly from the Pecumsaugum --  
2 for this Clark's Run that bisects my family's  
3 property, we would ask that the Applicant pay for  
4 water testing to be done on our site and the portion  
5 of Clark's Run that would ultimately have their  
6 outflow discharge waters crossing our property before  
7 it goes into the Illinois River.

8 We're also concerned about how much fine  
9 silica particles will be in the outflow. Will they be  
10 deposited in a flood event onto our property or,  
11 through the use of the canal, onto Clark's Run, which  
12 enters our property?

13 We do not want to have fine silica particles  
14 entering the farm ground where we're doing tillage and  
15 potentially breathing the dust. And we do not want  
16 people surrounding us breathing fine silica dust  
17 particles that got put onto our property by a mining  
18 source other than ourselves.

19 We're also concerned about fine silica  
20 particles ending up in the Illinois River dredge  
21 material, specifically the Ottawa and the LaSalle  
22 pools. Taxpayers across the nation pay to have the  
23 Illinois River dredged with the help of the Army Corp.  
24 If you've ever seen dredge material, it's full of

1 shiny particle silica. We do not want to see more of  
2 that added to there.

3 And, finally, we would like to see if  
4 there's any radium that's in this. We believe that  
5 they should be using a water treatment facility,  
6 preferably located on their own site, to treat the  
7 water to remove the radium and remove these fine  
8 silica particles.

9 I know the engineering exists to put out  
10 better water in that outflow than is intended by the  
11 Applicant in this permit. I'd ask that you honor us  
12 by following through with the request to have this  
13 water treated. Thank you.

14 HEARING OFFICER STUDER: Thank you. Next up  
15 is Bruce Markwalter. He'll be followed by Audrey  
16 Fisher.

17 MR. MARKWALTER: My name is Bruce  
18 Markwalter, M-a-r-k-w-a-l-t-e-r. I'm from Ottawa.

19 I have a question. Some of them have been  
20 answered for me. But mostly on the --

21 AUDIENCE MEMBER: Louder, please.

22 HEARING OFFICER STUDER: If you could  
23 project into the microphone, it would help.

24 MR. MARKWALTER: The Illinois

1 anti-degradation regulations require the  
2 identification and quantification of discharge waters.  
3 My concern has to do with not only sedimentation or  
4 effluent, but the type of polymers that would be used  
5 in the flocculation. Can you describe the flocculants  
6 and the brand name?

7 MR. KOCH: I have to look through my files  
8 really quick. There are three polymers proposed to be  
9 used that are produced by Clear Water Industries. I  
10 do know that one of these is designed to be potable  
11 grade, which essentially means that you can use the  
12 product in drinking water.

13 These products are used throughout the state  
14 to produce clean drinking water. These products do  
15 contain acrylamide. I know there's a lot of concern  
16 over the acrylamide; but the EPA and Illinois EPA, we  
17 do have a maximum contaminant level for acrylamide  
18 that this potable grade product would meet. If this  
19 were to be used for drinking water, that would be a  
20 concern.

21 But the actual products are Clear Water  
22 Industries CW34V, CW13H, and CW16PWG.

23 MR. MARKWALTER: My follow-up to that then  
24 is: The MSDS sheets talk about any type of biological

1 hazard. The concentration levels that you'll be  
2 working with is 1.25 parts per million; is that  
3 correct?

4 MR. KOCH: Correct.

5 MR. MARKWALTER: The effluents that come out  
6 in terms of the silt are very fine grain. Is it a  
7 cocktail of these three that is used to remove  
8 suspended solids?

9 MR. KOCH: Whenever there's a new facility,  
10 they propose a handful of different products. They  
11 like to test the products out to see which ones  
12 produce the most favorable results. They do not use  
13 these chemicals in combinations.

14 Essentially they are all on site right now.  
15 They're going to test the products. They are going to  
16 find out which one works best, and that's the product  
17 they will go forward with.

18 MR. MARKWALTER: At what juncture will you  
19 know that, since testing hasn't been done yet  
20 apparently?

21 MR. KOCH: It's not required to notify us of  
22 which product is going to be used.

23 I personally reviewed each of these products  
24 during the anti-degradation assessment review period.

1 All of the products are believed to be safe.

2 Also, one product is a potable grade polymer  
3 that can be used in drinking water supplies. The  
4 creek itself is not used for drinking water; so I  
5 necessarily didn't focus on the drinking water.

6 MR. MARKWALTER: Again, back to the MSDS  
7 sheets on those. We see that the toxicity levels of  
8 those products are enhanced with decreased pH level,  
9 more acidity. Is that to your understanding in your  
10 review of those documents?

11 MR. KOCH: I would have to go back and  
12 review those again.

13 MR. MARKWALTER: Less than 6.5. I see in  
14 the application that you're not anticipating pH levels  
15 below the acid level of 6.5 pH?

16 MR. KOCH: That's correct. The permit would  
17 have a limit that would monitor pH. 6.5 would be the  
18 lowest the pH could be discharged at.

19 MR. MARKWALTER: The last thing I wanted to  
20 follow up with is the total suspended solids. Are you  
21 aware of the quantity right now of the total suspended  
22 solids in the headwaters of the creek?

23 MR. KOCH: I mentioned this before. In the  
24 stream survey, they collected some water quality data.

1 Total suspended solids was one of the things they  
2 looked at. I don't recall what it was, and I don't  
3 have that document in front of me right now.

4 What I can say is: We do not have a water  
5 quality standard for total suspended solids. The  
6 effluent standards applied at all industries and  
7 municipalities throughout the state are deemed to be  
8 protective of aquatic life. So providing that they  
9 meet their total suspended solids limits with their  
10 discharge, there will be no impact on the creek.

11 MR. MARKWALTER: So my recommendation then  
12 for the IEPA in this application would be to focus on  
13 the total suspended solids, that whatever the  
14 concentration of total suspended solids are in the  
15 current creek would be the maximum discharge that  
16 could be achieved.

17 Thank you very much.

18 HEARING OFFICER STUDER: Thank you. Next up  
19 is Audrey Fisher.

20 MS. FISCHER: My name is Audrey Fischer. I  
21 am President of the Chicago Astronomical Society,  
22 trained by Al Gore for Climate Reality Leadership  
23 Corps. I'm also part of the International Dark Sky  
24 Association. I'm also part of Chicago Conservation

1 Corps. One of my most important roles is astronomy  
2 merit badge counselor for the Boy Scouts. I am also  
3 founder of One Star at a Time/Global Star Park  
4 Network, which is endorsed by the United Nations.

5 It just so happens that Starved Rock is  
6 beloved by a lot of people in Illinois. It's also  
7 registered as a Star Park in the Global Star Park  
8 Network. One of my most important roles with  
9 Chicago's Astronomical Society was to expose the  
10 public and kids especially to the starry night sky.

11 It just so happens that we are losing the  
12 night sky across Illinois at an exponential pace.  
13 It's not just Illinois. It's throughout the world.  
14 The National Park Service predicts that, by 2025, 90  
15 percent of people in the contiguous United States will  
16 never see starlight even once in their lifetime, which  
17 is really sad because it's so preventable.

18 It's strictly understanding the basics of  
19 light pollution laws. When you choose your lighting,  
20 you make sure it's not pointed upwards, it's not in a  
21 high-blue spectrum, and it doesn't trespass out of  
22 your property lines.

23 I'm from Chicago, and I'm battling with the  
24 mayor right now. We're actually trying to put

1 together a lighting framework plan to dramatically  
2 reduce the world's light pollution so that it won't  
3 trespass and add sky glow that's visible all the way  
4 from here.

5 But it's more than that. It turns out that  
6 -- at the beginning, I didn't want to believe it. I'm  
7 a 40-year cancer survivor. I didn't want to believe  
8 it. I just fought it. I said, "It can't be true, and  
9 I'm going to prove you wrong," when somebody told me  
10 that light pollution actually causes cancer.

11 I said, "Don't even spread stuff like that  
12 because I know for a fact that when you have cancer,  
13 your mind has to be totally focused on recovery. You  
14 don't want to be distracted trying to run down a wild  
15 goose chase. You need to focus on recovery." So I  
16 said on this online forum: "I'm going to prove you  
17 wrong. How dare you say that."

18 I went to symposiums. I went out of state  
19 to do this on my own nickel. It's all volunteer work.  
20 But it turns out that I've met all the top researchers  
21 in the world for circadian disruption, and it's true.  
22 Every research analysis says the same thing. Light  
23 pollution increases the rate dramatically, double  
24 digits.

1 HEARING OFFICER STUDER: Do we have an issue  
2 that's related to water here? This is regarding the  
3 water discharge permit. That's what's relevant in  
4 this. I don't mean to be rude, but I do want to try  
5 and stay on track here.

6 MS. FISCHER: Okay. I thought we were  
7 talking about -- I have to apologize. I thought we  
8 were talking about the Environmental Protection Agency  
9 and that you would be concerned about the light  
10 pollution that this --

11 HEARING OFFICER STUDER: Excuse me. Even if  
12 we are concerned about light pollution, this hearing  
13 deals -- and the only thing that is relevant in this  
14 hearing is dealing with water pollution control issues  
15 associated with this mine.

16 So unless you have an issue -- you can go on  
17 forever, but I'm not going to allow you to continue to  
18 go on issues that are not going to be considered by us  
19 in our decision.

20 MS. FISCHER: Okay. I will apologize  
21 because I didn't realize that it was water only.

22 I am extremely concerned that, literally  
23 from one business alone, that they would dare use  
24 millions of gallons of water and take it away from

1 future generations even if they have every perfect  
2 right to do it. Is it really the right thing to do?  
3 What about future generations?

4 What about the climate reality message  
5 that's going out to everybody? We are definitely in a  
6 climate change. We don't know what's going to happen.  
7 We're going to have more storms, higher intensity.  
8 We're going to have -- we have an exploding  
9 population. We're going to have to feed people with  
10 less, and here we're giving away farmland and  
11 everything else.

12 So, yeah, I'm worried about the water; but,  
13 again, I apologize.

14 HEARING OFFICER STUDER: That's quite all  
15 right. It's not uncommon in hearings to have issues  
16 brought up that can't be considered.

17 If you have written comments that you would  
18 like to file, we'll accept those in the record. We'll  
19 also be willing to -- I'll talk to our staff and see  
20 what we have as far as a response to the issue you  
21 brought up regarding light pollution.

22 MS. FISCHER: Thank you very much.

23 HEARING OFFICER STUDER: That concludes  
24 those that have registered to speak this evening. Is

1 there anyone in the room that has not spoken this  
2 evening that has a comment they would like to make on  
3 the record?

4 Sir, come forward to the microphone, and  
5 please state your name and spell your last name for  
6 the record.

7 MR. KASAP: Mike Kasap, K-a-s-a-p, LaSalle  
8 County Board District 12. I currently represent that  
9 particular area of the Pecumsaugum Creek where the  
10 discharge is going to be.

11 My concern is that the City of LaSalle well  
12 field is currently downstream of the discharge area.  
13 We are definitely aware of the fact that, if the  
14 discharge rate increases and if there might be any  
15 contamination of any type whatsoever, it could affect  
16 the quality of water that the City of LaSalle uses  
17 because we only have 50 foot wells.

18 Just a point of information. And I can  
19 forward any other information that I have available  
20 for you so that you might consider or take a look at  
21 what actual statutes are in place to govern the  
22 discharge rates and the actual contamination  
23 possibility or the actual water available for the  
24 citizens of LaSalle. Approximately 12,000 people

1 would use that water service. Thank you.

2 HEARING OFFICER STUDER: Thank you. Is  
3 there anyone else in the room that has not spoken this  
4 evening that would like to make comments on the  
5 record?

6 (No response.)

7 HEARING OFFICER STUDER: Let the record  
8 indicate no one raised their hand.

9 The next issue: Are there those that have  
10 spoken that have an additional comment they would like  
11 to make on the record?

12 We have one. Is there anyone else? We have  
13 two. We have two people. Is there anyone else? The  
14 reason I'm asking that is: It's warm in here.  
15 Everyone has been extremely patient. I appreciate  
16 everyone's patience this evening. I will adjourn this  
17 hearing once those two people -- we have a third  
18 person. Okay, that's three.

19 I'll go one, two, three. Once that's done,  
20 then I will go ahead and adjourn the hearing. The  
21 first person, if you would come forward. Since we are  
22 now in the repeat comment stage, I would ask that you  
23 try and hold your comments to no more than two  
24 minutes.

1 MR. DUDEK: There was one aspect that I had  
2 forgotten about, and it is one of my major concerns as  
3 a landowner out there.

4 Has there been any consideration taken to  
5 all of the tile and so forth that perhaps will be  
6 affected by these pits? Are they going to be rerouted  
7 to handle the groundwater and so forth?

8 I would like for that to be on the record,  
9 to maintain those. There are numerous tile fields  
10 that are out there now.

11 HEARING OFFICER STUDER: Thank you.

12 MS. FISCHER: One quick question regarding  
13 the amount of water. Does the Corporation have to  
14 disclose how much water they use in advance? And do  
15 they have to report to anybody on a monthly or a  
16 yearly basis?

17 MR. GOVE: Is your question about how much  
18 they use in the process or how much they discharge?

19 MS. FISCHER: Both.

20 MR. GOVE: There's no requirement for them  
21 to tell us how much they use from groundwater sources  
22 or city sources, but there is a requirement for them  
23 to report monthly the amount of flow that's being  
24 generated from the facility to the waters.

1 MS. FISCHER: I think, years ago, when that  
2 rule was made, nobody in their wildest dreams would  
3 think that a corporation would use a million or maybe,  
4 over the lifetime of a project, a half a billion  
5 gallons of water.

6 HEARING OFFICER STUDER: The issue isn't so  
7 much what they use. The issue is the permit is a  
8 legal instrument. We have to have a legal basis for  
9 what goes into that permit. If you can supply a legal  
10 basis from the Environmental Protection Act or some  
11 other source that's under our purview, we'll gladly  
12 look at it.

13 MS. FISCHER: Would the document from the  
14 United Nations work?

15 HEARING OFFICER STUDER: Probably not.

16 MS. FISCHER: No? They have a special  
17 program about water for life.

18 HEARING OFFICER STUDER: Thank you.

19 MS. JORDAN: I'm actually making these  
20 additional questions and comments on behalf of Colleen  
21 Smith from the Sierra Club because she had to leave.

22 Her question is: Are there any  
23 specifications for lining of the sedimentation basins?

24 MR. GOVE: No, there is not.

1 MS. JORDAN: Her comments are: The  
2 frequency of monitoring for TSS, pH, iron, nickel, and  
3 zinc should be increased to at least twice per month  
4 due to sensitivity of mussels.

5 And, finally, the permit should have added  
6 to it the language that is standard in many NPDES  
7 permits requiring that effluent not contribute to  
8 violations of water quality standards. Thank you.

9 HEARING OFFICER STUDER: Thank you. I want  
10 to remind everyone that the hearing record in this  
11 matter will remain open until the 2nd of July. We'll  
12 be accepting written comments through that date.

13 I want to just very briefly tell you that we  
14 will also respond to the issues that were raised at  
15 this hearing and that have been raised in the record  
16 both before this hearing and those that will come in  
17 in post hearing comments in a written responsiveness  
18 summary. That written responsiveness summary will be  
19 made available at the time that we make a final  
20 decision on this permit application.

21 I thank you all for your attendance here  
22 this evening, especially coming out on this warm,  
23 humid evening. This hearing is adjourned. Thank you.

24 (Hearing concluded at 7:40 p.m.)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

CERTIFICATE OF REPORTER

I, BRENDA L. ZEITLER, a Certified Shorthand Reporter and Registered Professional Reporter within and for the State of Illinois, do hereby certify that the above hearing regarding New Pollutant Discharge Elimination System Permit No. IL0080047 for Applicant Quality Sand Products was stenographically taken on June 17, 2014, by me to the best of my ability and thereafter reduced to typewriting; that I am neither counsel for, related to, nor employed by any of the parties to the Application for said Permit; and, further, that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the Application.

*Brenda L. Zeitler*

Brenda L. Zeitler, CSR-RPR  
Illinois License No. 084-004062

SUBSCRIBED AND SWORN TO  
before me this 24th day  
of June 2014.

*Laura Davis*



NOTARY PUBLIC

<b>0</b>	<b>25</b> 14:24 32:14 42:15	<b>9</b>	<b>adding</b> 18:23	<b>amending</b> 16:21
<b>0.29</b> 28:16	<b>250</b> 31:12 37:4	<b>90</b> 60:14	<b>additional</b> 15:15 18:20 44:8 65:10 67:20	<b>amount</b> 15:16 40:10 66:13,23
<b>001</b> 9:6	<b>250,000</b> 36:18 44:8	<b>99</b> 11:23	<b>Additionally</b> 24:5	<b>amounts</b> 34:20
<b>1</b>	<b>27</b> 42:15	<b>A</b>	<b>address</b> 7:20,21	<b>analysis</b> 32:18 61:22
<b>1</b> 6:19 30:15 31:11 37:3	<b>2nd</b> 68:11	<b>abandoned</b> 21:17	<b>addressed</b> 11:24	<b>analytical</b> 33:16
<b>1.25</b> 9:8 23:22 28:1,15,16 29:24 30:6,9 35:13 46:11 57:2	<b>3</b>	<b>absent</b> 40:15	<b>adequate</b> 24:1	<b>Anderson</b> 14:14
<b>100</b> 29:10,11,21,22 30:3,8,10,13,16	<b>3</b> 6:23	<b>absolutely</b> 10:4	<b>adjacent</b> 16:16	<b>announce</b> 13:9
<b>100-year</b> 34:22,24 35:6,19 51:4	<b>300</b> 22:11	<b>accept</b> 6:15 11:4 63:18	<b>adjourn</b> 65:16,20	<b>anti-degradation</b> 56:1 57:24
<b>1021</b> 7:18	<b>309</b> 4:21	<b>accepted</b> 6:17	<b>Administrative</b> 4:5,19,20	<b>anticipate</b> 32:6 51:1
<b>10K</b> 47:11	<b>35</b> 4:4,19,20	<b>accepting</b> 7:2 68:12	<b>advance</b> 66:14	<b>anticipated</b> 28:7
<b>12</b> 64:8	<b>4</b>	<b>access</b> 4:24 35:22	<b>adverse</b> 19:5	<b>anticipating</b> 58:14
<b>12,000</b> 64:24	<b>40</b> 21:4	<b>access</b> 4:24 35:22	<b>adversely</b> 24:5	<b>antidegradation</b> 27:24 28:4
<b>125-</b> 36:18	<b>40-degree</b> 24:16	<b>accumulate</b> 21:10	<b>Advocacy</b> 16:6	<b>apologize</b> 51:19 62:7,20 63:13
<b>1415</b> 42:8	<b>40-year</b> 61:7	<b>accumulated</b> 36:24	<b>aesthetic</b> 18:18	<b>apparently</b> 57:20
<b>14351</b> 31:2	<b>400</b> 22:12	<b>accumulating</b> 21:11	<b>aesthetics</b> 36:10	<b>appetites</b> 24:10
<b>147</b> 8:23	<b>42</b> 38:13	<b>accurate</b> 10:19 14:1 33:11 37:7	<b>affect</b> 21:13 24:6 53:16 64:15	<b>Applause</b> 10:21
<b>15</b> 43:21	<b>45</b> 25:1 36:9	<b>achieved</b> 38:21 59:16	<b>affected</b> 18:7 66:6	<b>applicable</b> 13:13
<b>16</b> 51:20	<b>5</b>	<b>acid</b> 58:15	<b>affects</b> 34:24	<b>applicant</b> 4:11 12:20 14:11 28:5 32:21 33:13 44:20 54:3 55:11
<b>166</b> 4:20	<b>50</b> 29:9 64:17	<b>acidity</b> 58:9	<b>affirmatively</b> 10:2	<b>application</b> 12:15 50:10 58:14 59:12 68:20
<b>174</b> 34:12	<b>500</b> 46:12,14 48:15	<b>acreage</b> 35:9	<b>agency</b> 3:3,17 8:7, 12 41:14 43:15 44:18 50:4 62:8	<b>agreement</b> 22:3
<b>175</b> 42:3	<b>55</b> 25:1	<b>acres</b> 8:23 43:12 50:19	<b>agreement</b> 22:3	<b>ahead</b> 34:5 42:1 65:20
<b>1900</b> 42:20	<b>6</b>	<b>acrylamide</b> 25:6,8 29:24 56:15,16,17	<b>air</b> 20:20	<b>applied</b> 59:6
<b>19276</b> 7:19	<b>6</b> 42:8	<b>Act</b> 4:4 67:10	<b>algae</b> 29:19	<b>applying</b> 29:23 30:6
<b>2</b>	<b>6.5</b> 58:13,15,17	<b>action</b> 3:17 11:5, 10	<b>allowed</b> 10:22 14:3 22:18 53:3,23	<b>appreciation</b> 18:18
<b>2</b> 6:15,16,21,22 11:2	<b>62794</b> 7:19	<b>actual</b> 7:9 27:16 30:1 64:21,22,23	<b>allowing</b> 11:13	<b>appropriately</b> 53:15
<b>20</b> 43:21	<b>7</b>	<b>acute</b> 29:12	<b>alter</b> 18:17	<b>approval</b> 7:5
<b>200</b> 37:2	<b>7:40</b> 68:24	<b>add</b> 26:12 46:11 61:3	<b>alternate</b> 13:20	<b>approve</b> 22:17 35:4
<b>2014</b> 6:15,22 11:2	<b>8</b>	<b>added</b> 15:15 18:4 55:2 68:5	<b>Alternatively</b> 17:23	<b>approved</b> 33:24
<b>2025</b> 60:14	<b>80</b> 36:7		<b>alternatives</b> 17:18	<b>approximately</b>

8:23 50:19 64:24	59:19,20	<b>bats</b> 24:8,15,18	<b>boomed</b> 42:23 43:18	54:11
<b>April</b> 40:2	<b>authority</b> 51:9	<b>battling</b> 60:23	<b>bothers</b> 22:7	<b>canals</b> 38:23
<b>aquatic</b> 59:8	<b>authorization</b> 9:19	<b>bear</b> 52:16	<b>bowl</b> 53:18	<b>cancer</b> 61:7,10,12
<b>aquifer</b> 21:7 22:12 36:15 38:10	<b>Avenue</b> 7:18	<b>beat</b> 53:1	<b>Box</b> 7:19	<b>canyon</b> 43:18
<b>aquifers</b> 21:24 22:14	<b>average</b> 9:8	<b>beauty</b> 16:15	<b>Boy</b> 60:2	<b>capacity</b> 25:24 44:21 45:5 50:3,7, 10,20 53:21
<b>area</b> 5:18 8:22 15:7 17:1,4,15 19:24 20:1,4,18 21:16,18 29:1 31:5,15,22 36:7,10 38:14,16 45:3 49:16 64:9,12	<b>avoid</b> 11:16	<b>beckoning</b> 38:22	<b>Brad</b> 14:10,14	<b>capacity-wise</b> 50:17
<b>areas</b> 9:20 22:1 24:22 39:5	<b>aware</b> 15:4 20:19 58:21 64:13	<b>bed</b> 18:15	<b>brand</b> 56:6	<b>card</b> 5:17,19,20,23
<b>Arguing</b> 10:14	<b>awareness</b> 42:23	<b>beginning</b> 61:6	<b>breathing</b> 54:15, 16	<b>cars</b> 47:17
<b>argument</b> 12:18	<b>awful</b> 31:9	<b>behalf</b> 14:11 35:24 67:20	<b>Brian</b> 8:8	<b>case</b> 5:6 12:11 38:2 43:14
<b>Army</b> 54:23	<b>B</b>	<b>believed</b> 58:1	<b>bridge</b> 40:7,8	<b>category</b> 41:14
<b>arrange</b> 6:10		<b>believes</b> 3:24	<b>briefly</b> 68:13	<b>cattle</b> 35:1,5
<b>Ashley</b> 19:16 23:15,17 27:6 28:20	<b>B-e-r-n-a-b-e-i</b> 51:16	<b>belonged</b> 36:9	<b>brought</b> 28:20 42:10 63:16,21	<b>caused</b> 41:15 48:12,17
<b>aspect</b> 66:1	<b>back</b> 3:4 6:13 19:24 21:12 22:23 23:10 32:3 33:2 39:22 40:2 44:1 51:4 53:2 58:6,11	<b>bench</b> 30:11	<b>Brown</b> 14:10,11, 13,14 15:22	<b>Caves</b> 24:7
<b>assessed</b> 27:13	<b>backed</b> 35:14 43:19	<b>beneficial</b> 19:10	<b>Bruce</b> 51:14 55:15,17	<b>Center</b> 16:7
<b>assessment</b> 27:23,24 28:3,6 57:24	<b>background</b> 10:20 26:1 39:20	<b>benefit</b> 13:19	<b>built</b> 44:20	<b>central</b> 43:9
<b>assist</b> 3:14	<b>backward</b> 35:7	<b>Bernabei</b> 49:1 51:13,15,19	<b>bunch</b> 35:9	<b>Chairman</b> 42:6 43:4 44:17
<b>assistance</b> 35:11	<b>backwards</b> 35:22 38:23	<b>big</b> 35:17	<b>burdened</b> 48:14	<b>Chamber</b> 36:9
<b>association</b> 13:14,16 59:24	<b>bad</b> 43:20	<b>bike</b> 47:16,19	<b>business</b> 39:6 48:12,15 62:23	<b>chance</b> 35:24
<b>Astronomical</b> 59:21 60:9	<b>badge</b> 60:2	<b>bikes</b> 47:17 48:4	<b>businesses</b> 48:3, 10	<b>chances</b> 35:1
<b>astronomy</b> 60:1	<b>bank</b> 24:21	<b>biking</b> 47:6	<b>C</b>	<b>change</b> 24:23 63:6
<b>attendance</b> 14:3 68:21	<b>Barb</b> 5:17	<b>billion</b> 67:4	<b>C-o-l-e-m-a-n</b> 45:18	<b>Channahon</b> 48:7
<b>attention</b> 7:16 45:14	<b>based</b> 12:23 17:4	<b>biological</b> 56:24	<b>C-o-l-l-e-e-n</b> 26:23	<b>chapter</b> 26:24
<b>attenuate</b> 18:24	<b>Basically</b> 50:9	<b>bisects</b> 51:22 54:2	<b>calculations</b> 50:23	<b>chase</b> 61:15
<b>audience</b> 3:5 10:2,9 25:17 26:19 49:5 55:21	<b>basics</b> 60:18	<b>bit</b> 21:18 22:7,16 26:1	<b>call</b> 11:21 13:1,3,7 35:2 45:5	<b>check</b> 26:1 33:2
<b>Audrey</b> 55:15	<b>Basin</b> 53:10	<b>Blackball</b> 24:7 26:10	<b>campground</b> 46:6,7	<b>checked</b> 32:24
	<b>basins</b> 44:24 45:5 67:23	<b>blame</b> 22:6	<b>canal</b> 16:16 17:14 18:21 22:19,21,22, 24 23:2,11 40:1,3, 7,12,16 43:4,19,20 44:5 47:10 53:24	<b>chemicals</b> 21:10 25:9 57:13
	<b>basis</b> 12:16 24:2 43:22 49:19 66:16 67:8,10	<b>blasting</b> 9:1		<b>Chemistry</b> 24:3
	<b>bat</b> 24:6,8	<b>blown</b> 43:20		<b>Chicago</b> 38:17 39:4 59:21,24 60:23
		<b>Bluhm</b> 16:7		<b>Chicago's</b> 60:9
		<b>board</b> 4:22 19:19 64:8		<b>chicken</b> 39:21
		<b>body</b> 13:13,15 17:21 24:15		
		<b>boil</b> 20:16		

<b>Chief</b> 25:24 42:13	<b>collection</b> 52:1	<b>concentration</b> 56:17	<b>costs</b> 19:9
<b>choose</b> 60:19	<b>Colleen</b> 25:20 26:17,22 67:20	29:8 57:1 59:14	<b>Counsel</b> 8:6
<b>circadian</b> 61:21	<b>colors</b> 21:22	<b>concept</b> 51:4	<b>counselor</b> 60:2
<b>circumstances</b> 42:24 44:10	<b>combination</b> 36:20,23	<b>concern</b> 17:2 20:4 23:20 37:9,23 38:9 43:23 45:2 46:9 56:3,15,20 64:11	<b>country</b> 39:7
<b>cities</b> 20:6 39:4 49:17	<b>combinations</b> 57:13	<b>concerned</b> 13:17 17:8 18:19 19:21 26:3,13 27:12,22 33:23 34:16 36:1, 12 51:6,23 53:5 54:8,19 62:9,12,22	<b>county</b> 8:17,23 16:11 27:1 42:19, 22 43:9 64:8
<b>citizen</b> 13:17 19:21 26:4 33:23 34:16	<b>comment</b> 5:23 6:6 7:13 11:1,7,18 15:24 16:4 19:11 22:16 33:7 64:2 65:10,22	<b>concerns</b> 25:11 27:6,9, 28:24 42:9 45:13 49:4,17,20 51:21 52:4,14 66:2	<b>couple</b> 46:20
<b>citizens</b> 36:1 64:24	<b>comments</b> 3:14 4:15 5:21,23 6:15, 16 7:10,11,14,22, 24 10:11,13,24 11:4,5,9,11,14,16, 18 13:6,11,23 14:1 19:19 34:6 52:15 63:17 65:4,23 67:20 68:1,12,17	<b>concluded</b> 68:24	<b>court</b> 6:13 10:16 13:19
<b>city</b> 8:24 64:11,16 66:22	<b>Commission</b> 43:5 44:18	<b>concludes</b> 63:23	<b>covered</b> 9:21 26:20
<b>clams</b> 18:8	<b>commitment</b> 14:20	<b>condition</b> 33:9 38:7	<b>covers</b> 8:22
<b>clarify</b> 30:3	<b>committed</b> 7:6	<b>conditions</b> 6:18 45:10	<b>creatures</b> 31:11
<b>Clark</b> 51:22	<b>committee</b> 31:4 44:18	<b>conducted</b> 4:16 27:14	<b>credible</b> 12:18
<b>Clark's</b> 53:23 54:2,5,11	<b>common</b> 29:18	<b>conducting</b> 14:5	<b>creek</b> 9:10 16:15 17:9,11,18 18:1,5, 6,15 23:23 24:22 27:10,23 28:21 31:22 32:7 34:18 35:15,16,20,22 40:8,24 41:5,9 43:16 46:1,3,5 48:8,16 58:4,22 59:10,15 64:9
<b>clean</b> 4:3 20:20,21 23:8 56:14	<b>commonly</b> 25:5	<b>confidence</b> 20:17	<b>creek's</b> 17:10
<b>clear</b> 20:20 21:23 39:5 56:9,21	<b>community</b> 16:10,20 19:13 24:3	<b>connection</b> 17:19 47:11	<b>critical</b> 25:11
<b>climate</b> 59:22 63:4,6	<b>company</b> 14:15 37:18 42:14 50:5	<b>conservation</b> 59:24	<b>crop</b> 24:11
<b>Clinic</b> 16:7	<b>competitive</b> 46:21	<b>Conserve</b> 16:9	<b>crossing</b> 54:6
<b>close</b> 6:6,14,21 11:7 19:21 22:2	<b>completed</b> 13:5	<b>considerable</b> 40:9	<b>crucial</b> 18:1
<b>closed</b> 47:20	<b>completely</b> 40:4, 12 48:13	<b>consideration</b> 25:12 38:14 39:1 48:18 51:5 66:4	<b>crushing</b> 9:1
<b>closest</b> 20:15	<b>completing</b> 5:22	<b>considered</b> 11:23 28:6 62:18 63:16	<b>cumulative</b> 32:18
<b>Closure</b> 4:18	<b>compliance</b> 4:3	<b>consisting</b> 9:7	<b>current</b> 17:24 24:18 27:13 59:15
<b>Club</b> 24:4 26:24 67:21	<b>compromised</b> 52:19,21	<b>consult</b> 30:17	<b>CW13H</b> 56:22
<b>clubs</b> 47:5,6		<b>contact</b> 4:24	<b>CW16PWG</b> 56:22
<b>cocktail</b> 57:7		<b>contained</b> 11:18 12:13	<b>CW34V</b> 56:22
<b>Code</b> 4:5,19,21		<b>contaminant</b>	<b>cyclist</b> 46:22
<b>cold</b> 24:24			<b>Cyprinidae</b> 29:15
<b>Coleman</b> 42:5 45:16,17,18			
<b>collect</b> 27:18			<b>D</b>
<b>collected</b> 58:24			<b>D-u-d-e-k</b> 36:7

<b>dad</b> 20:23	<b>deluges</b> 44:15	<b>directly</b> 12:3	16 58:10	<b>dust</b> 54:15,16
<b>DADMAC</b> 25:9	<b>demands</b> 45:7	<b>disagree</b> 10:10	<b>dollars</b> 24:10	
<b>daily</b> 24:2	<b>dendritic</b> 43:16	<b>disaster</b> 24:15	48:2,10	<hr/> <b>E</b> <hr/>
<b>damage</b> 18:23 19:8 24:11 40:1 41:16 48:9,10	<b>denial</b> 12:14,19	<b>discharge</b> 3:22 4:8,9 9:6,8,13 12:12 15:10,16 16:18 17:7,21,22 18:12,14 19:1,6,12 23:11 24:5,20 25:8 27:10,15 28:7,13 32:9 34:20,23 45:12,13 46:10 52:11 54:6 56:2 59:10,15 62:3 64:10,12,14,22 66:18	<b>doorstep</b> 38:23	<b>E-i-t-e-n</b> 39:12
<b>Dan</b> 36:3 39:10,12 47:4	<b>Department</b> 25:22	<b>discharged</b> 21:9 53:13 58:18	<b>dosage</b> 30:2	<b>east</b> 7:18 37:10 42:8 47:2
<b>danger</b> 35:2	<b>depend</b> 6:12 7:9 33:11	<b>discharges</b> 9:19 25:4 28:1,3	<b>double</b> 61:23	<b>easterly</b> 54:1
<b>Daphnia</b> 29:17	<b>depletion</b> 19:8	<b>discharging</b> 17:18	<b>downstream</b> 19:2 26:11 34:23 46:8 51:6 52:13 53:17 64:12	<b>easy</b> 4:24
<b>dare</b> 61:17 62:23	<b>deposited</b> 54:10	<b>disclose</b> 66:14	<b>draft</b> 4:13,16 5:14 6:9 8:15,22 9:5,12, 18 10:13 16:5 40:14,15,18	<b>economic</b> 15:6 42:22 44:4
<b>Dark</b> 59:23	<b>describe</b> 56:5	<b>discussing</b> 19:22 53:2	<b>drain</b> 35:9 41:5,8	<b>economy</b> 42:22 43:1,6
<b>Darren</b> 5:12 8:3,10 9:23	<b>design</b> 44:24 45:2, 8 53:21	<b>dispensed</b> 37:4	<b>drainage</b> 43:15 44:1	<b>Ecosystems</b> 16:9
<b>data</b> 7:14,16 32:18 58:24	<b>designed</b> 15:9 44:20 56:10	<b>dispensing</b> 37:24	<b>draining</b> 40:23	<b>Edmund</b> 39:11 42:4,7 53:2
<b>databases</b> 26:2	<b>desire</b> 13:7,22 37:13	<b>disperse</b> 22:18	<b>drains</b> 35:15 43:8, 17	<b>effect</b> 29:12
<b>date</b> 7:9 68:12	<b>destroyed</b> 40:4	<b>displacement</b> 31:10	<b>dramatically</b> 61:1,23	<b>effects</b> 17:8 18:19
<b>day</b> 9:9 23:22 28:1 31:12 35:13 36:14, 15,19 37:5 44:8 46:12	<b>detail</b> 42:12	<b>disposal</b> 26:2	<b>draw</b> 37:21	<b>effluent</b> 9:6,12 56:4 59:6 68:7
<b>days</b> 38:8 46:22	<b>determination</b> 4:11	<b>dispose</b> 38:5	<b>drawn</b> 16:18 44:24	<b>effluents</b> 57:5
<b>dead</b> 53:1	<b>determine</b> 38:11 44:19 50:11	<b>disrupt</b> 24:22	<b>dreams</b> 67:2	<b>effort</b> 44:19
<b>deadfall</b> 40:9	<b>determined</b> 12:10	<b>disruption</b> 61:21	<b>dredge</b> 54:20,24	<b>Eiten</b> 36:3 39:10, 12,18,21 41:18,24 47:4
<b>deal</b> 38:18 52:12	<b>determining</b> 37:22	<b>distracted</b> 61:14	<b>dredged</b> 54:23	<b>Elimination</b> 3:22
<b>dealing</b> 62:14	<b>developments</b> 19:10	<b>District</b> 64:8	<b>dries</b> 43:17	<b>else's</b> 52:5
<b>deals</b> 62:13	<b>dewater</b> 36:22	<b>disturbance</b> 18:14 41:20	<b>drill</b> 21:15 22:4	<b>email</b> 6:17,23 7:21,22
<b>Dean</b> 3:2 7:17	<b>dialogue</b> 10:14 14:2	<b>diversity</b> 17:12	<b>drilled</b> 28:9	<b>emails</b> 7:2,4
<b>decision</b> 6:1 7:7,9 12:3,7,8,22 62:19 68:20	<b>diesel</b> 52:23	<b>divert</b> 18:24	<b>drinking</b> 20:7 56:12,14,19 58:3, 4,5	<b>emerald</b> 31:16
<b>decline</b> 25:2	<b>difference</b> 11:22	<b>Division</b> 5:13 8:6	<b>Dudek</b> 33:21 36:3, 6 37:3,8 66:1	<b>employment</b> 15:7
<b>decrease</b> 40:19	<b>dig</b> 22:9	<b>document</b> 59:3 67:13	<b>due</b> 24:9 31:11 68:4	<b>encourage</b> 18:16
<b>decreased</b> 58:8	<b>digging</b> 21:5 22:11	<b>documents</b> 7:14,	<b>dump</b> 23:6 32:7	<b>encouragement</b> 22:20
<b>deemed</b> 59:7	<b>digits</b> 61:24		<b>dumped</b> 31:21 32:3 43:24	<b>end</b> 3:13 35:10 51:24
<b>deep</b> 17:3 49:9	<b>direct</b> 18:11 22:21		<b>dumping</b> 31:23	<b>endangered</b> 24:6 28:23 29:16
<b>defer</b> 44:17	<b>directed</b> 9:18 13:23 23:4,10			<b>ending</b> 52:6,10 54:20
<b>degrees</b> 25:1	<b>direction</b> 47:21			<b>endorsed</b> 60:4
<b>deluge-wise</b> 50:3				

<b>ends</b> 11:2	<b>erratic</b> 52:16	<b>extraordinary</b> 45:6	<b>fault</b> 22:6	<b>flood</b> 35:19 38:2,4 46:5 51:4 53:3,8, 22 54:10
<b>enforce</b> 18:4	<b>essential</b> 16:24	<b>extreme</b> 44:22	<b>favorable</b> 57:12	<b>flooded</b> 43:19
<b>engineer</b> 8:12 14:14 46:13	<b>essentially</b> 56:11 57:14	<b>extremely</b> 42:18 62:22 65:15	<b>federal</b> 4:3 12:10	<b>flooding</b> 18:21,22 19:8 38:7 40:5 44:22 46:8 53:9,16
<b>engineering</b> 14:15 45:2 46:23 48:21 50:11 55:9	<b>established</b> 50:15	<b>eyesore</b> 23:1	<b>federally</b> 24:6	<b>floodplain</b> 34:22, 24 35:6,22 51:9
<b>engineering-wise</b> 53:12	<b>estimated</b> 23:22		<b>feed</b> 63:9	<b>floodplains</b> 35:19
<b>enhanced</b> 58:8	<b>estimates</b> 29:8	<b>F</b>	<b>feedback</b> 3:9	<b>floods</b> 37:23 46:7
<b>enjoy</b> 16:14	<b>evening</b> 3:1 8:10 11:14 14:13 16:2 19:19 26:22 27:8 42:10 63:24 64:2 65:4,16 68:22,23	<b>facilities</b> 17:20	<b>feeder</b> 44:5	<b>floodways</b> 51:9
<b>enjoyed</b> 37:12	<b>event</b> 53:3,4,13,14 54:10	<b>facility</b> 5:13 8:20, 22 9:20 12:24 17:5 19:4 32:14 38:15 55:5 57:9 66:24	<b>feel</b> 38:22	<b>flow</b> 18:14,20 19:1 33:14 35:15 40:20 44:23 51:6 52:16 54:1 66:23
<b>enlighten</b> 29:5	<b>everyone's</b> 65:16	<b>facility's</b> 9:1,9,21	<b>feet</b> 21:5 22:12	<b>flowage</b> 45:7
<b>ensure</b> 3:11,15 7:24 11:7 13:24 15:10	<b>exacerbate</b> 18:21	<b>fact</b> 31:16 43:3 61:12 64:13	<b>field</b> 64:12	<b>Flowers</b> 8:5
<b>enter</b> 34:5,12 42:2 53:23,24	<b>exceedances</b> 28:10	<b>factor</b> 42:22	<b>fields</b> 66:9	<b>flowing</b> 22:23
<b>entering</b> 54:14	<b>excellent</b> 22:10	<b>factors</b> 7:10,12	<b>figures</b> 43:11	<b>flows</b> 17:13
<b>enters</b> 51:22 54:12	<b>excuse</b> 62:11	<b>factor</b> 42:22	<b>file</b> 63:18	<b>fluid</b> 52:23
<b>enumerate</b> 42:12	<b>Executive</b> 42:14	<b>fail</b> 24:19	<b>files</b> 56:7	<b>focus</b> 58:5 59:12 61:15
<b>environment</b> 14:22	<b>exhibit</b> 11:8 34:5, 12 39:17 42:2	<b>fall</b> 44:11	<b>fills</b> 21:19	<b>focused</b> 3:15 61:13
<b>environmental</b> 3:3,16 8:7,11 12:9 14:15,16 15:2 16:6 25:24 31:4,6,11,14 62:8 67:10	<b>exhibits</b> 7:15 29:12	<b>falls</b> 41:13	<b>final</b> 6:1 7:7 12:3 68:19	<b>folks</b> 39:14 40:17
<b>EPA</b> 3:17,21,23 4:10,15 5:5,8,24 6:4,8,16 7:6,18 8:2 11:4 12:3,7,8,21, 22 16:3 17:17 18:16 19:3 39:14 40:17 41:3 45:1 51:8 56:16	<b>existing</b> 17:10 18:17 19:1 21:21	<b>familiar</b> 19:23 20:10 42:16,18 43:6	<b>finding</b> 41:15	<b>follow</b> 45:17 58:20
<b>EPA'S</b> 4:17	<b>exists</b> 55:9	<b>families</b> 47:15 48:3	<b>fine</b> 54:8,13,16,19 55:7 57:6	<b>follow-up</b> 56:23
<b>epa.</b>	<b>expected</b> 28:10, 13	<b>family</b> 20:22 29:15 47:16 49:3 51:20, 23 53:5	<b>Fischer</b> 59:20 62:6,20 63:22 66:12,19 67:1,13, 16	<b>foot</b> 38:8 64:17
<b>publichearingco m@illinois.gov.</b> 6:20	<b>expeditious</b> 7:8	<b>family's</b> 51:24 54:2	<b>Fisher</b> 55:16 59:19	<b>force</b> 15:6
<b>equates</b> 37:1	<b>experience</b> 45:23	<b>fan</b> 9:24	<b>fish</b> 18:8 24:23 26:9 29:15,16	<b>forever</b> 21:16 62:17
<b>equipment</b> 32:24	<b>explain</b> 5:7	<b>farm</b> 20:24 34:17, 19 46:1,4 51:20, 23,24 53:16 54:14	<b>fishing</b> 46:2	<b>forgotten</b> 66:2
<b>erosion</b> 24:21	<b>exploding</b> 63:8	<b>farmers</b> 24:10 44:13	<b>fix</b> 47:1,3,13,24 48:1	<b>forsaken</b> 21:22
	<b>exponential</b> 60:12	<b>farmland</b> 63:10	<b>fixed</b> 48:17	<b>forum</b> 61:16
	<b>expose</b> 60:9	<b>farming</b> 53:6	<b>flocculant</b> 25:5,9 30:20 52:2	<b>forward</b> 11:21 13:2,4 14:12 15:19 25:16 33:20 35:21 51:18 57:17 64:4, 19 65:21
	<b>express</b> 10:12	<b>farms</b> 20:22,23 43:11	<b>flocculants</b> 28:20 30:18 51:23 52:1, 6,7,8 56:5	<b>fought</b> 61:8
	<b>extent</b> 19:3	<b>fashion</b> 42:9	<b>flocculation</b> 56:5	<b>found</b> 4:19 29:9, 17,20

<b>founder</b> 60:3	34:11 35:1		23,24	<b>hurry</b> 35:18
<b>frac</b> 39:2	<b>goodness</b> 22:20	<b>H</b>	<b>hearings</b> 3:24 4:18 63:15	<b>hydraulic</b> 52:23
<b>fracturing</b> 32:2	<b>goose</b> 61:15	<b>habitat</b> 18:1,6	<b>heart</b> 22:20	<b>hydrologist</b> 46:13
<b>framework</b> 61:1	<b>Gore</b> 59:22	<b>half</b> 11:15 21:1 27:4 35:20 36:13 37:8,11 67:4	<b>heat</b> 18:4,6	<b>hydrology</b> 17:1
<b>free-flowing</b> 23:11	<b>Gove</b> 5:12 8:4,10, 11 27:15 28:5,16 29:4,7 30:8,19 32:8,21 33:1,4 36:20 37:7 41:13, 23 49:13,20 50:6, 9,14,17,19,24 51:8 66:17,20 67:24	<b>hand</b> 14:8,9 34:6 65:8	<b>heavy</b> 40:4 44:12 46:8	<b>I</b>
<b>frequency</b> 68:2	<b>govern</b> 64:21	<b>handful</b> 57:10	<b>held</b> 52:22	<b>IBI</b> 28:22
<b>frequently</b> 16:15	<b>governing</b> 12:4	<b>handle</b> 45:10 66:7	<b>helpful</b> 11:6	<b>ice</b> 46:2
<b>fresh</b> 36:19	<b>governmental</b> 13:13,15	<b>handled</b> 41:9,12	<b>Henry</b> 23:16 25:15	<b>identification</b> 56:2
<b>front</b> 3:7 59:3	<b>grade</b> 56:11,18 58:2	<b>handout</b> 26:6	<b>Heritage</b> 43:5	<b>identified</b> 8:20
<b>full</b> 17:19 40:13 54:24	<b>grain</b> 57:6	<b>happen</b> 20:13 21:8 28:12 40:24 41:7 46:18 63:6	<b>hibernacula</b> 24:8	<b>IDNR</b> 30:18 32:2 47:24
<b>fully</b> 15:4	<b>Grand</b> 7:18	<b>happened</b> 40:2,21	<b>high</b> 14:19 17:5 23:20 27:17 28:22 44:10,22 49:16	<b>IDOT</b> 31:13,17
<b>future</b> 38:12 39:8 41:1 53:20 63:1,3	<b>grandfather</b> 42:19	<b>happening</b> 40:19 41:11,22 46:19	<b>high-blue</b> 60:21	<b>IEPA</b> 23:19 30:17 32:19 52:10 59:12
<b>G</b>	<b>gravel</b> 40:10,11	<b>Hayes</b> 23:16 25:15	<b>high-quality</b> 15:5 26:8	<b>IL0080047</b> 3:23 7:1,24 8:16
<b>gallons</b> 9:9 23:22 28:1,15 31:12 36:13 37:2 38:1 44:8 46:11,12,14 48:16 62:24 67:5	<b>great</b> 27:22 37:9, 12 38:18 43:8 49:4	<b>hazard</b> 57:1	<b>high-speed</b> 31:18	<b>Illinois</b> 3:3,16,17, 21,23 4:4,10,15, 17,19,20,22 5:5,8, 24 6:3,8 7:6,18,19 8:2,6, 9:11 11:3 12:2,7,8,21,22 16:3,16 17:17 18:16 19:3 24:8 25:22 26:7,24 31:3 40:1,3,16,17 41:3 43:4 44:13 47:24 48:11 51:8 53:9, 16,24 54:7,20,23 55:24 56:16 60:6, 12,13
<b>gas</b> 43:1	<b>greater</b> 48:8	<b>he'll</b> 33:21 36:3 39:11 42:4 55:15	<b>hiking</b> 48:5	<b>immediately</b> 52:20
<b>gasoline</b> 52:23	<b>grew</b> 46:2	<b>head</b> 20:9	<b>Hine's</b> 31:16	<b>impact</b> 12:6 19:4 27:23 31:6,14,22 44:4,14 59:10
<b>gasses</b> 49:23	<b>gross</b> 19:6	<b>headwaters</b> 58:22	<b>historic</b> 23:3 44:6	<b>impacted</b> 25:3
<b>general</b> 35:12	<b>ground</b> 53:16 54:14	<b>headway</b> 38:20	<b>hits</b> 44:12	<b>impacts</b> 4:7 19:5, 7
<b>generated</b> 9:17 66:24	<b>groundwater</b> 9:7 16:22,23,24 17:2, 20 19:8 20:21 21:7,12 26:14 27:17 28:2,6,8,14 36:21,23 37:6 50:21 66:7,21	<b>hear</b> 3:4 10:1,4 16:13	<b>hold</b> 3:24 65:23	<b>importance</b> 20:20
<b>generations</b> 38:12 39:8 42:21 63:1,3	<b>group</b> 16:10 34:1 47:12	<b>hearing</b> 3:1,2,6, 11,19,20 4:2,14,16 5:2,3,6,7 6:5,9,11 7:13,15,17,21 8:1, 15 9:23 10:3,6,9, 12,15,18,19,23 11:3,8,11 12:13 13:24 14:2,5,7 15:21 16:2 25:14, 18 26:16,21 30:23 33:6,19 34:4,11 35:24 36:2 39:10, 15,19 42:1 45:15 48:24 49:6 51:12, 17 55:14,22 59:18 62:1,11,12, 63:14, 23 65:2,7,17,20 66:11 67:6,15,18 68:9,10,15,16,17,	<b>holistic</b> 19:4	<b>important</b> 16:19 17:12,14 18:1 20:13,21 21:3 28:22 45:4 60:1,8
<b>gentlemen</b> 23:19	<b>grown</b> 46:21	<b>he'll</b> 33:21 36:3 39:11 42:4 55:15	<b>home</b> 24:7	
<b>give</b> 5:14 20:17 39:19 52:15	<b>guess</b> 40:14 41:2, 6 43:23 44:16	<b>head</b> 20:9	<b>Homer</b> 31:3,4	
<b>giving</b> 63:10	<b>guys</b> 31:10,19 32:6	<b>headwaters</b> 58:22	<b>honor</b> 55:11	
<b>gladly</b> 67:11		<b>headway</b> 38:20	<b>hook</b> 37:13 41:10	
<b>Glen</b> 31:3,4		<b>hear</b> 3:4 10:1,4 16:13	<b>hope</b> 43:14 45:21 48:17	
<b>Global</b> 60:7		<b>hearing</b> 3:1,2,6, 11,19,20 4:2,14,16 5:2,3,6,7 6:5,9,11 7:13,15,17,21 8:1, 15 9:23 10:3,6,9, 12,15,18,19,23 11:3,8,11 12:13 13:24 14:2,5,7 15:21 16:2 25:14, 18 26:16,21 30:23 33:6,19 34:4,11 35:24 36:2 39:10, 15,19 42:1 45:15 48:24 49:6 51:12, 17 55:14,22 59:18 62:1,11,12, 63:14, 23 65:2,7,17,20 66:11 67:6,15,18 68:9,10,15,16,17,	<b>horse</b> 53:1	
<b>glow</b> 61:3		<b>hearing</b> 3:1,2,6, 11,19,20 4:2,14,16 5:2,3,6,7 6:5,9,11 7:13,15,17,21 8:1, 15 9:23 10:3,6,9, 12,15,18,19,23 11:3,8,11 12:13 13:24 14:2,5,7 15:21 16:2 25:14, 18 26:16,21 30:23 33:6,19 34:4,11 35:24 36:2 39:10, 15,19 42:1 45:15 48:24 49:6 51:12, 17 55:14,22 59:18 62:1,11,12, 63:14, 23 65:2,7,17,20 66:11 67:6,15,18 68:9,10,15,16,17,	<b>humid</b> 68:23	
<b>good</b> 3:1 8:10 14:13,21 16:2 22:9,14 26:22		<b>headway</b> 38:20	<b>hundred</b> 43:12 46:19	
		<b>hear</b> 3:4 10:1,4 16:13	<b>hundreds</b> 44:2	
		<b>hearing</b> 3:1,2,6, 11,19,20 4:2,14,16 5:2,3,6,7 6:5,9,11 7:13,15,17,21 8:1, 15 9:23 10:3,6,9, 12,15,18,19,23 11:3,8,11 12:13 13:24 14:2,5,7 15:21 16:2 25:14, 18 26:16,21 30:23 33:6,19 34:4,11 35:24 36:2 39:10, 15,19 42:1 45:15 48:24 49:6 51:12, 17 55:14,22 59:18 62:1,11,12, 63:14, 23 65:2,7,17,20 66:11 67:6,15,18 68:9,10,15,16,17,	<b>hunting</b> 46:2	

<b>imposed</b> 39:7	<b>International</b> 59:23	<b>Kenneth</b> 26:17	<b>leave</b> 39:16 67:21	<b>live</b> 20:24 26:3 34:16 37:8 45:24
<b>inadequate</b> 31:14	<b>introduce</b> 5:9 8:3	<b>key</b> 24:9	<b>left</b> 18:22	<b>lived</b> 36:7
<b>inappropriate</b> 10:22	<b>introductions</b> 8:3	<b>kids</b> 60:10	<b>left-hand</b> 40:10	<b>living</b> 19:21
<b>include</b> 4:2,6 9:1 16:21 18:13	<b>intrusions</b> 24:14	<b>kind</b> 21:22 35:2,12	<b>legal</b> 8:6 16:7 67:8,9	<b>LLC</b> 8:16
<b>included</b> 11:8	<b>invertebrate</b> 29:18	<b>knowledge</b> 31:8	<b>legibly</b> 5:22	<b>loading</b> 27:12
<b>includes</b> 9:5,12, 19 28:2	<b>involved</b> 11:10 14:23 45:3,20	<b>KOA</b> 46:6,7	<b>lengthy</b> 11:5	<b>local</b> 33:17 47:5, 12 48:2,10
<b>including</b> 7:10 17:6,12,19 37:6	<b>involvement</b> 5:10 24:3	<b>Koch</b> 33:8 39:24 56:7 57:4,9,21 58:11,16,23	<b>lethal</b> 24:23 29:8 30:12	<b>located</b> 8:23 55:6
<b>incorporate</b> 18:2, 10	<b>iron</b> 68:2	<hr/> <b>L</b> <hr/>	<b>lethality</b> 29:13	<b>location</b> 50:16
<b>increase</b> 41:21	<b>issuance</b> 12:5	<b>L-y-d-i-a</b> 16:5	<b>letter</b> 33:24	<b>Logan</b> 16:12
<b>increased</b> 19:9 40:20 68:3	<b>issue</b> 11:12 12:21 25:12 29:23 35:7 62:1,16 63:20 65:9 67:6,7	<b>lab</b> 33:10	<b>level</b> 14:20 46:15 49:16 50:3 56:17 58:8,15	<b>long</b> 6:16 12:17
<b>increases</b> 25:2 27:14 61:23 64:14	<b>issued</b> 31:20	<b>labs</b> 33:10,17	<b>levels</b> 10:20 16:23 17:5 49:9 57:1 58:7,14	<b>long-term</b> 15:6
<b>increasing</b> 53:8	<b>issues</b> 3:14,15,18 4:2,6 6:4 7:7 10:13 11:10,19 12:2,9,11 31:5,13,17 62:14, 18 63:15 68:14	<b>lack</b> 31:6 46:23	<b>Lieberoff</b> 5:17	<b>longer</b> 44:7
<b>Indiana</b> 24:6	<b>items</b> 12:9,10	<b>Ladies</b> 23:19	<b>life</b> 59:8 67:17	<b>looked</b> 59:2
<b>individual</b> 16:14	<b>IVCC</b> 24:3	<b>land</b> 46:4	<b>lifetime</b> 38:20 60:16 67:4	<b>losing</b> 60:11
<b>industrial</b> 20:2	<hr/> <b>J</b> <hr/>	<b>landowner</b> 66:3	<b>light</b> 60:19 61:2, 10,22 62:9,12 63:21	<b>lot</b> 19:24 20:17 22:12 26:8 28:22 31:9 47:14 56:15 60:6
<b>industries</b> 56:9, 22 59:6	<b>J-o-r-d-a-n</b> 16:6	<b>large</b> 15:10 24:20 27:9	<b>lighting</b> 60:19 61:1	<b>loud</b> 3:8,9
<b>infertility</b> 25:7	<b>jobs</b> 33:11	<b>largely</b> 6:12	<b>likelihood</b> 40:19	<b>louder</b> 49:5 55:21
<b>information</b> 5:4 16:23 64:18,19	<b>Jordan</b> 15:23 16:2,5 67:19 68:1	<b>larger</b> 43:13	<b>limit</b> 32:12 58:17	<b>loudly</b> 13:12
<b>informational</b> 3:20 5:2,3	<b>judgment</b> 50:11	<b>largest</b> 24:8	<b>limitation</b> 18:4	<b>low</b> 27:20
<b>initially</b> 11:15	<b>July</b> 6:15,16,22 11:2 68:11	<b>Lasalle</b> 8:16,23 16:11 22:23 23:5 27:1 43:9 54:21 64:7,11,16,24	<b>limitations</b> 9:13	<b>lower</b> 21:6 30:15
<b>input</b> 15:19	<b>junction</b> 57:18	<b>Lasalle's</b> 15:5	<b>limited</b> 12:8	<b>lowest</b> 58:18
<b>insects</b> 18:8	<b>Juras</b> 30:24 31:2 32:19,23 33:3,5,18	<b>latest</b> 15:13	<b>limits</b> 59:9	<b>Lydia</b> 15:23 16:5 27:7
<b>inspect</b> 37:20	<hr/> <b>K</b> <hr/>	<b>Laurel</b> 23:16 25:15	<b>lines</b> 60:22	<hr/> <b>M</b> <hr/>
<b>inspection</b> 37:21	<b>K-a-s-a-p</b> 64:7	<b>law</b> 12:10,22 16:8	<b>lining</b> 67:23	<b>M-a-r-k-w-a-l-t-e-r</b> 55:18
<b>instance</b> 24:24	<b>Kasap</b> 64:7	<b>laws</b> 60:19	<b>listed</b> 26:7 32:10	<b>M-o-n-t-y</b> 19:17
<b>instrument</b> 67:8	<b>keeping</b> 31:21	<b>lays</b> 21:20	<b>listened</b> 45:22	<b>made</b> 4:10 6:2 10:11 11:22,23 14:1 16:10 38:3 40:20 67:2 68:19
<b>intend</b> 10:6		<b>LC50</b> 29:8 30:5	<b>listening</b> 19:19	<b>Magna</b> 29:17
<b>intended</b> 7:3 11:20 55:10		<b>leach</b> 49:24	<b>liter</b> 29:10,12,21, 24 30:4,7,9,10,13, 15,16 32:15	<b>main</b> 9:9
<b>intensity</b> 63:7		<b>lead</b> 25:7	<b>literally</b> 62:22	<b>maintain</b> 66:9
<b>interests</b> 10:18		<b>Leadership</b> 59:22		

<b>maintaining</b> 36:11	<b>meets</b> 12:20	<b>mine</b> 8:21 14:17 15:20 19:22 20:12 21:2 22:3 23:20 27:16 35:23 37:10 41:4,8, 43:10 52:3, 4 62:15	<hr/> <b>N</b> <hr/>	<b>numerous</b> 31:5 66:9
<b>major</b> 20:4 42:21 44:4 45:13 66:2	<b>member</b> 13:17 15:23 19:20 23:18 25:17 26:19 33:23 49:5 55:21	<b>mines</b> 21:15,21 22:5 26:10 38:13 39:3 53:17	<b>nation</b> 54:22	<hr/> <b>O</b> <hr/>
<b>make</b> 5:21 8:4 11:14,16 35:5 60:20 64:2 65:4,11 68:19	<b>members</b> 10:9 13:23 16:14,17,20 17:8,15,17,23 18:16,18,23 19:6, 18 27:1	<b>minimum</b> 10:21	<b>National</b> 60:14	<b>Oak</b> 31:3
<b>makes</b> 11:22 24:7	<b>mention</b> 40:16,20	<b>mining</b> 8:20 14:24 15:2,4,9 42:18,19, 21 45:3,20 52:7, 53:19,21 54:17	<b>Nations</b> 60:4 67:14	<b>object</b> 10:10
<b>making</b> 3:14 12:8, 18 14:10 15:24 34:6 67:19	<b>mentioned</b> 28:21 41:19 58:23	<b>minute</b> 37:2	<b>natural</b> 16:15 44:1,23 45:6	<b>objective</b> 29:22
<b>man</b> 45:22	<b>merit</b> 11:24 60:2	<b>minutes</b> 11:15 27:5 65:24	<b>nature</b> 26:10 44:9	<b>obstructed</b> 40:9
<b>management</b> 14:20	<b>message</b> 63:4	<b>modified</b> 17:24	<b>necessarily</b> 45:1 58:5	<b>obtaining</b> 4:12 10:19 12:21
<b>managing</b> 15:1	<b>met</b> 4:11 6:18	<b>moment</b> 32:5	<b>needed</b> 52:3	<b>occurred</b> 20:5
<b>mandated</b> 12:21	<b>met all</b> 61:20	<b>money</b> 47:1	<b>negative</b> 19:7	<b>officer</b> 3:1,2,6 7:17 9:23 10:3,6 14:7 15:21 16:3 25:14,18 26:16,21 30:23 33:6,19 34:4,11 36:2 39:10,15,19 42:1, 14 45:15 48:24 49:6 51:12,17 55:14,22 59:18 62:1,11 63:14,23 65:2,7 66:11 67:6, 15,18 68:9
<b>manner</b> 10:8	<b>metal</b> 33:8	<b>monitored</b> 49:11	<b>negatively</b> 18:7 25:3	<b>official</b> 25:23
<b>Mara</b> 5:17	<b>MGD</b> 28:16	<b>monitor</b> 58:17	<b>neighborhood</b> 20:6	<b>Ohio</b> 43:2
<b>Mark</b> 49:1 51:13, 15	<b>Michigan</b> 16:16 40:1,3,16 41:3 43:4 53:24	<b>monitoring</b> 9:13 16:22 32:7,8,16, 20,22 33:9 37:19 38:10 49:14 68:2	<b>Network</b> 60:4,8	<b>oil</b> 43:1
<b>market</b> 42:24	<b>microphone</b> 13:2, 14:12 36:4 45:17 49:7 51:18 55:23 64:4	<b>month</b> 68:3	<b>neurotoxin</b> 25:6	<b>online</b> 61:16
<b>Markwalter</b> 51:14 55:15,17,18,24 56:23 57:5,18 58:6,13,19 59:11	<b>mid</b> 40:2	<b>monthly</b> 23:24 32:9 66:15,23	<b>nickel</b> 61:19 68:2	<b>open</b> 68:11
<b>material</b> 52:22 54:21,24	<b>middle</b> 34:17,18 35:7	<b>months</b> 47:5	<b>night</b> 60:10,12	<b>opening</b> 8:4
<b>materials</b> 14:24	<b>mike</b> 13:5 64:7	<b>Monty</b> 16:1 19:15, 17	<b>noise</b> 10:20	<b>operation</b> 15:9,12 35:1,5 53:21
<b>matter</b> 3:21 6:1, 14,22 7:8 45:7 68:11	<b>mile</b> 21:1 26:10 35:20 37:9,11	<b>Morris</b> 48:6	<b>Norm</b> 33:21 36:2,6	<b>operations</b> 9:1 23:21 25:10
<b>maximum</b> 29:23 56:17 59:15	<b>miles</b> 8:24	<b>move</b> 21:17	<b>normal</b> 45:10	<b>opportunities</b> 15:7
<b>Mayes</b> 25:16	<b>milligram</b> 30:15	<b>moving</b> 3:7 31:20	<b>north</b> 7:18 8:24 16:11 43:10 45:24	<b>opportunity</b> 16:4 19:9,11
<b>mayor</b> 60:24	<b>milligrams</b> 29:10, 11,21,24 30:4,6,8, 9,10,13,16 32:14	<b>MSDS</b> 56:24 58:6	<b>Northwestern</b> 16:7	<b>oppose</b> 12:24
<b>Mcguiness</b> 5:18	<b>million</b> 9:9 23:22 28:1,15 31:11 36:13,14 37:4 38:1 44:7 46:11,12,14 48:16 57:2 67:3	<b>multiple</b> 7:4	<b>note</b> 7:2 49:20	<b>opposition</b> 12:5
<b>means</b> 5:2 56:11	<b>millions</b> 24:10 62:24	<b>municipal</b> 17:20	<b>notice</b> 6:9 7:20 12:13 32:10	<b>oral</b> 5:21 11:4,5
<b>meantime</b> 21:18	<b>mind</b> 22:15 61:13	<b>municipalities</b> 59:7	<b>notified</b> 5:24	<b>order</b> 20:16
<b>measure</b> 33:14		<b>mussel</b> 17:13 18:6	<b>notify</b> 57:21	<b>organisms</b> 29:9, 19
<b>measurement</b> 16:22		<b>mussels</b> 18:5,8 26:9 68:4	<b>November</b> 47:11	
<b>meet</b> 32:12,14 51:1 56:18 59:9			<b>NPDES</b> 3:23 5:14 6:24 7:18,23 8:15, 18 15:20 25:12 68:6	
			<b>number</b> 3:23 7:1, 9,10 8:15 34:9	

<b>organization</b> 13:14,16	<b>particles</b> 54:9,13, 17,20 55:8	55:11 58:16 62:3 67:7,9 68:5,20	64:18	<b>preliminary</b> 4:10
<b>originating</b> 7:3	<b>parts</b> 57:2	<b>permits</b> 68:7	<b>pointed</b> 60:20	<b>preparation</b> 9:3
<b>Ottawa</b> 23:18 42:8,14 45:3 54:21 55:18	<b>pass</b> 11:20 13:9 21:21 25:17 26:19	<b>permitted</b> 10:15 41:8 52:10 53:20	<b>pollutant</b> 3:21 27:12	<b>prepared</b> 4:12 12:15 13:4,9
<b>Ottawa's</b> 20:11	<b>passed</b> 25:18	<b>Permittee</b> 32:21 33:16	<b>pollute</b> 23:22	<b>presence</b> 17:3
<b>ourself</b> 52:7	<b>past</b> 20:5	<b>permitting</b> 3:17 5:5 11:4,10 14:17	<b>polluted</b> 38:17	<b>present</b> 20:2,12 22:3 34:2
<b>outfall</b> 9:5,6 23:24	<b>path</b> 47:20	<b>person</b> 13:4,5 25:19 65:18,21	<b>pollution</b> 4:22 5:13 9:21 52:2 60:19 61:2,10,23 62:10,12,14 63:21	<b>presented</b> 11:17 34:14
<b>outflow</b> 51:22 52:20 53:3,7,12, 22,23 54:6,9 55:10	<b>patience</b> 65:16	<b>personally</b> 20:22 57:23	<b>polymer</b> 30:1,6 58:2	<b>preserve</b> 26:10 39:8
<b>outflows</b> 26:9	<b>patient</b> 65:15	<b>persons</b> 45:11	<b>polymers</b> 29:3,20 56:4,8	<b>preserved</b> 38:12
<b>outstanding</b> 7:7	<b>pattern</b> 43:15	<b>Peru</b> 26:3	<b>pond</b> 9:10 50:17, 19	<b>President</b> 42:13 59:21
<b>overflow</b> 45:5	<b>pay</b> 54:3,22	<b>pesticide</b> 24:12	<b>ponds</b> 9:15,18 15:10 36:17 50:5, 20,24	<b>pressure</b> 47:12
<b>overview</b> 5:14	<b>Pecumsaugum</b> 9:10 16:15 17:9, 11, 22:18 27:23 34:18 37:5 40:8,23 41:5,9 43:16,24 44:23 46:1 51:7 54:1 64:9	<b>petition</b> 42:11	<b>pools</b> 54:22	<b>presuming</b> 31:20
<b>owner</b> 42:15	<b>Pennsylvania</b> 43:2	<b>petroleum</b> 52:18, 22	<b>population</b> 63:9	<b>pretty</b> 26:8
<b>owners</b> 44:14	<b>people</b> 12:23, 19:24 23:3 48:6 54:16 60:6,15 63:9 64:24 65:13,17	<b>ph</b> 58:8,14,15,17, 18 68:2	<b>portion</b> 40:3 43:8 54:4	<b>prevent</b> 18:14 41:11
<b>owns</b> 51:20	<b>people's</b> 33:11	<b>phonetic</b> 31:1 33:20	<b>possibility</b> 17:4 64:23	<b>preventable</b> 60:17
<b>oxygen</b> 24:24	<b>percent</b> 29:9 60:15	<b>photographs</b> 42:2	<b>possibly</b> 21:13 46:14	<b>prevention</b> 9:22
<b>P</b>	<b>percentage</b> 28:12 30:1	<b>photos</b> 39:14	<b>post</b> 68:17	<b>previously</b> 40:13
<b>p.m.</b> 68:24	<b>perfect</b> 63:1	<b>picture</b> 40:6,11	<b>posted</b> 6:8,10,11	<b>pride</b> 23:2
<b>P.O.</b> 7:19	<b>period</b> 5:24 6:6 7:13 11:1,7 32:17 42:15 57:24	<b>pit</b> 21:19 36:20,21, 24 37:9 52:10	<b>posting</b> 6:12	<b>primarily</b> 16:11 27:9 32:10
<b>PA</b> 3:8	<b>periodically</b> 37:24	<b>pits</b> 21:5 38:13 50:5 66:6	<b>postmarked</b> 6:16	<b>primary</b> 23:19
<b>pace</b> 60:12	<b>permit</b> 3:22 4:1, 12,13,16,18 5:10, 15 6:9 7:1 8:12,15, 18 9:5,12,18 10:13 12:4,5,12,15,21, 22,23,24 15:3,12, 20 16:5,21 17:10, 23 18:2,3,9,13,17, 24 22:17 24:18 25:12 31:20 32:8 40:14,15,22 41:4	<b>place</b> 6:8 23:3 24:17 35:20 64:21	<b>potable</b> 49:19 56:10,18 58:2	<b>prior</b> 6:6 7:5 49:18 53:13
<b>panel</b> 5:9 8:2 10:9 13:24 14:2 27:5	<b>period</b> 5:24 6:6 7:13 11:1,7 32:17 42:15 57:24	<b>plan</b> 4:18 9:22 44:24 61:1	<b>potential</b> 25:6 35:18 41:20 48:8 52:1 53:17	<b>private</b> 48:12,15
<b>paralysis</b> 25:7	<b>periodically</b> 37:24	<b>planning</b> 5:13 45:8	<b>potable</b> 49:19 56:10,18 58:2	<b>problem</b> 20:12 39:18
<b>parameters</b> 32:9, 11,16,23	<b>period</b> 5:24 6:6 7:13 11:1,7 32:17 42:15 57:24	<b>plans</b> 49:14	<b>potential</b> 25:6 35:18 41:20 48:8 52:1 53:17	<b>problems</b> 20:7,10 37:15
<b>park</b> 47:8 48:9,11 60:3,7,14	<b>periodically</b> 37:24	<b>plant</b> 23:7	<b>potentially</b> 24:21 41:4 52:7 54:15	<b>procedures</b> 4:18 14:4
<b>part</b> 4:1,19,21 8:1 16:7 22:24 37:14 43:9 44:13 53:8 59:23,24	<b>permit</b> 3:22 4:1, 12,13,16,18 5:10, 15 6:9 7:1 8:12,15, 18 9:5,12,18 10:13 12:4,5,12,15,21, 22,23,24 15:3,12, 20 16:5,21 17:10, 23 18:2,3,9,13,17, 24 22:17 24:18 25:12 31:20 32:8 40:14,15,22 41:4	<b>pleasure</b> 38:19	<b>precautions</b> 18:7	<b>proceed</b> 5:8 11:12
<b>partially</b> 48:20	<b>periodically</b> 37:24	<b>plummet</b> 24:16	<b>predictable</b> 43:22	<b>proceedings</b> 3:12
<b>participate</b> 47:6 48:4	<b>periodically</b> 37:24	<b>point</b> 11:22,23 29:13 32:4 36:22	<b>predicts</b> 60:14	<b>process</b> 4:1 5:11 9:8 26:13 28:2,13, 17 36:24 37:1 42:20 52:8 66:18
<b>particle</b> 55:1	<b>periodically</b> 37:24		<b>prefer</b> 37:18	
	<b>periodically</b> 37:24		<b>preferably</b> 55:6	

<b>processed</b> 9:3 15:14	<b>proud</b> 23:12 36:8	<b>quarter</b> 36:14 38:1	<b>reading</b> 40:14	<b>region</b> 15:6
<b>processing</b> 9:2, 14 14:24 15:2,5,12 44:20 49:18	<b>prove</b> 61:9,16	<b>question</b> 41:6,13, 18 44:16 45:2 52:18 55:19 66:12, 17 67:22	<b>reality</b> 59:22 63:4	<b>registered</b> 23:16 60:7 63:24
<b>produce</b> 56:14 57:12	<b>provide</b> 5:4,9,19	<b>questions</b> 14:4 27:5 30:22 49:8 50:2 52:15 67:20	<b>realize</b> 62:21	<b>registration</b> 5:16, 18,19,22
<b>produced</b> 23:21 56:9	<b>provided</b> 6:17	<b>quick</b> 56:8 66:12	<b>reason</b> 65:14	<b>regulate</b> 8:19 41:15
<b>producing</b> 33:11	<b>providing</b> 13:11 15:6 59:8		<b>recall</b> 27:18 59:2	<b>regulation</b> 12:16
<b>product</b> 29:7,9,23 30:13 56:12,18 57:16,22 58:2	<b>provisions</b> 4:17 38:3		<b>recede</b> 53:22	<b>regulations</b> 4:21 12:4 39:6 56:1
<b>products</b> 3:23 8:16,21 14:16,19, 23 23:21 56:13,14, 21 57:10,11,15,23 58:1,8	<b>proximity</b> 19:21	<hr/> <b>R</b> <hr/>	<b>receded</b> 38:4	<b>relate</b> 12:11
<b>professional</b> 10:7	<b>public</b> 3:24 4:15, 16 7:20 8:15 10:11 11:1 13:18 15:24 32:10 42:23 60:10	<b>R-o-g-e-r</b> 25:21	<b>receive</b> 17:21 46:9 50:20	<b>related</b> 10:13 12:3 17:2 29:16 62:2
<b>program</b> 8:4 67:17	<b>pumpage</b> 50:21	<b>R-y-n-k-e</b> 25:22	<b>received</b> 6:21 7:10	<b>relates</b> 4:9
<b>project</b> 12:6 55:23 67:4	<b>pumped</b> 17:3 22:13 36:15	<b>race</b> 47:11	<b>receiving</b> 4:7,8	<b>relationship</b> 50:4
<b>projecting</b> 3:8	<b>pumping</b> 52:20	<b>radium</b> 17:3,6,7 20:11 49:9,13,14, 20,23 55:4,7	<b>Recent</b> 18:22	<b>relative</b> 27:19
<b>prolonged</b> 10:14	<b>purpose</b> 3:11 4:14 8:18 11:13 23:9	<b>rail</b> 31:18	<b>reclamation</b> 38:15 39:3	<b>released</b> 49:9,12, 23 53:15
<b>proper</b> 18:7 33:10	<b>purposes</b> 27:3	<b>rain</b> 40:4 53:3,13, 14	<b>recommend</b> 17:9 18:23 39:1	<b>relevant</b> 4:2,6 6:4 7:14 11:9,12 12:2, 11 62:3,13
<b>properly</b> 3:12	<b>purview</b> 3:16 67:11	<b>rainfall</b> 44:12	<b>recommendation</b> 12:17 59:11	<b>rely</b> 16:17
<b>properties</b> 53:9	<b>put</b> 31:17 34:1,8 38:7 47:12 50:4 52:9 54:17 55:9 60:24	<b>rains</b> 35:15 46:8, 17,18	<b>recommending</b> 12:14	<b>remain</b> 21:19 68:11
<b>property</b> 44:14 52:3,6,11 54:3,6, 10,12,17 60:22	<b>putting</b> 44:7	<b>raise</b> 36:4 46:15	<b>recommends</b> 17:6	<b>remainder</b> 28:17
<b>propose</b> 57:10	<hr/> <b>Q</b> <hr/>	<b>raised</b> 6:5 14:8,9 45:11 65:8 68:14, 15	<b>record</b> 6:14,22 7:15 8:1 10:17 11:8 14:2,7 15:1 34:5,9 39:17,22 42:2 63:18 64:3,6 65:5,7,11 66:8 68:10,15	<b>remediation</b> 52:21
<b>proposed</b> 4:7 9:20 14:17 15:9 16:18 19:12 35:13, 23 39:2 43:10 56:8	<b>QHEI</b> 28:22	<b>rambling</b> 42:9	<b>recovery</b> 61:13,15	<b>remember</b> 27:19
<b>protect</b> 16:24 17:10,24 18:17	<b>QIQC</b> 33:10	<b>Randy</b> 30:24 31:2	<b>recreation</b> 16:17 17:14 18:18,20 27:2	<b>remind</b> 10:16 68:10
<b>protected</b> 19:2	<b>quality</b> 3:22 4:8 6:24 7:17,23 8:9, 16,21 14:16,18,23 15:11 16:22 18:3 21:1,13 22:8 23:21 25:3 27:17 28:10 37:16 45:12 48:20 51:1 58:24 59:5 64:16 68:8	<b>range</b> 24:16 25:1	<b>recreational</b> 19:1 23:9	<b>remove</b> 57:7
<b>protection</b> 3:3,16 8:7,12 24:17 51:10 62:8 67:10	<b>quantification</b> 27:12,16 56:2	<b>range-finding</b> 30:11	<b>reduce</b> 18:10 61:2	<b>repair</b> 48:12,14
<b>protections</b> 24:19	<b>quantity</b> 25:1 41:14 58:21	<b>rate</b> 9:8 32:9 61:23 64:14	<b>recycled</b> 15:14 36:17	<b>repaired</b> 47:9,10
<b>protective</b> 59:8		<b>rated</b> 26:6	<b>recycling</b> 36:16	<b>repeat</b> 65:22
		<b>rates</b> 64:22	<b>reducing</b> 15:16	<b>repetition</b> 11:16
		<b>raw</b> 14:24	<b>refrain</b> 24:11	<b>repetitive</b> 51:3
		<b>reaches</b> 5:24	<b>regard</b> 23:9 49:13	<b>report</b> 66:15,23
		<b>reaching</b> 7:7		<b>reported</b> 32:11
		<b>reactionary</b> 10:21		<b>reporter</b> 6:13 10:17 13:19
		<b>read</b> 40:15		<b>represent</b> 13:14 16:9 64:8

<b>representative</b> 14:18	<b>responsible</b> 14:21 48:20	5,11 61:14	<b>seeping</b> 21:12	<b>Sir</b> 64:4
<b>representatives</b> 16:3	<b>responsiveness</b> 6:1,3,7 12:1 68:17, 18	<b>runner</b> 46:21	<b>send</b> 7:15	<b>site</b> 9:4, 15:17 43:10 52:2,5,19,22 53:7,19 54:4 55:6 57:14
<b>represented</b> 28:7	<b>result</b> 24:21 49:10, 24	<b>running</b> 35:15 47:5,12 48:5	<b>Seneca</b> 48:7	<b>sites</b> 20:2,18 21:1, 4
<b>representing</b> 13:15 26:23	<b>resulting</b> 25:4	<b>runoff</b> 18:11 50:21	<b>sensitive</b> 18:5,9 27:10 29:20	<b>sits</b> 21:23
<b>request</b> 55:12	<b>results</b> 28:9 29:6 57:12	<b>runs</b> 47:6	<b>sensitivity</b> 68:4	<b>situation</b> 20:11 22:5 49:4
<b>require</b> 49:14 50:6 56:1	<b>retain</b> 37:16	<b>Rural</b> 16:9	<b>sentence</b> 5:9	<b>situations</b> 20:5
<b>required</b> 14:17 32:11,22 57:21	<b>retaining</b> 44:24	<b>Rynke</b> 25:19,21	<b>served</b> 42:13 43:4	<b>size</b> 25:1
<b>requirement</b> 17:6 18:2,10 33:15 66:20,22	<b>retention</b> 17:19 50:4	<hr/> <b>S</b> <hr/>	<b>servers</b> 7:3	<b>skating</b> 46:2
<b>requirements</b> 4:3,12 12:20 15:3 16:21 18:13,24 33:15	<b>returned</b> 9:15	<b>sad</b> 60:17	<b>service</b> 60:14 65:1	<b>skip</b> 11:19
<b>requires</b> 15:14 32:8	<b>review</b> 4:1,13 5:10 26:5 57:24 58:10, 12	<b>safe</b> 23:8 39:7 58:1	<b>set</b> 18:4 32:23	<b>skirting</b> 32:2
<b>requiring</b> 68:7	<b>rich</b> 45:18	<b>safeguard</b> 24:1, 19	<b>settling</b> 9:10,18 15:10	<b>sky</b> 59:23 60:10,12 61:3
<b>rerouted</b> 66:6	<b>Rick</b> 42:5 45:15	<b>sake</b> 10:18	<b>shallow</b> 21:4,19 22:10	<b>slightest</b> 24:14
<b>research</b> 61:22	<b>ride</b> 47:19 48:4	<b>sand</b> 3:22 6:24 7:17,23 8:16,21 14:16,18,23 15:5 21:2 23:21 43:10	<b>sharing</b> 39:13	<b>slippershell</b> 17:13
<b>researchers</b> 61:20	<b>risk</b> 19:5	<b>Sands</b> 48:20	<b>sheets</b> 56:24 58:7	<b>slow</b> 18:14
<b>reserve</b> 44:21	<b>river</b> 9:11 43:7 49:12 53:9 54:7, 20,23	<b>sandstone</b> 9:3,14	<b>shiner</b> 17:13 29:16	<b>small</b> 24:22 27:10 30:1 48:16
<b>reside</b> 42:7	<b>rivers</b> 37:5 38:16	<b>save</b> 24:10	<b>shiny</b> 55:1	<b>Smith</b> 25:20 26:17,22,23 27:21 28:11,19 29:5 30:3,17, 67:21
<b>residents</b> 15:7 16:10 17:15 24:1 28:24	<b>road</b> 21:17 41:8	<b>School</b> 16:8	<b>showed</b> 28:9	<b>socially</b> 19:10
<b>resolving</b> 7:6	<b>roads</b> 19:8 38:24	<b>scope</b> 11:11	<b>shown</b> 10:8	<b>Society</b> 59:21 60:9
<b>resources</b> 26:2	<b>Rock</b> 60:5	<b>scores</b> 28:23	<b>shows</b> 40:1,7	<b>soil</b> 20:3
<b>respect</b> 10:7,8	<b>Roger</b> 25:19,21	<b>Scouts</b> 60:2	<b>side</b> 20:23,24 40:10	<b>solids</b> 32:13 51:2 57:8 58:20,22 59:1,5,9,13,14
<b>respectfully</b> 44:17	<b>roles</b> 60:1,8	<b>Section</b> 8:9,13 51:20	<b>Sierra</b> 26:24 67:21	<b>solutions</b> 32:3
<b>respond</b> 68:14	<b>room</b> 10:20 64:1 65:3	<b>scratches</b> 39:21	<b>signed</b> 5:16	<b>Sooner</b> 21:16
<b>responding</b> 3:13 10:2	<b>roughly</b> 8:24	<b>screening</b> 9:2	<b>significant</b> 6:4 18:22 42:21	<b>source</b> 37:20 52:9 54:18 67:11
<b>responds</b> 3:5	<b>rude</b> 62:4	<b>season</b> 38:2	<b>silica</b> 20:12 42:14, 16,18 45:20 52:4 54:9,13,16,19 55:1,8	<b>sources</b> 66:21,22
<b>response</b> 14:6 63:20 65:6	<b>rule</b> 35:12 67:2	<b>seats</b> 3:6	<b>silt</b> 57:6	<b>spawning</b> 24:22
<b>responses</b> 10:22	<b>rules</b> 3:12 4:4	<b>Section</b> 8:9,13 51:20	<b>siltation</b> 18:10 40:21 41:19,21	<b>speak</b> 11:19 13:1, 8,11 23:16 35:24 36:16 41:10 49:5,6 63:24
	<b>run</b> 3:12 26:14 39:22 47:10,16 51:22 53:24 54:2,	<b>sediment</b> 25:4,5 36:17	<b>silted</b> 44:6	
		<b>sedimentation</b> 9:15 18:9 50:24 56:3 67:23	<b>similar</b> 28:11 32:1	
		<b>seepage</b> 21:7 26:14 28:2,14 36:21,23	<b>simply</b> 12:5 13:16	
			<b>single</b> 31:12	

<b>special</b> 67:16	<b>starlight</b> 60:16	<b>streams</b> 38:18 39:5	<b>Supervisor</b> 33:24 34:13	<b>ten</b> 50:19
<b>species</b> 17:12 18:1 24:14 28:22, 23 29:14,19	<b>starry</b> 60:10	<b>strict</b> 15:11	<b>supplies</b> 58:3	<b>term</b> 42:16
<b>specifically</b> 54:21	<b>start</b> 14:10 21:18 39:13 40:23	<b>strictly</b> 5:3 60:18	<b>supply</b> 67:9	<b>terms</b> 31:14 57:6
<b>specifications</b> 67:23	<b>started</b> 42:19	<b>stronger</b> 24:17	<b>support</b> 12:6,23 17:11	<b>terribly</b> 45:4
<b>Speck</b> 30:24 33:19,22 34:8	<b>Starved</b> 60:5	<b>structure</b> 52:21	<b>surface</b> 8:19,20	<b>test</b> 17:7 30:11,12 57:11,15
<b>spectrum</b> 60:21	<b>state</b> 8:19 12:10, 15,22 13:12 16:16 18:21 24:6 28:23 38:19 47:8,12 48:9,11,15 56:13 59:7 61:18 64:5	<b>Studer</b> 3:1,2,6 7:17 9:23 10:3 14:7 15:21 25:14, 18 26:16,21 30:23 33:6,19 34:4,11 36:2 39:10,15,19 42:1 45:15 48:24 49:6 51:12,17 55:14,22 59:18 62:1,11 63:14,23 65:2,7 66:11 67:6, 15,18 68:9	<b>surrounded</b> 20:1 22:5	<b>tested</b> 25:8 29:14, 19 30:15
<b>spell</b> 13:20,21 24:15 64:5	<b>state-listed</b> 28:23	<b>studies</b> 31:6,15 48:21	<b>surrounding</b> 16:20 54:16	<b>testimony</b> 34:1,14
<b>spellings</b> 13:21	<b>stated</b> 45:21	<b>stuff</b> 31:12 61:11	<b>survey</b> 27:18 58:24	<b>testing</b> 18:3 23:24 29:2,18 54:4 57:19
<b>spend</b> 27:4 46:22 47:14	<b>statement</b> 11:17 12:14 14:11	<b>submit</b> 11:6	<b>survivor</b> 61:7	<b>thing</b> 33:13 35:3 49:22 58:19 61:22 62:13 63:2
<b>spill</b> 35:2	<b>statements</b> 10:11	<b>submittal</b> 7:4	<b>suspended</b> 27:13 32:12,13 51:2 57:8 58:20,21 59:1,5,9, 13,14	<b>things</b> 35:21 46:24 59:1
<b>split</b> 23:10	<b>States</b> 43:2 60:15	<b>submitted</b> 6:5 10:24	<b>system</b> 3:8,22 15:15	<b>thinking</b> 27:19
<b>spoke</b> 47:4	<b>static</b> 16:23	<b>submitting</b> 5:23 7:21	<b>symposiums</b> 61:18	<b>third-party</b> 7:3
<b>spoken</b> 64:1 65:3, 10	<b>stating</b> 12:5	<b>Subpart</b> 4:20	<b>system</b> 3:8,22 15:15	<b>Thornton</b> 39:11 42:4,6,7 45:19 53:2
<b>spokesmen</b> 42:11	<b>statutes</b> 64:21	<b>subsequent</b> 40:4	<b>systems</b> 7:3	<b>thought</b> 62:6,7
<b>spokespersons</b> 42:11	<b>stay</b> 3:15 62:5	<b>substantive</b> 7:11	<hr/> <b>T</b> <hr/>	<b>thousand</b> 31:12 37:4
<b>spot</b> 21:16	<b>step</b> 51:17	<b>Subtitle</b> 4:5	<b>T-h-o-r-n-t-o-n</b> 42:7	<b>thousands</b> 44:2
<b>spread</b> 61:11	<b>Stephanie</b> 8:5	<b>successful</b> 15:1	<b>taking</b> 47:17	<b>threaten</b> 24:13
<b>spring</b> 35:14 44:11	<b>steps</b> 41:11	<b>suddenly</b> 42:23	<b>talk</b> 21:6 56:24 63:19	<b>threshold</b> 29:10, 22 30:5
<b>Springfield</b> 7:19 32:5	<b>steward</b> 14:21	<b>sufficient</b> 44:21, 23 45:4 50:12	<b>talking</b> 22:11 62:7, 8	<b>tile</b> 35:15 66:5,9
<b>STACK</b> 34:13	<b>sticking</b> 32:4	<b>suggests</b> 16:20	<b>tank</b> 52:18	<b>tillage</b> 54:14
<b>staff</b> 63:19	<b>stockpiling</b> 9:2	<b>suited</b> 17:21	<b>taxpayers</b> 48:11 54:22	<b>time</b> 6:2 10:5 11:1, 3 21:12 23:13 31:23 32:17 34:2 37:14 38:4,6,19 43:17 47:9,14 48:22,23 49:18,23 51:24 68:19
<b>stage</b> 65:22	<b>stop</b> 47:15	<b>summary</b> 6:2,3,7 8:4 12:1 68:18	<b>team</b> 14:20	<b>Time/global</b> 60:3
<b>stagnant</b> 22:22	<b>stopped</b> 52:20	<b>summer</b> 47:16	<b>technical</b> 3:13	<b>times</b> 11:23 41:19 43:21 46:7
<b>stand</b> 34:15	<b>storage</b> 52:18	<b>Superfund</b> 20:18	<b>technology</b> 15:13	<b>timing</b> 6:12
<b>standard</b> 50:13,14 59:5 68:6	<b>store</b> 53:22		<b>tells</b> 47:1	<b>toilet</b> 53:18
<b>standards</b> 8:9 15:11 28:10 32:14 51:2 59:6 68:8	<b>stored</b> 53:7		<b>temperature</b> 24:23 25:2	<b>told</b> 47:18 61:9
<b>standing</b> 51:5	<b>storm</b> 9:7,17,19, 21 18:11 26:14 27:24 28:14,17 36:23 50:20		<b>temperatures</b> 24:16	
<b>Star</b> 60:3,7	<b>storms</b> 63:7			
	<b>stream</b> 18:3 26:6, 8 27:18 29:17 43:7,8,16 44:8,10 45:9 46:15 58:24			

<b>Tom</b> 45:17 48:24 49:2	<b>treated</b> 9:15 55:13	<b>unpredictable</b> 44:9,12	<b>W-h-i-p-p-l-e</b> 19:18	56:9,12,14,19,21 58:3,4,5,24 59:4 62:2,3,14,21,24 63:12 64:16,23 65:1 66:13,14 67:5,17 68:8
<b>tonight</b> 7:21 14:5 15:18 16:13 19:22 52:14	<b>treatment</b> 9:16 17:20 23:7 55:5	<b>upstream</b> 34:22, 23	<b>W-i-l-l-i-a-m-s</b> 23:18	
<b>tonight's</b> 5:7 10:17	<b>trespass</b> 60:21 61:3	<b>upwards</b> 60:20	<b>walk</b> 23:3 40:12	
<b>top</b> 61:20	<b>tributary</b> 9:10 26:7 35:17	<b>urbanization</b> 24:13	<b>walking</b> 48:5	<b>waters</b> 4:7,9 8:19 19:2 38:4 53:8,22 54:6 56:2 66:24
<b>topic</b> 27:21	<b>trout</b> 24:24 25:1	<b>urge</b> 19:7	<b>Walsh</b> 45:17 48:24 49:1,2,8,15,22 50:8,13,15,18,22 51:3,11,13	<b>waterway</b> 44:6,7
<b>total</b> 28:13 32:12, 13 51:2 58:20,21 59:1,5,9,13,14	<b>truck</b> 9:3 19:9	<b>usage</b> 30:20	<b>Waltham</b> 45:24 49:3	<b>waterways</b> 27:2
<b>totally</b> 61:13	<b>true</b> 61:8,21	<b>usual</b> 47:6	<b>wanted</b> 33:7 58:19	<b>web</b> 4:24 6:11
<b>tourism</b> 36:11 48:2	<b>TSS</b> 27:14,18 33:14 68:2	<b>Utica</b> 8:24 16:12 20:15 22:21,24 23:10 37:12,13 43:20 45:24 47:2, 15 48:3 51:20	<b>wanting</b> 12:18 31:17	<b>website</b> 4:23 6:8
<b>tourist</b> 23:3	<b>turn</b> 9:24 13:1	<b>utilization</b> 36:18	<b>warm</b> 65:14 68:22	<b>Wedron</b> 20:12
<b>town</b> 20:15	<b>turned</b> 3:8	<b>utilize</b> 15:12	<b>warranted</b> 19:6	<b>weed</b> 17:13 29:16
<b>township</b> 33:24 34:14,17 35:8,10 45:24 49:3 51:21	<b>turns</b> 61:5,20	<hr/>	<b>wash</b> 47:4 48:9	<b>week</b> 46:22
<b>Townships</b> 16:12	<b>type</b> 32:13 49:10 56:4,24 64:15	<b>V</b>	<b>washed</b> 47:2,5,20, 22 48:6	<b>weekly</b> 24:2
<b>towpath</b> 47:14 48:5	<hr/> <b>U</b> <hr/>	<b>vein</b> 28:12	<b>washes</b> 47:9	<b>well-being</b> 24:9
<b>toxic</b> 30:16 35:2	<b>ugly</b> 23:1	<b>verbatim</b> 10:17	<b>washout</b> 47:2 48:17	<b>wells</b> 17:3 21:4 28:8 38:11 49:10 64:17
<b>toxicity</b> 29:2 30:14 58:7	<b>ultimately</b> 54:5	<b>versus</b> 28:14	<b>washouts</b> 46:20	<b>Western</b> 43:1
<b>toxicologist</b> 8:8	<b>unanticipated</b> 45:6	<b>viable</b> 44:7	<b>waste</b> 4:9 17:19 21:9 23:20 25:4 35:3 38:17	<b>wet</b> 9:2
<b>track</b> 15:1 31:21 32:17 62:5	<b>unbiased</b> 33:12	<b>view</b> 29:13	<b>water</b> 4:4,8,9 5:13 8:9 9:7,8,13,17,19, 21 15:11,14,15 16:18,19 17:3,4, 19,21 18:3,11 20:4,7,11,16,20 21:4,8,9,13,20,22 22:3,8,10,13,18, 21,22 23:4,6,8, 24:20,24 25:2,3,4 26:14 28:1,2,10, 14,17,18 35:3,17 36:14,19,23,24 37:1,10,12,17,19, 21 38:1,3,6,11,14, 17 39:3,8 40:13,20 41:14,20 43:19,24 44:10,22 46:12,14, 15 48:16 49:10,11, 19 50:1,21 51:1,22 54:4 55:5,7,10,13	<b>whatnot</b> 31:11 41:16
<b>traffic</b> 19:9	<b>uncle</b> 20:23	<b>Village</b> 16:11		<b>whatsoever</b> 29:12 64:15
<b>trail</b> 16:17 18:21, 23 31:3 40:2,3,7, 17 41:4 48:15	<b>uncommon</b> 63:15	<b>violations</b> 68:8		<b>Whipple</b> 16:1 19:15,17
<b>train</b> 31:18	<b>underneath</b> 52:4	<b>visible</b> 61:3		<b>wild</b> 61:14
<b>trained</b> 59:22	<b>understand</b> 17:1 21:15 36:13	<b>visitors</b> 17:16		<b>wildest</b> 67:2
<b>transcript</b> 6:13 10:19	<b>understanding</b> 58:9 60:18	<b>voice</b> 27:6		<b>wildlife</b> 24:22
<b>transcription</b> 14:1	<b>understood</b> 49:15	<b>volatile</b> 43:8		<b>William</b> 30:24 33:19,22
<b>transcripts</b> 6:10	<b>unexpected</b> 44:14	<b>volume</b> 23:20 28:13 35:14 43:23 45:10,12		<b>Williams</b> 19:16 23:15,17 28:20
<b>transportation</b> 9:4 25:23	<b>unintelligible</b> 26:18	<b>volumes</b> 24:20 34:21		<b>winter</b> 24:17
<b>treat</b> 55:6	<b>unique</b> 26:9	<b>volunteer</b> 61:19		<b>withhold</b> 38:3
	<b>Unit</b> 5:14 25:24	<b>voracious</b> 24:9		<b>witnessed</b> 46:23
	<b>United</b> 43:1 60:4, 15 67:14	<hr/> <b>W</b> <hr/>		<b>wonderful</b> 45:21
	<b>University</b> 16:8	<b>W-a-l-s-h</b> 49:2		<b>wondering</b> 31:19
				<b>words</b> 6:24 45:21

**work** 8:11 10:4  
16:6 25:22 31:9  
33:17 61:19 67:14

**worked** 36:10

**working** 14:15  
57:2

**works** 57:16

**world** 60:13 61:21

**world's** 61:2

**worried** 63:12

**writing** 11:6

**written** 5:23 6:14,  
15 7:5,16 10:24  
63:17 68:12,17,18

**wrong** 48:13 61:9,  
17

**www.ipcb.state.  
il.us** 4:23

---

**Y**

---

**year** 40:2,21 44:11  
46:7,13 47:10  
48:16

**yearly** 24:11 66:16

**years** 15:1 36:8,9  
38:21 41:7 42:15  
43:21 44:2 45:21  
46:18,19,20 47:3  
67:1

---

**Z**

---

**zebra** 29:14

**zinc** 68:3