

Buffalo County Zoning Board of Adjustment (BOA) – January 12, 2016
Breezy Point Properties Nonmetallic Mining Public Hearing
(Draft. Subject to BOA approval)

Board Members present: Joe Wantoch, Ron Kazmierczak and Dale Klopp.

Others present: Mike Owecke, Zoning Administrator, Adam Adank, Zoning Specialist, Julie Lindstrom, Zoning Administrative Assistant. Those that signed in: Allen Carothers, Becky Lindstrom, Bob Wittig, Dennis McDonough, Paul Millis, John Behlwig, Kent Severson, Christy Castleberg, Ron Kralewski, Marlene Kralewski, Lois Lyngdal, Donna Harschlip, Rod Harschlip, Robert Carothers, Judy Carothers, Carrine Badlwin, Jared Baldwin, Ann Rehbein, Mike Perry, Barb Traun, Jeanne Pietig, Terry Pittman, Larry Traun, Tom Salwey, Dennis Bork, Chris Kees Winkler, Mike O'Connor, Marcie O'Connor, Elizabeth Dodd, William Lindstrom, Sandra Lindstrom, Timothy Wucherer, David Brevick, Addie Elliott, Bruce/Liz Eng, Shirley Evans, Judie Sage, Michael Kauton, John Mykletsvi, Herb Pelke, Jeff Imler, Ted Langlois, Helen Kees, Deric Lindstrom, Randy Lindstrom, Robert Kees, Carrie Olson, Maren Holst, Lynn Schoen, Ken Schreiber, Aniter Adams, Colleen Garnevias, Richard Pierce, Warren Barth, Gloria Brantner, Cedric Brantner, Roxane Weisenbeck, Al Glass, Kevin Cassidy, Jeanne Franz, Gerard O'Flaherty, Ricky Rustad, Scott Bergner, Allen Wharton, Steve Wick, Roger Johnson, Sue Johnson, Nettie Rosenow, Matt Carothers, Dan Langlois, June & Scott Baker, Elli Taverna, Mike Rejeke, Scott Mehus, Stephanie Neuman, Cheryl Weisenbeck, Dave Weisenbeck. Others may have been in attendance that did not sign in.

- Public Hearing was called to order at 1:00 p.m. by Mr. Klopp.
- Roll call: Joe Wantoch, Ron Kazmierczak, and Mr. Klopp present.

Hearing Minutes are summarized as follows:

Mr. Klopp began by stating the purpose of the hearing to Review, Discuss and possible action of Conditional Use Permit #2014-8 Breezy Point Properties Mine site. Mr. Klopp reviewed the agenda as posted. Mr. Klopp indicated that the BOA (Board of Adjustment) members want to get to the site and back before it gets dark. Questions in agenda 2(b) may be referred until reconvening, following the site visit.

Notice of Public Hearing was read.

- Mr. Ron Kazmierczak stated that he received a public comment directly at his home residence that is not listed; was mailed on May 21, 2015 from Donna Harschlip of Nelson, W2177 County Road KK in opposition to the site to pass on for the record and will pass to Mr. Owecke.
- Mr. Klopp stated that he also received in his personal mail a letter from Mrs. Harschlip.
- Mr. Klopp stated that he also received letters from Dan and Dorothy Baader, he is guessing he received them the early part of last Spring in March.
- Mr. Wantoch stated that he probably received the same letters, he recalled reading them; he didn't have them available at the hearing

Applicant Presentation & Testimony

Mr. Eric Clement, mine operator, explained that the presentation would be completed as a team.

Mr. Deric Lindstrom introduced the owners of Breezy Point Properties, which included himself, Deric, father Randy, sister Nora, mother brother Andrew. Mr. Lindstrom explained that they started on this venture as a way to...

Mr. Tom Clark, County Corporation Council, was in attendance and addressed the BOA chairman asking as a courtesy to all those in attendance the Mr. Lindstrom go to the microphone.

Mr. Deric Lindstrom stated he was here to introduce his family, the owners of Breezy Point Properties. Mr. Lindstrom re-introduced his family. Mr. Lindstrom explained that the owners entered into this as a way to help transition their farm into the next generation; partnering up with Eric (meaning Eric Clement) and Conrad (Clement) to help with that. Mr. Lindstrom continued by saying that together we (as owners) come before you to come up with a plan to do it in a responsible manner. This ended Deric Lindstrom's introduction.

Eric Clement introduced himself as part of the mine operator, along with his father Conrad Clement, stating that they are the two industrial partners of the operation.

- Eric Clement stated that both have an extensive background in heavy and light manufacturing, agriculture, professional motor sports; probably the biggest business you might recognize is Featherlite Trailers; have also owned and operated various industrial businesses; have moved some pretty large groups of people in the same direction from time to time.
- Eric Clement continued by saying that from their research, they have put together a team of people to help them through the application process; want to make sure things are done right, safely and within the law of the state, ordinances of the county and desire of the cities of Nelson and Maxville.
- Eric Clement continued by saying that this is the 6th public hearing roughly ... (unable to hear audio for a couple seconds {loud background noise on the audio}). The Townships of Nelson and Maxville submitted their approvals with conditions and that was found to be very significant and I hope that weights well amongst the decisions made here.
- Eric Clement continued by introducing their legal council, Paul Millis and John Behling from Weld & Riley of Eau Claire. Mr. Millis has presented previously to the BOA on several occasions; John Dustman from Summit Envirosolutions, he is somewhat familiar to many people here and Dr. Kent Severson from University of Eau Claire is the Professor and chair of the Department of Geology; he is also one of the experts on our staff to help overview and guide the applicant through the principals safely and properly with respect to the operation of the mine, mitigation of things and reclamation as well.
- Eric Clement stated that they want to be sure they do things in a proper manner according to the ordinances.

Mr. Eric Clement stated that the presentation would forego formalities; everyone, he assumes has read the reclamation plan and is very aware of the permit application, that is why we are all here; it is a sand mine; they are going to try and touch on a brief overview; hopefully get to the property and show the area specifically, if you haven't seen; try to touch on the issues; it is no secret what the issues are; we have read all the letters you have read; which all were familiar to the applicant. Zoning department staff. Mr. Owecke or Ms. Julie Lindstrom passed on these letters so we could be aware of the concerns of the citizens and we want to make sure we address those issues to the audience and the Board in an appropriate manner.

This ended Eric Clement introduction and explanation.

Mr. John Dustman continued by introducing himself by saying that he is a geologist and a hydro-geologist with Summit Envirosolutions Inc. out of St. Paul, MN; has over 30 years of experience in testing environmental impacts from a multitude of different types of projects, concentrated primarily on hydrogeology, drawing from experience with Minnesota DOT and with designing rock cuts. Mr. Dustman continued by saying that he started the firm in 1991, it is a small niche firm with a qualified group of staff that look at providing a different type of consulting services to a varied client base; the firm has developed technologies and received patents on technologies that do a better job, in their opinion on how ground water behaves. They leverage that into a new capability of acquiring environmental data of all types, air quality, noise, surface water, groundwater data and have developed a piece of software that can analyze that data in near real time and visualize it in near real time.

Mr. Dustman stated that he got involved in the project from the beginning. Some of the ideas regarding a bluff trail is probably one of the most unique projects being proposed in the State of Wisconsin and from the first time he set foot on the property and met the Lindstrom's and the Clements, he realized this might be a site this activity, although very emotional and causing a lot of consternation amongst the citizens of not only Buffalo County, but the State of Wisconsin, it could be done sustainably on a small foot print; this might be the site. Mr. Dustman continued by saying that a lot of the ideas that you see as far as reclamation really drive the whole project; they came out of work he has been doing over the last 10 years with the University of Minnesota Landscape Architectural Department who was studying and teaching sustainable mining and reclamation techniques up in the iron range of Minnesota. After going through that whole experience, Mr. Dustman stated that he is an outdoorsman, trout fisherman, hunt and fish almost everything and after spending many years in bluff country in south-eastern Minnesota, he realized that the bluffs were disappearing and not through mining, but through erosion and through invasive species; very frustrating to watch buckthorn run through the environment and take what are other wise open forest and turn them into impassable woods; frustrating to watch the trout streams temperature rise through runoff and precipitation; frustration to watch what are called base flow conditions that will be talked about in this project to disappear impacting the trout fisheries. It was with great interest that this project kind of developed; that is one of the reasons we are here.

At this time, the BOA members were asked to change their seating so they could see the projector screen

The presentation continued electronically.

Mr. Clark addressed the BOA chair at this time and stated that any evidence that is presented, the BOA needs a copy as far as the presentation.

Mr. Dustman began the presentation with a projector screen slide showing Buffalo County and the State of Wisconsin for those not familiar with the project. He continued by saying that for this project they built a Geographic Information System, which is layers and layers of information that multiple, multiple agencies have put together that are all in a common coordinate system and if they are not in the same coordinate system, this software can re-project them on a fly. This is being used to be able to answer questions because of a ton of information. Many hundreds of hours have been spent putting together the required documents and they used this platform to arrive at as many of them. Mr. Dustman continued by saying that we are in this room today because of the geology of West Central Wisconsin, primarily the bedrock geology of West Central Wisconsin. We thought it would be a great idea if Dr. Severson would give a little bit of background to the Board on the geology and hydro-geology of this area. This ended Mr. Dustman's comments at this time.

Dr. Kent Severson introduced himself and gave a brief overview of his background. Dr. Severson stated that he has been involved in the industrial sand industry as a consultant since 2009. He has worked for landowners, companies seeking to develop resources; he has been hired by opponents of sand mining in Barron County to evaluate reclamation plans and get their issues. Mr. Severson stated that he has a broad interest and broad experience in this topic over the last 7 years or so. In addition in his job as a professor, he has been involved in a research project where they have been taking a look at the cement that are holding together these sandstone that are being mined for frac sand and the reason for that is because the grains of these sandstone units are very, very hard and as many people have stated in opposition to sand mining, that any flying dust particle are likely to become the cement. Mr. Severson stated that he agrees with that and therefore, the composition of that cement is of great interest to himself and to his student; so he has been taking a look at the petrology of it, using microscopes to look at that sandstone cement. Mr. Severson continued by saying, also before he begins, he stated that he has

been hired by the Breezy Point team to present here and although they are paying him, his opinions are his own and he views his purpose here largely to serve as a person to answer your questions. He said it was also important for him to state his bias's up front and his bias is this. Everything has an impact. He continued by saying that as a teacher, one thing that he tries to get the students to understand is that everything has an impact, so if someone tells you that mining sand does not have an impact, that is not true. If someone says that mining sand is going to be the end of the world, typically that is not true as well.

Mr. Severson stated that what he is going to do here today is to introduce the geology and in answering questions, he is going to try to address as to how a potential impact can be minimized, be mitigated by good planning.

A map of the bedrock geology of West Central Wisconsin by Bruce Brown in 1988 was projected on the screen. Mr. Severson stated that each of the colors represent a certain bedrock type that is exposed in Western Wisconsin, so if we look at the map, very much zoomed out, we can see the Chippewa River, coming down through the center and then the site just off to the east, that is the Breezy Point site.

Dr. Severson identified the site on the screen. The blue color, that is called the Oneota formation and this is a formation that is made up of rock types that is called dolemite. Dolemite is a carbonate rock commonly people call it limestone, but this rock here has more magnesium in it, so we call it a dolemite and this is the rock type that this map (on the screen) is at 1:250,000 scale and it isn't really site specific accurate in an area, but the Oneota formation is the one that makes up the highland in the proposed mining area. Dr. Severson continued by saying that below that you come to a unit that is called the Jordan formation. The Jordan formation is predominately the mining target in this Breezy Point proposed mining plan. This Jordan formation was deposited in an ocean around five hundred million years ago. This is times when there were no land plants present on the earth surface; so there were winds that could blow the sand grains and as these sand grains hit each other, the sharp edges were rounded off. Also during this time, (unable to understand a word at this location in the audio) grains, chemically active grains were basically weathered or dissolved away; basically the equivalent of rotting away, so what was left behind are the resistant rounded grains of quartz and these hard resistant chemically resistant grains are highly prized in the oil and natural gas industry as a profit to pump into the ground into oil and gas wells under very high pressure to fracture the shale units predominately and have the sand grains go into the fractures so when depressurization takes place and the walls of these fractures tries to close, each sand grain, which is round and very strong serves as a pillar that keeps the fracture open and allows the oil and natural gas to move in a faster way to the well and actually get oil and natural gas out of materials that normally could not.

Mr. Severson continued by talking about the brownish color, this is the Tunnel City group; will talk about that in a little bit; it is kind of a shaley sandstone; a lot of greenish grokonite (spelling ?) powdery greenish mineral and then a red unit, which makes up the Little Bear Creek valley; this is something called the Wonewoc formation. That is the unit that is a fine to course grain sandstone that has been mined for frac sand in other parts of the state, actually the major sand producer in the State of Wisconsin, but at this site, that is not going to be mined. Moving to the next projector slide, Mr. Severson stated that it was a cross section, a stratigraphic section is what a geologist would call it. Let's start at the top and work down the units. At the very top is the Oneota formation, on the previous map that was the light blue colored unit that contains that dolemite as I mentioned before that is holding up the ridgetop in this area. The very base of the Oneota formation is what is called the Coon Valley member and the Coon Valley member contains some sandstone that can be fairly course, actually, but it also contains stones that are almost completely cemented by course cement. He mentioned before that he had been working on a study on sandstone cement and in the Coon Valley member, this is an area

where we actually see quartz cement that is present and coarse cement in the Coon Valley member, it turns up that it almost fills all the holes that are present between the individual particles, so much so that he has seen places in the Coon Valley member where it forms something that looks almost like a quartz; it is a ledge rock; it is so hard that it will break across the grain and for that reason there is no way to dis-aggravate those sand grains and therefore those tough stones can't be utilized for a profit. Below that we come to the Jordan formation, which is kind of the premium sandstone in Minnesota and Wisconsin. It is not mined in many places because typically this Dolemite is one hundred feet thick and you cannot access it. That's why, for example in Pierce County, they have been mining the Jordan formation underground so they do not remove the Oneota formation, but they find a tunnel under that. In this proposed mining plan, the Jordan formation is exposed at the surface, but instead of removing the Oneota formation, or going underground, what is proposed is to basically dig a horizontal terrace in the side of the hill. The terrace will vary in width, depending on the slope of the land surface and the width is going to be basically controlled by having a fifty foot highwall on the uphill side. The Jordan formation is a unit that he has studied very carefully at UW-Eau Claire and the Jordan formation, one of the reasons why it is so attractive to a mining company is that it has very little cement, very little glue holding the grains together. The Jordan formation in our petrographic studies under a microscope is typically about eighty percent grains, but in between the grain there is space, if you think about putting marbles of different sizes into a cup there are going to be holes between the grains and it is very important to know what makes up the holes between the grains. In the Jordan formation, twenty percent of the rock is not grain and of these not grain areas, about two-thirds of that doesn't contain any cement or glue at all. It is empty holes or voids that are present within rock and because there are so many empty voids and so little cement, the Jordan formation is a formation that he can pick up and he is not a very strong guy, but he can take the Jordan formation, with his hands he can dis-aggregate it into single grains. That is a huge, huge plus for a mining company.

Also in their petrographic study, what they found is that the Jordan formation really doesn't contain quartz cement. Quartz is crystalline silica; that is what the individual grains are made of, but what they find is that the Jordan formation really doesn't contain quartz cement, that is why it can be dis-aggravated so easily. It contains iron oxide, you might have seen the sandstone, how it looks, kind of brownish, or reddish, that is iron oxide cement, also contains a little bit of clay cement as well; it contains some (unable to understand a word at this location in the audio) that have grown between the grains as water has moved through and it has crystalized out of the water, precipitated out would be the chemistry name for it and that has glued the Jordan formation as well. The Jordan formation is the mining target for this project and it does not involve removal of over burden, the Oneota, which makes it kind of a different project.

Dr. Severson continued by saying that below that the St. Lawrence and Tunnel City groups are present. These are sandstone as well, that contain shale silt and so do not allow groundwater to move through them very easily and on this diagram what you can see is that the processing area for this project is going to be on the Tunnel City formation. That is important because that is the unit on which the settling ponds are going to be placed. Below that we have the Wonewoc formation and the Wonowoc formation that is permeable sandstone unit, the one that has been mined elsewhere in the State of Wisconsin; Little Bear Creek flows at this level. Then we go down below to the Eau Claire formation type locality Eau Claire, WI; but it is found throughout the Midwest, from Minnesota, into Lower peninsula of Michigan. This is kind of a shaly fine grain sandstone. In this area many domestic wells are actually getting their water out of the Eau Claire formation. At the bottom of the stack of the so-called Cambrian Sandstone units is the Mount Simon formation type locality, Mount Simon. This is a very permeable sandstone and it transmits water quite nicely and this is where the high capacity well for the proposed project would be located. Dr. Severson continued by saying this is an overview of the bedrock units that are present. He continued by talking about how the topography at the site which is

controlled by the bedrock is also going to impact the water table and the ground water and showed a slide of the topographic map of the site on the screen.

Dr. Severson started by saying this is a US Geological Survey Topographic map 7.5 minute quads. The southern part of the line is right on County Highway K; the green on the map represents vegetation and the brown lines, which do not show up as well, on this projection, are the land surface elevation connecting points of equal elevation. The topography at the site, we are looking at a north/south trending valley that comes up the heart of the site.

Dr. Severson continued by saying that the base of the valley is not vegetated. The steep slopes, rising up the valley walls, are vegetated with trees. What they have is a raised horseshoe if you will, with a low valley in between. In humid areas, such as the State of Wisconsin, the ground water table tends to mimic the land surface topography. What this means is that when we have the hills that are kind of in a horseshoe around the site; that means that more land surface hills are going to represent hills in the water table surface as well. What this means is that the groundwater is going to be flowing from the high part of the water table down to the lower parts of the water table and therefore we are going to see the groundwater that is going to be flowing inward from these ridges toward the valley where processing is going to take place once that groundwater and the groundwater table map was projected on the screen at this time. Dr. Severson did not finish his sentence here.

Dr. Severson continued by saying if you take a look at the water table map, this is a year 2000 map by Wisconsin Geological Survey, so once again here we have the outline of the site and these are contour elevations of the water table and what we can see is that the overall slope of the water table is to the south toward Little Bear Creek; that would be expected because the elevations are higher to the north and lower to the south, so the big picture here is the water table is flowing down toward Little Bear Creek. This groundwater flowing toward Little Bear Creek is very, very important because in humid areas, such as Wisconsin, the vast majority of our streams are gaining streams, meaning they are taking water from the ground, so therefore this water is actually coming into streams in the form of springs and this groundwater is quite cool; it is at mean annual air temperature and days like today help lower our mean annual air temperature, so when this groundwater actually gets into the stream, it is quite cool and it doesn't have suspended sediments that are present within it. This is very important from a stand point of fish. Fish like cold, oxygenated water; they do not like suspended sediments, so ideally we would want Little Bear Creek to have a large base flow. This groundwater contribution to the stream as opposed to stormwater flow that is coming over the surface which commonly picks up sediments and it is quite warm.

Dr. Severson continued by saying that we go back to the water table map; what we can see here is that, the big picture is the water flowing to the south, but we also have water flowing into the center of this north-south trending valley and that is where the processing plant is going to be and then once that water gets into that valley, it is going to be flowing south, ultimately discharging into Little Bear Creek. To give you an idea of how fast that groundwater is flowing, it is flowing at about three feet per day through the Wonowoc formation. What this means is that basically from the southern end of the processing facility and down to Little Bear Creek, it would take about three years for water to travel that distance; so in general, the water moves very slowly compared to the water flowing over the surface; this is an overview what the water table looks like and how that relates to the geology that we see there.

This ended Dr. Severson's part of the presentation.

- Mr. Dustman continued and questioned Mr. Klopp as to whether the applicant presentation would be held to an hour.

- Mr. Klopp stated that the BOA would rather get going by 2:00 to the site as far as day light. We can reconvene back with your testimony however much you might have left.

Mr. Dustman continued by saying the proposal is to take a notch out of the side of the hill in four different phases. We are planning on doing a washing and drying operation in the valley itself with some soil stock piles, settling ponds, dry plant area and stormwater detention ponds to prevent water from coming down the valley from entering into the water course. Mr. Dustman stated that this is all contained in the reclamation plan, but they do have a fairly rigorous soil erosion plan, which includes silt fence. Soil boring representation was pointed out on the screen projection. Essentially the operation is fairly straight forward and fairly simple. It is similar to the way a highway department would make a rock cut. Mr. Dustman pointed out a high line that runs through Phases I & II. They will need to cut whatever lays over the top of the elevations of the Jordan where the notch will be put in; the trees are cut, the stumps are used as mulch; then there is a down hill berm that is created.

Mr. Dustman pointed out where the mining would take place and the eventual wall, the high wall and where the original top soil will be located after the trees will be cut. Then it is pretty much simple as working this way so the bedrock connects and the mining would progress towards the eventual wall and the high wall. Mr. Dustman stated that he was privy to some of the information that was submitted to the BOA and saw extensive reports from Mr. O'Connor and continued by saying he is not sure Mr. O'Connor read the final reclamation plan, because we have talked about vertical walls, but the wall angle will vary significantly depending on the rock mechanics of that particular section of rock. Mr. Dustman continued by saying that he chose to show the fifteen degree wall here, just to make sure everybody understood that this wasn't some big vertical sheer high wall. Mr. Dustman identified some areas in Buffalo County near the site and Alma that are similar to what they are proposing in reclamation. Mr. Dustman continued by saying this is a conceptual plan; this was not done by engineers, it was done by himself, a landscape architect having experience designing high walls and certainly this whole thing would be engineered. The profile of the hills have changed as you look down. The profile of the exact topography was pointed out on the screen along the transect, so the profile, the transect is represented by the elevational profile, (pointing to locations on the projected screen), you can see there is obviously slope changes along the bluff area. Mr. Dustman continued by talking a little bit about the wetlands and groundwater by saying that they did identify some wetlands in the very south western part the mining area just kind of gets into, but as you can see, the mining activity either mining or processing are not involved with that area. Deric Lindstrom has put a couple ponds to help keep water out of fields and those will be treated as wetland and will stay out of those areas as well. Groundwater obviously a huge concern; we got that very clear when we were reading the testimony that you are about to hear later this evening. One of the conditions is that they test water within three-quarter mile buffer. Water wells were with the three-quarter mile buffer of the mine areas on the screen. We will do a more extensive inventory to make sure; the DNR data base is great, but is certainly not inclusive; how people's wells are in or out is still a mystery to him; wells on the projected screen are not all the wells in the data base; we actually placed these because we felt pretty confident that if there was a house, there was a well in most cases; some of the dwellings were not habitable, so we will do an extensive inventory. One of the conditions we would like to talk about possibly relieving is doing all the wells for either baseline or annual monitoring. Hopefully that is why they spent so much time talking about the geology and hydrogeology. We won't know the direction and both groundwater velocity on a site basis until we install the monitoring wells. This one here (pointed out on projected screen) is down from the processing area, it intersect the official water table, is present in both the Tunnel City and come through the Wonewoc. We know there is Wonewoc right at the base of this valley (was pointed out on the screen) here because we went down and found it; That transect was pointed out on the screen and pointed out a little valley that runs through at the bottom, where the Wonewoc sandstone is, but we are hoping that through this education and we are pretty confident that when we install the monitoring wells, that are

being required, that we would do anyway, we would be monitoring the wells down gradient of the processing and mining area, rather than way up in the northern part of the valley where groundwater really has zero chance of entering into anybody's wells.

Mr. Dustman continued by saying that one thing that was a common theme with people was water quantity and why putting in the bluff trails will actually improve storm water quality without degrading ground water quality. This is a little bit confusing, but Mr. Dustman stated he had no other way to demonstrate the depth that how much distance there was between the surface and certainly where they are mining and where some people's wells are certainly most of the high capacity wells, in fact, he could say all of the high capacity wells in the area are in the Mount Simon because the Eau Claire just can't support enough flow, they can support domestic wells, they couldn't support a high-capacity well, so the y went from fifty foot elevation change to one hundred feet to two hundred feet, so the graph or profile (projected on the screen) would be a lot bigger if we stay at fifty feet. The Mount Simon is quite a bit deeper than these other aquifers and as Dr. Severson was saying there is about one hundred and fifty feet of the Eau Claire that is full of shale that prevents water from moving down through it. Mr. Dustman stated he did not think the rational person would be concerned about chemicals or processing chemicals getting down into the Mount Simon because of the thickness of the Eau Claire, given the perpsensity of water that would want to flow down hill towards Little Bear Creek. That is why we set up our monitoring system down gradient and we will know, long before it will be able to migrate offsite; as Dr. Severson said, it is about three feet per day and about three years, it would take for ground water to flow from the site to Little Bear Creek. He hopes that nobody has domestic drinking wells in the official Wanowoc aquifer; it is not legal number one, cause to drink out of the (not able to understand one word from the audio right here) aquifer just because it does not make sense. It is the receptor of any contaminant man made or not; certainly most likely has some high nitrates in this area of Wisconsin, so folks are drinking out of the Eau Claire because there are shale layers here that prevent it from communicating with the Wonewoc and we don't feel those wells are at risk either.

Mr. Dustman continued by talking about water quantity. He briefly explained how to determine the amount of water that could be used and the impact on the aquifer and anticipated that the pump would not run more than two hours a day and why the argument that residential wells would go dry is not reasonable. He is not saying that groundwater flows out of the circle and that alone; to get a high capacity permit they are going to have to characterize the aquifer in this area and the only high capacity well that he could find in the data base was Deric Lindstrom's well which he located on the map on the screen; then we will find all the wells within a one-half mile radius of the site that have wells finished in the Mount Simon; we put a pressure trans fuser down all the wells, this is the technology that they developed that they talked about earlier. A Pressure trans fuser monitor's pressure change and it is very likely that when we turn a well, that he pointed out on the screen, on here, we would see drawdown, down here (pointed to something projected on the screen). Based on his experience I will bet you, we will see a foot of drawdown down here (pointed to something projected on the screen) and so we would draw this well down a foot. Now again, it is important to understand that the potential metric surface of the water that is in the Mount Simon is confined by the shale layers in the Eau Claire and it is about three hundred feet below the site. So the water level is going to be some where up in here (pointed to something projected on the screen) for the Mount Simon, but probably fifty to one hundred feet above the top of the bedrock formation. So a foot of drawdown certainly is not going to be of any concern to anybody and the way drawdown works is that it would decrease fairly linearly in distance away from the site, so if there are folks that have wells that are further away than Deric's, they certainly wouldn't expect it to see more drawdown in their well than Deric's, but as you are going to hear from Mr. Millis, even if there was an impact, there is a law that would require Breezy, the Wisconsin profit to get them an alternative water source. Hopefully these issues kind of put to rest, a little bit the water quantity issues. The Mount Simon can certainly support a high capacity well, but we are trying to re-use water as

much as possible. That is why the design calls for relatively large and a lot more settling ponds than other projects might be proposing, but we feel strongly that it is cheaper to run an operation if you are not pumping water; it costs money to pump, so less water is the incentive; also the less amount of flocculants you have to use is cheaper than doing it another way.

Mr. Dustman continued by stating that he would like to hit real briefly on the flocculent issue. He thinks there is a lot of confusion out there with people just reading things off the internet. A common flocculent used by waste water treatment plants, food processing is called a polyacrylamide and when you make a polyacrylamide you can have trace amounts of acrylamide. By law, a polyacrylamide that is sold cannot have more than one part per million of acrylamide. One part per million can have a trace level of acrylamide and it not like the manufacturer try to design that level, a lot of the polyacrylamide have no acrylamides in them, but by law, they cannot have more a part per million. Mr. Dustman continued by saying that second, by law, you can't dose your clarifier or your settling ponds with more than a part per million of polyacrylamide. So if you used a million galls of water, you could only use one gallon of polyacrylamide and so the chance of having acrylamide at a concentration that would be dangerous to human health and the environment, is really low, just by the fact that they don't have high acrylamide in them and because you can't use them at a rate that would cause a problem. Throw that together with fact that polyacrylamides have been shown to break down very quickly, it certainly would not be causable to think that acrylamides with a half-life of four days, knowing that it takes three years to get down to Little Bear Creek, we would not anticipate to see an acrylamide issue off site. Again the only wells at risk would be the closest to the processing area, which would be Lindstrom's, however they are deep enough to not be able to be affected by this surficial water that is flowing horizontally, not vertically. There is no reason to think that ground water is going to go vertically here. It wants to go horizontally.

Mr. Dustman stated that is was 2:00p.m., they certainly have more information that they would like to talk about with some air quality issue, but real quickly, before we go out there, he wanted to show on the screen to visualize when we are at the site, what the reclamation concept is.

Mr. Dustman shows on the screen, the contour of the bluff trail when it is done. He pointed out some near vertical walls with a terrace level below it; as Dr. Severson indicated, the width of the trail will vary greatly, which we want, we want to create a very diverse habitat. This is not rock art; this is a habitat project and we think this is going to be a fantastic habitat for wildlife.

Mr. Klopp called time. Mr. Klopp stated that it could be explained out there at the site what you are explaining right now.

- Mr. Kazmierczak questioned and learned that Dr. Severson would be here when we reconvene at the courthouse later

Mr. Clark, County Corporation Council addressed the BOA and stated that if there is testimony at the site, it needs to be done in such a way that all people present can hear, otherwise bring the witness back so all can hear. It is important for the hearing that all people present must be able to hear.

Mr. Klopp stated that at this time the BOA will recess to visit the site to reconvene near W2168 Lindstrom Road, Town of Maxville; 45 minutes after the announced recess.

- Audience question – When would the BOA reconvene back at the courthouse.
- Mr. Klopp stated the BOA would reconvene back here at 5:30 p.m. if everything goes well at the site. If it is later than 5:30 p.m., we will make an announcement.

The meeting recessed at approximately 2:05 p.m.

Mr. Klopp: We are ready to reconvene at the site. No specific time was stated. Mr. Klopp asked those that were in attendance if they could not hear, they should let us know so the speakers, presenters know they should speak up.

Mr. Dustman: First pointed out looking south at the location of the barn structures explained that if this could be done sustainably in a small footprint, this would be the site to do it and commented on the limited number of people that can see this valley, the mine site other than the Lindstrom's. (audience asked Mr. Dustman to speak up).

Mr. Dustman continued by saying that the first step would be to begin prepping the site for heavy equipment, put up silt fence; the former County Conservationist Brooke Muhlack spent a couple times out here and had some really good ideas, if people have good ideas, we are all ears; we want to hear them. The conventional way to start preventing any sort of erosion or keeping erosion from entering the water course obviously this little point here is the beginning of a water course that is an intermittent stream; this doesn't flow except under high conditions.

- Mr. Dustman questioned Deric Lindstrom and learned that there is only water running down this valley in the waterway when it rains and only when there is a big rainfall.

Mr. Dustman continued by saying that what they are trying to do is protect; we are committed to not having a grain of silt hit Little Bear Creek and we feel like we have enough places here to set up proper erosion control, storm water management to be able to accomplish this without a lot of problem; there is a long way, we have a tight water course and so we would begin by putting silt fence around the phase that is about to be mined. Mr. Dustman pointed to Phase I and specifically called attention to the rise in topography stating that Phase I is midway between the two power poles and Phase II to the north up where you see the white and Phase III is coming back along this side of the valley, but because there are two sected valleys that you can't see; the Jordan is already eroded in those, so if you look on the reclamation plan, or our mine application plan, you can see there are discrete faces that would be turned into the bluff trail and then the trail would actually enter a more natural valley and then back into the bluff trail, natural valley; so we blend that in, so it wouldn't be like there is a high wall that just stops; it would blend in with the topography; that is kind of how the rock has been eroded anyway. One of the main themes that we are going to be trying to do here is to take what the rock will give us; he stated that he did not mean that from an economic standpoint, but a landscape perspective. There is going to be areas where the rock is more conducive to vertical slope; there are going to be areas that might be deemed to unsafe to mine, but the end result will be a bluff trail that looks very similar to the bluff you saw on your drive here up at the top. Those are actually the Oneoda formation that Dr. Severson talk about, but there is certainly the Jordan exposed below those bluffs they are both the Oneoda and Jordon member. There is plenty of rock cuts if you want to drive around and see what a rock cut looks like; that is not what we envision for this; it is much more natural.

Mr. Dustman continued by saying that the processing would be about where that snow kind of turns color; there would be a small dry plant; there would be what is called a hydro-sizer. A hydro-sizer is nothing but a sand sorter. Mr. Dustman explained how a hydro-sizer works. A lot of people have to wash sand, but there are many, many areas along here where the Jordan is so pure that really there is not a lot of silt and clay in it and so the washing process is more of a sorting process. The good news about that is a very, very relatively to the Wonewoc there is relatively little silt and clay size particles that would require a huge settling basin. We size the settling basins and pointed to where they would be

located and they would be used to settle the water and again gravity works really nicely at this site; so if we have a big football field size pond; and its lined and after it is a little bit above each other, you are not having to pump, you are letting gravity do the work; the water can spend a lot of time in those ponds and move through. The key to settling out silt and clay is residence time. You want to take a long time from where it comes in to where you take it out, and that is another reason why we can recycle over ninety-five percent of the water that is pumped from the ground, fill the ponds and then use that. The only water that is leaving the ponds is either through evaporation that is occurring on every surface waterbody and the water that would either leave the site if the sand were transported wet or the water that has evaporated out of the sand when it is dry. The only way a sand operation can use water. That is why people who think there is a five hundred gallon per minute well is going in is going to pump five hundred gallons per minute it is just not even close to being right because you can do the math on the porosity of the sand and you can come to a very accurate way of how much water is actually used in the sand processing business.

Mr. Dustman pointed out the location of the high capacity well and the location of the conveyor. He briefly explained that following installation of the silt fence there would be a cut very similar to the width of the existing power line; the top soil would be scraped to the bottom where the road has already begun as a flat road, it would be bermed and then you would begin mining the sand literally with a bulldozer building a road similar to how you would build an ATV road up in the bluffs. Then you load the sand onto a conveyor; it comes to the bottom and you begin in the process of sizing and drying it for transportation. Mr. Dustman pointed out the location of the storm water ponds, stating that they will be way over designed because they have the necessary equipment and the room to do so. It is kind of important to understand that from the second we make that road up there, we are taking water, surface water out of the storm water regime. Right now most of every drop of water, even the water that is infiltrating underneath the first forest layer, then it becomes underflow. It is not like that water just want to infiltrate down to the groundwater, it wants to follow gravity; so what doesn't runoff the surface moves down the fill as underflow and pointed to the area where it ends up. Those who read the reclamation plan our feeling is pretty strong if you put a fifty foot wide terrace or road one-half to three-quarters the way up this valley, all the water that is now falling at the top or one-half to three-quarters down is coming down and entering this and getting to Little Bear Creek will be taken out of that regime and be forced to infiltrate through the sand. The target base elevation is around the bottom of the Van Oser, which is one member of the Jordan, the other being the Norwalk. You heard Dr. Severson talk about the spastic cement, the difference between the Van Oser and the Norwalk is become very felt spactic at the base and becomes finer grain and is not as desirable for the profit. The Van Oser on the other hand is very poorly cemented, very round, very hard and very clean and we are targeting that as kind of the base elevation of the target. The maximum thickness that we've seen in the estimated thickness of the Van Oser here is fifty feet. That is why when I talk about a one hundred foot high wall, just isn't right either. As we proceed, we get through one section by the time we are up there, we really don't need access to this area of the bluff anymore and we begin reclamation immediately along this first terrace and as we move forward, we move the conveyor; we move the access road; there would need to be an access road as you can see on the reclamation plan it splits Phase I and Phase II and Phase III would be handled as individual sub-phases, as each one is built.

- Female Voice questioned where the trucks will be loaded and Mr. Dustman stated they would be loaded right in front of the dry plant and pretty much straight through to County Road K.
- Dale Klopp stated that those attending could ask questions, but need to state their name.
- Dale Klopp questioned the amount of acreage for the processing plant at fifty acres because he wanted to know if they would be in the waterway and Mr. Dustman stated that hind side is always twenty-twenty and they would not be in the waterway at all.

Mr. Dustman continued; the monitoring well that you can see on my map when we get back: we purposely placed the monitoring well and pointed to the location where it would be placed, because as a hydrologist and as we have been trying to explain about how groundwater moves; this is a little mini discharge point for groundwater that is underneath of us, so the groundwater up to here is probably just literally north-south, but underneath us it is probably wanting to take a turn and move towards that creek because it is a discharge area. So we feel the best place to monitor our operation, is right before where it hits this waterway in addition to another well down gradient of the lined settling ponds. In order to calculate ground water flow, it is just like if you were lost in the woods, you have a compass and a map; you need three points to orient off of to know where you are at; it is called triangulation. Groundwater flow is the same thing; you need at least three wells with a known elevation and then you can calculate the gradient and the elevation and the flow direction. So we would use that initial data then from the wells they put in to put in more wells or figure out that they have a well that is directly down gradient from the operations that they are putting in.

- Dale Klopp questioned the thirty acres where the processing plant will be located and whether it would be disturbing the waterway.
- John Dustman stated: We are trying to stay out of the waterway, from a hydraulic stand point, we want that water to be able to move through in the case of a 100-year storm. You can see on our design that we have storm water on either side of the waterway. We have our settling ponds one-half way up that slope. We wanted to get more separation for groundwater. We wanted to make sure we were on the top of the Tunnel City. That is why the processing area would not need to be that big; we could make it smaller; there are so many different ways to do this that this was the preferred alternative for this site.
- Dale Klopp questioned that if they want to go up the hayfield hill, they will want that to be level.
- John Dustman: The idea there would be to kind of do the exact same thing as we are talking about up there except that we would go 3:1 off the cut and then use that to build the berm on the other side for the settling pond. The settling ponds would need to be constructed. We can bring them down a little bit, and stay out of the waterway, and those are some of the final design and engineering design details that will be worked out at this time.
- Dale Klopp stated that his question is because they are going to be taking up a fairly good size area.
- John Dustman: It doesn't have to. You can shrink it down, but it is always about trade-offs. If you have one small settling pond, you would probably need to use flocculants for sure. If you put in more ponds, the odds that you are going to use flocculants go down. It is all about economics and environmental return.
- Helen Kees: I have a question of Mr. Dustman. She feels a bit more re-assured that the sand that you will be mining here is going to be so clean you won't be pumping much water.
- John Dustman: He asked if he could ask a favor of the people asking questions to let him know whether or not they read the reclamation plan.
- Helen Kees: I have studied it, organized and met you and came to all the meetings for nearly one year
- Mr. Dustman: The reclamation plan wasn't finalized
- Helen Kees: Yes and I see Mikey O'connors's testimony and she stated she was not here to argue, she is here to ask a question Mr. Chair. I would like to know if you could tell us about the sediment and clay that is going to be in the sand that you are hauling in to process.
- John Dustman: We do not intend to haul in any sand to process. That has not been mentioned in any document, any CUP document

- Helen Kees: Not only did I read the reclamation plan, I read the contract that you signed with the Lindstrom's. Could you tell us what that contract says about the sand you haul in and the royalties they get off it.
- John Dustman: I have no knowledge of that.
- Mr. Klopp: We are not going to go that route. Questioned need to be asked about this site.
- Helen Kees: The sand from this site will be clean and not require much water, Mr. Chair.
- John Dustman stated that is not what he believes he said. He said this sand is relatively more clean than the Wonewoc sand that everybody is more familiar with. There aren't very many mines that are mining the Jordan sandstone. I said relatively the Jordan sandstone and in particular the area of the Jordan that we are planning on making this bluff trail out of has less silt and clay size particles and requires less washing than those other mines.
- Helen Kees questioned the amount of water used per day.
- John Dustman stated that he would put it at 500 gallons per minute for 2 hours.

Brief discussion was held between Helen Kees and Mr. Dustman about previous statements regarding water usage at the site.

- Jean Fedie, Wabasha County: Our concern in Minnesota is the truck traffic. Can you give us an estimate.
- Dale Klopp: Maam, we are not going to talk about that. We just want to look at the site and discuss the sites. That is what we want to discuss now.
- Kevin Cassidy, Alma, stated he has read the reclamation plan and questioned Mr. Dustman from looking at the wood line, how high can we visualize from there where this trail will be?
- John Dustman: The trail will be one-half to three-quarter the way up the hill
- Kevin Cassidy questioned Mr. Dustman how long he would estimate before the bluff trail will be done, with clarification that everyone can go hunting on?
- John Dustman stated that it is for the Lindsrom family and continued by saying that it will be a terrace the minute that we are through that phase. The minute that there is no rock to be taken out of that phase, It will be a terrace then the process starts to rehabilitate that back to the native planting prairie's and the oak openings that you read about in the documents. The success of that will require all kinds of things. It will require the proper top soil placement, the correct amount of moisture; the correct seed application the correct culling of invasive species every year for probably five years, probably more than that. I think that it will change every year, but based on the growth of the plant. It won't be done for one hundred years. The oaks will continue to grow, the prairie species hopefully will continue to grow.
- Dale Klopp questioned where the phases will be with I & II on the right side facing the back of the valley.
- John Dustman stated that Phase III is the whole left side and Phase IV is directly over the top of mount baldy.
- Dale Klopp questioned which mount baldy; way in the back.
- Deric Lindstrom: (audio had a lot of background noise at this time, so could not make out what Mr. Lindstrom was saying).

Discussion was held trying to identify and point out to everyone where the location of Phase IV is.

- John Dustman: So you are saying that Phase IV will be up where you see the power pole.
- Deric Lindstrom: Yes; on the other side of the hill; the last pole; directly on the other side.
- Ron Kazmierczak questioned whether they would be able to see that from Lindstrom Valley Road; Dale Klopp and Ron Kazmierczak both stated they would like to see it.
- Deric Lindstrom: You can't get to the top part, but you can see if from the bottom.
- Male voice may not have identified themselves: I think it would give them a good perspective if you would give them a feet above sea level; all the way down; what it is now; so they could

come from the top down, or the bottom up; so they could see where the fifty to one hundred feet of Jordan is; relative to the tree line or power pole.

- John Dustman explained that the top of that hill is coincidentally very close to 100 feet above sea level. We estimate the top of the Jordan sandstone at 1,150 feet above sea level; so come down 50 feet in elevation and that is the top of the Jordan. Come down another 50 feet and that is where we would estimate the trail, the terrace to be located. So 100 feet below; we are I believe about 830 feet here, so we are 370 feet below the top of the bluff right now. We are talking about 100 feet below the top of the bluff, so 230 feet above where we are standing right here.
- Marcie O'Connor stated that the two birds we see up there are golden eagles and are very special .
- Chris Kees Winkler: Mr. Dustman, I would to address this to one of your first concerns where you had us turn around. Actually my great grandparents grew up just across the road and where we are standing is not where you will be doing most of the active mining; that is visible from across the road.
- John Dustman: My response to that is again, beauty is in the eyes of the beholder, because we are building the same bluffs that people drive for miles around to come and see; that you see all along the Mississippi River corridor; the Mississippi made those without a permit, I might add.
- Marlene Kralewski explained where their farm is (adjacent landowner) and their sons farm; questioned the location of the bluff trails and high walls and how all that on the top will stay there through a large rainfall event once mining is complete and again invited the Board members to drive up to their farm today to look across.
- Dale Klopp suggested they probably could and Ms. Kralewski stated it is just on the top of the hill.
- Joe Wantoch questioned the location of a dam in the back of the valley.
- Deric Lindstrom: That is a conservation dam.
- John Dustman: We don't plan any activity in that area.
- Dale Klopp questioned the location and Joe Wantoch stated it would outside the woods.
- John Dustman explained that is the wetland that the DNR brought up in their review and basically Deric created that wetland. We have absolutely no plans on doing anything there; that will be untouched.
- Chris Kees Winkler questioned the farming background of Mr. Dustman and Mr. Clement and was wondering whether there was room for an adequate wash plant given the history of the CUP, the reclamation plan to mine this site and to bring off site sand into process that has been stated and stated that her concern would be getting a processing plant, the mine activity without interfering with this water run.
- Rod Harschlip stated he lived right across the valley and questioned whether after the good sand is taken out, will there ever be a chance in the future that the Wonewoc would be then used.
- Deric Lindstrom: It is not possible. There is too much water in (did not hear the end of the sentence in the audio)
- Judie Sage questioned whether the road going out to K would go through the waterway.
- Deric Lindstrom stated No and explained that there is an existing field road on the right side of the hill and this side of the waterway that comes out to their farm and goes out to K.
- Dale Klopp: We will adjourn to the site of Phase IV.

No address location was given. It was stated that it was close to where Randy Lindstrom lives.

- Dale Klopp – We are reconvened at the site of Phase IV. Mr. Dustman do you want to show us where it starts and begins.

- John Dustman explained that it starts kind of the minute we get up to the correct elevation again which is about 1150 and it runs through that little valley there and then around these valleys and pretty much right over on this knob.
- Dale Klopp – By the pine trees there. Is this wetland here.
- John Dustman explained that all the wetlands on the property will be delineated; but we certainly won't be impacting down here; have no intention of coming down here. I believe this was shown as a potential wetland on the DNR Lake Finder map.
- Ron Kazmierczak – When you were talking on the other side about the terrace; base of terrace; was that at roughly 1150 feet; 1050 feet.
- John Dustman – The top is at 1200 feet. We believe the top of the sand is at 1150 feet. 1100 feet would be the base of the Van Oser 1100 feet, not 50 feet.
- Ron Kazmierczak – So you are talking; how deep band the sand is; 50 feet; so the top of the terrace is the base of the sand; the bottom of the sand; I just wanted to make sure everybody understood that; that is my understanding.
- John Dustman – We think that is pretty consistent.
- Female Voice (not identified) – How does the sand go from here to the processing plant.
- John Dustman – Right up over the top; conveyor.
- Dale Klopp – Are you going through; leaving the ravines.
- John Dustman explained that they would put the bluff trail right through the ravines; it will just follow the contour of the land. So the wall will take a big turn and then go through the valley and then come back out. This is different than the ridge to the west in that the sandstone has not been eroded in this one. This ridge is higher than that other ridge. The reason the other ridge doesn't have sandstone in the valleys is because it has been eroded.
- Joe Wantoch questioned where we would be if we walked over this ridge in comparison to where we were at the previous site and Deric Lindstrom stated that they were up the valley.
- John Dustman – Asked to point to where the dam is.
- Deric Lindstrom – That dam is equal with that (one word here, not understandable in the audio). We are way farther back.
- Female voice (not identified) – Do you own the property over there.
- Chris Kees Winkler – Will there be holding ponds on this side. We know the water that is going to come down these gullies on a heavy rain.
- Male voice (not identified) commented that one of the proposed conditions from Mr. Owecke is to add a storm water retention pond by Phase IV and Mr. Dustman stated it would be at the low spot.
- Chris Kees Winkler stated as a comment to the Board of Adjustment, she was not really not comfortable with this phase at all right here.
- Ken Severson – This terrace is not going to be a flat terrace. So one of the ways that it is designed is that it is going to be sloping at a 3:1, back into the hill. So the way it is described in the reclamation plan is that there is going to be a ditch in there and that 3:1 slope; that will serve as a water retention facility up on the side of the hill; so the goal is to keep the water up there and prevent the water from coming down here, because you are correct, there is going to be water coming down here and if all that water comes down to here, then it is really too late. That is why the design is important not to have a flat terrace up there, but to have sloped back in because that becomes a water retention facility up there as well.
- John Dustman – Again, I know some people are trying to quote me to the exact things here, but this issue has come up time and time again and so if you were to take the amount of rain that falls on this area right now, and you know the amount of flooding that is here right now, you can take one-half of that water out of it; assuming that; in fact more than one-half because you are looking at a very small enclosed watershed. A particle of water that drops one inch over the

crest of these bluffs is going to the other side. You can see exactly what the watershed is here or where the water; how much water would come here and that is how we do all of our calculations. So we take a 100-year storm event and we put it on the ground in a very short time frame, because that is what defines a 100-year storm. We know how much it will infiltrate into the sides of the hill and into the farm fields and that is taken out of the equation. That is called a run-off coefficient and it is a function of the land cover and the slope. From the minute we start we are putting a flat surface in an, otherwise steep terrain that will stop the water from the elevation above that from ever getting down here; that is a really, really important concept, because it goes back all the way to the improvements of Little Bear Creek. The water that comes down here now and floods this road eventually gets into Little Bear Creek and it is full of sediment and in the summer it is very warm. Not only are we going to stop the flooding on the road by the project, but we are going to take all that water and because the bottom of the Van Oser is still very permeable and it is relatively wide; fifty feet; has to be from here to the other side of the house; so all that water that use to come here; like Dr. Severson was saying, now it never gets off.

- John Dustman finished by saying that water that is usually running off and getting into Little Bear Creek in hours is going to take years and it is going to be cooler and filtered.
- Chris Kees Winkler questioned the amount of runoff to Little Bear Creek on a heavy rain.
- John Dustman – I have heard that this road has been under water on a heavy rain.
- Chris Kees Winkler stated that for those that live and work here know that and questioned Mr. Dustman as to whether he has successfully mined such a hill side and project as this Breezy Point proposed plant.
- John Dustman stated that there are examples of contour mining all over the world, but he personally has not.
- Chris Kees Winkler expressed concern on this project, seeing what was projected on the screen because it wasn't done by a professional engineer, just Mr. Dustman who is a geologist; so for a little background, we really need to know that is done by a professional.
- John Dustman stated that sounded like a personal attack on him and he does have thirty years of experience. Mr. Dustman continued by saying that it will be done by an engineer.
- Dale Klopp – We are going to stop this right now. Are there any more questions concerning Phase IV.
- Judie Sage – Questions about where the channels are going to go that you were talking about on the bluff trail. Isn't that going to be a water thing; won't that create a stream on itself; what are you going to do; is there going to be on either end of it, a runoff thing.
- Kent Severson – The way Mr. Dustman has designed this as it is worded in the reclamation plan it is to gather water from three hundred feet aside and then pull that in to a kind of retention area; so that is going to be coming down and there is going to be basically a water infiltration pond there. So in the reclamation plan you might have read about a six hundred foot wave length. That is what is being described there coming down into an area where the water could move there, but then it is going to stay there and then there would be infiltration at that point.
- Female voice (not identified) – That is where the erosion control is going to be.
- Kent Severson- The erosion control is just trying to once again sloping that back toward the hill. That means that you are going to be forming an indentation up against that hill. Then there is also going to be another slope along here where there is to be a place where the water is going to be impounded and that is going to sink in. When they are working on this, they are going to have to design that accordingly so that in these low areas it can handle the water and then once that sinks in, then is when it can go through the ground water and then end up; coming though the ground to here and then it is going to be flowing to the south through the groundwater once again towards Little Bear Creek.

- Dale Klopp – You are going to try and keep rain water, storm water up on top.
- John Dustman – The ones that we in the very early stages did design and there has been two or three years, there has not been a single drop of water leave the site.
- Chris Kees Winkler – Can you tell us where that site would be in case we want to research that.
- John Dustman – Absolutely. It is the Barth mine, near Dodge.
- Dale Klopp asked Mr. Wantoch and Mr. Kazmierczak if they had any questions.
- Julie Lindstrom stated that she works in the Zoning Office; the reclamation plan has been reviewed by a private engineer licensed in the State of Wisconsin and the reclamation permit has been issued.
- Ron Kazmierczak – Dale, just to clarify, when we are talking about the runoff; we are only talking about the runoff from above to the trench, not the entire hill. There is still going to be runoff coming off the hill below that.
- Dale Klopp – I was referring to the mine; what you plan on mining; that area.
- John Dustman – I think Dr. Severson did a great job, but I am hoping people can visualize that the knob will have a wider trail than the valley and that is why the width of the trail absolutely changes throughout the whole trail, but like Dr. Severson, so what we would do is on the point of this knob here, because the trail could be one hundred feet wide, right up in there we would make that the low spot of both of the runs going on either side of the knobs up into the valleys. So any drop of water that is falling on that top knob, will not end up in the valley like it does now. It will end up in the middle of the notch on the one hundred foot terrace.
- Female voice (not identified) – {not clear or loud enough on the audio to hear the question/comment and was not included in the minutes }
- John Dustman – Yes. The bottom of the cut will have a ditch in it, just like you see on every road cut; there is always a ditch next to a cut.
- Female voice (not identified) – Where the water runs.
- John Dustman explained that the ditch serves two purposes. It is allowing for some rock fall; you are going to design for rock fall and we are too and so that ditch fills in with boulders and cobbles, sand and it is a very permeable way for the water to flow. It's also very permeable for water to infiltrate. We don't look at having a lot of water storage happen up on the bluff because the terrace itself is very, very permeable so the water falling on the terrace; we don't even see it going; it is sloping back into the wall; we really don't see a lot of water sheet flow, because we are planting prairie plantings; they don't need a lot of clay or silt; you don't want that. So we think the terrace is; we know the terrace is going to be very permeable and the hydraulics that we had done indicates that we tend to contain 100-year storm.
- Chris Kees Winkler questioned how many feet from the road will you start excavating from the road right-of-way and then how many feet into that hill will be mined in Phase IV.
- John Dustman explained that can be measured very easily on a map; we are not anywhere near the right-of-way; we are fifty feet down from the top of that knob; so whatever that relates to on this knob that you are looking at; that is how far away from the road that would be. (correct knob was pointed out)
- Chris Kees Winkler – OK. So you are going to go straight in from here; so fifty feet from the top down everything is going to be gone. How many feet into that.
- Joe Wantoch – I think what she is trying to ask how far back into the hill do you want to go; one hundred feet or two hundred feet, fifty feet.
- John Dustman stated that it would totally depend on the topography and the slope at the exact point that we are doing it. So you can see that knob it appears to me to be much farther away than that knob and not because we are standing north. It appears to be closer to the road to me.
- John Dustman questioned Deric Lindstrom whether the land goes down and then up again or is that the top of the ridge right there.

- Deric Lindstrom explained that out on the end of the point, the road is going to be really wide; the closer you get to the ditches, the road will be next to zero.

At this point there was background noise on the audio that was not understandable to include as text in the minutes.

- John Dustman – Right.
- Helen Kees stated she was confused also, and questioned Mr. Dustman whether most of the mining actually going to take place for what is not visible to me standing here.
- Male voice (not identified) – Are you going to stand there everyday, this is Dennis McDonough.

At this point there was a lot of mixed conversation from several people that came over in the audio that was not understandable and therefore not included as text in the minutes.

- John Dustman stated he totally understand the question, but he thinks this is an important question and as long as we are here.
- Helen Kees stated she felt that one of the Board members is not absolutely clear on where the mining is going to take place.
- John Dustman stated that the mining will take place fifty feet below the top of that knob and then progress another approximately fifty feet down from that elevation and so like Deric Lindstrom was saying, there is the ridge; if you follow that ridge line, it goes behind this knob that we are here; so this knob might not even be touched.

Brief discussion was held on whether you would/could or not see the mining from where we were standing here.

At this point there was a lot of mixed conversation from several people that came over in the audio that was not understandable and therefore not included as text in the minutes.

- John Dustman stated that during the winter you probably could, but during the summer you probably won't know that they are up there.
- Becky Lindstrom – If we see it, what is so bad about seeing it. We as landowners have a right as long as we are following the regulation. I don't pay taxes for people to drive by and see it.
- Kent Severson – The question is can it be seen here. I think the answer to that from here is yes. You will see it from here.
- John Dustman – During the summer, there are leaves on all these trees; just from our perspective, these trees are one hundred feet tall; picture leaves on the trees right on the edge here. I don't think you will see the mine from where we are standing right now.
- Female voice (not identified) – As a concerned citizen, it is not if we see the mine; I am just trying to get a feel of the extent is and the processes of what if going to be mined.
- Jean Fedie, Wabasha – When can people walk on the trail and will the public be invited.
- John Dustman stated that it will be a private trail.

At this point there was a lot of mixed conversation from several people all talking at the same time.

Comments summarized about it being private property and not public property, other conversation was not understandable and not included as text in the minutes.

- Dale Klopp – We will adjourn from this site to the top of the bluff real quick at Kralewski's.

The Board of Adjustment stopped briefly at Kralewski's at W2197 County Road V, Town of Maxville. There was no audio recording at this stop.

Mr. Klopp called to reconvene the meeting at 6:40 p.m. The hearing was called to order following the site visits. Mr. Klopp started by giving a summary of the site visit as recommended by Mr. Clark who stated that information from the site visit is evidence that the public should know.

Mr. Klopp asked how much additional presentation the applicant had. They indicated fifteen minutes. Mr. Clark reminded that the speakers should introduce themselves.

Applicant presentation continued. Mr. Klopp suggested that Mr. Dustman speak first. Mr. Dustman continued with a screen projection pointing out on the screen each of the Phases 1 through IV. Mr. Dustman showed on the screen an artist rendition of what the bluff trail would look like using a constant elevation and continued by saying that coming down County Road V, following the site visit, is almost exactly what is being proposed minus the downhill.

- John Dustman – As we transition to the next part of the hearing, we are hopeful that the presentation addressed some of the issues regarding water quantity, water quality and what is being proposed; Mr. Millis would provide an overview of other permit requirements that this mine will be required to do.

Paul Millis introduced himself as an attorney from Weld, Riley Law firm and practice from the Black River Falls, WI office. Mr. Millis stated that the firm has worked with a lot of industrial clients and siting and permitting sand mines. Mr. Millis gave an explanation from a chart projected on the screen of the majority of regulations in the state of WI when it comes to permitting a sand mine.

Male Voice (not identified) questioned chair Klopp about point of order and the fact that he represented the people who were informed that attorneys were not allowed to speak as experts, especially just reading reports and the attorney for the applicant is limited to three minutes like other people were; referring to Mr. Millis, he is acting like he is an expert because he is an attorney; he should not be testifying on air quality.

- Paul Millis – These are all reports that we have provided Mr. Owecke.
- Male voice (not identified) – You don't have to read them. I submitted things, I don't plan on having a half hour to read those reports.
- Paul Millis – The applicant is entitled to an hour presentation and this is for the applicant.
- Male voice (not identified) – You already had more than an hour; you already exceeded fifteen minutes. I sat here patiently.
- Dale Klopp – How many more minutes do you have.
- Paul Millis – Just a couple more studies and then we are done.
- Dale Klopp – Let's just stop now.
- John Dustman – We have one important closing.

Mr. Klopp allowed Mr. Millis to continue.

Mr. Millis pointed out a draft of a study by the Institute of Wisconsin Health that was an assessment of all the studies available. Mr. Millis pointed out that the Buffalo County Health Department partnered in the study. Mr. Millis stated that the study concluded that it deviated from EPA standards and based on those deviations, from the approved air monitoring standards and the partial nature of the data sets, the research team did not find a study contributed to the understanding of the issue. They concluded that health effects from the impact of industrial and mining are community level air quality released to Pm10 is unlikely.

Mr. Millis attempted to continue to address the seven conditions in the Zoning Ordinance, however Mr. Clark addressed the Board Chair recommending that Mr. O'Clarity (male voice from earlier) makes a valid point, stating that we are well aware of the standards if they are going to be objective; I will say

what I told the Board; remember, they measure their decision against the seven standards and the applicant presentation, I do not believe is one of advocacy, it is one of fact. Mr. Clark continued by suggesting that it be left at that. Mr. O'Clarity did make a request and it was denied to be an expert and I think we are (there are words here in the audio that were not clear enough to include in the minutes due to an unexplained louder noise in the audio).

- Dale Klopp – This is concluded. We will move on.

Mr. Klopp stated that Mr. Wantoch or Mr. Kazmierczak and himself have sat at quite a few of these conditional use permit meetings as far as sand mining; in the past, not very often, but we have been accused of picking on certain people in general, maybe with our questioning. We are not here to pick on anyone, some of the questions might sound like we are picking on someone, but that is not what we are here for. We try to ask questions that pertain to this conditional use permit. If I or we get a little off base, Mr. Clark will let us know.

Mr. Klopp asked if Mr. Wantoch or Mr. Kazmierczak have any questions.

- Ron Kazmierczak questioned Dr. Severson or Mr. Dustman about the location of the hi-capacity wells in the Simon formation and asked if there is a permeable barrier between the Simon formation and the Eau Claire formation or what is the connectivity between those two zones.
- Dr. Kent Severson explained that if you were in any other place, the Eau Claire formation would not be a good target for groundwater just because it is pretty fine grains. If you look at the Eau Claire formation, it is going to have some sandstone beds that might be several feet thick and then you commonly get shale layers which are clay that might be between an inch and two inches thick; so what that means is that the vertical rate that allows water to flow is much, much less than the horizontal rate, so the way people are able to get water out of the Eau Claire formation is that they have to screen it in one of those sandy zones where there drawing in the water from the sides; it's much easier for the water to flow along those beds, but they are kind of confined between the shaley; it almost set up a road for the water. Vertical hydraulic conductivity; the Eau Claire formation is actually what we would call an aquatard; you can still get water through it, but it is very difficult for that to happen.
- Ron Kazmierczak – So, in your opinion, there is not a direct connection between that the Simon for all practical purposes; the aquatards wouldn't actually wouldn't retard any actual water flow vertically.
- Dr. Severson – You can't say that is completely isolated, but what you can say is that it would be functionally isolated. It would be a perpecting zone as would the Tunnel City group. The Tunnel City group also has shaley sandstone that are present within it, not to the same degree as the Eau Claire formation, but has that green kind of quaganite (spelling ?) in it and the green shaley zone as well. That would have a slightly higher draw of hydro-conductivity than the Eau Claire formation, but you would still have a lower vertical permeability than horizontal there.
- Ron Kazmierczak – So, if you were to do a pumping test and you check your draw-down curves, it would not show up in the Eau Claire for all practical purposes.
- Dr. Severson – Define all practical purposes. I would expect that if it were to show up, it would be very, very little; because we use to use the term confining unit, and say that is just a hard barrier and nothing can move across that, we have gone beyond that now, so we prefer the aquatard language, so there is some minimal flow, through there, but I would expect that to be quite minimal.

That was all Mr. Kazmierczak had for Dr. Severson for now.

- Ron Kazmierczak questioned the type of soils that were located in the Superior Iron Range compared to the soil types here and Mr. Dustman stated that the soils there are not as rich in loam.
- Mr. Wantoch questioned the location of the wash plant and felt there was not fifty-five acres at that location.
- Mr. Dustman explained how they divided the property and came up with about fifty-five acres for the processing and that it could be less than fifty-five acres, but wanted to be sure they did not exceed fifty-five acres.
- Mr. Wantoch questioned the bluff trail and whether there was going to be a straight wall down.
- Mr. Dustman explained that the back wall will vary significantly all along the trail; some places it will be vertical, some places it will be sloped back; some places it will be five feet tall and some places it could be thirty-five feet tall and then benched for fifteen feet and then go back again another fifteen feet.
- Mr. Wantoch questioned whether that would keep the water from all above to hit this trail and hold to there.
- Mr. Dustman explained that he was talking about the headwall; the wall heading north in Phase I; the wall to the right of the trail and to the left will be a remnant of the berm that is made when the topsoil is stockpiled; but even that will be undelating and continued by saying that will be designed to encourage wildlife and there isn't any water retention necessary with the mounds that would be left at the end, they are to promote the oak opening that we have planned for that area. He explained that there would not be any water retention structures on the left of the trail as you are walking north.
- Mr. Wantoch questioned whether the trail is meant to hold the water above it; that is coming down and Mr. Dustman explained that the terrace will be constructed from fifty to two hundred feet wide and is sloped back into the high wall and the trail will only be about ten feet wide and will meander through the terrace.
- Mr. Wantoch questioned whether the terrace would hold enough water with the amount of water coming from the ridge and out of the woods.
- Mr. Dustman explained that in that case, the water will go exactly where it is going now and that the valleys will not be mined along the field where we walked on the ridge during the site visit.
- Mr. Wantoch questioned this because he felt that everything will be opened up and would cause a lot of erosion.
- Mr. Dustman explained that mining will not affect anything in the valley and the water will run into the valley just like it does now and if you do a one hundred year analysis the amount of storage on the terrace will exceed the amount from a one-hundred year storm, even if you don't factor in infiltration and the fact that the sub-straight underneath the terrace is some of the most permeable sandstone in the world.
- Mr. Kazmierczak questioned how you keep the high wall from collapsing when Dr. Severson was talking about the Jordon being very loosely cemented together and Mr. Dustman is talking about excavating along the side of that in a fifty foot and leaving a fifty foot sidewall along there.
- Mr. Dustman explained that it is a pliable soil if you get some in your hand and squish it together, but if you back face it properly it will maintain a vertical or some offset to that for many years. It will erode, but they are hoping to not give it that rock cut sheer face type look and hopeful that on the south facing sides they think they will promote a lot of new species of wet clip and dry clip plant communities.
- Mr. Klopp questioned Mr. Owecke on the number of exposed acres from the application.

- Mr. Owecke explained that the application shows the actual active mining area is forty-five acres, and the processing site is fifty acres for a total of one hundred acres.

Expert Testimony started at this time.

Dr. Crispin Hayes Pierce introduced himself and gave his background and stated that he has been looking at frac sand particulates for the last six years.

A handout of his presentation was provided to the Board members.

- Dr. Pierce asked MaryAnn to talk about the Health Effects and Health Impacts.
- Mr. Clark asked that she introduce herself and give her background for the record.
- MaryAnn introduced herself as a student at the University of Eau Claire with a degree in Biology and explained that she would be talking about the health concerns and began speaking.
- Mr. Clark address Mr. Klopp, chair and expressed concern about the fairness and if she is simply reading from a report and do we know her expertise; that was not stated and he asked that in fairness she give her qualifications to say what she is saying; if she is merely reading a report, that is the advocacy that we talked about with Mr. Millis. We need to be fair.
- Mr. Klopp stated that he expected Dr. Pierce to be doing the presentation.
- Dr. Pierce explained he would do the bulk of the speaking today, but these students have worked with him for six years and he believed they had the expertise, but he would be happy to stand behind all the information.
- Mr. Klopp stated that the Board members should have something in front of them that shows her expertise and he didn't have anything.
- Dr. Pierce continued the testimony by talking about the importance of the size of the particles, computer model the DNR uses to evaluate air levels of pollutants; he expressed concern the DNR does not include fugitive dust sources.
- Dr. Pierce explained that he wanted to do a demonstration of some of the equipment that he actually uses in the field; he had sand samples and intended to contrast the PM 2.5 measurements and pass the samples around; equipment they would use in the demonstration was briefly explained.
- Mr. Clark address Mr. Klopp, chair and asked to remind the witnesses that their testimony is going to be of record and the evidence must be made of record and kept here; if they are going to make a program or do a demonstration, they must be able to replicate it in the record. Mr. Clark's concern is whether a demonstration can be replicated.
- Dr. Pierce stated that he understood and that they have provided all their data using the equipment they have with them today and have provided the data to the Board members.
- Mr. Clark explained that it is at the discretion of the Board, that there is a chance that one side that doesn't get what they want have an option to appeal the decision and it could end up in circuit court and therefore all the evidence in front of the board must be available for examination by the circuit court and again questioned whether a demonstration could be replicated.
- Mr. Klopp suggested that they just explain what they have in the handout because that would be the best for all interested parties.
- Dr. Pierce went on to explain the equipment they use and what they use it for and some of the data that was included in the handout to the Board members.
- Dr. Pierce concluded by saying that in frac sand, mining, processing and transporting actually generates a small particle of crystalline silica; particulates, especially PM 2.5 particles dirty air from places like China and Begine are known to cause cardio vascular disease, lung disease, lung

cancer; our measurements have found increased levels of particulates around frac sand plants compared to background DNR standards. We believe the monitoring of local PM 2.5 is essential.

This ended Dr. Pierce's presentation.

- Ron Kazmierczak questioned the sampling in Bloomer at Cook's Valley site as to how close they were to the facility itself and Dr. Severson explained that they were about 100 meters from the outside of the facility property.
- Dale Klopp questioned Dr. Severson about how many studies at area frac plants he did and Dr. Severson stated six facilities.

Dr. Robert Miller introduced himself and provided his background and experience. Dr. Miller stated that he was talking as an ordinary citizen; an unpaid expert and not getting paid for anything.

- Dr. Miller expressed concern over trafficking from mines as a representative of the Mississippi River Parkway Commission because Buffalo County is in this Mississippi River corridor.
- Dr. Miller also addressed the approved Reclamation Plan and the fact that the Reclamation permit has been issued; he talked briefly about the ten conditions in the reclamation permit and the need to be sure the county follows through with those conditions; the important part will be in the reclamation itself and his concern is no data available from this area from strip mining; reclamation will be a difficult task.
- Dr. Miller addressed the Town Land Use Plans of Maxville and Nelson and whether the proposal fits into this proposal and the fact that both Towns approved the project with conditions; he addressed the length of mining to be short, however concern over the language in the application that talks about third party sand.

Mr. Clark addressed Mr. Klopp, chair, stating that he had high respect for Mr. Miller and his expertise, but was concerned that this section is designed for the expert to give his expertise and he should take his area of expertise and how it relates to what the Board needs to know.

- Dr. Miller stated that it relates a lot to his role as a member of the Parkway Commission.
- Dale Klopp told Mr. Miller to continue.

Dr. Miller continued by saying his interest in the third party sand is because he is a resident of Buffalo County and concerned for the continued beauty of the county and land use, which as a soil scientist is very relevant. In conclusion, Dr. Miller explained that he felt there were a lack of information in the application; management in these operations is essential and be cautious to those things that do not happen as planned.

This ended Dr. Miller's presentation.

- Dale Klopp questioned Dr. Miller about contents in the reclamation plan, even though approved, in some cases it will work and others it will not.
- Ron Kazmierczak questioned that south facing slopes and the sandiness of soil there for restoration whether they would burn out on those sites or whether they would be better facing the south side.
- Dr. Miller explained that they would not be better than the existing ones and to seriously consider the eco system of the goat prairie and the savannah.
- Ron Kazmierczak stated as far as he could see, he did not notice a lot of goat prairies at the site earlier in the day.

- Dale Klopp questioned the reclamation permit, owner Deric Lindstrom and property listings for individual LLC's in the application and Deric Lindstrom explained that they have one operating entity, Breezy Point Farms LLC, but the land is separated into different LLC's.
- Dale Klopp questioned whether any of this land is in MFL, Managed Forest Law and Deric Lindstrom stated that some land is in MFL and would have to come out.
- Dale Klopp questioned whether the phases would not be classified as bluff-top mining and Mr. Dustman said no.
- Mr. Kazmierczak questioned the actual acres of active mining and Mr. Dustman stated forty-five acres.
- Mr. Kazmierczak questioned and Eric Clement stated that the proposal is for one hundred out bound truck loads per day.
- Mr. Kazmierczak questioned and pointed out that if in fact the applicant will be processing third party sand at this facility as it states in the lease agreement that this is an incomplete application because third party sand is not included in the application.
- Eric Clement questioned whether that would be a requirement; part of the ordinance of Buffalo County, third party processing.
- Mr. Clark stated that a completed application is what is important.
- Mr. Kazmierczak reiterated that fact that if the applicant is entertaining the thought of processing third party sand, it is not a complete application.
- Eric Clements stated that their application is complete as it is.
- Mr. Kazmierczak stated that third party sand is not part of this application.
- Mr. Klopp questioned and Eric Clement stated that this is the first CUP they have applied for as investors to mine sand.
- Mr. Klopp questioned the time delay in paying for the analysis of Highway K and Eric Clement stated that they did not agree with the findings of the study, it was a requirement from the Zoning office to pay the bill for a completed application; they still do not agree with the analysis; they think that the existing road is substantial enough to handle the amount of traffic that they intend to put on it.
- Eric Clement stated that one of the conditions require them to negotiate a road agreement with the county highway department.
- Mr. Klopp questioned the difference in mining acres versus reclamation acres and Mr. Dustman explained that the rocks and slopes will have an impact on the total amount of reclaimed acres and you really need to look at the financial assurance section; that is the place where you would look for the total amount.
- Mr. Klopp questioned the location of the waterway and Mr. Dustman stated there is nothing in the waterway and the location of the stormwater ponds keep the waterway from directly discharging into the tributary of Little Bear Creek.
- Dale Klopp addressed a letter from Dairyland Power and whether there were any discussions with Dairyland Power regarding the use of a conveyor at this site and Mr. Dustman stated that he was not involved with a letter from Dairyland Power, however restrictions were more concerned with working around the poles and maintaining a minimum distance between any working equipment and the wires themselves.
- Dale Klopp questioned the haul routes that were identified in the application and Eric Clement explained that there are two places in Wabasha and they have talked with both places; no written agreement at this time.
- Eric Clement explained that they don't have a permit or sand to sell, they have talked with enough people and trans-loading facility and are confident that they can reach an agreement with one of them when they are capable of doing that.
- Mr. Klopp questioned why they would want to go to Plum City.

Mr. Clark addressed Mr. Klopp, chair, and asked to remind the audience that all witnesses are due respect whatever their position may be.

Mr. Klopp asked the audience to keep quiet during questioning.

- Eric Clement stated that they would use the Plum City facility for wet sand and have talked to other facilities in the area as well.
- Mr. Klopp questioned the temporary haul route in the application east of Mondovi, stating he was not sure where it was located and Eric Clements referred to a facility there for trans-loading and processing.

Mr. Dustman explained that the intent of the project was to make it environmentally acceptable and when the application was submitted sand was selling for extremely high prices, there was a lot of sand mining activity in this area; there was a lot of development of things towards the future. Mr. Dustman continued to say that he thought it said through Mondovi and there has been discussions with investors about a facility in Mondovi and stated that the key to the future for the Clements is to sell the sand in the most economical way that complies with the conditions in the conditional use permit, but take advantage of all of the developments that are within the industry.

- Mr. Wantoch questioned and learned that it is a twenty-two mile round trip to Wabasha and again questioned the feasibility to haul sand that far with all the rail spurs already in Western Wisconsin.
- Eric Clement explained that because this mine is a small, low cost operation, only about ten percent of the investment of some of the larger mines and processing facilities they will be able to take advantage of their low cost position and use that savings on truck transportation to somewhere, very likely Wabasha.
- Mr. Wantoch questioned the ability to take the sand to Wabasha and Eric Clement said it would be a problem if they would not be able to take their sand to Wabasha.
- Mr. Kazmierczak questioned how the sand will be moved within the facility by truck or conveyor, explaining that the application and reclamation talk about it being done two different ways.
- Eric Clement stated that they would use both methods depending on the location of sand movement and costs of trucks versus costs to re-locate conveyors within the mine site.
- Mr. Kazmierczak questioned the need for access road for trucks and Eric Clement stated that they may need to construct some, however there are already some access roads at the site.
- Eric Clement stated that based on market price changes, fuel price changes, they want the flexibility on how they can operate their business.
- Mr. Kazmierczak questioned how much new water would be used versus recycled from the high capacity well, recognizing the fact that Mr. Dustman talked a little bit about that earlier, but wanted clarification.
- Mr. Dustman explained how thru-put rate of the plant dictates how much water will be used and the fact that there are only two ways to use water, one being evaporation from the ponds and the rest is what is in the sand after it comes out of the wet plant and that is dependent on the amount of time it sits in piles. Mr. Dustman continued by saying that when settling ponds are used, there is a ton of storage on site and he would estimate that the pump will be used for two hours a day.
- Mr. Kazmierczak questioned and learned that water from the settling ponds is recycled through the system and Mr. Dustman stated that even the water draining out of the sand to the settling ponds and a make-up water pond near the hydro-sizer, which is the main water that the hydro-sizer would be taking up and using.

- Mr. Kazmierczak questioned the design size of the wash ponds versus the design size of the storm water ponds and Mr. Dustman explained that the storm water ponds are design sized larger because the watershed that contributes to the settling ponds is small compared to the size of the watershed of the storm water pond.

Mr. Clark addressed the chair, Mr. Klopp and expressed concern over the term “flexibility” that has been used by the operator. Mr. Clark explained that the plan presented at the public hearing is the plan. There is no flexible standard; standards are in the ordinance, Section 212. He continued by saying that the public deserves and legally needs to know tonight, what is the plan.

- Female voice (not introduced) spoke up and stated she could answer to the Wabasha transport, she is from the City of Wabasha and has document if the Board wanted to know where the City stands today.
- Mr. Klopp questioned and learned that she was signed in to speak during public comments and the Board would wait until that time.

Mr. Dustman explained that the flexibility that Mr. Clement is referring to is the ability to operate with flexibility based on conditions at that time and also talked about existing access roads versus conveyor use at the site.

- Mr. Kazmierczak stated that the application talks about conveyors, not conveyors and trucks and this is what Mr. Clark is talking about; Mr. Kazmierczak is trying to understand what the application is for.
- Mr. Kazmierczak addressed language in the application regarding monitoring and questioned the rationale for only monitoring annually for acrylamide if they are used and Mr. Dustman stated that it takes a year to go three hundred feet
- Mr. Kazmierczak felt that once you go over three hundred feet if you continue to use them, they will be there forever because it will take a year to go three hundred feet.
- Mr. Dustman questioned why they would start sampling before a year because the wells are three hundred feet down from any possible source of acrylamide and that is just science; the idea is to sample for acrylamide at a years and if found then, they would have years to do something about it before they would get under the Lindstrom home.
- Mr. Kazmierczak questioned whether the acrylamide would fairly heavily involved in the sediments in the lined settling ponds.
- Mr. Dustman stated that they do not expect them heavily involved there; studies he has been involved with, show they are not and he also stated that he believes they had a sampling plan for that.
- Mr. Kazmierczak stated that they would sample annually.
- Mr. Dustman stated that they were asked to do that in the reclamation plan; he thought the county asked what the plan was to reuse the sediments in the pond and he explained that they would sample every fifty yards of sediment for acrylamide that would go back on the terrace.
- Mr. Kazmierczak questioned the size of the bond being proposed for Financial Assurance for reclamation whether it included the processing facility and Mr. Dustman stated that is a county requirement and he did not think they were offering anything up.
- Mr. Kazmierczak stated that he wants it to be clear that there is no agreement on the bonding amount yet.
- Mr. Wantoch questioned the power line and the required twenty foot clearance for machinery or equipment and Mr. Dustman stated that the equipment would be twenty feet below the line.

Public Comments:

- Mr. Klopp – I will remind you three minutes tops. The speakers will be called to speak from the sign-in sheet for the meeting.

Public comments are very brief, but are part of the audio recording in their entirety.

Kent Severson, commented on parts of the presentation by Dr. Pierce in regard to air quality; Ron Krlewski, opposed, concerned about applicant trust; Marlene Krlewski, opposed, concerned for reduction in property values, water quality, air quality, noise, lights and impacts to wells, sewers because of the mining operation; Donna Harschlip, opposed, greatest concern is for other mines that may be developed in the area because of the proximity of the proposed wash/dry plant; Rod Harschlip, opposed, project does not meet the public interest; Robert Carothers, opposed, based on water quantity; Judy Carothers, opposed, concerned with water quality, and water quantity, truck traffic and noise; Carrine Baldwin, opposed, concerned about property values, water quality, air quality, conflict with the Buffalo County Land Use Plan; Jared Baldwin, opposed, concerned about health concerns; Ann Rehbein, opposed, concerned with water quantity; Michael Perry, opposed, concerned about water quantity and quality, ; Chris Kees Winkler, opposed, concerned about lack of experience of mine operator in mining industry; Mike O'Connor, opposed, group of people who are not sand miners, concerns about the reclamation plan; Marcie O'Connor, opposed, concern for existing goat prairie and savannas, not consistent with existing land use; Eddie Elliott, opposed, concerned about not having the facts and the negative affects this proposed mine would have; Liz Eng, opposed, resident of Wabasha, not interested in the trucks or the sand in Wabasha; Shirley Evans, opposed, water quantity; Michael Kauton, opposed, concerned over water quantity; Herb Pelke, Town Chairman, Maxville, concerned over the time limit that the Town had to make a decision on the proposed mine per County Zoning Requirements, concern for a time limit for reclamation to begin after a phase is complete, want to be sure the conditions they asked for when they Town approved it with conditions, that they would be met.

- Dale Klopp – As long as you are there, I have a couple questions I was going to ask later, but I will ask now; How many Town Board meetings did you have; do you remember off hand.
- Herb Pelke stated that a response was required in 45 days and they did not apply for an extension.
- Dale Klopp – I was just curious to know how many meetings you had involving the tax payers
- Herb Pelke – We met after that because they wanted us to have a sand mining ordinance. Based on this crowd, I don't want them at a Town Board meeting. It is County Zoning, you guys take care of it. I understand where the Krlewski's are coming from, but we are just trying to be fairly neutral, but we want some things taken care of.
- Dale Klopp – One thing I wanted; have you ever been over to the R & J Rolling Acres site; that is the one where you went off on the conditions.
- Herb Pelke – No. All we did was based on what you wrote down.
- Dale Klopp – That property is totally different; it is laying a lot different then what this application is entailing as far as the I through IV phases.
- Herb Pelke – We are asking for the water quality, air quality that should be the same at every site.
- Dale Klopp – Right.
- Herb Pelke – Water Quality, air quality, reclamation; the basics. One thing I want to mention as long as you are asking a few questions; we have a problem with the fact that they have a three-year least and a twenty-year deal on the plant; we had some concerns, so we put that in our response; why are they asking for a three-year lease on the property and twenty-years on the

plan. I think there should be a time limit on that thing; not saying what it should be, just saying it should be addressed.

Public comments continued at this time.

Jeff Imler, opposed, risk is too great to air and water quality and quality of life; Helen Kees, opposed, concerned project is in conflict with Maxville Land Use Plan and is not the desires of neighboring landowners; Robert Kees, opposed, concerned about the reduction in the value of living in the area if the project is approved, need to preserve value of living for future generations, water and air quality, water quantity; Maren Holst, opposed, concerned about processing plant with minimal information, not compatible with local land use, consider health, safety and welfare of this community; Lynn Schoen, Wabasha City Council, BOA received copies of the CUP's that go with the property for the trans-load facility, the property is for sale and explained what a new property owner would need to do to be able to get the CUP operational and there is no site right now. She talked briefly about Mr. Roemer's site and the limitation on the number of trucks at this site and the fact that this site is already past the capacity for the amount of sand that this site can handle in one day. As a member of the City Council it is not possible for sand from this site to be transported to this site; trucking conditions are very specific on this CUP.

Dale Klopp asked for a question to Lynn.

- Dale Klopp questioned where the first site is located that she was talking about.
- Lynn Schoen - The two sites are on the same section in the west side of Wabasha. One on the west and one on the east side of the same spur area, but they come in at different angles on the railroad.
- Dale Klopp questioned whether one site was closer to Highway 61.
- Lynn Schoen - Yes. That is Superior. The one closest to the highway is the one that is not operational right now. The one that is on the other side, they are in the process of building like an exit out, but they have two routes that have not been completely Ok'ed yet because they haven't decided which way they want to go out. We are in the process of redesigning that whole section of Highway 61 and the service road, so that may change in the next couple years.

Public Comments continued at this time.

Ken Schriber, opposed, concerned about future of Little Bear Creek as a trout stream if this mine were approved, water quality; Colleen Garnevias (read testimony from Kay Hamilton), impacts of frac sand mining in a community; Richard Pierce, opposed, concerned about depending on outside resources, mentioned the DNR, demand for sand is low, we do not know enough, not in public interest; Gloria Brantner, passed. Allan Glass, opposed, concern over truck traffic and the ability to extend time to address emergency needs; Kevin Cassidy, opposed, concern over size in relation to size of area and mining, anticipation of future truck traffic, not in public interest; Jeanne Franz – opposed, concern over another mine that may be permitted and the cumulative effect if all the approved mines were operating; Gerald O'Claridy, attorney for Nelson-Maxville Protectors, concern over conflict with Maxville & Nelson Land Use Plans, environmental concern, won't bring jobs; Alan Worten, opposed, member of City Council in Wabasha, concern over how to monitor for air quality, be conscience of maximum liability insurance amount and financial assurance for reclamation, concern over air quality and truck traffic.

- Ron Kazmierczak – Asked Mr. Worten if he was here representing the City of Wabasha or whether he was here representing the City of Wabasha or himself and he stated that he was here representing himself.

Public Comments continued at this time.

Matt Carothers, opposed, concerned over the proposed sand mine because of beauty and safety; Dan Langlois, opposed, concerned about the long term effects of Little Bear Creek, water quality, from a sportsman's view; June Baker, opposed, a lot of concerns about air quality and noise; Mike Rejeke, opposed, concern over devastation of the environment that mines cause, not compatible with current dairy production, reduction in property values adjacent to the mine and concerns of road damage to County Road K; Scott Mehus, works at Eagle Center in Wabasha, expressed concern over the loss of golden eagle habitat near the proposed mine site; Stephanie Neumann, opposed, she is a medical physician and expressed concern about the negative impacts this mine will have on the county environmentally and health risks of the county residents; Warren Barth, talked about air to the environment and air to occupational health, look at the background of the speakers from earlier today in their area of hygiene testing in toxicology, is air monitoring equipment certified by EPA and approved by federal Standards, you cannot or will not get respiratory crystalline silica from processing sand at a one to four percent moisture content, it simply cannot happen, currently no citations (within the last six months) from MSHA to an operating mine for violation for respiratory crystalline silica, asked that the BOA disregard any negative or derogatory comments regarding Plattes Valley Mine unless you give those folks an opportunity to answer some of those questions, this operating mine has had a positive impact to Buffalo County with the funds paid to the Town and County for road repair and the economy in general with the lower price in gas at the pumps.

- Ron Kazmierczak questioned Warren Barth about his comment about no respiratory silica from the wet plant; what about from the drying and loading facilities.
- Warren Barth explained that the drying and loading facilities are going to be in an enclosed environment and that is one thing that he is betting on seeing, hopefully seeing, but have not yet that there be levels detected and citations given to any operating mine. In an enclosed environment, I think it could be present, I really do, but so far it being a problem to the neighbors or outside that fifty feet from that building, I have not seen it, but I am watching.
- Dale Klopp questioned whether the mine he is referring to is the Barth Mine.
- Warren Barth stated it is the Plattes Valley Mine.
- Dale Klopp questioned how much they pay for the road agreement.
- Warren Barth stated that they have paid over one-half million dollars to Buffalo County continued to say that Joe Wantoch may have a background as far as the Town of Buffalo on that.
- Joe Wantoch stated that he believes they pay the Town of Buffalo about twenty-five cents a ton.
- Warren Barth stated that it is thirty-one dollars a semi load and the county and the Township split it.
- Dale Klopp – I believe that is the way it was set up before you start, that the county would receive so much a ton.
- Warren Barth – It was a requirement to the permit; at this point we have no issue with that; what I am saying is if people are saying that operating mines are not doing what they should be; again I will rest the case that the road agreement is being taken care of; county has gotten a good four hundred seventy-five thousand dollars more then what they need to keep the road repaired and fuel is at one dollar and seventy-five cents a gallon in Winona right now and would see one dollar and fifty cents a gallon in Winona within a month; so the operating mine that have been in the area of Wisconsin have definitely had a positive impact on our economy. Thank you.

- Male voice (not identified) – The Barth mine is the only operating mine in the county.
- Dale Klopp – Yes.

Dale Klopp - That concludes the public testimony.

- Dale Klopp questioned whether Eric Clement will be doing the excavation; as far as the dozing, backhoe.
- Eric Clement explained that marketing conditions are going to dictate a little bit how the mine is operated, but we are considering doing it ourselves. Eric Clements continued by saying that they have identified four firms that are in this business and would be willing to contract operate the equipment; so can adjust costs; lease vehicle, things of that nature.
- Dale Klopp questioned four contacts that Eric Clement stated and Eric Clement stated four different companies.
- Male Voice (not identified) – But we will be responsible .
- Eric Clements – Yes
- Dale Klopp questioned that these companies were not in the CUP and Eric Clement stated that he, the operator is responsible for that.
- Dale Klopp asked if Mr. Wantoch or Mr. Kazmierczak had any questions. Mr. Kazmierczak stated that he would like to give it a little bit of thought her; Mr. Wantoch stated no.
- Dale Klopp – We are going to take a ten minute recess to go over our notes.

Recess began at 9:20 p.m.

Mr. Clark, County Corporation Council reminded the members that if they are in recess they cannot discuss the evidence between themselves.

The meeting was called back to order by Mr. Klopp at 9:53 p.m.

- Dale Klopp questioned Mike Oweceke, whether the Conservationist who approved the reclamation plan, was there and Mr. Oweceke stated that she was here earlier, but not at this time.
- Dale Klopp questioned language in the reclamation plan and whether it stated that an engineer would be called in to remedy a situation when the slopes were thirty percent.
- Mike Owecke stated that he was not familiar with that language.
- Dale Klopp stated that from what he can tell some of these slopes from what he can see are going to be thirty or more.
- Mike Owecke questioned whether he was referring to the final slopes after stabilization is complete and Mr. Klopp stated before.
- Mike Owecke questioned whether they were slopes that they will be initially mining and Mr. Klopp said yes.
- Mike Owecke – By the county Soil Survey, the slopes in the active mining extraction area will be in that range of thirty.

Dale Klopp stated that he believes there is language regarding special engineering services when slopes reach thirty percent with the understanding that the reclamation plan is all approved; Mr. Klopp asked Mr. Dustman if he would like to comment on that.

- John Dustman – There definitely will be an engineer on site many, many days throughout the whole process; they will be doing profiles on fifty feet centers before they even mine, like the profile you saw today, except we are not going to extend it all the way down to Little Bear

Creek. It will be perpendicular to the hill on fifty foot centers and then a geological engineer and structural engineer and an expert on the back slope design of Cambrian sandstone will be giving opinions as to the exact height, slope and bench and design of every fifty feet along the trail.

- Dale Klopp stated that his concern is just because you have an engineer in there, does not mean that everything will work; there can still be some obstacles.

Dale Klopp questioned whether they needed to go through the correspondence. Julie Lindstrom explained that the office has hard copies of all the correspondence that have been submitted and there are many pages of individual names that are listed who submitted correspondence, if they would like them read. Ron Kazmierczak questioned whether the correspondence could just be added to the record by reference.

Mr. Clark, Corporation Council suggested that correspondence could be summarized by how much correspondence was received in support and opposed; that would at least give the public confidence of what is in the record.

Julie Lindstrom stated that they received correspondence from the Town of Nelson for approval with Modification, however, the Zoning Department never received any modification suggestions. Town of Maxville approval with modification; received public comments as follows: three hundred fifty-four opposed, nine in favor of where more than one correspondence was received from some people.

- Mr. Klopp – I guess we have no other questions. Is there a motion to Conditional Use Permit 2014-8, Breezy Point Properties.

Mr. Clark stated that the deliberations must center around, health, safety and welfare; that is the overarching purpose of the Zoning Ordinance. Factors that you should specifically address are in Section 212 of the Ordinance; the seven factors that he provided to them in a photocopy he handed out to them. He continued by saying that they have three options, deny, approve or table up to one hundred and twenty days from their last public hearing. Mr. Clark stated that he was not trying to say that the board should wait, he was just telling them that they have options, but in any event, whenever they make their decision is and Mr. Clark is just trying to make sure their decision cannot be upheld by the Circuit Court in the almost inevitable appeal of the parties that feel as though they were aggrieved, whenever you make your decision. Announce your decision based on the evidence that you have received in the record written or through testimony this evening, related to the factors plus or minus and let the record know why you are making your decision whatever (unable to understand a couple words from the audio at this point). He indicated to the board members that he is aware they know this, but in his opinion, it is good to go over it again.

- Dale Klopp – Thank you Tom.
- Dale Klopp – Do I have a motion to approve, deny or table up to one hundred and twenty days.

-Ron Kazmierczak – In light of the standards in Section 212, I am going to go through them individually and then reference the individual accumulative issues related to them. First one, Location, Nature and Size of the proposed operation or use. Size of the proposed operation or use and nature of this would have some impacts on neighbors, noise; there are light issues, things of that nature we saw. The physical size of the site in relation to the proposed use. The mining area itself is relatively small in relation to the entire proposed site; all land is owned by the applicant. Depending on what numbers you come up with, somewhere between thirty and forty-five acres of the proposed mine. Location of the site with respect to anticipated traffic and existing or future streets giving access. Cumulative impacts of that

has been addressed in the hearing today a couple times. The fact of the matter is that we have already approved, close to one thousand truck trips a day going to the Wabasha area and on the roads in that area. Compatibility with existing uses of the proposed land use, including adjacent lands. While this mine is a conditional use within it, the structure itself as far as the proposed wash plant is really an industrial facility and I understand that it can, in fact be part of the plant, there is some confusion or some question and I believe that this document is incomplete for several reasons including this item because in the lease it talks about third party sand and yet there is no indication in the application itself to us that there is any plans to take third party sand; there is a conflict there that I think is significant. There is other incomplete and conflicting information in here as well, the question about whether or not the material is going to be hauled using trucks within the site or conveyors is not clear, so that is an issue of some concern as well. The incompatibility with the existing land surrounding it is largely agricultural land; some significant dairy operations from what we are told today, Mr. Chair and looking at some of the maps presented to us earlier, this is not an industrial area; it is in fact an agricultural area. Land Use Plans for the Towns of Maxville and Nelson both; this project would be in conflict with that and in fact depending upon the information that was submitted today in testimony as evidence, eighty-five percent of the residents of Maxville that responded to the survey indicated that they were not in favor of this development; eighty-nine percent of the residents of Nelson, indicated they were not in support of this and based upon the numbers that Ms. Lindstrom gave us earlier, it is pretty significant that based on the public comments that the vast majority of the public is not in favor of this either. Harmony with current and future development of the district; as I indicated earlier, this is in fact an agricultural area and has been agricultural area and while mining can be a conditional use within, I do not feel in this case that this is a compatible use; the traffic corridor issue is another significant issue; one of our speakers this evening brought up a good point that we are very limited in the areas that traffic can flow in this area; have to flow between the river and the bluff and that does narrow our traffic down quite a bit; while the applicant did try to provide us with three different haul routes, a way to minimize that sort of an impact, the impact is still there. We heard from Wabasha that in fact, from the City Council members that it appears there is no capacity in Wabasha to handle this material either, which the application is not real clear where it is going to go; that is incomplete factor as well. The topography of the site; it is an unique approach to mining; I have some serious concerns based upon what Dr. Severson told us about the stability of the high walls; if in fact they are fifty or seventy-five feet tall, whatever they are depending on how wide they make them and how tall the wall ends up being; the lack of cementing of that material, I think would cause impacts. I know he indicated to us at one point that some of the areas that we drove along Highway “V” on the way down to Highway 25 were similar, but I still think that we have to take what I heard; at least I have to take into account; I think that would be a concern. As far as relation of the proposed use to the public interest, the purpose and intent of the ordinance and substantial justice to all involved, I feel the vast majority of what we have heard tonight and what I have been provided with as comments both written and orally tonight and the materials we received have said that this is not supported, in fact it would be in conflict with the neighbors that are directly adjacent to would be impacted negatively and this would be a disservice to them and an injustice. In light of those issues, I will in fact, make a motion to deny.

-Joe Wantoch – I have another thing to add; I don’t think there is enough plan to control erosion there; there is a tremendous amount of water coming off the hills there; if you get a heavy rain and it would break loose, it could cause erosion problems there. I will second that motion.

- Dale Klopp – There has been a motion and a second to deny Conditional Use Permit 2014-8, Breezy Point Properties. Is there any more comments.

-Ron Kazmierczak – The only other thing I forgot to mention is the lack and I know the proposal; I think Mr. Dustman told use was to cut trenches back at an angle to address the water run-off at Phase IV; I

don't think that we have decent; it was incomplete in the proposal and that is also a factor in my recommendation; so I felt that should also be considered; so I would also add that as part of my rationale for my motion, Mr. Chair.

-Mr. Clark – I would suggest that as each member votes, you would state your reasoning. There has already been one substantial reason, but I think the other two, however they vote, should state their logic

- Dale Klopp questioned whether Mr. Wantoch had anything else to provide.
- Joe Wantoch stated that Mr. Kazmierczak told it pretty well; he had quite a few of the same issues as Mr. Kazmierczak covered here; just added what he brought up the erosion part of it; there are pretty high hills and once you cut them down that water is going to move and besides there is a lot of open land on the west side; the water coming off of the top; the bluffs we saw from the valley; some open land on the top was thirty or forty acres.
- Dale Klopp – There has been a motion and second to deny Conditional Use Permit 2014-8, Breezy Point Properties. All in favor say I.

All three voice voting I. None opposed. Carried.

-Dale Klopp – I have got reasons for denial. Physical size of the operation; the few number of years for the mining versus the washing and drying facility; that makes we feel that the conditional use permit is incomplete. The trucking to the sites; I have a problem with because truthfully, there is not any site that we know of that the trucking can go to. The number of people that are against this versus the people that are for it is phenomenal. We have had a lot of conditional use permits in front of us and never one quite like this as far as being lopsided. The Land Use for the Town of Maxville is a reason also for myself. Cumulative water usage; we have not had an application in front of us; when it comes to this many wells in a five-mile radius of what it is. It is a phenomenal amount, I feel.

- Ron Kazmierczak – Motion to adjourn
- Dale Klopp – I will second that motion; Motion made and seconded to adjourn. All in favor, say I.

All three Board members voice voting I. None opposed. Carried.

The public hearing was adjourned at 10:12 p.m.

Recording Secretary
Julie Lindstrom
Buffalo County Zoning Department