

**ENVIRONMENT AND LAND USE COMMITTEE**  
**Department of Land Management**

**SPECIAL MEETING MINUTES**  
**March 5th, 2015 6:00 PM**  
**COUNTY BOARD ROOM**

Chairman Brandt called the meeting to order at 6:00 PM.

Brandt verified that the Open Meeting Law requirements had been complied with through notifications and posting.

Committee members present: George Brandt, Michael Nelson, Wade Britzius, Jon Schultz, Curt Skoyen, Jeff Bawek and Kathy Zeglin. Mike Nelson arrived at 6:10 PM. Rick Geske was absent.

Staff/Advisors present: Kevin Lien, Virg Gamroth, Jake Budish, and Corporation Counsel Rian Radtke. Others present: Tom Forrer, Julie Dick, James Schwartz and Jim Sadowski.

**Adoption of Agenda** - Britzius made a motion to approve the agenda, Zeglin seconded, motion carried unopposed.

**Adoption of Minutes** - Britzius made a motion to approve the minutes, Skoyen seconded. Motion carried unopposed.

**Discussion and possible action in regard to the Final Report on the Public Health Impacts of Nonmetallic Mining** Brandt stated there were approximately 60 recommendations and at the end of the last meeting, (which became more of a very important informational meeting in terms of how we relate to the DNR, what their responsibilities are and also what Mississippi River Regional Planning Commission (MRRPC) might be able to offer the Committee in terms of guidance in terms of planning and zoning), staff (Lien and Budish) had proposed to bring recommendations to the Committee on what to act on. Brandt mentioned they had asked them of this a number of times and they are delivering it. Brandt referred the Committee to the handout. Brandt noted that on the overhead would be the language that is being referred to and the Committee can make recommendations based on that. Lien recapped that at the first meeting, Bawek had narrowed the Committee focus from the 60 recommendations to the few that were put into the handout as a starting point. Lien wasn't saying this was all inclusive but this is a great starting point. Lien explained that Budish has devised this spreadsheet. The Committee can read through the recommendation and decide who does, who can or who should regulate it and then what action the Committee needs to take as far as whether it is an Ordinance revision or something else. Lien read aloud GW-1 which is related to groundwater. "Permit holders will develop and provide to DLM a groundwater monitoring and mitigation plan. The plan (adapted from the MEQB, 2014) shall include the following components:

- a. A review of all available hydro geologic data. It shall include an assessment of groundwater vulnerability throughout the lifespan of mining operations and reclamation.
- b. Identification of all chemicals that will be used at the site. This information shall include all known residual contaminants and known breakdown products. Permit applicants will also describe how the chemicals will be managed and identify potential pathways for the chemicals to enter Trempealeau County water resources.
- c. Identification of all groundwater users within a one mile radius of the site.

- d. Identification of potential contaminant sources within a one mile radius of the site. A review of any known groundwater contamination within a one mile radius of the site should be included.
- e. Identification of nearby surface waters that may encroach on the site during flooding.

Lien stated some of this is some pre-existing language – maybe not “to the radius”. We currently require groundwater or well water sampling 2,500 feet from the perimeter of the mine site, so this would be expanding that to one mile. Also, in looking at some surface water resources and potential floodplain issues, Lien thought it just expands some of the language that is already there. Lien reminded the Committee that the water resources along with a few other things were some of the key components of residents’ concerns in Trempealeau County. The groundwater was one of the things that is of high concern of it being contaminated in the County. It is our job to do what we can to help protect that resource. Bawek asked Lien to expand on what the Committee would be adding to what we already have. Lien responded that we currently require an annual test, if one is doing a full processing facility, within 2,500 feet from the perimeter. This recommendation would be asking for a mile radius and it maybe isn’t clear where they are asking it to be from. Lien’s recommendation was to firm the language up to be from the perimeter so we have a defined line. Bawek asked if there was language in there to include an expansion. Lien responded there isn’t right now in the Ordinance but it could be amended. Lien added a lot of this pertains to conditions not necessarily Ordinance language as we apply it as a standard condition. Upon Britzius asking if the Ordinance language was 2,500 feet, Lien responded no, the Committee has applied it as a standard condition when there is processing on the site and blasting as that is when the well testing is done. Britzius asked what a “standard” condition was. Lien answered that DLM staff comes forward with a list of standard conditions that apply to each and every site when they fall into a certain threshold, i.e. blasting. Radtke added that standard conditions are set forth in the County Comprehensive Zoning Ordinance that must apply to all conditional use permits (CUPS), so when staff says, “these are our recommendations”, the standard conditions are recommendations that come from our Ordinance. In answering Britzius’ question as to what is the definition of a standard condition, this type of condition, as Lien was mentioning, can be utilized with GW-1, requiring permit holders to develop and provide the monitoring, as a condition that could be added on, on a case by case basis. Radtke continued that our Ordinance, 13.03(3)(a) says, “Factors to be considered for adopting conditions” and #3 says “surface water drainage, water quality and supply” and “water quality” would fit in there so that is something to consider when the Committee adopts a condition to attach on to a CUP, so that is a stand-alone, case by case, condition. Alternatively, our Ordinance set forth some automatic ones so from this body’s standpoint, what do we want to do with this GW-1. You can make it a standard condition, which would mean changing the Ordinance and it is added in and will apply to every single CUP. Alternatively, Radtke added you can treat it as a condition, something to consider on a case by case basis, it is not in the Ordinance but it is something that staff would bring forward and say, “Hey Committee this is something to consider related to water quality” and it could be applied on a case by case basis. Those are the options or the Committee can do nothing at all and just leave it as a case by case condition. Britzius asked if the standard conditions are listed in the Ordinance. Lien responded, that as Radtke had stated, it just says “surface water drainage, water quality and supply” and it doesn’t give a nominal distance for those types of things. Radtke thought what Lien was saying is that it is more flexible if the Committee leaves it as a case by case condition, and depending on the circumstances, the Committee may want to use 2,500 feet or based on some odd shape the Committee may want to act on a case by case basis. Britzius wanted to be clear and clarified that the 2,500 feet is not written in the Ordinance anywhere. Radtke responded, “Correct” not as far as Radtke knew. Lien agreed. Britzius clarified that it was a standard that the Committee has been generally applying. Radtke responded it is not a standard condition it is something that was typically taken into consideration. Lien explained that how that distance first came about. When the first permit came about it was established as 4,000 feet from the edge of the city limits of Blair so we used 4,000 feet and the applicant, the Committee and

everyone felt that was a good number. Lien stated we did a lot of research after that as far as blasting complaints, potential well issues, etc. and came up with a scientific distance of 2,500 feet from that border, so then it sort of became the “norm” when there is blasting or a processing facility. Britzius commented it is totally flexible. Zeglin stated that Lien had said, “Scientifically set at 2500 feet” and asked how that was set. Lien responded that he and his staff (that was here at the time) did a lot of research on blasting and talked to other counties and it seemed like all the complaints and seismographic readings that were pushing the threshold seemed to drop off at a distance of 2500 feet from the source, so that is really where that came from. Lien wasn’t saying that it couldn’t extend beyond that or it couldn’t be lesser at a shorter distance but that seemed to be a common number that seemed to be popping up, while doing research, where issues seemed to subside. Lien learned that with blasting or ground vibrations, if one has a mine site located here and a bedrock site with a home on it over there, given a set distance and a swamp on this side with a home, initially Lien would have thought the vibrations would travel harder and the readings would be higher through a bedrock site and that is false. It actually works more like sonar and one will get a heavier reading in saturated soils, so the distance is somewhat arbitrary depending upon the site other than, regardless of what the soil make-ups were, Lien was finding things were dropping off at 2,500 feet. Radtke corrected the use of the term “arbitrary” as Radtke stated that “arbitrary” means that there is no reason for it, it is random. Lien interjected saying that it how it started with the 4000 feet which was random, but the 2,500 feet has reasoning behind it. Radtke reiterated there is reasoning behind it, it is not arbitrary. In explaining the 4,000 feet, Lien said everyone felt there needed to be a distance. On one side it came to the City of Blair on the other side, Lien measured and it was a few houses out there and they said, “that’s a good round number let’s use it, so that number didn’t have science behind it, 2,500 feet does. Lien isn’t saying that with more study and more research that the number couldn’t be expanded or decreased. Bawek asked if by taking the recommendation, changing the one mile to 2,500 feet, and putting that in the Ordinance, the Committee would still have the flexibility, at that time, to put conditions on to increase the distance. Lien responded yes and reminded the Committee that this particular suggestion is only relating to water, and the 2,500 feet is used for foundation investigation and wells. Nelson commented that he was on the Committee when the 4,000 feet was used and he thought we later found out that the State was using 2,500 feet. Lien commented that in several areas where he researched 2,500 feet was a common number. Schultz commented that some sites are not going to have a well within 2,500 feet but just beyond the boundary there might be a stream. Schultz asked if the Committee has the ability to request monitoring wells in terms of groundwater flow gradients towards an open stream, open river, in terms of being able to monitor for potential contaminants as there isn’t a home on a wetland. Lien responded that the way the Ordinance reads right now the Committee would have that flexibility, if you put something “concrete” in there, it would require an amendment to the Ordinance but the way the Ordinance reads right now, the Committee can do things site specific and even though there is science behind the 2,500 feet, if the Committee pulled it up and offset it and there was a residence that was down gradient in a direction where we know water flows and they were located at, i.e. 2,700 feet, there would be no reason the Committee couldn’t expand that. Schultz clarified he was saying, “Where there is no residence”. Lien acknowledged that, but clarified that if there is a stream or something there one would want to perhaps do surface water monitoring. Lien stated the Committee could either add that condition or expand upon it, (Lien asked Radtke to correct him if he is wrong) but if you put something concrete in the Ordinance one is sort of bound to that because it is concrete language. Schultz stated we have three different aquifers (Eau Claire, Wonnewoc and Mount Simon) and in terms of wells that are about 120 or 150 feet Schultz asked what they are tapping into. Schultz mentioned this was just presented at the Town of Arcadia meeting Monday night. Bawek answered, as he understood it, there is a sand and gravel layer, then the Eau Claire and then the Mount Simon. Schultz asked if we are defining what depths of water we want. Lien responded we haven’t because we have had a variety of presenters come here and some have said they don’t and others say they do co-mingle because of the grouting between the two sources, so we have requested testing on all because there is some co-mingling between the two water sources.

At this time Brandt drew the Committee back by stating we are talking a lot about what we have in our perspective and in our focus and the way it exists now. Brandt thought what (GW-1) this groundwater recommendation is trying to do is expand our focus of attention by including more hydro geologic data, and assessment of groundwater vulnerability, and that is something that we don't require specifically, throughout the life span of the mining operation, in other words, how is 20, 25 or 5 years of the permit going to affect the blasting and the lack of filtration runoff, etc. and it seemed to Brandt to include the general water resources of Trempealeau County, both surface and ground water, not just the ground water. Brandt added that "h" is asking for identification of all groundwater users within a mile radius of the site, it isn't asking us to do any more than identify who they are and the important thing being the potential contaminant sources. That includes more than just the mine. In Trempealeau County, we have a number of potential groundwater contaminant sources. What this is saying to Brandt is that we have to be hyper aware of the water in the County and not just how it relates to mining but how it relates to everything that is a potential groundwater contaminant which could be anything from permeable surface runoff to numerous spreading issues, etc. so it is calling us back to what it is this Committee does in terms of protecting the water. In working through the flow chart, Lien asked if everyone was in agreement that this is an applicable item. Brandt announced that there appeared to be a "yes" consensus. Upon Britzius questioning the term "geological data", Radtke stated that was one of the points he wanted to raise. In the context where that could be an issue is if you want to set this as a revision to our Ordinance and set as a standard condition. Radtke has a list of a dozen or better points on the points, a through e, where we are going to need further clarification as to what is meant by that because from an enforcement standpoint there is going to be all kinds of questions when it comes down to actually enforcing these conditions. There is going to be different interpretations as to what it meant by "all", what is meant by "available", available by who. It talks about an assessment; Radtke questioned who does the assessment and what are the criteria that are to be assessed. Is it a third party expert and who is paying for that. Radtke added there is a list of these kind of more specific questions that we need to tackle if we want to put this in as a revision to the Ordinance for a standard condition, however even if the Committee wants to apply it as a case by case condition, we are still going to need to narrow some of these things but they can be narrowed at the time of the hearing or at the time the Committee is discussing or crafting the conditions. Obviously, Radtke noted he would be here to make sure that any conditions are going to be worded in a way that it would be administered and enforced in a way that is reasonable. Radtke was just making a few points to this Committee that if they want to move forward (referring to the last question as to whether it is a Ordinance revision, yes or no) we need to spend a little more time on these details to iron them out and make them in a way that answers some of these unknown questions so that we are not creating an enforcement nightmare down the road. Brandt reminded everyone that UW-Extension is doing water testing and has water testing data. We have "in-house" sources of information as well as staff that are familiar with the literature that is out there. Brandt referenced the second question, "regulated by DNR, the County MSHA, OSHA, etc." is germane specifically to this one, as we heard from last months' presentation, wetlands, surface waters, well hole abandonment these are all issues that the DNR is very much interested in and in some cases they have jurisdiction over and staff knows what that is. Brandt stated the recommendation is applicable to what we do and we need to move on. Brandt mentioned the issue that Radtke and Britzius raised is how do you define some of the terms and Brandt didn't think that was something the Committee would deal with right now. Britzius stated if the Committee decides to move to some kind of change in the regulations or rule then we can narrow that down. Brandt added we can say these are going to be our sources of information, they are either standard to the industry or academia deems that these are viable resources for these kinds of decisions. Zeglin wanted to know what the intention was here tonight; are we going to run through each one of these individually and say yes or no and then come back at some other time and really get down to the "meat" of them or, i.e. GW-1, Zeglin questioned why we don't attack it right now if we think it is applicable. Lien commented we are in the second column of the form (the regulated by DNR), and we could go through GW-1, a,b,c,d,e, and we could list them and say, "a –

maybe the DNR has that), b-MSHA or whoever”, and try to narrow the focus that way to help us get to the Ordinance revision on the other side. Lien felt we need to have a way to get to an end result and if we don’t narrow the focus down and break each item down, it seems like we are spinning our wheels and not getting anywhere. Lien thought if we discuss it and decide that an Ordinance revision is necessary then some of the language would have to be narrowed down. Lien suggested beginning with “GW-1- a. - A review of all available hydro geologic data. It shall include an assessment of groundwater vulnerability throughout the lifespan of mining operations and reclamation.” Lien stated a portion of that is done by DNR and a portion of that is done by DLM staff. Lien said the Committee has typically seen the presentation, when they have a high capacity well, where they do a cone of depression and a drawdown analysis so we do get some of that information, which DNR reviews as well, prior to permitting. Radtke questioned what is meant by hydro geologic data. Radtke knew about the cone of depression and DNR data but voiced that it sounded like we are just talking about hi-cap wells. Perhaps because he doesn’t work in that field, Radtke didn’t know what hydro geologic data was. Radtke asked what the various sources were of hydro geologic data. Schultz commented depth of groundwater, graphs or profiles of various aquifers on the site. Lien added we are looking for everything underneath the earths’ surface. Radtke wondered about private wells and historical well testing findings, etc. as to whether that was included in there. Lien responded yes and “c” expands on that. Radtke thought that identifies the users. Brandt commented this is where Pat Malone from UW-Extension would go right to the core of that by defining what is meant by that in the profession, in terms of when you want to know something about water, where do you go to find out something about that water in terms of the testing, well drillers, etc. Radtke’s point was to define this in a way that everybody knows what we’re talking about and that can be simply done by saying, “All hydro geologic data such as, or including but not limited to” so that people know what we are talking about and not making assumptions because what Lien thinks that means might be different to what someone else thinks it means and what an applicant might think that means. Radtke was trying to make the point that we should have a list of things/sources of data that we are going to be looking to or that we want to have. Radtke thought that would help to define what the word “all” and “all available” because if we’re saying what sources then we can look at that source and see what is available from that source. Brandt asked Budish what we use now. Budish responded it is pretty much whatever the applicant provides. Usually they provide a general location of where groundwater or the groundwater level is and then any other data is just extra. It is really up to the applicant as to how detailed they want to get in the plans, etc. but we really don’t require anything other than just the depth of the groundwater. Brandt added that is related directly to our Ordinance and how far down they can go. Budish commented 10 feet above the groundwater table but other available data would be, i.e. water infiltration rates or current soils or how fast the water goes throughout the soil column, etc. because perhaps there is a lot more clay there and the water gets trapped up and doesn’t go all the way down. That would be an idea for hydro geologic data according to Budish. Budish thought perhaps it is really a shallow topography and there isn’t that much soil and it is closer to bedrock, well once it hits the bedrock, the water is going to travel along until it hits a crack within the bedrock to help infiltrate that into the aquifer. It also depends how close it is to the river, because when you get closer to the river then there will be that natural hydrogeological draw which is going to bring it down. Budish gave an example of the land down by Trempealeau, in the sandy area and that the water infiltrates so fast. Budish thought the information is so broad. One can get a map from UW-Extension that just shows the surface water and they could say that is all the data they can get. We wouldn’t be able to say the applicant isn’t being truthful because it just depends on what type of data they have available to them and how far they want to dig into it. Budish stated if we start setting some standards it would be easier. Upon Brandt asking Schultz for some direction, Schultz responded that Budish had mentioned what Schultz was thinking in regard to groundwater flow and groundwater direction. Schultz didn’t know if there was a whole lot beyond that and he wondered if that should be a database that we have for our own resource or consideration. Schultz thought if the applicant is digging up that information then it is helping them form their project or their project plan too. Lien commented that some of the hurdles in

the past have been infiltration rates, or percolation rates based upon existing soil type and then they use it as a sediment pond and the polyacrylamides and fines seal it and then we get no percolation and no infiltration but those are still things that we should look at with the natural soils. Lien had made some notes that the term “hydro geologic data” should perhaps be defined as Radtke had suggested to be specific about what we are talking about. Lien also suggested looking at percolation rates based upon the soil type that is there, so if we have some ponds that are naturally designed for some recharge infiltration and they are not being used as a sediment pond or having polyacrylamides in, we can take that into account with some of our groundwater recharge. Lien didn’t think the Committee had looked at that in the past. Britzius suggested requiring some kind of map or profile because these sites can be 500 or 1000 acres and there can be a whole lot of variation. Britzius questioned what would happen then. Lien stated a lot of that is already done by the engineering firms because they are designing some of these ponds to meet 100 year storms and a lot of that is based upon soil types and depth. Lien didn’t think that was a big hurdle it is just an additional thing that we need to ask for and Lien was sure they could provide it. Brandt suggested the following language, i.e. “other sources of groundwater data including the county’s database, the State’s database as those are important as well. Brandt voiced that he liked Budish’s focus because he is focusing on what he does but because Brandt thought the idea from the recommendation was to look at all potential groundwater contaminants, Brandt thought ph, nitrate levels, metal levels, in other words, what is in the water, is also going to be important to determine and that could be part of the well testing. We are generating all that data right now and that could be part of what is required. Brandt’s understanding of the one mile radius to the site is a way, especially when it is related to groundwater, of figuring out where the water is going, and if there is contamination who or what is being contaminated. When we were talking about 2,500 feet before, we were relating it to blasting and to the potential for foundation and well casing problems. Britzius commented we are trying to get pre-mining evaluations so that we can measure the changes that happen. Brandt responded that is exactly correct and that comes under what our responsibility is over time. Bawek dared to argue with Brandt on that a little, as Bawek stated if we concentrate on the 2500 feet and we have three or four criteria that we want to meet and there is testing done at the same time, we can catch something before it gets to the mile radius type of scenario. Bawek would rather see the Committee come up with the water permeability, location of bodies of water, bedrock locations and any areas where there are sink holes or possible karst areas that are obvious on the maps, location of springs which are not considered a body of water but a source of the start of bodies of water. Bawek thought if we do a good job at that, we’ll catch it. Bawek understood that it is alright to have an overall view, but Bawek would rather see the Committee have a smaller area and catch problems in a smaller area. Bawek thought it made it a little easier for the mining company and for us as our staff is somewhat limited to do all of this monitoring. In expanding on Bawek’s idea, Zeglin thought if a problem does pop up within that 2,500 feet it can be expanded as needed. Bawek stated that is why if we do the 2,500 feet and by putting it in the Ordinance it is a standard and we can also set a condition later on, if need be, on an individual basis. Bawek just thought it made things simpler and stated we need to be effective yet simple at the same time. Schultz stated, i.e. a project is at the head of a valley and there are homes a mile down stream that is perhaps when one would maybe extend beyond 2,500 feet. Bawek agreed and added that there are some really good sites and there are some really poor sites and if we can get our Ordinance so that the mining company’s know exactly what we want to achieve and a poor site will make us put on further restrictions, that comes in with the conditions, but if we have a simple base, it makes it simple for the Committee and it makes things simpler for the applicant. Otherwise, we get into a state of confusion when we are trying to figure it all out at that particular meeting. Zeglin stated her original question was going to be; now when we require well testing do we specify exactly what kind of test we want done or is that left up to the individual mine as there is such a variety of water testing that basically wouldn’t show one anything. Lien commented that is GW-4 basically and that spells out specifically, in the study what we should be testing for. Zeglin suggested passing on that item for now. Lien responded it is not in this initial list that we are looking at but we do require testing however we’ve never identified exactly

what we're looking for and now through the Health Impact Study, GW-4 identifies specifically what they would like us to test for. Zeglin commented when we get to that point she thought that was absolutely necessary because we need to know more than the amount of fluoride in our water, etc. At this point Brandt asked Radtke if there were any other terms that he was interested in the Committee clarifying. Radtke stated yes and read under "a", "It shall include an assessment of groundwater vulnerability throughout the lifespan of mining operations and reclamation". Radtke commented there are a lot of ways that assessments can be done, who is doing them and questioned what the criteria is. For the sake of enforcement, Radtke suggested having some of that spelled out ahead of time. Radtke knew the Committee couldn't spell out every single detail but suggested some guidance to an "assessment". Brandt understood where Radtke was going with this because it is "assessment, which shall include". Britzius agreed the word is totally vague and the same criteria that were just talked about should be applied throughout the life of the operation. Brandt stated "assessment" is a noun and a verb and so we could include, at the mining company's expense, an engineering firm would be hired to produce an assessment that reflects this information related to perhaps something that has to do with what is in the water, ground water flow and those sorts of things. Basically, who is going to do it, who is going to pay for it and what it is they are going to look at and report back to us. It might also be useful to include something related to how or what it is that we do with that information, i.e. do we use it to determine if, at the end of the life of the mine, the reclamation bond is going to be released. Is it going to be used to ask the applicant to come back in and redo their permit? Brandt added that kind of language when it is vague also opens up all kinds of other responsibilities that we may be taking. Budish suggested that the Committee could make it a condition for the groundwater vulnerability and require an annual water test by the owner/operator of the mine site within 2,500 feet of the mine site. If the consumer opts out and doesn't have their water tested, they could sign a waiver and then the groundwater would be tested based off the criteria of the safe drinking water standards, etc. Also, throughout the life of the mine, the annual groundwater monitoring or the testing will conclude, i.e. a period of four years after the mine site is all done and then the Committee could still hold back a portion of the financial assurance just to make sure that the County has it just for doing the monitoring of the water. If there has been no fluctuations or the landowners all sign waivers saying they don't want it done anymore then the County could release the assurance. That would be a way to keep the company tied into the site, and even though it has been reclaimed, one could still keep an eye on the water. Brandt felt the issue being raised here is what happens when it is all covered up and it starts to rain again and what is underground which relates to the polyacrylamide and the acrylamide issue. Britzius voiced that we are getting into the whole reclamation process and different questions and that he liked Budish's description of how we could set up the monitoring. Brandt thought that was because it reflects what we do already and have done. Bawek referred to "a" and talking about assessment of groundwater vulnerability, and wondered if when the Study Committee gave these recommendations if this wasn't pretty much a general overview with reference to points with other recommendations. Bawek suggested saying, "reference" and then reference GW-4 in order to complete "a", or "b" – "identification of all the chemicals" and that process and then reference GW-6. Bawek thought perhaps that a possibility to take away some of the unknowns in all of this, is to take the a,b,c, and d, and reference them to other recommendations to help clarify what they are requesting. Lien responded that if one looks at the Study, i.e. monitoring wells are suggested to be tested quarterly and drinking water wells annually, so there are some inconsistencies/differences and a monitoring well is not the same as a drinking water well, so those things should be defined to take out the guess work, whether you reference them, i.e. look at GW-4 or GW-5, or we just list them out separately. Brandt stated what we are doing is going with the outline that Bawek gave us a number of months ago, but the point now is that GW-1 becomes an overall statement and then specifics are laid out in the other recommendations including, in GW-2 and GW-3 "permit holders shall be responsible for installing, maintaining and analyzing the data from a groundwater monitoring well network" and 3) "shall be responsible for collecting groundwater samples from monitoring wells and drinking water wells within a mile radius" and what they are testing for, etc.

The issues that we have just been struggling with are already in front of us in terms of the recommendations and then it gets into how it is that the sites using polyacrylamide based flocculants shall be tested for that acrylamide using apparently some EPA methods. They have done that already and we can choose to follow those or create other ones as we go along. Britzius stated he was going to jump to the last column on the worksheet and questioned if Brandt was saying this would be an Ordinance revision. Brandt responded that he liked Bawek's idea of keeping things simple, but yet spelling them out as Radtke has suggested. Britzius added that there was talk about expanding the list of conditions when we look at the practice. Brandt stated he wasn't seeing an Ordinance revision required here. Lien agreed and explained that the language exists in our Comprehensive Zoning Ordinance Chapter 13.03- Factors to Consider for Adopting Conditions. Lien thought there needs to be some clarity and expansion of what that means. Lien also addressed flexibility by suggested that if we put something in as far as a set distance, that doesn't give the Committee that fortitude when you have a site that is just up gradient from a significant water source by 2700 feet and it would be nice to include that in there because it is a significant water source and maybe we have some significant water sources in that area and some known issues or existing potential contamination. Britzius asked if rather than changing the Ordinance if the Committee could have a working list of possible conditions or something like that which the new people on the Committee or attorneys could look at to know that these are the types of things that are going to be looked at specifically. Brandt questioned what the Committee's focus was or responsibility. Brandt felt it was to protect the water resource and that it is this Committee's recommendation to focus on that more strongly than we have and be more specific about it. We can say that we are going to consider this information when we put forth the conditions because we understand from the people who were involved with this Study that these kinds of activities can impact ground water. We know that once there is impacted ground water, it is very difficult to clean up and we want to avoid contamination of ground water and preserve the ground water that we currently have so these are the criteria that we are going to use to make sure that the groundwater stays clean. Britzius questioned if it would work as the Committee goes along if staff could then turn this into a list of possible conditions to be considered at the time of the application rather than changing the Ordinance. Zeglin commented that at some point in this process we will come across things that we will have to change the Ordinance for. At this point, Radtke left the meeting for a short time. Zeglin suggested that if the Committee did want to include this in the Ordinance, we could state something like, "the distance shall be set by the Committee in the conditions". It could be standard in the Ordinance but leave distances vague to be set by the Committee. Brandt mentioned that in all of the twelve groundwater recommendations, almost all of them are things that we are doing or have done in terms of requiring sampling testing, distance to groundwater, and who it is that pays for it. There is one in GW-6 that gets more specific related to how groundwater is tested for polyacrylamides. Brandt is seeing in the twelve recommendations just what it is that Bawek pointed out which is a general statement, flush out the specifics, and there is only one that is new to what it is that we're doing and that is #11 which came up in conversation last month and it might be something that we are still waiting for a response from the DNR on; water from any high capacity well permit in Trempealeau County cannot be transferred or sold for industrial or agricultural use out of the County. Brandt wasn't sure if this is the time to deal with it but he wanted to point out that contained within these twelve, with the exception of that one, is exactly what we have been talking about in terms of specifics. Our job, Brandt thought, at this point, is do we agree with the recommendations and do we adopt them as a guide for our decision making process. Lien commented that he thought groundwater has always been a concern with permits and we have always addressed it in each and every one. What this does is defines better for the industry and for staff how to address it. We've always recognized it as a concern and wanted testing done but we haven't been specific about what kind of testing, we have said annually so that we at least have a frequency. This defines what exactly we are testing for, where we are testing it but it does expand it too to some of the surface waters and to Lien's knowledge he didn't think DNR or us have done a whole lot of surface water testing of any kind, it has always been ground water. Budish stated when an applicant submits

their storm water plans, they state whether the site is going to be internally or externally drained. A lot of them are going to be externally drained and with being externally drained, they have to do water testing. They have to test the water that is leaving and submit it as data to the DNR. Budish thought it was a condition of the storm water permit for being externally drained. Budish didn't know all the details regarding it but referenced Jim Devlin with the DNR as he works in the storm water section. In regards to ground water, if it is externally drained it is not really infiltrating until it hits a certain spot or it could be anywhere on a site. Lien recapped that the Committee is in agreement that this is applicable, we understand DNR and both County have a hand in regulating this. We do need some definition on it as far as what we mean by hydrogeological data. Brandt added we have a list of at least a half dozen points as to how we define things. Lien added that he agreed with what Brandt had said as far as GW-2 through 12 with the exception of 11 is all ways to get to complying with GW-1. Brandt suggested leaving it at that as we have a list that Radtke was willing to go with in terms of how we define things. There are other definitions within the ground water recommendations that staff can use to generate a more specific list for us to handle. Bawek asked if on the last "GW/water" if Brandt was speaking to an Ordinance revision yes or no. Brandt responded no, not at this point, with the possible exception of whether we can put in our Ordinance that water from high capacity wells can't be used outside of the County. Bawek referenced GW-11. Brandt responded he would say yes on that one. Bawek agreed with Brandt except Bawek would go for a revision and to simplify and specify on the ground water. Lien asked what Bawek's thoughts would be if we accommodated the revisions in there but left out a distance, so that distance could be determined by the Committee and be site specific. Bawek thought a baseline was needed. Lien responded that the minute something is put into Ordinance language, it becomes more of a standard than a variable. Upon Bawek commenting that we use 2,500 feet in foundation inspections, Lien stated it is not in the Ordinance anywhere. Bawek saw the 2,500 feet as a standard that we have been using based on what he has seen and one can go up or down from that standard with a condition. Bawek saw it as giving the same flexibility. Lien suggested getting clarification from Radtke as Lien was somewhat concerned because he felt that something in the Ordinance that is language typically isn't flexible, i.e. if one has to be 63 feet from a town road, you nor I have the ability to deviate from that, it is a variance process. They have to go through the variance process to vary from the Ordinance language. Lien felt that if 2,500 feet is written in the Ordinance that becomes the standard and if someone comes in and says "my house is at 2,700 feet and you guys aren't going to require inspections, Lien didn't think the County could because 2,500 feet is the Ordinance language so unless Radtke feels we can say we're going to make a condition to add for this particular site an extra 200 feet for this reason. Lien's only concern is when something is written verbatim in an Ordinance that becomes the standard and to vary from the Ordinance language becomes a task for the Board of Adjustment. Lien gave an example of a height variance. Lien asked Radtke if the Committee puts 2,500 feet as a standard in the condition, could the Committee waiver from that by perhaps adding a special condition. Schultz asked, in terms of applicant expectations, if the Committee could mention 2,500 feet as a preferred radius of consideration. Lien responded we do that during the pre-permitting conference as we talk to the applicant about adjoining property owners, the list for well and foundation investigations and the 2,500 foot perimeter. That doesn't mean this Committee, when we come to a public hearing and there are a couple of landowners just outside the perimeter that the Committee couldn't include them, because it is not in the Ordinance. Lien reiterated that once it is in the Ordinance that becomes a base that can't be deviated from. Bawek and Zeglin suggested putting in the Ordinance a base of 2,500 feet. Bawek expressed that he would like that in the Ordinance so that one can put a cost figure to all of the efforts. On fairness to the applicant, Lien stated we want to be consistent for them too because they go out and spend the money on the 2,500 feet inspections and then, i.e. they come before the Committee and the Committee decides to extend that perimeter, it could increase the costs to those inspections. Lien could see pros and cons to doing it that way. Right now, Lien and Budish for the past four years have been telling people the requirement is 2,500 feet for well and foundation inspections and either Budish or Ann Hempel in Land Records can assist them with mapping because

they use the outside mine boundary that is submitted to us and just offset it and that becomes the area. Typically, Lien thought the applicants expand beyond that if there is someone close as opposed to coming here and having that argument that someone was missed by a few feet. Lien suggested coming back to this issue.

Brandt suggested going to SW-5 which is a surface water recommendation. Lien read aloud SW-5, "Applicants shall test sediments accumulating in process and storm water ponds prior to reclamation for parameters listed in GW-4. If flocculants are used at the site, the applicant shall additionally test for parameters in GW-6. These sediments/slurries shall not be discharged to the mine or used in reclamation until they meet federal and state health based drinking water criteria for the contaminants in GW-4". As Brandt was looking around SW-5 to all the other surface water recommendations, it is stuff that we are already doing and that they are hopefully already doing or we're assuming they're already doing; enclosing all significant materials and processes to the extent possible, creating the closed loop systems to maximize the recycling of water. Brandt stated it was mentioned last month that after the initial surge of water use in the spring almost all of the water is recycled. Lien commented we're not certain that is factual. Lien mentioned if one noticed when the last couple of permits came through; staff had recommended a monitor on the high capacity well because we don't know what the usage really is. Lien could say from experience that he has been out to sites that said it's only on for make-up water and it is running every time we've been there, so to say that it is not used throughout the summer, that they are recycling, Lien wasn't sure that was true. That is why the staff recommended that there be some type of monitor placed on the high capacity well so we can start to track uses with what is permitted. The Committee heard Deb Dix from DNR say, last month, that DNR monitors use to within the permitted requirement, so if they are permitted for so many millions of gallons, it doesn't matter what it's used for, if they don't exceed that. Lien stated what we, as a Committee and a condition, were trying to get a handle on is that they are using a closed loop clarifier so the only water that would evaporate or is being lost through infiltration they just need minimum make-up waters and that is great but we want to see those numbers so that we know. In referring to GW-6, Lien thought in the last couple permits maybe we said "food grade polyacrylamides" but prior to that we just said "if you're using polyacrylamides, we're going to require lined ponds, etc.", but we didn't specify so that they are in the recommendations. In regard to the high capacity wells, the meters, etc. is part of their high capacity well permit. They need to have that information on the permit for DNR and they have to submit their pumping logs annually. Budish believed that was for Ag purposes also. Bawek didn't know about the Ag wells, but Bawek said that Deb Dix stated they have to give an annual report for usage. Budish agreed and added that one can apply for a high capacity well and if one doesn't reach the pumping of so many gallons then one falls into a different category of a standard well. Lien clarified that DNR is just reviewing it for annual usage. Budish said that is what the meter is for. In regard to GW-6 and the polyacrylamides, Budish thought that would fall back into the category of a chemical which would be used by DNR because DNR has a certain list of them that can either be used or not. As he understood it, Bawek thought the intent of what was being done in the Study, was during the permitting process, the applicant at the DNR has to specify what type of polyacrylamide they are going to use as there are three or four grades. DNR then does all their recommendations based on that listed chemical that the applicant is going to use at the site. Bawek thought the purpose of this Study was to encourage food grade use regarding groundwater contamination. Bawek thought that is what the Study recommendation is leading us to so that even though it may be more expensive, in the long run, it is going to be beneficial when we are dealing with groundwater. That was Bawek's take on all of this. Bawek stated Brandt had said that we do all this stuff already. Bawek questioned if we do this; "If flocculants are used on the site, the applicant shall additionally test for parameters listed in GW-6". Bawek asked Lien if we already do this. Brandt commented he was seeing the closed loop systems, the enclosing of materials, the lined ponds and that sort of thing as these are issues that we deal with and these recommendations come out of the surface water section and it gets Brandt thinking about the presentation last month where, in some areas

of the state, high capacity wells draw down streams because that ground water is feeding the streams as well. Conversely, if the wells are contaminated, the streams may be contaminated so this is all part of the focus on keeping the existing water clean and to know what it is that is out there. Bawek clarified if Brandt meant that the surface water is contaminated then the ground water is contaminated. Bawek stated this recommendation sort of plays in to all of the recommendations in the general water conditions. Lien agreed. Bawek continued that if we do a really good job on the water recommendations, this will already be taken care of, because we are referencing back to all of those conditions, GW-4 and GW-6. Britzius noted that we are talking about surface water and not ground water so there is a difference. Bawek clarified that we are talking process and storm water ponds. Britzius commented he is curious about SW-7 as it says, "Storm water retention ponds need to be bigger by a minimum of 75%". Britzius questioned bigger than what? Lien thought that is where we went to the 100 year storm as a standard for designing the ponds. If one looks at the "SW" section there are a lot of variables there. Lien started with SW-1, "Distance of nonmetallic industrial sand mine from an exceptional water source or trout stream shall be increased". Lien questioned to what? Lien then read, "The distance of a nonmetallic industrial sand mine from other wetland or waterways shall be increased. Lien again questioned, to what? Schultz asked if it was Deb Dix who mentioned that the 100 year storm water ponds are probably not big enough. Brandt mentioned it was the County Board meeting and related to the Highway Dept. and based on Wade's report. Zeglin voiced that she was pretty sure that we have had four, one hundred year floods in the past five years. Brandt said that is what Highway Commissioner Dave Lyga was referring to. Schultz thought that is what SW-7 is referring to – 75% bigger than the 100 year flood. Bawek stated the thing that wasn't taken into consideration and why this recommendation was made is that they don't take the cumulative effect. They take a one time, four and half inch rain, in a twenty four hour period but if you get one the next day, that doesn't count in the designing of the pond, so this was recommended to be bigger by 75% because of all the storm water pond breaches that we have had in this County and so this Committee said, "let's make them bigger". Bawek thought that is where the recommendation came from because of the lack of a cumulative effect. Schultz questioned, because DNR manages storm water permits whether we would have the ability/capacity to ask for that? Zeglin commented we can always make things stronger. Brandt added we have the ability to require the lining of the ponds and the size of the ponds and we've done that in the past. Brandt stated SW-5 relates specifically to testing of sediments but it also, again, refers back to a couple of ground water recommendations, yet the most specific recommendation within that "SW" section has to do with the sizing of the retention ponds. Brandt questioned if we ask for a 100 year flood, if it should be 75% bigger than the 100 year flood or does this mean that we should just ask for retention ponds that can handle a 500 year flood because that is something that they can model. From what Britzius heard it probably should say the ability to handle a 500 year flood because that is what we seem to be experiencing. Bawek wondered if the size of the pond is the issue or the size of the berm. Lien expressed that he thought the real issue is the BMP (Best Management Practice) and maintenance because a 100 year storm for the most part is sufficient because they all have freeboard, but if you are within a couple feet of freeboard and you see a forecast of a large rain event coming, you better get the pond pumped down and cleaned up and if one doesn't do that, you don't have capacity for a 100 year storm. It is no different than managing a manure permit or any other item where there is limited storage. If one did nothing, and allowed three, 100 year storms to take place within three weeks, it is going to fail and you're going to have a discharge. Lien explained that, in designing, "freeboard" is a given amount above and beyond what is originally designed so everything always has a freeboard in it, so if it is a 100 year storm, one designs to (used to be) 4.3 inches of rain in a 24 four hour period and then you allow a couple feet of freeboard there for some sediments in the bottom or for that 500 year storm or whatever may happen because you don't want to design something to automatically fail. Lien added that is always taken into account but it requires on-going maintenance and you have to be able to pump them down, and clean them out. The biggest issue is the on-going maintenance of it. For the most part, those structures should be able to contain the rain events that we have but if one doesn't do the maintenance

and you're not on top of it then that is why we had seven out of seven discharges in one summer. Bawek stated he agreed with that. Bawek thought if one goes 75% bigger and you have a breach you may have created a bigger problem. Zeglin commented one can't rely on meteorology predictions as in the fall of 2012 we had the 8 inches of rain in two hours which was not predicted at all. Zeglin thought we were supposed to have light rain that day. Lien responded he was just using that as an example, but Lien said they should always be keeping up the BMP's and that is a requirement even through DNR storm water. They have to keep the silt fences up and operating. According to Lien, to have a silt fence failure because of two rains events isn't an acceptable reason and DNR is going to site you. That is their responsibility. If you are required to have a silt fence or a berm or floodway and it fails because of two repetitive storms, that is not an excuse and those things never fly because the BMP practices are to be maintained. One can't just put them in and walk away, whether it is silt fence, berming or whatever and it is just a minimum of 75% bigger. Lien questioned if that was 75% bigger from a 100 year storm or 75% bigger than what they came in with as a plan? Britzius didn't think the Committee could effectively use that language that is there. Lien stated he agreed with the intent. The intent is that we have had failures and we understand that and a lot of the problems have been identified where they were designed to be infiltrated and you put clays or fines in the bottom of these things and you have zero infiltration so what was to hold a 100 year storm event which had a percentage of percolation and infiltration through it failed, so then it filled up quicker and then didn't have that capacity when the rain event came. Lien thought there has been a learning curve on the industry, the Committee and staff as well. To just say 75% bigger, Lien thought that was a difficult number to wrap around. Bawek's opinion was that SW-7 is a DNR problem. Schultz questioned if the Committee could go beyond what is required. Zeglin commented that one cannot lessen the standards but one can make them greater. Schultz thought that may be dependent upon the project and it may be something the Committee could make adjustments for project by project. Zeglin thought there had to be a standard set. Britzius questioned what standard we have now? Lien responded that it is not in the Ordinance but as a recommendation from staff we have been using a 100 year storm. Zeglin thought it should be adjusted since we have had so many breaches in the past five years. Upon Britzius asking for some proposed language to change it to, Brandt responded the Committee's option is 500 years. Zeglin stated she would opt for 500 years. Schultz asked if the Committee had a rough idea if a 100 year flood event is a 4.3 inch rain. Lien commented it is actually not that much more. Schultz commented our biggest challenge is when a rain happens two days in a row. At this point Brandt stated he has led everyone astray in terms of the specificity of dealing with SW-5 because all of this has something to do with whether or not this stuff gets spilled out onto the ground and possibly to surface waters. Specifically it relates to the safeness of the sediments in the slurries and who does the testing and determines that it is safe. Apparently, there is state health based drinking water criteria that is related to federal and state health based drinking water criteria that are related to flocculants. Brandt restated his question which was specifically who is it that is going to be doing the testing and determine that these sediments are safe. Brandt added this again is tied to the reclamation permit because these sediments can't be used in reclamation, based on this recommendation, until it is determined to be safe. Brandt knows this has come up a number of times but asked what we are doing currently in regard to the language in SW-5 related to who determines when the slurry is safe and pays for the testing. Lien responded there hasn't been any testing and the material that comes out goes directly back into reclamation. Upon Brandt asking if it could be tested, Lien responded it could be tested but Lien thought it needs to be defined as to what we are testing/looking for. We know it is full of acrylamides. When one references back to GW-6 and GW-4 it refers to the acrylamide, the nitrogen, the nitrate, iron, magnesium, arsenic, nitrate, volatile organic compounds (VOC's), so they are specific about what they are testing for but then there is also mention of the federal and state health based drinking water criteria. Budish commented that within a couple of the very large sites, specifically the Hwy 53 mine which is already annexed, there was a condition that before the product went into reclamation the material would be tested for certain things and the applicant had agreed to it. Brandt asked if the Committee could agree that we pay attention to

sediment testing prior to reclamation during the conditional use hearing/process. Bawek questioned if Brandt was asking if it is applicable or about a revision. Brandt stated, in regard to SW-5, that we require testing of the sediments before they are used in reclamation based on the standards that they suggest. Committee consensus was agreement with Brandt.

Brandt now went back to the 100 and 500 year flooding and requiring the sizing of the ponds. Lien stated he made some notes and he asked the Committee to allow Budish and he to contact DNR staff and let them give us specifics on what those failures/discharge events were. Lien stated DNR basically looks at a discharge and not particularly what caused it. You can't discharge if you don't have the right discharge permit and a lot of the original ones came on board saying they were going to be internally drained. Lien and Budish met with a company this week that said it has taken them a couple of years to where they feel their site is internally drained. Up until that point, one has to have a discharge permit which is required by DNR. Lien would like to just hold off a little bit on that one so that he and Budish can talk to DNR and find out what specifically those violations were. To clarify, Schultz stated storm water ponds and settling ponds are not the same. Schultz stated storm water ponds are designed to hold clean, surface water and should be dry if there hasn't been any rain. Lien responded they may not necessarily be dry but contain runoff that isn't contaminated by any source. They are designed to capture water and infiltrate rather than contributing to an area. Retention/Settling ponds are pumped into to let the solids settle out and then remove them. It is an ongoing maintenance. Bawek would like Lien to ask the DNR if those berms had any type of vegetative cover or if they were just dirt at the time of the heavy rainfall which caused the berms to fail as it may fall on this Committee to see that there is some type of netting in the initial building of these ponds. From pictures he saw, Lien knew that one pond that failed had minimal vegetation and another one had no vegetation. Lien questioned if the Committee was talking about an Ordinance revision on SW-5 or no revision. The Committee was unsure. Brandt noted that Budish had stated the Committee used the condition before.

Bawek asked to move back to GW-1 as Radtke was back at the meeting. Lien asked Radtke, if the Committee put into the Ordinance language, "Minimum of 2,500 feet from well and foundation investigations must be conducted", will that tie the Committee's hands or does it give them the ability to add or expand on that or does that make it a standard. Lien threw out the 35 foot height requirement and that neither he nor staff can say someone can vary from that, it is something that is decided by a variance request in front of the Board of Adjustment. Radtke responded the problem with that is using that as a standard condition it would vary. Radtke would have to look at the rest of the conditions and see if there were any other ones that vary like that. Budish brought up on the overhead screen, "Minimum reclamation Standards for Sites under one Acre" and Budish pointed out "a minimum of 10 feet" or at least 10 feet. Radtke commented that was a cut-off. Off the cuff, Radtke stated he thought it would probably be ok. Your setting a minimum standard but each time it is put on as a condition you will want to specify what that distance is as you're going to have to make it clear because you are going to need to know, for enforcement, where or how big the circle is. Lien stated that was his concern on the applicants we have. If we have a minimum of 2,500 feet, when Lien and Budish have a pre-permitting meeting with the applicants we let them know that and if they come before the Committee and the Committee changes it for some reason, that broadens their plan and greatly increases their cost and from 2,500 feet to a mile is a significant change and could include a lot of change. Lien sort of likes having it general where the Committee could say, "you have a couple houses that are 2,700 feet, let's include those also", but Lien doesn't want the vagueness so that all of a sudden it could be expanded to a mile. Brandt commented that if this Committee took the recommendations from the Study Committee and were to decide that a mile is going to be it then that is what it will cost everyone to do. It isn't a matter of 50 feet or 100 feet, but this is what we do and it is going to be, i.e. a mile. Brandt thought that it was possible in the pre-permitting meeting to say that the Ordinance says 2,500 feet depending upon what the Committee/staff determine to be potential dangers to groundwater. There might be a larger radius so

be prepared for something else if the Committee sees fit. Radtke thought the similarity one could look at is the setback. We have a standard condition that says, "Any nonmetallic mining boundary shall be set back at least 250 feet from any building or structure used for human habitation or housing farm animals". Radtke stated that sets a minimum setback. There could be site specific reasons why the Committee wants that to be, i.e. 300 feet or another number. The Ordinance prevents the Committee to something less unless there is actually a waiver provision or it is waived. Aside from that, it is setting a minimum as would be the same for this case. Lien stated the key word would be, as Bawek had suggested, "a minimum of 2,500 feet", because if one said 2,500 that becomes a standard not a plus or minus but when you add the key word "minimum" you can expand that and then the question becomes to what degree. Brandt clarified that GW-1 recommendation would become an Ordinance change. The Committee was in agreement. Radtke had some other points toward GW-1 (b) (c) (d) (e), if the Committee is looking into making that an Ordinance provision. Radtke had the same kind of clarification questions.

Brandt moved on to Air Quality -1 (AQ-1), "Monitor air quality for PM 2.5 and PM 10 at property boundaries of existing nonmetallic industrial sand mines that are one acre in area or greater and extracting silica. In addition to air quality monitoring at the mine site, monitoring should also be done at any location where the dry product is transferred, transported and/or stored and fugitive product should be generated. Monitoring should be done according to EPA guidelines regarding placement of monitors, filter types and allowable limits for daily and annual averages. Although monitoring for PM 4 is not an EPA standard, sorting out PM 4 can be helpful in identifying the source of particulate silica and has been used in the site industry study". Brandt commented there was quite a bit of discussion around this last month. Brandt asked where the staff was with this. Schultz commented he saw Dr. Crispin Pierce give a presentation about a year ago. He had washed and dried sand in an air tight container. They just sort of sifted that container a little bit, took the cap off and took a hand held air monitor and the readings were high for PM 2.5. Brandt stated that was contrary to what the DNR was saying as to how it is generated and to where it comes from. Schultz said Pierce's study is coming out in September or October. Schultz questioned if this was something the Committee should move on or hopefully the DNR is doing their one year study and Pierce is coming out with his study which may or may not have an influence. Zeglin stated that past few mines that we have had come through, we have required monitoring to PM 2.5 so that has been a condition we have been putting on. Schultz mentioned we have the University of Iowa monitoring going on here in Trempealeau County too. Lien asked Budish what the monitors were measuring that were placed in the County. Budish responded it was supposed to be PM 2.5. That is what the University had said it was. Lien stated DNR is doing PM 10. Brandt's recollection is that they feel the PM 2.5 is too hard to nail down and probably not a by-product of the process that is going on here. Budish explained they have cooperation with one site that is still within our jurisdiction that is doing air monitoring right now. Budish said the Segerstrom mine has a monitor out there right now and they are going to be releasing their quarterly report which will be coming out today. Segerstrom's have done nothing on the site yet. Lien explained it is a base line. Budish said the monitoring will also be done during the life of the mining and they are doing the PM 10 because that is a DNR/EPA standard. Upon Britzius asking if they were monitoring to PM 2.5, Budish responded that wasn't part of the conditions. Budish elaborated that a couple of conditions before we started doing the PM 2.5 just said put out an air monitor. They come back and ask Budish what the County wants for air monitoring. Budish just tells them to do the DNR air monitoring which is PM 10 and there is a standard for it. At least then they know how to do it because they are part of the industry and they know how to monitor all that stuff, but the mines monitoring the PM 2.5, Budish hasn't heard from. Zeglin was curious as to if Segerstrom's just have one monitor out there or where it has been placed. Budish said it was just one right now because there is nothing going on right now and they haven't ran any electricity to the site, but once they have electricity they are going to be placing it within their air plan that was reviewed by DNR. Zeglin was curious because it is densely populated out there. People have been

asking Budish how to satisfy some of the conditions as some of them are pretty vague. Budish refers them to the PM 10 model because there is something for them to follow. Bawek stated DNR doesn't do PM 2.5 because they have a source point verification issue with PM 2.5 so the only thing that Bawek sees that the Committee could do, is if one does a PM 2.5 at the potential mine site before mining takes place one has a reading and if you start out and require a PM 2.5 reading for at least one year of mining, you will know if there is a difference. The DNR doesn't tell us if there is a difference and the only way we are going to find out is if we do something like that and it seems like the recommendations that we've been given are holding us to that standard. Budish voiced what they (DNR) said about the PM 2.5, that being they will get readings from a wild fire up north because that is the same particulate size so how do you point and say that is from the mine. Once again, Bawek stated if we do this on a number of mines, we will at least have an idea. If one of four gives us a reading or if three or four give us a reading that gives us a better idea that it is possible it could be coming from this site. Budish suggested that "possibly" is a term that a lawyer will put right back at you. Budish noted there is an EPA standard for PM 10 and there is no real standard for PM 2.5 and that is why it is a research item for the University of Iowa or Dr. Crispin Pierce. They are researching it. Budish questioned how one would do it. Budish stated he wasn't going to go out to every single site and monitor for PM 2.5 because he doesn't know how to do it. Brandt stated we deal with this issue each time; who is responsible and who is going to pay for it. Brandt did recall a reference to the test to determine the source of the PM 2.5. Just speaking for himself, Britzius mentioned that on this one, because there are so many unknowns, he would be comfortable waiting until DNR has completed their study and maybe some of the research that Schultz referred to comes out. Bawek commented DNR is not testing for PM 2.5. Britzius thought Dix seemed to say they're doing some research on that subject as they are being requested to do that. Gamroth asked if Brandt was referring to Page 6 of last month's minute, which stated "Dix added there is a group at UW-Eau Claire Geological Department and they have been doing the studies of the cementation of the particles that are around the granules that might break down to that size and they are not even finding it in these geological formations that one is going to get that PM 2.5 out of the testing for that". Brandt responded that is what he was referring to. Lien explained that when he and Budish had a phone conference with the two individuals out of DNR- Madison doing the testing, they pretty much told us and made it clear that they are not testing for anything beyond PM 10. Britzius asked in terms of the study Dix said they would be doing, if Lien had any idea what they would be looking at there. Lien responded he wasn't sure if they knew what they are going to look at but they are taking public comment. Zeglin commented she always liked to error on the side of caution. Britzius agreed. Brandt stated the cautionary principle is what it is that Schultz suggested that we apply to our considerations and looking down the page there is also some recommendations to obtain air quality samples every three days for three years. That is a bit/lot more than we've required from anybody in the past. There is a recommendation for ongoing air quality monitoring at sites where vulnerable individuals live, work or attend school and that is a piece that County Board Supervisor Olin Fimreite has been adding to the conversation from day one and Britzius has voiced this is a major concern. Brandt thought there is a desire for certainty that at this point no one has been able to give. Brandt can understand the argument that this kind of testing might give us the information that certain people are seeking but that also is not a guarantee. When it comes to vulnerable population, Zeglin stated we have to take higher standards into consideration. Bawek asked if Zeglin was saying/suggesting that we should list what we feel are areas where this type of testing could/should take place in a certain distance from schools, nursing homes or larger areas of public access or public gatherings. Zeglin thought that would be good. Lien commented they did list a few between AQ-4 and AQ-5; schools, nursing homes, assisted living facilities that are either within a half to a mile. Brandt questioned if it was a half or a mile from processing or mining or along transportation routes. Lien stated AQ-5 added residential housing and then along haul routes. Brandt read aloud, "The Department of Land Management can identify these areas and implement an air monitoring program. This information may also be used to inform governing bodies of the potential impact of further permitting mines in areas where more than one mine is already

operating”. Brandt explained that relates to an issue that has been on the table for five years which is the cumulative effect. In getting back to the PM 2.5 versus PM 10, Zeglin stated preliminary tests show that there is the potential for PM 2.5 to be present and until some studies accurately pinpoint that, she would prefer staying with the PM 2.5 or going to the PM 2.5. Brandt recapped that we come down to the recommendation that staff implement the monitoring and staff doesn’t have the time or the expertise to do that. Brandt questioned if we should require the applicant or the person holding the conditional use permit to do the monitoring and to hire the consultants and pay for that and then supply the data to us. Zeglin and Lien commented that is what we have been doing. Lien elaborated that we require them to pay for the monitor and put it up. It would just be to find an appropriate lab and the appropriate type of monitor that can measure to that level so that we get accurate information back that staff can review. Lien isn’t expecting Budish to go out and collect that data. He did it through the University study, but with these as conditions, we put that burden on the mining company with expectations of what they are collecting whether it is PM 10, 4 or 2.5. Lien questioned if that was realistic to collect that data and as Budish stated are we going to get everything from a forest fire up north that we’re picking up so that we have high levels but it isn’t related to that particular mining facility. Lien questioned what we are looking for and why are we looking for it. Lien thought PM 2.5 was a great direction to head, but if people are saying we are going to pick up everything (and it might not be related to this), that still falls under the PM 2.5 particulate matter that has adverse health effects, then what are we really doing to protect the citizens as those things still exist even if the mine wasn’t there. Lien wants to learn and educate the Committee and the industry on what we need to do while providing our citizens with good, accurate information also. Lien didn’t realize that when we had talked about the monitoring that we would be picking up, i.e. stuff from a forest fire up north, and they can’t detect the difference. Lien thought if it went to a lab, one could detect PM 2.5 from fractured quartz which is a lot different from burnt oak trees. Zeglin had the same question as to whether they could differentiate where it is coming from in those filters. Radtke suggested either bringing in an expert or a vendor of one of these products to explain what it can or cannot do so that we can know what we are asking to be put out there. Brandt stated the people who came from the University of Iowa briefed the Board of Health on their project and the machines that were going to be used, and they were, in fact, the experts on those machines. They were able to tell us what and how they were going to be able to do the measuring. Brandt added those people are still available and could be easily contacted and asked to come again and talk to this Committee. Radtke stated he was just listening to everyone talk here and there seems to be more questions about what it is we’re looking for and are we able to pinpoint the source, etc. These are questions that we really can’t answer. On the other hand and to respond to Lien’s concerns, Brandt said there needs to be a way to communicate to people who live in this County what is they can expect or the risks living here. There are other issues related to groundwater, surface water, air pollution, soil quality, etc. so Brandt didn’t think it was outside of the realm of possibility that we could be concerned about this whether it is related to if the PM 2.5 comes from this County’s forest fires or from an industrial process that is going on here in the County. Britzius expressed that Bawek made kind of a good point that we should collect the data. We can sit and argue about how to interpret the data, but if you don’t have any data, you can’t begin to interpret it. Maybe someday tests will be around to determine it better, but we could be doing something for our citizens by collecting the data. Lien thought he and Budish could set it up to have the people from the University of Iowa come up and talk to the Committee. Zeglin said that would be good and then they can also tell us how their collection of data is going and kind of give a report of what is going on to date. Brandt commented we are interested and that he sat in on a phone conference with Public Health Department Director Sherry Rhoda and they gave us an update and re-affirmed their commitment to the project. Brandt agreed that would be nice to have. Brandt stated DNR, OSHA oversee air quality and MSHA particularly at the mine site. In regard to an Ordinance revision, Brandt thought that would be a question mark on the sheet and that it was applicable on the sheet. Lien briefly went through items on the next regular meeting agenda. Jim Sadowski asked if the Committee has gone through all the components/recommendations. Brandt explained this is our

third meeting and what we are doing is starting off with some suggestions that Bawek made just to get us “dealing with it”, so we will be going back to those at some point.

**Confirm Next Regular Meeting Date** – Brandt reminded Committee members of the next regular E & LU Committee meeting on Wednesday March 11<sup>th</sup>, 2015 at 9:00 AM in the County Board Room.

At 8:07 PM, with the consensus of the Committee, Chairman Brandt adjourned the meeting.

Respectfully submitted,  
Virginette Gamroth, Recording Secretary

Michael Nelson, Secretary