STATE OF ILLINOIS

IN RE: THE APPLICATION FOR	)	
APPROVAL OF THE DEKALB	)	
COUNTY LANDFILL EXPANSION,	)	Kishwaukee
	)	Community College
	)	
	)	DeKalb, Illinois
	)	March 2, 2010

Hearing commenced, pursuant to assignment, at 9:00 a.m.

BEFORE:

JOHN J. MCCARTHY, Hearing Officer.

POLLUTION CONTROL FACILITY COMMITTEE MEMBERS PRESENT:

Paul Stoddard
Riley Oncken
Ken Andersen
Michael Haines
Ruth Anne Tobias

REGISTERED OBJECTORS PRESENT:

Mike McIntyre
Roger Steimel
Clay Campbell
Dan Kenney

REPORTERS:

Julie K. Edeus and Callie Bodmer,
Certified Shorthand Reporters,
Dixon, Illinois.

APPEARANCES:

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Chicago, Illinois, 60601-3242,

Counsel for Waste Management of
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Chicago, Illinois, 60606,

Counsel for DeKalb County.

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Witness: ANDY NICKODEM

Witness: TOM PRICE

Witness: TOM PRICE

Witness: SHERYL SMITH

EXHIBITS

HEARING OFFICER MCCARTHY: Let's reconvene the public hearing. I think when we adjourned last night we agreed that the next order of business would be cross-examination by the County of the witness.

Would the witness come forward, please. And you remain under oath.

MR. NICKODEM: Yes.

HEARING OFFICER MCCARTHY: Ms. Cipriano, you may proceed.

MS. CIPRIANO: Thank you, Mr. Hearing Officer.

CROSS-EXAMINATION

BY MS. CIPRIANO:

Q. Good morning.

A. Morning.

Q. Just preliminarily, I have a whole series of questions in different subject areas. I will for convenience refer to sections of the application and particular drawings and appendices. I'm not suggesting in each and every instance you need to refer to them. I'm doing so just as a convenience, but there will be circumstances where it would probably be

helpful for you to pull them out and I'll make sure to sort of give you that nudge in advance. So hopefully that will help us move through this fairly smoothly.

A. Okay.

Q. So I'd like to begin with the application's stability analysis and you would find the relevant section in the application to be Section 7 as well as Appendix K and K is found in Volumes 4 and 5.

Generally can you explain a bit more the purpose of a slope stability analysis as it relates to the stability of waste that's placed on slopes?

A. Yes. A stability analysis is really conducted to ensure that the liner, the waste that's placed in there, the excavation before the liner is constructed, so the excavation, the liner, the waste that's placed in the liner, the final cover that's there after -- during construction, during operations of the landfill and after the landfill is constructed that that entire design remains stable throughout -- throughout construction and operations of the site.

Q. So in your experience have you seen or are you familiar with situations where there actually has been a slope failure and waste has been exposed or there's been environmental damage that has occurred and if you are familiar or have seen such a circumstance, can you explain why that would occur?

A. Yeah. I'm familiar with a few cases. One was -- there's a landfill called the Rumpke Landfill in Ohio which had a failure of the waste mass. There wasn't actually any environmental damage. It was really just the waste and the liner sliding and that was really due to the configuration of the filling during operations of the site. That -- I can't remember how many years ago, but that was maybe ten years ago. There have been a few more, not a lot, but -- of these types of interim slope failures and the industry -- the solid waste industry has responded to that over the years by looking further at the slope stability analysis in the interim condition. By that I mean we used to do analysis on the base liner, how stable that was, how stable the excavation was and then how

stable the waste was after it was placed in the final elevation. We did do a lot of looking at what happened during the operations, how they placed waste in a phase manner during operations. That's what was the problem in the Rumpke Landfill failure and since then, you know, engineers such as myself in the industry and the operators have understood that that is a potential issue. So we do phase slope stability analysis for those interim conditions and we, in fact, did that in the application.

Q. So that is what -- because obviously that would be of concern, so obviously you have applied that experience that you've gained to this particular land -- construction of this particular landfill; is that correct?

A. Yes.

Q. I'd like to now turn to Volume 4 of the application and particularly Appendices K-2-1, just for the west unit and K-2-2 for the east unit. Can you just explain for us what a seismic analysis is?

A. A seismic analysis is done really for earthquake, to take the analysis of stability in

the context of earthquake. We do two types of stability analysis. We do what's called a static analysis which is the analysis that I just described that it's done without the effect of ground acceleration from the earthquake. So if the waste is just sitting there without an earthquake does it stand up, does it hold up. Seismic analysis takes those same configuration and factors, but we add in a ground acceleration -- an expected peak ground acceleration found in an earthquake. So that's what a seismic analysis is.

Q. Now, in the application it stated that seismic analysis was not required for either the east unit or the west unit, but was, in fact, performed for both, is that correct? Am I reading that correctly?

A. Yeah, we did a seismic analysis for both.

Q. And when you stated that it was not required, what was the rationale for that?

A. Well, there's a criteria in the regulations and it's really a vocational criteria. I don't remember the citation, but it's --

Q. In 8-11? Are you talking about the landfill --

A. 8-11 regulations in reference to what's called seismic impact zones and there are factors in there that say if the peak ground acceleration exceeds I think .1G -- I don't remember the exact number of years -- then you're in a seismic impact zone and you are required to do a seismic stability analysis.

In the case of the DeKalb Landfill we are under that -- we are not in the seismic impact zone and that peak ground acceleration for this area is lower than that .1G. It's, in fact, .08 something -- it's .081G I believe is what's in the application and even though it's not in the seismic impact zone, typically us engineers do a seismic analysis. For any designs that I work on we do a seismic analysis.

Q. And obviously we've heard a lot over the last couple of months and in particular the last couple of days about earthquake events and one that was pretty close -- close to home here. So I think it would be helpful if you can just elaborate a little bit more on the occurrence in northern Illinois and whether there was any resulting damage to -- to the landfill.

A. Yeah, I did look at that because obviously that was a recent event. I looked at the United States Geological Service website which -- the USGS is the one that tracks all earthquakes in the U.S. and I think outside the U.S. too, but they track everything in the U.S. and they have data on the recent earthquake. I think it was centered about 25 miles from DeKalb. It was a 3.8 magnitude earthquake.

In terms of our analysis that is actually a lower -- that earthquake, 3.8 that occurred, is a lower ground acceleration and a lower rated earthquake than the one that we used -- I guess the factors that we used in our seismic analysis. So it doesn't affect what's in the application. Obviously the application was filed before that earthquake, but it takes into account factors that are more severe than the earthquake that occurred at that time.

Q. And then just one last question on the stability analysis and of course, you mentioned yesterday that it was a word that you had a little bit of difficulty with, so you'll appreciate that it's a word that I have a little

bit of difficulty with as well and it's the resistivity analysis.

A. Okay.

Q. So if you can just describe that a little bit better for us today on, you know, why that is performed and how it exactly works?

A. Well, that's part of the construction quality assurance program when they construct the liner system specifically on the landfill. Resistivity testing -- what it is is it creates an electrical connection between two points and so how they do it in a liner construction quality assurance -- it's after the liner is constructed, after that leachate collection system gravel is placed over the top of the liner, after the cell is all completed but before they put garbage in there, before they certify this with the IEPA basically what they do is they come in and they put an electrode underneath the liner and they put an electrode in the gravel above the liner and there is some moisture in both those layers. There's moisture in the clay underneath as part of the liner and there's some moisture in the leachate collection

gravel. There just is as part of the material that there's some moisture. So if there's any potential leaks between the -- above the HDPE liner and below the HDPE liner it will find those leaks because that liner is actually an insulator, so electricity can't flow through that HDPE unless there's a leak or a pinhole. And by this they can actually scan the entire surface of the liner and find any potential defects and those defects can be fixed before -- before they submit the documentation to the IEPA and before they put waste in the liner system. So it's kind of a second check. You know, we do the one check, as I mentioned, with all the seams. We test all the seams. This is just another check to make sure that the liner is constructed properly.

Q. Thank you. I'd like to now move on to the stormwater presentation from yesterday and in fact, it might be helpful from your presentation -- even though I'll also be referring to a number of drawings as well within the application, it might be helpful for everyone here today if we pull up what I believe was Page

18. Could have been 18 or 19 of the presentation.

A. With all the lines on it?

Q. Yeah. And I might ask you please to sort of approach that drawing to help me better understand. In terms of the categories for the questions on -- on your stormwater presentation I have questions relative to the runon -- the runon filtration basin, the proposed sediment basin design which may be more appropriately presented to Tom Price. I'll ask a question and you can share with me whether you believe that's accurate. And then also the union ditch crossing.

So let's begin with the runon filtration basin and in addition to this particular -- this particular diagram there are also drawings within the application, 30 through 32 and 42 which we may need to reference, but let's see how far we get with what we have up there. And I really need to have a bit of a better understanding of how -- how this runon basin works. So let's begin by if you can just point for me where the basin is -- the runon basin.

A. I assume you're talking about the area down here, the runon -- runon basin --

Q. Filtration basin.

A. -- in the east area.

Q. And the water that is then collected in that basin is from where -- what sources?

A. It's runon -- runon denotes -- runoff is leaving the site and runon is surface water that may enter the property from off-site. So in this case it's entering from the ditches off of Gurler Road to the south of the east unit and it's actually coming onto the site. I think here we have arrows shown where the runon actually comes -- comes from the south of Gurler Road and these are actually culverts -- existing culverts under Gurler Road. I can't quite read the numbers on here, but I'm sure they're on the drawing, but you know, we evaluated all the culverts on all the existing roads around the site to see what we had running on and what we had running off and since we have runon we need to manage that. So part of the challenge in this area is that it's pretty flat. A lot of these culverts, you know, I think are similar to

what we call equalization culverts in engineering terms. And basically what that is is the culverts are fairly flat, so they don't help flow on both sides of the culverts. They may not flow one way or the other, although if the ditch on one side fills up it may flow to the other side, but they -- it's very flat. The ditch along here is -- along Gurler is a fairly flat ditch and I was out there during some rain events to just look at that ditch and make sure I understood where that flow was going, but -- so because it's so flat we could not direct that runon to, for instance, any of our basins or things like that because we just didn't have enough slope to get it to those features, so what we did was we designed this infiltration basin which basically the surface water will run across Gurler Road to the north and then we have a series of drop inlets which are just manholes with a cover that allows water to drop in like a grate and then that will go down to that drain tile that we have designed -- the new drain tile that will intercept flow from the south -- tiles from south of Gurler Road. It will go into that

drain tile and then eventually it will run to union ditch to the west of the east unit. So, you know, we sized that drain tile to not only handle the flow from these existing drain tiles south of Gurler Road, but also this runon from south of Gurler Road.

Q. So this -- this basin ditch is not accepting any additional water from onsite. It is water traveling on-site from off-site?

A. Yes.

Q. That's correct?

A. Yes.

Q. And then you mentioned the way that that particular basin drains and that, as I understand it, is in two ways. One is 48-inch drop inlets; is that correct?

A. Yes.

Q. And the other is through just natural infiltration; is that correct?

A. There can be some natural infiltration through there, yes, but the primary flow is through those drop inlets, yes.

Q. And the drainage pipe or tile that you referenced is located under the basin?

A. Yes, yes.

Q. And how is that sized?

A. It's a 20-inch diameter, but again, we did calculations to -- that took into account all the runon as well as all the drain tile water that would be coming from south of Gurler Road, so we took those volumes and used that to get to the size, yeah.

Q. And could you just point for me where -- that 20-inch tile connects to I think you said an existing tile?

THE WITNESS: Sure. Actually, Bruce, you might want to bring up the --

Q. I'm sorry, because one of the drawings probably depicts it as well, but if we could pull something up that would be great.

A. Yeah, so this is right -- this orange line would be underneath that infiltration basin, so that tile actually is rerouted all the way over to here and will be tied into the existing drain tile that won't be affected by the construction of the landfill and then that will in turn flow to union ditch.

Q. And what is the size of that existing tile?

A. The existing tile is 14-inch over here.

Q. So my question really focuses now on a 20-inch tile connected to a 14-inch tile and if we have, you know, a heavy rain event in this area is there concern with -- with perhaps the basin overflowing or backing up because of -- you know, the push of the water going from a 20-inch into a 14-inch drain tile?

A. Well, that's a good question. You know, we did think about that with the 14-inch tile. These are very large tiles. Most farm drain tiles are, you know, 4-inch, 6-inch tiles, 8-inch. You know, 14 is a very large tile. We did oversize the 20-inch because of the infiltration and because we -- you know, there may be large storm events that we -- we are not entirely sure that, you know, this -- this may be able to handle the flow, but you know, this 14-inch tile handles the flow from this entire area right now. After we develop this area we're actually not going to be draining this entire 179 acres through these tiles anymore because it will be developed and we won't have the need for drain tiles. So we thought with, you know, the

reduced capacity when we -- when we get rid of all these drain tiles it will be more than adequate to take up the flow from here because now you won't have all this flow from the east unit. So that was -- that was our thought on why we didn't resize that tile.

Q. So if -- you know, if we do have a problem here with appropriate drainage and overflow, that 20-inch tile is buried under that -- under that runon infiltration basin, correct?

A. Yes.

Q. So what would the solution be if you did, in fact, have difficulty with flooding in that area?

A. Well, I mean, if there was difficulty -- I mean, if we determined that these tiles were backing up and weren't adequate to handle the flow, they would be resized and reconstructed. I mean, we could put a larger tile in from this point over to union ditch.

Q. And just out of curiosity, was a more direct design considered where you could just connect directly to union ditch instead of connecting to an existing -- the existing 14-inch underground

tile? Do you know if that was considered?

A. Yeah, and that's typically what we do, we just put in a new -- a new drain tile. It could be alongside some of the other ones, but you know, we'd just put in a new tile and run it on a more straight -- straight location right to union ditch, yeah, that would be fine.

Q. And so would that be considered if there is difficulty with flooding for this area?

A. Yes, yeah, and that's -- that's typical of our design, yeah.

Q. Okay. I'd like to now turn to what is Drawing 17 in the application. Again, I'm not certain you need to refer particularly to it, but just in case, I have it in front of me as well. And this particular drawing actually shows soil borings in the area of the facility on a cross section -- what's called Cross Section HH and it appears from this particular drawing that we have silty clay soils in this -- in this area and would you -- would you agree that generally silty clay soils do not -- do not typically drain all that well and in fact, might drain poorly?

A. So now we're still talking about the location of the filtration --

Q. Of the infiltration -- correct.

A. Yes, they do not drain as well as other soils, that's correct.

Q. And if I recall correctly, your testimony was that although infiltration is one way of draining that basin, it is not the main draining technique for that particular basin. But my question is really relating to ways, if there are, to improve infiltration draining when you have soils that perhaps do, in fact, drain poorly. Is there something that could be done to address that -- that concern?

A. Yeah. We could put, for instance, a small trench full of gravel over the top of that -- over the top of that drain tile to provide better drainage. You know, we could make an assessment of that. It wouldn't necessarily mean that we'd have to have gravel that whole length, but maybe some portions where we'd place gravel to provide additional infiltration rather than going through the silty soils. Yeah, that could be done.

Q. Okay. Thank you. I now would like to turn to some questions on the proposed sediment basin. And in particular there is a description of the proposed sediment basin that's found in a report I believe that was prepared by Conservation Forum I think is the name and it's found on Page 2. It's called the Integrated Surface Water Management and the page in particular is 2.1-12. And then there are also within the application drawings provided and those are Drawings 31 and 32 and -- and Drawings 30 and 31, I'm sorry, actually show the actual proposed sediment basins and then you have a verbal or narrative description on 2.1-12 which has a recommended narrative design of the sediment basins. And to us it seems as if the drawings that are included in the application are inconsistent with the narrative description that is provided on 2.1-12 and I'll just give you a for instance. The description -- the narrative description says that the four bays are to be designed as deep pools and the outlet areas as shallow pools, but the drawings do not clearly indicate that particular recommended design. And I think 31

is probably the best -- Drawing 31 is probably the best to look at. So the question I have is which -- which of those designs, the narrative recommended design or what was depicted on -- on 31 and 30 do you intend to pursue?

A. Well, we're trying to meet all the different criteria. With the ponds one of the challenges -- we're trying to make sure that we meet the County's stormwater ordinance within regard to the design of sedimentation basins. And there's several different criteria in the County's ordinance for dry basins and wet basins. Our basins are going to be wet basins being that there's water in there all the time. They have design criteria in the ordinance for grading and the depth of ponds if they are wet basins. And one of the criteria is that the pond must be a minimum of 10 feet deep and so we tried to keep with that -- with that stormwater criteria for the County's stormwater ordinance -- to stay in compliance with that, but we also want to, you know, meet these design features that Conservation Design Forum has come up with because they're very good features to further

clean the water -- clean the runoff from -- from any sediment. You know, it's not -- it's not leachate, but it's -- it's clean water and so they're good recommendations.

We had some challenges with, for instance, the outlets that aren't -- aren't shallow because we were keeping that 10 foot depth, but you know, if need be we could -- we could modify these outlets some, still keep the 10-foot depth across the majority of the pond and shallow up the outlets and actually, you know, Mr. Tom Price is going to be talking about that -- that further, but we did try to meet all those criteria. It's just there was some things with the County's stormwater ordinance that somewhat conflicted with what we wanted to do and what CDF would like to do with the -- providing a more -- a pond that provided a cleaner runoff, so -- and I think we can -- we can do both. And in fact, the design I think now is pretty close to doing both. Maybe we need to make a little bit of adjustments on the outlet, but --

Q. And when you refer to the County's stormwater ordinance, it's the one entitled Grading

Stormwater Detention and Site Development Permit Ordinance, is that --

A. Yes, yes.

Q. I'd like to now lastly turn in the area of stormwater to the actual union ditch crossing and particularly to Page 10-9 and it would be Appendix 0-16. And there were a lot of questions regarding union ditch yesterday, so I'd like to just follow up on a few. I would, again, like to confirm that the design of the bridge will in no way restrict the flow of union ditch; is that correct?

A. Yes.

Q. And once the actual design of the bridge is confirmed by the Company I'm assuming that that will be shared with the County --

A. Yes.

Q. -- that design?

A. Yes.

Q. And it will, again, demonstrate that the flow will not be impacted?

A. It will not, yeah. That was the entire engineering design. We wanted to ensure that the union ditch was not affected.

Q. And when that design is shared with the County if there are concerns regarding that design will the Company be willing to address those concerns?

A. Yes, yes.

Q. And just lastly on the ditch, are there other permits that are required for that, let's say, Army Corps, the Illinois Department of Natural Resources, are you aware of any --

A. I don't know if an IDNR permit would be required and I don't know if an Army Corps permit will be required. But you know, there are some wetlands associated with the union ditch, but part of this bridge design is we're trying to have a span so that we do not affect those wetlands, so I guess that's all part of the IEPA permit process. And I mean, if those permits are required we'll certainly submit them and that's a common thing, so --

Q. Okay, great, thank you. I would now like to sort of turn to leachate management. And again, just to sort of orientate ourselves in the application, it's Section 8 of the application which is found in Volume 1, Appendix L of the

application and Drawings 24, 26, 27, 40 and 41. Yesterday you did describe what leachate is, but if you can also elaborate a bit more on why it is so very important to manage leachate properly?

A. Well, you know, leachate has constituents or contaminants from the waste material in it because it percolates down to the waste, so you know, it's important that -- you know, not unlike waste water from -- that needs to be collected and treated and so that's why we provide the system to collect it and treat it and as I mentioned, the other thing is we want to make sure that we minimize the depth of what we have on top of that liner because that -- you know, that liquid is -- has that constituent of the waste in there, so that's why it's important.

Q. And does the application that we are discussing today in any way change the way that you currently manage leachate out at the facility?

A. From the existing site?

Q. Yes.

A. No, it does not. There's still that -- well,

it may -- it may actually improve it. I'll go into that. At the north area of the leachate collection system there are two manholes in that system that are pumped and then there are pumps in the active area of the leachate collection system that are pumped out into tanker trucks. That will -- that will continue. One of the things that we're -- we've designed into the new expansion that may improve on that is we will be able to hook up some of those manholes now to the leachate force main and then it can be directly pumped into one of the leachate holding tanks on the site. So I guess the short answer is the collection will not be affected from the system we have.

Q. And in the application there is a description on leachate recirculation. And in particular the application states that leachate generated at the facility may be recirculated. So I understand, the Company is not today proposing to recirculate leachate at the facility?

A. Well, that is -- no, it is part of the -- part of the application, that's why we said it may be recirculated. It depends on the volume of

leachate, but it's -- leachate recirculation -- I think I mentioned this yesterday -- is a benefit because it allows the waste to have increased moisture and decompose quicker and stabilize over a shorter period of time if -- than if you didn't have that liquid.

Q. I think it would be helpful for us to kind of ask a few more detailed questions on the leachate recirculation then just to -- just to make sure that we have a full sort of understanding of what you may be proposing. So perhaps if we can begin with just a general description of whether there's any sort of limit or maximum that is intended to be recirculated at the facility at this time.

A. Well, I think we had in the application a maximum of 20,000 gallons per day for leachate recirculation, so that would be the --

Q. It's Page 8 -- 8 through 10, if that's helpful.

A. Yeah, it says here leachate recirculation will take place at a rate no greater than 20,000 gallons per day. So that would be the maximum.

Q. And if you do pursue this management technique can you just kind of give us a general idea of

how it would be done, over the active area only, using a piping system -- just generally if you can give us sort of a sense of what -- what the management technique would look like.

A. It would be done over the active area and that's -- that's the only method that's planned. What that involves is you've got the -- the active area is the area of daily disposal operations, the leachate is brought to that active area in a truck and the waste that has been placed during that day is then soaked with the leachate and allowed to infiltrate into the waste.

Q. And there was -- there was a lot of discussion yesterday about odors and could you elaborate a bit more for us today on how leachate recirculation would be managed to prevent odors at this facility?

A. Well, for one thing it will be very similar to the operations of the active area that I described yesterday where, you know, at the end of a working day the active face will -- active refuse area will be covered with 6 inches of daily cover or an alternative cover material

that we talked about, a tarp and that -- that minimizes the odors from the active area and from any leachate recirculation. And actually you're going to hear more testimony from Dale Hoekstra about the operations of those -- of that area and odor control.

Q. With respect to my next question I think it might actually be helpful to take a peak at a couple of drawings and in particular Drawing 26 which is for the west unit and Drawing 27 for the east unit and this -- these are drawings that actually present the leachate collection pipes for both units.

A. Okay.

Q. And it appears when you look at these drawings that there actually is a 90-degree bend in the collection pipes. Do you see where I'm referring?

A. Yes. In a few of the pipes there are 90-degree bends, yes.

Q. And a question that we have is really how -- how do you go about cleaning out that -- that piping configuration where you have an actual 90-degree bend that -- that must be addressed?

A. Well, leachate pipes are cleaned out with basically a sewer jetter which is a system where they use pressurized water, it's got a nozzle on it that -- actually there's a pipe and a nozzle and the water actually flows backwards out of the -- out of the nozzle and basically you put -- you put that in the pipe and due to the water pressure flowing backwards that nozzle is pulled through the pipe and then allows any, you know, dirt or anything that's in that pipe to be cleaned forced out through the perforations in the leachate collection pipe. It's the same type of thing as sewer cleaning. For the 90-degree bends it is common in landfills to have some pipes with 90-degree bends. We do try to minimize them as much as possible, but what we use is what's called a long-sweep elbow. It's not going to be a -- you know, it's not -- not going to be a severe or straight 90-degree. It will be a very gradual 90-degree elbow to allow that jetter to get around that bend. And I mean, I've been involved in several different, you know, pipe-cleaning operations throughout my career and have seen long lengths of pipe up to

2,000 feet cleaned with -- with these types of bends. It's a little more difficult to get around, but you can do it.

Q. You can accomplish it?

A. Yeah.

Q. Okay, and then the last question with respect to leachate recirculation, yesterday on cross-examination you mentioned that the peak daily generation of leachate was roughly 16,400 per day?

A. Yes.

Q. And I'm assuming that's total -- that's totalled with the expansion?

A. Yes.

Q. This is a total with the expansion. And is all this leachate currently transported off-site or how is it handled?

A. It is, yes.

Q. And so if you were, in fact, to pursue leachate recirculation would all of that be transported I -- excuse me -- would all of it be kept on-site, would some of it still be transported off-site?

A. Typically some of it would still be transported off-site, not all of it. You know, they would

-- they would try to recirculate as much as they can up to that maximum 20,000 gallons a day, but typically even in leachate recirculation you still end up taking some off-site for treatment.

Q. And do you have a sense of if you were to do recirculation how many trucks you would be able to eliminate from having to transport the leachate off-site?

A. Tanker trucks hauling?

Q. Yeah, just generally do you have a sense of --

A. Well, you know, on a typical day let's say we got that 16,000 gallons and that's a peak daily rate, so that's not necessarily a normal day, that's a peak rate, but say, we got that --

Q. What are they, 5,000 gallon --

A. Yeah, a tanker truck is typically around that, so that's roughly saving three trucks from going off-site on that particular day.

Q. Thank you. One last question on leachate. Sorry. I'd just like to confirm -- yesterday you talked about the drainage layer and you had, as I recall, stated that -- that the material that would be used would be porous material and would be, in fact, gravel --

A. Yes.

Q. -- is that correct?

A. Yes.

Q. I just have to confirm that I understood that correctly.

A. Yes.

Q. Okay, thank you. I would like now to turn to the ambient air monitoring system that you have and in fact, it might be helpful if we could pull Page 29 from the presentation back up and while we're waiting for -- oh, here it is. Can you begin by explaining why one performs ambient air monitoring around the landfill?

A. It's really part of the -- somewhat part of the landfill gas monitoring program. You know, we have -- we monitor the interior wells for gas quality.

AUDIENCE MEMBER: Could you speak up, please?

THE WITNESS: Sure.

A. We monitor the interior gas wells for gas quality. We also monitor with wells the soils around the site, you know, with wells that are placed into the soils around the site to ensure

that there's no gas migration underground coming out of the landfill. But we also want to monitor the actual air -- the ambient air it's called around the site above ground level. And so we take a gas monitor just above the surface of the ground, like, you know, that far above the surface of the ground just to see if there is any gas migrating from the landfill and is above the surface of the ground. So it's just another way of doing landfill gas monitoring.

Q. And can you just describe again -- I think we talked about this a bit yesterday, but if you can describe again what it monitors? What type of constituents, gas, do these monitors monitor?

A. Primarily for methane, like we talked about. You know, but it will analyze all the constituents that we have in a landfill gas, methane, oxygen and all those other components and I can -- I can look to see what -- I can't recall offhand all of the other components, but methane is the largest one that we're looking for because the -- it's important in landfill gas -- you know, we talked about all these other constituents that are in landfill gas. Landfill

gas is primarily methane and carbon dioxide. Those two gases make up the vast majority of landfill gas. So all the other gases we talked about yesterday are very minute, small portions of that, so methane is the big one.

Q. And if you could approach the diagram for me and just point out again -- I know it's probably clear, although I'm at a bit of an odd angle here -- where you have the monitors?

A. They're the red dots, so we've got one, two, three, four around the west unit and one, two, three, four around the east unit. And really the way they're designed is with the prevailing winds on-site which are typically west/southwest on the site. So you see we have a downwind location which is kind of a background analysis because it's downwind and then we have, you know, an upwind location from the site.

Q. And could you show me where the school is located in relation to the landfill just generally?

A. It's up a ways, but it's up -- I think up here somewhere, further up here. If -- I don't know if I have the -- I can look to be sure, but it's

up north of I-88.

Q. And on the --

A. There we go, yeah, yeah, so it's up in this area here.

Q. And is there any particular reason why on the -- on the east unit there isn't a monitor on the upper left corner of the east unit?

THE WITNESS: Go back to the monitoring slide, Bruce.

Q. Or did I --

MS. TOBIAS: No. 58.

A. You're talking about here?

Q. Yeah, somewhere up in that corner. I'm just curious if there's a particular rationale for not monitoring at that location.

A. Well, it's really because of the prevailing wind direction. You know, we see here this one is kind of in the middle. We don't have one on the corner because the prevailing wind direction is from, you know, the southwest through the northeast of the landfill. So it's really trying to catch -- this is the area that will catch that wind from the southwest and that's why we didn't have one.

Q. But you do have one up in the right corner; am I seeing that correctly?

A. There's one right here, yes.

Q. And currently you are monitoring monthly; is that correct?

A. Yes.

Q. And there is, as I understand it, under state law and the 8-11 regulations the ability to reduce that to annual monitoring; is that correct?

A. Yes.

Q. And what would be the reason for making that request to reduce?

A. If there's some old detections of landfill gas and really what it states in the regulations is if you have an active gas management system in place and operating that you can reduce that and we -- you know, there is an active gas system in the existing landfill and there will be obviously in the expansion.

Q. And would you think it would be a good idea to continue the monthly monitoring until the gas system in the east unit is, in fact, operating and verified to be effectively operating?

A. Yeah, that would be reasonable, yes.

MS. CIPRIANO: Okay. Thank you. Mr. Hearing Officer, those are all the questions we have of this particular witness.

HEARING OFFICER MCCARTHY: Thank you.

Do members of the Committee have questions of this witness? Why don't we start with the chairman of the County Board and if each of you could state your name so that the court reporter would have it as you're asking the questions and we'll start with Ms. Tobias.

MS. TOBIAS: Mr. Hearing Officer, my name is Ruth Anne Tobias and I serve as chair of this Pollution Control Committee of the County Board. I don't yet have a question, but I would like to make a comment. This Committee takes its brief to analyze whether this application meets the nine criteria very seriously. Because we approved the host fee agreement last year with Waste Management in case this application is approved, does not mean that we have prejudged the value and whether this application meets the criteria. We are required by law to negotiate this host fee agreement before the hearing

process can be -- can be started and so we've kept an open mind and we really value the public health and safety of our community. And we are very interested to hear how Waste Management proposes to protect this public health in this plan. So we have not prejudged whether this is a good application and whether we should go forward with it. We are here to determine that now.

HEARING OFFICER MCCARTHY: Yes, sir. State your name.

MR. HAINES: I'm Michael Haines, County Board, District 2, so north end of the County, Genoa and Kingston. There have been some comments made both by the public and by participants, particularly Mr. Campbell --

MR. MCINTYRE: I would like to object. What does this have to do with the witness?

HEARING OFFICER MCCARTHY: I'm going to allow the -- overrule the objection and allow him to speak.

MR. HAINES: And the reason I'm speaking now is because we didn't have any opportunity at the opening remarks to make any opening remarks

from the County Board -- or the Committee here. I attended the ad hoc waste committee meeting in February 2009 where the host agreement was discussed. Between that meeting and the County Board's approval of the host fee agreement I held an open town hall meeting in Kingston, Illinois with my constituents. We informed all the constituents by newsletter in Kingston. I also addressed the Genoa City Council and Kingston trustees to make them aware of the potential landfill host agreement which was the first step in a landfill expansion. So I just wanted to be on record to let both Mr. Campbell and anybody else know that this was not a secret proceeding, that the public was informed and my constituents gave me clear information and direction about their interests relative to the landfill expansion.

No. 2) As the chair of the finance committee I just wanted to clarify that the ordinance approving the ability to let bonds does not commit us to let bonds. We cannot by law let bonds unless we have a funding source. So that's enabling legislation that allows us to

fund a future courthouse or jail expansion only if the money is there, so it puts us in the position to spend money. It does not commit us nor does it indicate any prejudgment on the part of the Board. It's just good financial management.

And I just wanted to conclude by saying in terms of these statements that I'm not prejudging and will keep an open mind in determining my vote relative to the landfill expansion.

Now, I do have some questions for our engineer here.

CROSS-EXAMINATION

BY MR. HAINES:

Q. My first question regards methane recovery. In the discussions about the host fee agreement and in presentations before the Planning and Zoning Committee by -- the annual presentation that's made by the current landfill management we've been told that the landfill is very close to having enough methane production to make it economically feasible to recover methane and use it for purposes to produce electricity or energy

or whatever, but something other than just burning it off with a flare. In the plans that you presented there's nothing in the schematic that would show any building, any recovery site or any potential footprint for doing such and when you were asked earlier there was no timetable, just the comment sometime in the future is when we might do that when it would be economically feasible. Can it be nailed down any better than that, because we were under the impression that methane recovery would be an important aspect of this plan?

A. Yes. The methane recovery and reuse is part of the plan for the -- for the site. The reason it was left open-ended is because we don't know what that will be at this point and you're correct that the landfill -- the current landfill is close to having enough quantity of gas to be able to accomplish methane recovery. Because of the two -- the west and the east unit, you know, we're not sure yet whether there would be a gas plant on the west unit and then there would be another one on the east unit, but you know, that needs to be determined and the

type of gas recovery and then even within -- when you do landfill gas to energy there's several different ways to accomplish that with different types of engines, number of engines, size of buildings, so it would probably -- it would most likely be very close to any building -- very close to where the locations of the existing flare is now on the west unit and the proposed flare is on the east unit just because it's usually that's the point where all the gas is collected and that's really the point where you need to put your gas recovery plant.

Q. Generally -- just with landfills in general when you have a gas recovery operation so that you're recovering the gas to get some economic benefit to it, is there greater or less or the same amount of smell produced at a landfill?

A. Odors -- you're talking about odors?

Q. Yes.

A. You know, in terms of the collection from -- from the actual landfill, that's going to always remain the same. They're always making sure that the efficiency of that well system is -- is optimized whether it's being flared or whether

it's going to a gas management plan -- actually I wouldn't say it's really any -- any different and one of the things, you know, I did check -- you know, I mentioned yesterday about odor concerns and you know, I -- I checked with Waste Management and you know, they've only had -- actually the reason I said I hadn't heard any recent odor concerns was because they don't have a record of any complaints since April of 2009 which is almost 11 months and that would be formal, but so the reality is I don't think any of the -- either the landfill gas flaring system or the gas generation system will -- will really be any different. They both will control odors just as well.

Q. With regards to the pre-1970s landfill before IEPA was in existence, would a landfill being operated then, which was operated on this site, have more or less odor than the post EPA regs?

A. Most likely more because the older landfill operations didn't have gas management systems as is on the site today. Also operational practices weren't the same in terms of covering the waste daily, intermediate cover, final

cover, those practices weren't in place, so -- and those were all meant to minimize odors, so I would say probably more, yeah.

Q. And then would the -- is there a likelihood that there would be more odor or less odor after Waste Management took over in 1991 or whenever it was, would you have any --

A. You know, I don't know the answer to that question, but I mean, Waste Management did upgrade the site in terms of putting in a more comprehensive gas management system. You know, I don't know the level of odor complaints at that time, but I would guess with the additional gas management that was put in place that it improved.

Q. And you may not know the answer, but if you were asked by the school district of DeKalb sometime during the 2000s whether you'd site a school where it did even with the existing landfill with no expansion whatsoever would you have recommended to do that?

A. To put the school there?

Q. Yeah.

A. It's quite a ways away, yes. Actually the

criteria -- not that we always go right by criteria, but the regulations state that a school should be no closer than 500 feet from the limits of waste, so you can even get that close. I'm not --

Q. They could put another school maybe on the west side closer yet.

A. No, but -- I mean, it's across I-88 and it's sufficiently far enough away that, yeah, it's safe.

Q. Okay. My last gas question -- not my last gas, but the last gas question would be in regard to the type of gas that comes from hog operations. In my part of the country we don't have landfills, but we have plenty of hog operations. What type of gas is that, is that methane, hydrogen sulfide, carbon dioxide, what is that?

A. Methane. I mean, you know, from the waste -- any farming activities -- you know, I'm from Wisconsin, I live in a small, rural farming community that has a lot of dairy farms and that's methane.

Q. So that methane gas is there with the schools and residents and what have you from the farming

industry?

A. Yes.

Q. And how do you with your ambient gathering differentiate whether you've got hog farm methane or landfill methane?

A. Well, because it's in -- I think in close proximity to the limit of the landfill, you know, we wouldn't expect that any surrounding, you know, hog farms -- that that would be affecting our monitoring, because we're right next to the landfill and that's really the purpose to catch anything that potentially comes from the landfill.

Q. I guess my problem would be if we were to put a monitor at the school or somewhere it would be hard to differentiate where that odor --

A. I'm sorry?

Q. -- from where the methane came.

A. For the school? I'm sorry. I missed your question.

Q. Where the methane would come from if we had to monitor that far away from the site?

A. I mean, that's a long ways for -- for methane to travel. Typically it gets up into the

atmosphere and dissipates. You know, I don't know -- I don't know all of the positions of the hog farms around. I know there are some around the area, but it could be from that.

Q. And my final question --

DAN STEIMEL: I object. The witness is not qualified to speak -- nowhere in his resume is there anything backing his ability to talk about livestock operations. He's an expert in landfill management and design of landfills.

HEARING OFFICER MCCARTHY: Would you state your name, please?

DAN STEIMEL: Yes. My name is Dan Steimel.

HEARING OFFICER MCCARTHY: Do you have a response? I'm going to overrule the objection if he -- it's already been asked and answered.

Q. And I'm done with the gas questions. My last question is regarding the leachate treatment. Where is the leachate going to be treated?

A. At the Fox Water Reclamation District Treatment Plant by Elgin.

MR. HAINES: Okay. Thank you.

MR. ANDERSEN: Good morning. Ken

Andersen, District 4 -- or District 3. District 3 encompasses the -- the areas of -- parts of Cortland, Cortland Township, Maple Park and parts of Sycamore and this landfill and the expansion we talk of is -- is in District 3, so it's of primary interest to me and since being elected to the County Board in '06 I've served on various committees from that time concerning the -- the expansion of the landfill and have kept an open mind and tried to -- to learn about landfills and expansions of those and I come to these hearings with a -- certainly an open mind and am willing to listen to both sides of the story.

I do have a couple questions.

CROSS-EXAMINATION

BY MR. ANDERSEN:

Q. One is the -- when we were talking about the sediment basins, are they designed with an overflow in case of a hundred year event or better and where would that overflow then go?

A. Yes. They are designed with an overflow that -- all the surface water management structures were designed for the hundred year storm and we

also looked at the critical duration of storms that are required as part of the ordinance. And yes, they have an overflow. There's two ways that there is outflow from the ponds. One is the riser and outlet pipe similar to the photograph I had showed where water rises to a certain level and can overflow into that pipe. Also in the top of that riser there is additional flow -- if it raises to the top of that pipe that pipe is open so that we have additional flow. The third overflow is there's an emergency spillway and that's just an engineering term that we use for all these ponds that if water -- if you get a significant rain event it can overflow from this emergency spillway and then that would go into the same outlet ditch, channel, eventually Union Ditch No. 1 that all these ponds flow to.

Q. Okay. Thank you. When you talk about the design of the leachate and how you collect all that, just so I have it clear in my mind, the gravel that's put down, how much depth of stone is put down and rather than use the word gravel I'm assuming that it's a product similar to like

a CA-7 or a bigger stone so the liquid -- the leachate can drain through that stone and then get into the pumping system; is that correct?

A. Yes. The first part of your question it's 1-foot minimum thickness of drainage layer. It is a larger stone typically like inch and a half or greater. It's not a small -- a small stone. And that allows leachate to flow freely through there, yes.

MR. ANDERSEN: Thank you. I have no further questions at this time.

MR. ONCKEN: Good morning. My name is Riley Oncken. I'm also from District 3 and this, like Ken, falls within our district and so it is of particular importance to us and to our constituents. So one, I guess thank you for being as candid and as open in answering these questions as I believe you have been. It helps us to understand this process. And again, we came here with open minds and are here to be educated on both sides of this issue.

CROSS-EXAMINATION

BY MR. ONCKEN:

Q. I guess my first question to start off with is

you've taken your design instructions from Waste Management; is that correct?

A. Well, they -- they give us the property area and they do have some design features that they would like to be part of the site, but we have to design as per the regulations and -- and as per our experience and knowledge. So there's a little of both. We take some of the design straight from Waste Management, but some of them are from the regulations and from our experience.

Q. Were there any parts of the design that you submitted either initially or an initial phase to Waste Management that that was rejected by Waste Management for any reason?

A. Let me think. Typically when we do the grading, for instance, for the liner, the limits of waste, things like that, we'll go through several iterations. You know, we'll propose a design, they'll look at it -- and this is typical of any owner that I work with and then we finally come to a final solution and it's typically based on what's the best way to construct and operate the site versus -- you

know, there's no -- there's really no comment from Waste Management on things like the liner design, the leachate collection designs. It's more the configuration of the site and how they would like to operate and phase the site, so we did go through several iterations of that before we came up with a final design.

Q. Just as an expert in this field are there any additional or other design issues that you could incorporate into this plan that would increase or improve the health, safety and welfare of this project?

A. No. I think we've covered everything that we use in landfill design and then some. I mean, things -- things -- like we talked about the resistivity testing for -- during construction, that's not done on all landfills, it's not required, it's not even required in Illinois, but you know, it's one thing that we decided to put in the application to make sure that the liner is constructed properly. You know, even with the gas system, we don't always -- it depends on the site and the volume of waste. We don't always put horizontal collectors which are

the collectors that can collect gas early on in the operation of the landfill before we get to those vertical wells. So I can't think of any additional things -- I mean, we make sure that we -- we have to cover all -- all the bases with the liner, leachate collection system and gas are the main engineering components, so -- so I guess the answer is no, I can't think of anything else.

Q. And are a majority I guess or nearly all of the restrictions and design components imposed by the IEPA regulations?

A. Not all of them. I mean, there are criteria obviously for the liner, leachate collection system, the design of that, but for instance, the gas system, the number of wells, the type of collection, that's not mandated by the IEPA and this is a very comprehensive system. The number of monitoring points is not necessarily mandated by IEPA. They require you to monitor all those constituents, but they don't always tell you where to put all the points. So some of it is, some of it isn't.

Q. Does this design and the plan that Waste

Management has proposed -- does that meet or exceed or far exceed the requirements of the IEPA?

A. It both meets and exceeds the requirements of the 8-11 and IEPA.

Q. In addition to eight I guess the gas that you just made reference to, I guess in what other areas does this plan exceed the requirements of the IEPA?

A. Let's see -- well, the monitoring system I think -- you know, the number of points meets and exceeds the IEPA's standards. Actually the -- let me think -- the -- yeah, the gas management system would be one obviously that would exceed the standards. And actually from a regulatory standpoint with the liner the standard IEPA liner is actually a low permeability soil liner. The composite liner is actually an alternate and so we are using that -- that alternate liner which is a much superior liner to the low permeability soil liner that is -- is actually the Illinois standard. I think those are the main -- the main items.

Q. I've heard you use the term the -- I guess

waste mass stabilizing. That's not a term I'm familiar with. What does that mean?

A. Well, over time waste decomposes just, you know, because it's got moisture in there. Initially it's aerobic. Decomposition means there's air, oxygen, because it's exposed to the air. After it gets covered it goes to anaerobic which is no air decomposition and over time the organic fraction, that's things like food waste, you know, anything -- wood waste, anything that will decompose, that -- that fraction -- that organic fraction is totally decomposed to where you have -- and the organics is typically where you get a lot of your constituents or contaminants in the waste. So we try to -- waste stabilization is really trying to allow that waste to decompose fully so that it's not a -- really not a threat to the environment anymore. So that's really what it's about.

Q. I guess are there estimates or is there a typical period of time from the time an area is closed, final cover is done that that takes -- I mean, I'm sure there's a huge variety, but can you give us some idea of how long that may be?

A. It's really actually all based -- the studies are all based on -- and why -- the post closure period is what it is which is 30 years post closure period, because a lot of studies have said that within, you know, 20 to 30 years that organic fraction in that waste -- and that waste will be by and large stabilized within that time frame and that's why they've -- the regulatory agencies, including the IEPA, have come up with those -- with those periods. Now, that's not to say that maybe there is some that wouldn't be stabilized by that time, but that's why that period will continue if it's not stabilized in that 30-year period.

Q. I guess I heard some of the arguments in favor of the leachate recirculation. Are there arguments on the other side of that issue against recirculation?

A. Actually not with the current design of landfills. In the past, you know, if you had an old landfill that was unlined, didn't have a leachate collection system they really didn't want to recirculate leachate partly because, as I mentioned, you want to minimize the depth of

the head on that leachate on top of your liner. Without a proper leachate collection system you can't manage that -- you can't manage that head, but in designs like this and even with the current landfill, you know, with the active area that they have, you know, that has a properly -- a properly designed leachate collection system, so there's really no drawback. You know, the thing with leachate recirculation is you're adding liquid back in the landfill and then you need to make sure that you manage that head on the liner and we've designed it to be able to do that. You know, the benefit to leachate recirculation is that it -- it adds more moisture to the waste which actually decomposes the waste faster and then stabilizes the waste sooner in its life, so instead of 20 to 30 years it might be 15 to 20 years. So you get a quicker stabilization. You also get a quicker production of the landfill gas in decomposition which is also a benefit when you want to do beneficial reviews of the gas because you have more gas sooner, you collect it and then -- and that's another thing I should mention is the gas

itself is only produced as long as that organic fraction remains in that waste, because that's where it comes from. So as that organic fraction decreases the amount of the landfill gas decreases to almost -- almost nothing when that face is stabilized and that's really the goal.

MR. ONCKEN: Thank you. I don't have anything else.

MR. STODDARD: Paul Stoddard, District 9 which is essentially the eastern part of DeKalb.

CROSS-EXAMINATION

BY MR. STODDARD:

Q. I'd like to talk a little bit about the seismic analysis you referred to. What exactly do you do as part of your analysis?

A. We evaluate the stability of first the excavation of the site to ensure that, you know, if -- remember that excavated slope on those drawings, so say, a seismic event came along during excavation that that slope would remain stable.

Q. Is this done with computer modeling, physical modeling?

A. It's a computer model, yes. Computer model where you input the configuration of the landfill, all the factors of all the soils that are under the site and that we use in the liner, the liner itself, the waste, you know, the weight of all that, you put all those factors into the computer model and then it actually runs through a series of failure surfaces until it finds the critical failure surface and then it comes up with factor of safety and then we're required to have a 1.3 factor of safety for seismic analysis, so we -- we make sure that the design is stable based on that factor of safety.

Q. What does it assume for the nature of the ground motion? I mean, earthquakes can take a lot of different shapes in terms of how the rupture actually occurs. Do you test for the various scenarios in terms of normal faults, thrust faults, strikes with shaking?

A. The way the model works is it takes a peak horizontal acceleration for -- from the area and we know from the USGS from the U.S. Geological Survey what that peak horizontal acceleration is for this site and that's developed from years of

research of earthquakes in the area. We take that peak horizontal acceleration and that's the acceleration that will provide the movement -- the ground movement from an earthquake and we input that into the model and the model simulates that -- that movement based on that peak horizontal acceleration.

Q. Okay, and you said that was .08G?

A. Yes.

Q. Okay. I was looking at -- I've just lost it. The website, they've updated that as a result of the recent earthquake as they're prone to do. They're now saying that's a .1G. Would that make a significant difference in your evaluation?

A. For which --

Q. For DeKalb for this -- after the earthquake two weeks ago they have now produced a new map saying that they think there's a 2 percent chance of at least a .1G horizontal acceleration for the area around the earthquake which includes the southern half of DeKalb County. So would a slightly higher .1G rather than .08G significantly alter your estimates of the safety

factor?

A. No, because, you know, again, there's a factor of safety which is built into the analysis. I mean, we don't -- anything above 1 is a factor of safety, so I guess I could explain a little more factors of safety, but basically if something is going to fail we don't design right for that failure amount, we design beyond that so we have that factor of safety and it's required to have a minimum of 1.3 factor of safety and I know that our -- our factors of safety are above 1.3, so even an additional -- if it went up a little bit -- the ground motion -- no, it's not going to affect the seismic design of this.

Q. And I know you're not a seismologist, but do you have a feel for how large an earthquake would have to occur in order to exceed that?

A. You know, I don't. I think the -- I know the 3.8 was a very much milder earthquake than the peak acceleration. I know the other day I looked at that on the USGS site and I think it was on the order of an upper 5 or even low 6 earthquake, so it's much greater than what would

normally occur in this area.

Q. Do you know the largest earthquake that's been recorded in this area?

A. I'm sorry?

Q. Do you know the magnitude of the largest earthquake that has been recorded in this area?

A. That I don't know.

Q. Would it surprise you to know that it was 5.1?

A. I wouldn't be surprised, no.

Q. Okay. In 1909 there was a 5.1 earthquake and roughly a dozen or so earthquakes in the area in the last hundred years. Not that I know these things.

The leachate you said is processed off-site?

A. Yes.

Q. Just thinking more globally, how do they do that? I know it doesn't directly impact DeKalb County, but I'm just curious as to --

A. It's in a waste water treatment plant -- it's actually in a municipal waste water treatment plant, so they're taking municipal waste water and they're adding the leachate to that municipal waste water and treating it the same

way they do as -- as waste water.

Q. All right. There was some discussion yesterday about the hydrogen sulfide gas and other gases that are not so healthy to breathe. Do you have any feel for what the EPA limits are on these types of gases, how many part per million are considered dangerous?

A. I don't. And again, there's a lot of recent awareness by the landfill industry about this issue and Mr. Dale Hoekstra is really going to go through that.

Q. Okay, sure. There was some talk also yesterday and maybe when you were talking with Mr. Andersen you might have addressed this a little bit, but in terms of the union ditch there was some concern I think hinted at yesterday that during a flooding event you would get contamination from active areas of the landfill especially those adjacent to union ditch. What precautions do you take to ensure that that does not happen?

A. That surface water management system, that's all -- that takes all the water from within the -- on the covered areas of the final cover, so

it's all contained within the sedimentation basins. They're all designed for the hundred year flood event. All the ditches, channels, everything is designed for the hundred year flood event and it's got additional capacity and that's all clean runoff, so there's really no -- nothing that would occur that would --

Q. Right, those are the closed areas. I'm talking about like for -- as you're exhuming the old section and you have all that exposed trash and -- which is right next to the ditch. Should the ditch flood during that process what precautions will be in place to assure that the water is not contaminated by the exhumation process?

A. That's all -- actually we didn't talk about that. That's a good question. That's all contained within that old area and then will be contained within the lined area, so we'll ensure that, you know, that's not going to be anywhere near even the surface water ditch. Any -- any runoff from that old area or exhumation of that old area, it will all be -- stay within the landfill limits. It won't get outside of the landfill limits just because of the way we build

the -- we build a perimeter berm around the site, an amount of soil around the site to contain all that and any of that -- any water from that runoff, that's all going to be treated as leachate. It's not going to be part of the surface water system, so that will -- it will all be contained.

Q. What is the berm made out of?

A. I'm sorry. What?

Q. What is the berm constructed from?

A. That would be constructed prior to them constructing the liner system.

Q. But what is the material?

A. Oh, that's -- it's a structural fill soil. It will most likely be the silty clays on the site that are used.

Q. Do you know the permeability of those materials?

A. There's typically no permeability spec for structural fill. It's just a compaction spec just because it's not meant to be a liner, but it's compacted typically to like, you know, 90 percent of a modified proctor which is a standard compaction spec.

Q. Okay. You talked about the sedimentation ponds. How deep are they to start?

A. A minimum of 10 feet.

Q. And what are the sedimentation rates in those ponds?

A. I'm sorry. What?

Q. The water -- the leachate is in these things and there's sedimentation ponds. I'm assuming they're allowing material to come out -- out of the leachate and deposit it on the bottom of the pond?

A. Those don't -- they don't actually handle the leachate.

Q. I'm sorry. Surface water. The surface water will contain sediment which will settle out in the sedimentation ponds?

A. Yes.

Q. What are the sedimentation rates in those ponds? How quickly will the sediment build up?

A. It depends on the operations of the site. You know, if you -- because it takes -- it takes runoff from only two cover areas. One, the intermediate cover which is a 1-foot soil cover over areas on the site that have reached final

grade but they don't yet have the final cover on it and then areas with final cover that is vegetated. Now, the soils that have the intermediate cover, that obviously is going to have more sediment because it's not vegetated. It will be vegetated over time, but it's not meant to be the final vegetation, so you're going to have more sediment from that. So some of the -- early on in the operation some of the ponds may need to be cleaned out more often than -- than after they get final cover on them and that's all that's done. As sediment fills up in the pond, they go in and they will clean that out and deposit that back, maybe use for daily cover.

Q. All right. That is part of the ongoing process then?

A. Yes.

Q. You mentioned -- I'm just curious -- that there is -- especially since the waste and so forth decomposes there is some settling that naturally occurs and this occurs after you put the cover on. Typically how much vertical relief are we talking about in the settling?

A. That's in the application. I don't recall the number, but --

Q. Do you know the order of magnitude figure?

A. Well, it's usually on the order of, say, 5 to 10 percent that -- that range of the height. The key thing to remember about settlement is typically waste -- the waste mass settles fairly evenly, so it's not like you're going to have one side settling like this, you know, quickly and the other side not settling, so it somewhat settles evenly.

Q. Okay. When you went through the different phases of the development you listed the order in which everything will take place. You didn't list any time frame on which things take place and I was particularly interested in the west unit phases where we're exhuming the old area and then so you're going to create a new unit to the west of the old area, put the exhumated -- exhumed in there. Is that occurring while the active -- currently active area is still active or is that new area where you're putting the exhumed material going to be the active area at that time as well?

A. There may be some active area operations, you know, because they're going to construct that Phase 1 prior to them completing the active area because they want to keep space available for disposal, so the active area will still be operating and be near capacity, but it will still be operating while they construct that Phase 1, yeah.

Q. Will the exhumation process itself introduce additional potential hazards, additional release of gas, additional chances for contamination of groundwater in the union ditch?

A. No. And again, the reason for that is, you know, this is really old waste, it's -- it's burned off, it's been decomposed for many years. I talked about that 20 to 30 year decomposition time frame. You know, typically when you get waste like that, especially waste that's been burned off, it tends to be sort of like soil, almost -- although there may be some waste in there, so -- so that's kind of what it would be.

Q. Okay. And then finally, I'm going to list for you three scenarios and I would like for you to rate them in what you perceive is the order of

most potentially detrimental to the public health to least detrimental to public health. Scenario 1 would be to not do the expansion, not do the reclamation of that old area and just let the landfill be filled and capped and closed and monitor it for 30 years. Two would be to do the expansion but not the reclamation of that area. And three would be to do what the proposal actually is, to expand and reclaim that area.

A. Well, you know, even though I mentioned that the corrective action around that active area is still working, I mean, I think it's a great thing to be able to take that source and excavate that out and place it in the expansion, so I would say that that option of excavating and placing it in the expansion is most protective.

MR. STODDARD: Okay. Thank you.

HEARING OFFICER MCCARTHY: Are there any members of the County Board that are here other than the Committee members that would like to ask a question of this witness? Yes, sir. Would you state your name?

MR. TYSON: My name is Derek Tyson,

District 5.

HEARING OFFICER MCCARTHY: Maybe if you come forward and use the microphone it might be helpful. Would you state your name again. I didn't hear it.

MR. TYSON: Derek Tyson, District 5. My first question is how much larger is the expansion -- how much larger is that going to be -- will the entire facility be in relation to what we have now?

MR. NICKODEM: I'm sorry. I can't hear you very well.

MR. TYSON: In terms of size how much larger -- how much larger is the expansion going to be in relation to the size of the facility right now? Is it going to be two times, three time larger, four times larger?

MR. NICKODEM: Well, the current landfill area is 88 acres. Actually go to that one slide, Bruce, with the facility -- yeah, bring all those up. Yeah, just quick through to where everything is up. So the current landfill itself is 88 acres and then we're adding some additional area on the west side and we're

adding a hundred and seventy-nine acres on the east side, so let's see, from -- it's a little more than three times the area that the current landfill is.

MR. TYSON: Okay, so concerning this three times larger and we discussed there have been concerns as far as odor, so then can we say -- assume that the size of the odor which is going to be right across 88 is going to be three times as large?

MR. NICKODEM: I'm sorry. The size of --

MR. TYSON: In terms of concerning the odor that we've just discussed here is it safe to assume that the odor is going to increase in increments of -- it's going to be three times as large as the odor waving across 88?

MR. NICKODEM: No, no, that's not the case. Again, with the gas management system that's in place, that's meant to control all odors whether it's 88 acres or whether it's the expansion area that we've noted here, so no, I wouldn't say that at all.

MR. TYSON: Okay. Another question. When you went out -- and I assume you've physically

been there at the site. Have you ever walked across the street?

MR. NICKODEM: Across what street?

MR. TYSON: 88. Did you ever walk across the street? We received complaints, the last one being in April. Did you ever actually go over to the school and physically stand there and say, wow -- did you ever inspect the odors that come across, did you ever do that physically?

MR. NICKODEM: I have been at the school property and yes, I've driven over there and gotten out of the car and looked at the site from that location. That day I didn't smell any odors from the site, so -- so -- but I have been over there, yes.

MR. TYSON: Okay. The building, the -- all the things that you talked about as far as what you plan to do, who is overseeing the inspections, the quality concerns, who is going to say that you are going to be doing exactly what you're telling us that you propose to do?

MR. NICKODEM: Well, there's several different checks on that. One, after we go

through this process, you know, if this is approved and moves forward the next step is a permit needs to be submitted to the IEPA with more information and they have to approve it. Then after that's submitted, you know, when you go into the initial construction you have to document that that construction has done -- has been done according to specifications. That isn't done by Waste Management. That's done by a third-party engineering firm actually such as ourselves or others, a consulting engineering firm that puts an engineer or technician out on that site during construction and -- during the entire construction and watches to make sure that it's constructed as per the plans and specifications that were in the design and then that report -- all that data that that engineer takes, that report is submitted to the IEPA and then they have to -- they check that and they approve that that was constructed properly prior to any waste being placed. So it's -- you know, and -- and I should note also that report has to be done and certified by a professional -- licensed professional engineer in Illinois, so

-- you know, as -- I'm a licensed professional engineer in Illinois and I've done these before and when you do those you're taking responsibility -- professional responsibility that that was done correctly. So we've got those checks and balances in the construction of the site so that -- to ensure that it's done properly.

MR. TYSON: Okay. You bought -- you spoke in terms about -- as far as tanker size, vehicles coming in and out and I don't know if this question is appropriate, but I'll ask it and you can let me know. Do you know what the impact would be about -- on the road system in DeKalb County with all the trucks coming in and out? Do we have figures of that? Have you looked at that also?

MR. NICKODEM: We're actually going to have another witness, that's Mr. Dave Miller. He's going to go through the entire traffic analysis. A traffic analysis was done for the site based on the number of trucks that are expected, so he'll talk about that and he would be a better one to ask that question of.

MR. TYSON: Okay. I just want to go back for one second. You said you have been to the school. In speaking to people that live in Cortland I've heard that, well, I opened up my back door and pow, you know and there's kids on the playground, it's just -- the odor is just there. So you spoke in terms of wind direction. So are you saying that when you went to the school that day that the wind just wasn't blowing in that direction?

MR. NICKODEM: Well, actually, Bruce, if you want to bring up that slide that we showed the school -- that was an aerial photograph of the school -- that had the school -- yeah. So the school is up here and the prevailing wind direction is from the south to the southwest, so you know, this existing landfill -- I mean, this had been there prior to the school being constructed, but you can see here that the east unit, that's not going to be -- since the prevailing wind direction is this way that's not going to be going toward the school and the subdivision over here. And again, the gas system has been constructed to take care of

these odors. And as I mentioned, you know, I checked back because of some of the concerns yesterday that were brought up about odors and I asked Waste Management because I -- I said I hadn't heard any -- or I didn't know of any recent complaints and there was -- from what Waste Management has from an odor standpoint from people calling is there was one in 2007, there was two in 2008 and three in 2009 and the last one in 2009 was -- was in April, so it's almost 11 months and again, they've worked on that gas system in that west unit to ensure that -- you know, by moving the flare and increasing the gas collection efficiency to make sure that those odor concerns are being addressed.

MR. TYSON: And you know, just as rebuttal as far as complaints from the community goes, you know, at some point it's kind of like when you're driving down 88 you drive past the landfill and you raise up your window, you know, you hold your breath for a minute. You know, so as far as to say that, well, complaints stopped coming, that's not to say that the odor diminished or stopped, people just close the

window or close the door. I'm used to it, you know, I'm tired of complaining, so I don't think that -- that has much weight to as far as has anything actually changed. I just got used to it, I'm fed up, so I don't think that weighs a lot as far as -- because I don't think anybody even knows or has a number where to call and complain about it. Thank you very much.

HEARING OFFICER MCCARTHY: Are there any other members of the County Board who have questions of this witness?

MR. AUGSBURGER: Jerry Augsburger, County Board member, District 7. Going back to the previous illustration that had the acreages, please. Okay. Now, just to clarify things in my mind, the old area, 24 acres, that's -- that was the one that was started in 1956?

MR. NICKODEM: Yes.

MR. AUGSBURGER: And has long since been put to bed?

MR. NICKODEM: Yes.

MR. AUGSBURGER: The north area of 38 acres, that has been used up and that has also been covered over?

MR. NICKODEM: Yes.

MR. AUGSBURGER: So now Waste Management is working on the 26 acres and when is it anticipated that that 26 acres will be used up and covered?

MR. NICKODEM: Actually that's probably a better question to ask of Mr. Hoekstra, but I think approximately in about six years that would be filled.

MR. AUGSBURGER: So the proposed expansion, if it happens, would not start to be used for another six or seven years then, is that --

MR. NICKODEM: Yeah, approximately, yes.

MR. AUGSBURGER: Okay, so then we have approximately four acres is utilized per year then, is that the -- or with the expansion then and the increased input what -- what would be the approximate number of acres that would be utilized and completed per year?

MR. NICKODEM: I don't know the exact acreage, but there would be -- there would be an additional amount with the expansion that would be used per year. You know, part of it is

obviously they're going to be excavating that old area and placing that in the newly lined areas and then there will be additional waste coming in, so I don't know how much would be used per year, but it will be a little more in the expansion than it is in the current site.

MR. AUGSBURGER: Okay, but in any event, even the expansion area then is the additional 179 acres; is that correct?

MR. NICKODEM: That's on the east, yes, and then there is --

MR. AUGSBURGER: The east expansion area?

MR. NICKODEM: Yes.

MR. AUGSBURGER: And it is predicted that that east expansion area of 179 acres would be completed or filled in in approximately how many years?

MR. NICKODEM: Well, there's -- actually we have that in the application. The entire site -- all the west and the east, I don't know the break out of them both, but the entire site has a life of 46 years.

MR. AUGSBURGER: 46 years?

MR. NICKODEM: Yes.

MR. AUGSBURGER: Okay, so -- and then as the expansion area is filled in how many acres is filled in before it is considered finished and covered over and they move on to the next section?

MR. NICKODEM: Well, from a phasing standpoint you're asking? It depends -- and actually maybe, Bruce, bring up the east expansion phasing -- the first phase. When you start your initial phases you have to build a larger area because you can't -- you can't get as high with the waste. As you build -- your next phase is you build smaller areas because you're able to overlay on the previous phases and build further up, so there's not a -- you know, like this first phase you can see the amount of area we have here. Then go to the second phase, Bruce. You can see we're filling in that area, but now if you go to this third phase you can see it's a much smaller area of construction and the reason is is because now we can fill up over these previous phases, so initial phases are always larger than -- than your subsequent phases, so it's -- that's how

it's developed as we move along.

MR. AUGSBURGER: Okay. In any event, that I guess helps me understand this -- what seems to be a very large expansion isn't going to happen overnight and again, it's a very incremental expansion?

MR. NICKODEM: Yes, it occurs in steps like this all throughout the life of the site, yes.

MR. AUGSBURGER: Okay. Thank you.

HEARING OFFICER MCCARTHY: Any other members of the County Board that have a question of this witness? Yes, sir?

MR. CHAMBLISS: Excuse my tardiness, but seems like I made it just in time.

HEARING OFFICER MCCARTHY: Would you state your name?

MR. CHAMBLISS: Oh, Kevin Chambliss, a member of the DeKalb County Board, District 5. The question that I have are based on some of the responses that you were giving yesterday. A couple of them, they just really scared me and if I ask a question that it is not in your expertise to answer, I understand. If you could

just let me know which witness would be able to answer that particular question then I'll make sure I check the notes and that I have those follow-up questions.

My main concern is leak. I actually am a living victim of a neighborhood that had a ditch that ran through it that was leaking negative toxins since 1970. My family is actually a part of a living lawsuit right now in Columbus, Mississippi about this. You know, it was a big company and they employed a lot of people in our town, but there are thousands of families that had disabilities, abnormal pregnancies, a lot of cancer victims, very abnormal, you know, in that particular region compared to the rest of the city, so I just need you to like walk me through it and assure me that if I'm -- that whenever vote, whenever that particular time comes, that this is not that situation, okay? So going through the leaks, from your expert opinion are there possible leaks that -- that have already occurred?

MR. NICKODEM: There are leaks from that old area that have occurred, yes.

MR. CHAMBLISS: Do we know the chemicals that are leaking?

MR. NICKODEM: Yes.

MR. CHAMBLISS: What are those chemicals?

MR. NICKODEM: Well, they're related to the petroleum products that were in that -- in that area. I don't recall the exact -- all the chemicals. We have them in the application, but they are all related to the petroleum products that were put on that waste and then it was burned at the time.

MR. CHAMBLISS: Are we a hundred percent positive that none of the chemicals would go in the category of, say, illegal toxins or harmful toxins just by -- by aroma, are we a hundred percent certain of that?

MR. NICKODEM: Well, some of them -- I mean, it is contamination, so the contamination itself, which is being remediated right now and I should let you know I know you talked about the channel or ditch that your family lived next to or by that nothing is going into union ditch. It's all in this -- in the shallow, subsurface soils underneath that old area, but some of

them, yes, they are -- they are harmful chemicals, but they're being -- they're -- we know the extent of them. The extent of it has been determined. It's all on-site. It's not leaving the site and we have that corrective action or that remediation system in place that's currently managing those areas.

MR. CHAMBLISS: Who's the host company that's managing the current remediation or is Waste Management actually managing it?

MR. NICKODEM: Waste Management.

MR. CHAMBLISS: The aroma that I smell, I mean, I've smelled it -- I've been here for like four years and I smell it every time I leave Chicago. You know, it reminds me of the days when I was bussing to school and we had to roll up the windows because going through our neighborhood was such -- like -- that's one of the reasons I was on the football team so I didn't have to come straight home because it smelled that bad. Yesterday, there was some comments that the smell could be characterized as a spoiled egg and then there was also some comments about the specific chemical that could

possibly -- has possibly been described as a spoiled egg smell. What's that chemical's name again? Sorry. I'm not a geologist. I have to ask questions over.

MR. NICKODEM: Hydrogen sulfide gas.

MR. CHAMBLISS: How serious of a situation is that?

MR. NICKODEM: I'm sorry. What?

MR. CHAMBLISS: How serious of a situation is that -- like this hydrogen sulfide thing? I'm looking at you as my expert witness to like -- tell me the gist of it, what's the worst case scenario and what's the best case scenario?

MR. NICKODEM: Well, for one thing hydrogen sulfide in the landfill gas is a very small, small fraction of the gas. The vast majority of the landfill gas is made up of methane and carbon dioxide, so it's a very, very small portion, but any amount of hydrogen sulfide gas smells like -- like rotten eggs. Now, it takes a very large amount of hydrogen sulfide gas to be damaging over a long period of time.

MR. CHAMBLISS: Like about 30 years? Like

-- again, that's exactly what they said, man and again, this is my fear, because after 30 years, you know, that's a child's lifetime of living there and then they start to see the damaging effects into their adulthood. In your plan will you specifically be designing around that possibility?

MR. NICKODEM: Yes. The landfill gas management system collects that gas which will contain those very minute amounts of hydrogen sulfide and then it's burned in the flare and actually I checked -- I misspoke yesterday. I said the collection -- or the efficiency of the flare was I think 96 percent and it's actually 98 percent. I checked to verify that number. So that gas -- that very small amount of gas, that's all being taken to the flare and burned off and not being emitted to surrounding areas and in fact, Mr. Hoekstra, when he talks, he's going to talk in detail about what the company is doing to manage the issue of hydrogen sulfide gas. It's a fairly new issue in the landfill industry. It's not just from drywall that people take in. He'll explain all that in more

detail, but the Company understands the issue and they've taken steps as a Company to not accept certain types of waste so that that would generate that type of gas and also to ensure that the gas management system is operating properly so it's not emitted off-site.

MR. CHAMBLISS: Okay. Two more questions. Again, worst case scenario, let's just say that the situation in the current existing old dump -- let's say it's worse than we think it is. Let's just say we're wrong. I know everybody is experts or whatever, but let's just say we're wrong. What precautions would you say need to be taken just in case we're wrong? Because I'm telling you I just can't live with it. I'm not going to be able to. What precautions would you suggest in case we're wrong? And what precautions are already presented in the plan just in case you're wrong? And is there anything that would be proposed from Waste Management as compensation just in case 10, 20, 30 years later if families have experienced that worst case scenario do they have something in place that says, hey, if this ever happens to

you we're going to make sure that you're compensated, although it's kind of hard to compensate that, but we'll try, it's there.

MR. NICKODEM: Well, I guess the first part of your question, you know, what things do we have in place, I mean, we've got the groundwater monitoring network around the site and that will, in fact, be expanded as part of the expansion around that west unit and that tells us, you know, what the conditions are in the subsurface, if it's changing, if the contamination is moving and it's not -- right now if the corrective action is working and it is, you know, the corrective action is working and in fact, we're going to have also more testimony by our geologist, Joan Underwood, who's going to really discuss that whole issue in more detail, but we do have monitoring in the -- in the soils that monitor the groundwater for situations in case -- in case something comes up that we haven't foreseen. In terms of your other issue, you know, Waste Management is -- obviously they're financially -- they're paying for all these things. They -- actually even in

the post closure care period after the site is closed they have to post what's called financial assurance with the State that provide for the funds to maintain that site. You know, they're going to be there during that post closure period and they're going to be maintaining it, but it provides for funds now that in the event if something did happen to Waste Management there are funds available to take care of that problem.

MR. CHAMBLISS: In your expert opinion would you -- just families that live near the site now in your expert opinion would you like suggest they move if we expand?

MR. NICKODEM: Would I move?

MR. CHAMBLISS: No. I mean, would you suggest that -- that the families that are currently living within, say -- let's just say a 2-mile radius of the site based on this expansion, based on, you know, hey, if you got an opportunity would you suggest that they move from there like just in case?

MR. NICKODEM: No.

MR. CHAMBLISS: You wouldn't?

MR. NICKODEM: No.

MR. CHAMBLISS: What about the school, because I don't know when the school was built and I don't know when -- you know, how long the landfill was there necessarily, but do you think that maybe we should relocate the school?

MR. NICKODEM: No.

MR. CHAMBLISS: You don't? There's no danger to -- no -- absolutely no prediction or possibility of danger to the school students who are transported there or who go to school there that could ever happen, there's no history of it?

MR. NICKODEM: No. Really it's the -- you know, we've got in place the remediation system and that monitoring system in place to check that to ensure that we know what's going on and that the corrective action is working properly and you know, I just personally -- I live in rural Wisconsin. I live about a mile and a half from an old manufacturing plant that had a leaking landfill next to it. It was remediated, but I'm on well water as well because I live in rural Wisconsin and you know, it didn't concern

me enough because they were -- they also took steps to monitor and take care of the contamination of the site that, you know, I wasn't going to move because of that. As long as I knew that they were actively taking care of that issue, you know, I felt that we were okay and my -- you know, my wife asked me about that and you know, what should we do, but no, I -- I don't see a concern.

MR. CHAMBLISS: Okay. This chemical, again, you were saying this is kind of a new thing when it comes to landfills as far as possible problems with that chemical. Was that what you were saying?

MR. NICKODEM: A new thing?

MR. CHAMBLISS: You were saying that this is relatively new. What did you mean by that?

MR. NICKODEM: Oh, that's in regards to the hydrogen sulfide gas and again, Mr. Hoekstra will explain that in more detail, but because of the -- because of all the building and construction that's been going on -- not in the last year, but prior to that there was a lot of construction demolition waste and there were

some -- you know, a lot of construction demolition waste recyclers ground this material up and actually ground up that drywall and Mr. Hoekstra will explain that in more detail. But it's because of those specific issues that have happened recently that have created more of an awareness in the landfill industry of hydrogen sulfide gas production. Really in the last couple years it's really come to the forefront across the country and again, Mr. Hoekstra is going to talk about the certain types of waste materials that they don't accept anymore because of those issues.

MR. CHAMBLISS: But you know, to state that it's a new phenomenon almost scares me even more. How much research -- it's new in the landfill industry. How much research has been done on the possible long-term effects of that?

MR. NICKODEM: You know, I don't know how much. There's been a lot of -- a lot of research over the past few years with this issue just because of it's really the way that -- you know, in the past they may have gotten a load of drywall, but it's just sheet drywall or broken

drywall, that's not the issue. It's when it comes in and it's crushed and comes in a powder form to the site and that they're not accepting anymore. So it's -- it's not that the issue is necessarily new, it's just the way that the waste is coming into the site that -- and -- and operators have realized that they need to respond to that and that's where this gas is coming from and Waste Management has done that.

MR. CHAMBLISS: Okay. Another question. Is there a Plan B that you have been working on? For example, let's say this doesn't work. Let's say we just say no, whatever. Is there a Plan B or a Design B that you have that would be a second option, for example, because just my common sense logic says, okay, well, I know you have the big, you know, expansion that -- that you're going gunning for and that you planned for, but do you have a plan already that you've been working on that would be just for the purpose of DeKalb County, like is that -- does that exist?

MR. NICKODEM: You know, we -- not specifically, no.

MR. CHAMBLISS: Do you understand my question?

MR. NICKODEM: Yes.

MR. CHAMBLISS: Okay. I'm going to jump on to another topic real quick. Yesterday I wasn't sure if you were saying that the gases are already planned to be collected and redistributed into renewable energy or you were saying that that is a possibility of what you could do. I wasn't really sure. Could you clarify that for me?

MR. NICKODEM: It is planned to do some -- some form of renewable energy and the reason it may have sounded like it was unclear is the type of end use or renewable energy that will be done has not been determined yet and really that is -- you know, we don't -- you do that when you get the amount of gas that you need to do it because then you know what the market conditions are. Is it best to use it for gas to energy? Is it best to pipe it to some plant or things like that? Is it best to create vehicle fuel? We don't know yet what that will be, but there is going to be a project on the site that is

planned, yes.

MR. CHAMBLISS: So the facility to transform it will already be there. It will be just you figuring out which type to transform it to? Like you already have the facilities planned, it wouldn't be a new construction project for you?

MR. NICKODEM: No, the gas system that we have in place is the system that would be used for recovery irrespective of what type of recovery you do, so that will be in place, yes.

MR. CHAMBLISS: Okay. The other question is going back to compensation because I wasn't really clear with your answer. Is there a set dollar amount for families who -- again, we're talking this is a new situation in the landfill industry. We know that -- all of us know that there are families who have lived in Cortland all their life. I worked in Cortland and I've ate at the little -- couple of restaurants that were around there. If the worst case scenario happens is there a compensation package that is promised to those families on the table right now and if there is, could you like go into

that?

MR. NICKODEM: I -- I don't know the answer to that question.

MR. CHAMBLISS: Who would?

MR. NICKODEM: Probably Waste Management would be the best one to ask about that.

MR. CHAMBLISS: I bring it up because I remember the wind farm hearings and I remember the company, you know, they had all -- like they have financial sets, you know, to like equate to conditions if this -- if something happens, if a thing flies off and hits your house, like don't worry, people have died, but at least there will be some financial compensation and then there was a financial compensation for families whose property was really close. I heard all those type things. I'm not really hearing all those type things here and I don't know, if I was living there I guess I would be like, well, if you're going to be this close to me and I have to breathe this every day and it's going to increase then, you know, I'm going to want a little something. Has it been discussed in the engineering plans?

MR. NICKODEM: You know, the financial aspects of that, that would be something that Waste Management -- that's not an engineering topic that I would deal with.

MR. CHAMBLISS: But when you were like having the discussion with Waste Management and you were creating your engineering plan was this a topic of discussion or priority?

MR. NICKODEM: I didn't talk about this with Waste Management, no.

MR. CHAMBLISS: And you haven't heard of any type of plans to do that, like you can't tell me where I can go find it or not that you know of, correct?

MR. NICKODEM: Again, I think it's better that you ask that question to Waste Management, because no, I'm not aware of that, no.

MR. CHAMBLISS: Okay. That's all the questions I have. Thank you.

HEARING OFFICER MCCARTHY: Okay. Thank you. We've been at this for almost two hours and 20 minutes. I had hoped that we might be able to finish with this witness, but I think we're going to come back for more questions.

The court reporter has been at this for two hours and 20 minutes and I'm surprised she's put up with it this long. So let's take a 10 or 15-minute break and then we'll come back.

(A recess was taken at 11:19 a.m. and proceedings resumed at 11:37 p.m.)

HEARING OFFICER MCCARTHY: Okay. Let's reconvene the public hearing. There was another member of the County Board I believe that had an additional question.

MR. TYSON: Again, my name is Derek Tyson. Can we go back to the map that shows the landfill and then also the community across -- Cortland and the school, please. Okay. I am a former nuclear/biological/chemical specialist for the United States Army and one of my concerns is that -- one of my jobs is to try to calculate any type of incidence whether it's a biological agent, a chemical agent or nuclear explosion and calculate the fallout, the risk assessment, tell my unit commander how can we survive, do we need gas masks, do we need suits, what's the circumference, how far do we need to

be away and things like this. All right. You talked about the -- the old site how you want to take the waste from the old site and take it over to the new site and in my mind's eye I'm kind of looking at this as a biological chemical explosion. This to me is a bomb that you're about to set off in the community in that when you go and dig up all this waste to move it how are you going to do that safely so you don't emit all these gases that will come out and move right across into the community? How are you going to do that? Now, if I was a commander when you did that I would tell my unit -- we do like this, a dinging sound, you know what that means? Put on your gas masks because you're not going to be able to breathe. There are children there. How are you going to protect the community when you do that? You told us that the gas is there, but I'm not hearing how you're going to -- and I haven't heard this. You just told me we're going to do it, so I'm concerned about that happening and I'm seeing that as a bomb across the street that you're just going to blow up and once it's in the air it's in the

air. Can you address that? I'd like to know how you're going to do that.

MR. NICKODEM: Sure. Actually, Bruce, why don't you pull up the first -- first phase, Phase 1. I think a lot of your questions are related to excavating that old area --

MR. TYSON: Yes.

MR. NICKODEM: -- and what we're going to do, so again, this is -- this is the existing landfill. This is the outline of that old area and then this is the new phase that's constructed on -- next to that area. You know, one of the things that I want to start with is this old area -- the waste in that area has been there for, you know, I guess -- gosh, it started in 1956, so in excess of 50 years -- some of the waste has been in excess of 50 years. The waste was also burned off as part of the operations of the initial waste, so a lot of the organic fraction, the stuff that decomposes, the stuff that you would have concerns about with being contamination or toxins or things like that has already been decomposed or burned off when they operated this site, so you know, we don't expect

that there's -- it's not going to be like if you had a new landfill -- like, say, the area over here and you excavated that site with new waste, it's not going to be the same as that because this has been decomposed and we talked about waste stabilization before, how waste gets stabilized over time, I mean, this is by and large very stable waste. There is -- you know, we have that corrective action in place and all that to take care of the -- the older contamination from there, but in terms of excavating this, of course, this will be excavated from here and placed right into here, so one, we're not going to have to haul it a long ways, we're not going to go on any roads outside the site. It's going to be right -- it's going to go right from here into here and then when they build the next phase it will -- it will go right into that subsequent phase. In terms of excavating it they're going to only excavate -- it's not like they're going to expose this entire area and take -- because right now there's good cover on here, it's vegetated, it's closed, so they're going to

excavate just small areas on each day that they're hauling waste from here to there and take that waste over there and then at the end of each day that they're excavating this they're going to recover it with a soil cover at the end of each day just as they do with the new waste in the new areas and it's all going to be within this limits of the existing landfill and within the limits of the new landfill. So nothing is going to be trucked or done outside the -- outside that limit, it's going to be interior to that site. So you know, it's very common to do these things. I mean, the old waste is moved from sites -- I mean, I've worked on sites before that old waste has been moved into new areas and basically what they do is they'll excavate it out with like an excavator, you know, like a big backhoe, they'll put it into trucks and then those trucks will take it over here and will dump it just like incoming trucks of waste would dump. You know, and they're going to control dust just like they would in any operations. And actually Mr. Hoekstra from Waste Management will discuss the operations of

this in much more detail. But the scenario that you're talking about with excavating old waste and being a big problem for the school up there and that's a good question and a valid concern, you know, I've been involved in these types of projects before that we've done this and I've never had that -- those concerns come -- I shouldn't say people didn't ask them, but I've never had any problems with the excavation of old waste and redepositing in new areas. And that's really due to, you know, good operational practices of keeping a small area open when you're excavating, covering it at the end of each day and then keeping the, you know, waste hauling internal to the site. You know, we're not going off-site with it. It's going to be -- the operations of this is similar to the operations of the active area. It's just in reverse. They're just excavating and redepositing. And again, this old waste is going to be a lot like just soil, because a lot of it has been decomposed over that time of 50 years that it's been in place.

MR. TYSON: And that was my next question.

Were you ever involved in removals or -- removals from one point to another before and you had answered that.

Are you going to be testing the air quality while you're doing this?

MR. NICKODEM: Well, with the gas management system and the ambient air system that we have we will be, yes, testing the air quality around the site continuously. Even without doing this we would have been -- we would have been testing the air quality around the site, yes.

MR. TYSON: Thank you.

HEARING OFFICER MCCARTHY: Okay. Any other members of the County Board who have questions of this witness? Yes, sir?

MR. CHAMBLISS: Hey, how you doing? It's me again. A couple of quick follow-up questions. Have you guys already tested the current air quality of that area?

MR. NICKODEM: Well, there's -- I believe there's ambient air monitoring going on, yes, right now. That's required on any site, so yes.

MR. CHAMBLISS: Are those reports in this

-- like the -- are those air quality reports available already?

MR. NICKODEM: Actually all monitoring results that are taken on any landfill are all submitted to the IEPA and yeah, they're readily available to anyone, yes.

MR. CHAMBLISS: What about the current living conditions of the -- you know, the current residents of the area, has there been a study done on their current state of health or maybe the state of health that they've had, say, for the last 10, 15 years, has any kind of study of that magnitude been done?

MR. NICKODEM: Not that I'm aware of, no.

MR. CHAMBLISS: I asked because of this -- because a lot of people are saying that sometimes they smell the rotten egg smell, sometimes they don't. I was just reading and maybe this isn't the case and maybe this is the case, but a lot of times when there is hydrogen sulfide gas in the air, when you smell it that's at its lowest level. It's actually when it gets to the higher levels that you cannot smell it, so the smell goes way. So again, man, you guys

are scaring me because everything that I'm hearing is that we might have a bigger problem than has been predicted. So in the engineering plan, which is your area of expertise, is there a plan to go around into that residential community and do a study on the health of the current citizens and to possibly see -- to make sure that they aren't currently suffering from hydrogen sulfide contamination being that we all know that it can be fatal? I just went and looked it up real quick and I'm looking at the Illinois Department of Public Health and just some of their concerns. I don't know, like can you -- I'm looking to you as the expert witness to basically ease my fears. So are there any plans to do that in the engineering design?

MR. NICKODEM: No. I mean, we focus on capturing that gas inside the landfill and no, there are -- are not plans at least that I'm aware of to do those -- those types of studies. We focus on insuring that the gas is captured and I'll tell you that I'm confident that the system that we've designed will capture that gas and be able to take it to those flares and burn

it and efficiently, so --

MR. CHAMBLISS: But we do know that there is a current problem and although that problem is being addressed, there is a current problem, correct?

MR. NICKODEM: I mean, Waste Management has addressed a lot of those issues by adding additional gas wells, moving that flare, so --

MR. CHAMBLISS: Has Waste Management done any kind of study on the citizens of that Cortland area to see what their current health is -- being that they know that they have a problem have they done any kind of study to see if there are any current health problems that they might have that might be attributed to the inhalation of this gas or have the community residents been notified about this problem, the details of this problem and the possible symptoms that might come with this problem, has that been done?

MR. NICKODEM: Not that I'm aware of, no.

MR. CHAMBLISS: Do you understand why I'm scared?

MR. NICKODEM: Yes.

MR. CHAMBLISS: Okay. Thank you.

HEARING OFFICER MCCARTHY: Okay. Do any other members of the County Board have questions of this witness? Okay. There were a few members of the general public that indicated to me that they had a question of this witness. If you would stand and state your name again, sir.

MR. CHARVAT: Hi. My name is Mark Charvat. Question for you on the topic of gas, okay? I'm glad to see that our last two members have recognized that there is definitely a gas problem or at least one that you smell down Route 88. I've tried to call a number of the Board members. At least one member told me who's on our committee that she didn't smell the gas because she rolled up her window, so the gas smell is there, so I encourage that Board member on the Pollution Control Committee to roll down her window and smell the gas.

Now, you mentioned that there is testing involved as far as the gas levels and what sort of -- is it based on like a number quotient of some sort as far as the gas level goes and if -- if the gas is at a certain level what does Waste

Management do to correct the problem? Do they shut down the facility? Do they put some sort of -- something along the waste or whatever --

MR. NICKODEM: Well, that's -- there is regulatory limits for testing for methane. And again, as I noted, the primary -- the vast majority of the constituents in landfill gas are methane and carbon dioxide. These other trace gases are so -- are very, very minute and -- very, very minute and so we test primarily for methane because that's what you see most in the gas and so we have these wells that -- around the perimeter of the site into the soil that will test for the presence of methane and then we as also have the ambient air monitoring above the ground level that will test for the presence of methane. The criteria says that if the gas level in those wells reaches 50 percent of the lower -- the LEL of the -- of the methane in that which is it's -- which is 50 percent is 2 and a half percent methane in those wells, so -- because the LEL is 5 percent methane, so if you get 2 and a half percent of that entire gas sample being methane in those wells then Waste

Management is required to, one, notify the IEPA that this has occurred and to address that issue and the way you address these issues are by typically adjusting your gas system that we have in place or you may add additional gas wells in that area, additional horizontal collectors, if needed, but typically there's more gas management system components that are put in that area and then that needs to be done until that level is brought down below that 2 and a half percent of -- of methane in those wells.

MR. CHARVAT: Okay, so we don't shut down the facility if the smell is whopping into that school nearby just permeating it, Waste Management will not shut down for the day or anything like that? They'll keep operating even though the smell exists in the air you're telling me, right, and it's above the prescribed levels, correct? You're telling me the facility will continue to operate even at that point?

MR. NICKODEM: Yes, but the reason for that is the gas is not -- is not generated immediately from the incoming waste. You know, when waste comes right off of the trucks that

come into the site, that's not where your gas is coming from. It comes from when that waste decomposes over time. It's in the areas that have already been deposited and covered and that's why we need these gas systems and I mean, you want to -- you don't want to shut that down. You want to continue to operate that obviously, so no, the site isn't shut down because the issue would not be the incoming waste, it's the older waste that's been deposited and we need to adjust the gas system.

MR. CHARVAT: From what time frame when the levels get above the prescribed level is the EPA notified? Are they notified within the hour or within the day, within the week, within the month?

MR. NICKODEM: No, it's fairly immediately. I don't recall the required notice time, but it's pretty immediate. It's not like a week or anything like that, so --

MR. CHARVAT: When the EPA is notified of that what sort of action do they take and what time do they give you to rectify the error?

MR. NICKODEM: Well, they pretty much want

you to have a plan and take care of that immediately. And in fact, by the time you notify the EPA, I mean, Waste Management will already have looked at what would be the issue, why are we getting this with this gas in that particular well, why is that occurring and they'll look at the gas system in that area and evaluate it to make sure that it's operating properly. You know, sometimes things happen to these wells. And I mean, these wells are, you know, monitored and looked at on a regular basis to ensure they're operating properly, but sometimes something happens to one of these wells. Maybe -- maybe the valve -- something happens with the valve or the hose gets a hole in it or something like that that they may not notice overnight and so then they need to fix that and that may be a problem. In other areas maybe they need to add a well or add some system, so it's -- it's really increasing the gas management system components that will take care of that.

MR. CHARVAT: Is there something sort of chemical that can be added to the landfill to

neutralize the smell that -- I forget what we called it earlier, that sulfur (sic) dioxide smell? Because it's definitely potent down Route 88 and my concern is that once we triple the size of the garbage dump it's going to permeate even beyond that.

MR. NICKODEM: You know, the best -- really the best practices are covering every day, good operational practices and making sure the gas system is operating properly.

MR. CHARVAT: But there's no sort of technology that you're aware of at least coming down the line that can neutralize that smell in any way?

MR. NICKODEM: Not to put into the waste, no. There -- I mean there's -- no.

MR. CHARVAT: Maybe like flowers or something like that?

MR. NICKODEM: No.

MR. CHARVAT: Perfume maybe. You mentioned the leachate waste water treatment that were hauled away in trucks earlier in your testimony. And you were trying -- it was discussed that they were sometimes taken out of

town. You never specifically told us where this -- these were deposited -- the waste water from the leachate?

MR. NICKODEM: Yeah, it's at the Fox Water Reclamation District -- Waste Water Treatment plant by Elgin.

MR. CHARVAT: Okay. Not here in DeKalb, not in the DeKalb sanitary district, okay. This plan was filed by you I assume on November 30th from what I heard, correct?

MR. NICKODEM: Yes.

MR. CHARVAT: Have there been any addendums, any changes, any updates, any further information to this plan since the filing date?

MR. NICKODEM: No.

MR. CHARVAT: Okay. I just wanted to verify. Thank you.

HEARING OFFICER MCCARTHY: Okay. Any other members -- yes, sir? I guess he's leaving. I thought he was going to ask a question. Any other members of the general public have a question of this witness before we go back to Mr. Moran for redirect examination? Yes, sir?

MR. BOYCE: My name is John Boyce (phonetic). I live in Sycamore. I had a question and I'm not sure this is the right person to ask, but in design of public facilities one of the things that people are very concerned about currently is security. What approach would you as an engineer use to secure this facility against, first, minor vandalism, but secondly and more importantly terrorism activities?

MR. NICKODEM: Well, from a security standpoint, I mean there's a gate, a fence around the site. The -- you know, the gate is locked. Actually Mr. Hoekstra will talk more about the site operations and security they have in place on the site, but the gate is locked so you can't get in the entrance. Additionally things like the groundwater monitoring wells, those have casings around them that are locked, so all the buildings are locked, so there is -- you know, the site is secure overnight when site personnel aren't there.

MR. BOYCE: So there is no guard in the evenings?

MR. NICKODEM: There's no --

MR. BOYCE: I mean the whole facility is not encased in any secure environment, right, there's no fence or anything like that?

MR. NICKODEM: No.

MR. BOYCE: Okay. Just from a speculative point of view, what would happen if a large explosive device was set off in one of the already covered areas or in an active area?

MR. NICKODEM: A large explosive device?

MR. BOYCE: Yeah, a rocket bomb or something to that effect.

MR. NICKODEM: You know, I've never had that -- an experience with that happening in a landfill, but this is much like soil, I mean, if -- if something went off it would be like an explosion in a mound of dirt I guess. You know, I don't expect anything would happen except, you know, a lot of the site features might be damaged obviously.

MR. BOYCE: What would take place? I mean, would -- is there a plan to repair that? I mean I assume that whole plastic cover and everything would go to pieces, right?

MR. NICKODEM: Well, sure, that would all be -- yeah, any repairs would be -- would be taken care of, yes.

MR. BOYCE: And that would be Waste Management's obligation?

MR. NICKODEM: Yes.

MR. BOYCE: Is there insurance provided for that? I mean as part of this deal with the State they have to put, I understand, a deposit or securities to make sure they perform in the 50 years following, but is there also insurance for these occasions that might occur during that period?

MR. NICKODEM: Well, you know, Waste Management has insurance and they can speak more to what they have in terms of insurance.

MR. BOYCE: Who will do that? Who will speak to Waste Management's --

MR. NICKODEM: Mr. Dale Hoekstra who will be one of our future witnesses.

MR. BOYCE: Thank you.

HEARING OFFICER MCCARTHY: Any other members of the general public have any questions of this witness?

Mr. Moran, redirect.

MR. MORAN: Yes, thank you, Mr. Hearing Officer.

REDIRECT EXAMINATION

BY MR. MORAN:

Q. Mr. Nickodem, you were asked a question about -- with regard to the overlay over the north area whether it was appropriate to overlay waste over I think what was described as a leaking landfill. Do you remember that question?

A. Yes.

Q. And I believe your answer was -- was yes. Now, in referring to the answer you gave there were you referring to the north area as this leaking area or that fill -- or that old area?

A. I was thinking about the old area.

Q. Okay, so it was not accurate in any way to suggest that the north area in any way was leaking?

A. No, it's not.

Q. You were also asked a question about settlement at this facility and what we might expect by the way of settlement and I think you gave a percentage or a range of percentages in terms of

what you might expect. Does the application, in fact, identify a specific number that was identified as what we would expect the settlement to be at this facility?

A. It does, yes.

Q. And what was that number -- or what is that number I should say?

A. I'll have to check. Okay. For the east unit -- and this is in Appendix K-13-3, final cover settlement analysis for east unit, Page 2 of 3, the maximum settlement is 6.81 feet. That's for the east unit. So I'll find the west unit now. And the -- for the west unit, this is Appendix K-13-1, final cover of settlement analysis horizontal expansion in new liner area, Page 2 of 3, the settlement -- maximum settlement is calculated at 5.34 feet.

Q. Thank you, Mr. Nickodem. I'd like to address your attention to the slide that talked about the west unit, the Phase 1. You were asked questions about the timing for the expansion if indeed there was an approval here and the project proceeded to commence -- the commencement of construction and I think you

said that might occur in six years, but in fact, if this were approved the application for a permit to the IEPA would occur quite promptly, wouldn't it?

A. Yes.

Q. And if those permits were issued the anticipation would be that this first phase on the west unit, which is identified on the slide, would commence -- perhaps could commence as soon as 2013; would that be correct?

A. Yes, it could.

Q. And as you've also identified, the development of this expansion will occur in phases, phases both on the west unit and on the east unit, correct?

A. Yes.

Q. And you've already described for us the general areas of these phases and it indicates that clearly this is not an expansion that will simply be developed, for example, in the west unit all at once, so you'd have a very large area to be developed for disposal of waste; would that be correct?

A. Yes.

Q. So when somebody suggested that, well, this perhaps may be a facility three times the size of the existing landfill, that has no relation whatsoever to any possible odor issues that may relate to the expansion and its operation; would that be correct?

A. No, it does not.

Q. You were also asked a question about whether there were any aspects of this design which exceed the regulatory requirements in the 8-11 regs. Do you recall that question?

A. Yes.

Q. And I think you had given a couple of responses in terms of where there was a proposal here that exceeded those regulations, correct?

A. Yes.

Q. With regard to the surface water evaluation that was done, isn't it true that the code essentially requires us to evaluate for a 25-year event?

A. Yes, it does.

Q. And in this instance we evaluated for a hundred year storm event, correct?

A. Hundred year and for the critical duration

events which ended up to be the hundred year in many cases, yes.

Q. And that would exceed the requirements in the current regulations?

A. It does.

Q. And also with respect to your proposal to include the GCL layer beneath the leachate pipes and the sumps, is that something required in Illinois regulations?

A. No.

Q. So that would be another feature of this proposal that exceeded 8-11 regulations?

A. Yes.

Q. And with respect to the seismic analysis that you discussed, is that required under the code?

A. No. Seismic analysis is required if you're within a seismic impact zone and we are not, but we still completed the seismic analysis.

Q. So this would have been another instance in which what was proposed and done here exceeded the requirements of 8-11?

A. Yes.

Q. Okay, and do those regulations require any drainage layer -- I'm sorry -- within the final

cover?

A. No, they do not.

Q. And does this proposal include such a drainage layer?

A. Yes. We included it to provide a cover that went above and beyond what the regulations suggested, yes.

MR. MORAN: Thank you, Mr. Nickodem. That's all I have.

HEARING OFFICER MCCARTHY: Mr. McIntyre, any recross based on Mr. Moran's redirect examination?

MR. MCINTYRE: Yes.

RECROSS-EXAMINATION

BY MR. MCINTYRE:

Q. In regards to the information with the earthquake -- recent earthquake you said you didn't test -- you did pretesting I guess. Has any testing taken place since the earthquake?

A. What we do is we take -- we take the data from the U.S. Geological Survey because they're -- they're the experts in -- in earthquake analysis and they keep a large database of any earthquakes that occur in the U.S., so we get

our data from them and that's where we got our factors for the peak horizontal acceleration that we used in the application. Since that -- the earthquake that occurred recently I think I noted, yes, I did look at the USGS site just for -- to look at the magnitude of that earthquake and how it related to our analysis and the magnitude of that -- or the peak horizontal acceleration of that 3.8 earthquake that occurred is lower than what we use in our analysis, so our analysis is -- is still good for all those situations.

Q. So you looked at a computer model, but no physical inspection at the landfill?

A. Correct, yes.

Q. In the event that the clay was to crack what would that do with groundwater?

A. Crack from an earthquake you're saying?

Q. Yes.

A. Well, actually there's been a lot of studies on the relationship of earthquakes and landfills, not in Illinois, because earthquakes aren't as large or as common, but there's been a lot of studies in California and the -- from I believe

the Northridge earthquake which was in the '90s in southern California there was some landfills that were in close proximity to that site and the only thing that was noted from that earthquake was that in a newly-constructed cell that some of the liner panels had pulled apart and they repaired them. So I mean, I -- because of the analysis that we do for seismic design I don't expect any -- any problems with the liner or leachate collection system because we've designed for that and accounted for that in the application.

Q. Does design equal operation?

A. You're saying does what we do in the design --

Q. Does your -- does your design provide us ironclad protection against poor operation?

A. Actually it does, yes, because the liner provides containment. Now, you know, the site isn't going to be operated poorly, but the liner provides containment, the leachate collection system provides collection, the gas system provides gas collection. All those -- all those items will provide containment for the waste even if there was, say, a different operator

than Waste Management or someone else. And I work -- I work with many different companies in the waste industry, not just Waste Management, I also work with counties and cities that have landfills and solid waste facilities all over and Waste Management does a very good job of operations across their entire country.

Q. Okay, so your design of the gas management system at Hillside overcome their operation problems there?

MR. MORAN: Objection, goes beyond the scope of the redirect.

HEARING OFFICER MCCARTHY: Sustained.

Q. Okay. To the -- I want to move to the -- is there any way we can get -- I have had the DVD and not the hardbound book. There's a Figure 4 from existing in the large file. Is there any way of getting that on the -- on the screen?

A. In the application?

Q. Yes.

A. We don't have that in our power point. It would only be in the application.

Q. Okay. Then it would help if you were referring to Figure 4. The only thing I know on the DVD

is it's in a folder called hard files.

A. And what's the figure name?

Q. It's figure 04 existing?

MR. MORAN: Is that existing conditions?

MR. MCINTYRE: Existing landfill. We do have it on our laptop. Do you have it?

THE WITNESS: No, I'm trying to look. We have a list of figures. I don't have it as the name Figure 4 because our figures are numbered like depending on the section of the application 1-1, 1-2 depending on if they're in Section 1, Section 2. I don't have one for Figure 4. I do have the existing landfill figure which is Figure 1-2.

MR. MCINTYRE: Can you project that there?

MS. CIPRIANO: Drawing 4.

MR. MCINTYRE: Drawing 4.

THE WITNESS. Sorry. I was looking for a figure in the application. Drawing 4.

THE WITNESS: Okay.

Q. Okay. There's a GMZ area to the east of the north area.

A. Yes.

Q. Can you clarify what GMZ stands for?

A. It's a groundwater management zone.

Q. So if the north area is not leaking then why is there a GMZ to the east of the north area as there is in the south of the old area where leakage is occurring?

A. Well, it's not leaking. The north area is not leaking, but I'm going to -- our geologist, Joan Underwood, is going to discuss the GMZs and the relationship of that to the landfill in detail. I'm going to defer that to her. It would be better to ask her those questions about that. She's the geologist.

Q. So you're going on record that the north side is not leaking?

A. It is not, no.

MR. MCINTYRE: Okay. That's all of my questions.

HEARING OFFICER MCCARTHY: Mr. Steimel?

ROGER STEIMEL: Yes. I have just a couple of quick questions.

RECROSS-EXAMINATION

BY MR. R. STEIMEL:

Q. I wonder if you could put up the slide in regard to stormwater management and Gurler Road

and the 20-inch tile. I might identify also I am chairman of the Cortland-Pierce Drainage District. This entire landfill site is in our district and as you mentioned, you do have runon water from Gurler Road headed north. There are about 3 or 400 acres in this area and I'm glad to see that you're proposing a 20-inch tile.

Under questioning here though that tile is going to hook into a 14-inch. Would it not be better to take the 20-inch all the way to the union ditch?

A. Yes, that could be done, yes.

Q. I would suggest that strongly. Also, do you have elevation readings that -- as you said, that area is very flat. Do you have elevation readings that when you run the tile in the location you are that you'll have enough fall to have the water discharge?

A. We do actually. We -- that was -- that's a big part of the surface water analysis. Actually we did -- I didn't even mention that. We did really extensive analysis of all the road culverts, we have inlet and outlet elevations and obviously the location of the tile. We have

depths of those tile because they actually search for those tile and yes, the design -- we will have adequate fall and there will be some places I think on the east side of the -- or on the west side of the west unit where there's a slight rise in there and the tile will be deeper than in other spots --

Q. Yes.

A. -- than you're typical 3 to 4-foot tile depth. It will be deeper than that, but yeah, we'll be able to get fall over to there.

Q. Because we realize when we're building a project like this we're going to change the stormwater flow completely?

A. Yes.

Q. And so we'll have to take this into account. Pleased to hear yesterday that you are going to -- back on the ditch where you're going to excavate and put in new deposits there, you're going to stay 200 feet away from the ditch?

A. Yes.

Q. Pleased to hear that. As drainage commissioners we would like to be kept up to date and have input on how the soil is conformed

there along that 200 feet of the ditch. Would that be possible?

A. Yes, yes, and I'd encourage you to work with Waste Management on that, yes.

Q. We've had a good working relationship with Mr. Hoekstra.

Then on construction of that bridge we'd ask that we be involved and have some input in the design and the location of that bridge --

A. Sure.

Q. -- would that be possible? Okay. I suspect that there have to be other permits obtained in constructing that bridge?

A. Probably, yes.

ROGER STEIMEL: That's all the questions I have at this time.

HEARING OFFICER MCCARTHY: Okay. Mr. Campbell has joined us.

MR. CAMPBELL: I have no questions.

HEARING OFFICER MCCARTHY: You have no questions. Mr. -- the younger Mr. Steimel, Dan Steimel, any questions?

DAN STEIMEL: No further questions.

HEARING OFFICER MCCARTHY: All right.

Members of the -- well, let's go to Ms. Cipriano.

MS. CIPRIANO: No questions on redirect.

HEARING OFFICER MCCARTHY: Any members of the Committee have any additional questions of this witness? Okay. How about members of the County Board who are not on this Committee as a result of Mr. Moran's questions do you have any additional questions of this witness?

MR. TYSON: No. Thank you.

HEARING OFFICER MCCARTHY: Members of the general public, any questions of this witness?

Mr. Moran, do you have any re-redirect based upon the recross of Mr. McIntyre and Mr. Steimel?

MR. MORAN: No thank you, Mr. Hearing Officer.

HEARING OFFICER MCCARTHY: This is a good point at which to stop for lunch.

Mr. Nickodem, you are excused as a witness in this case. Thank you.

(A recess was taken at 12:24 p.m. and proceedings resumed at 1:30 p.m.)

HEARING OFFICER MCCARTHY: Let's reconvene the public hearing.

Mr. Moran, would you call your next witness.

MR. MORAN: Yes, our next witness would be Mr. Tom Price.

HEARING OFFICER MCCARTHY: And would you swear the witness, please.

TOM PRICE,

being first duly sworn, was examined and testified as follows:

HEARING OFFICER MCCARTHY: You may proceed.

MR. MORAN: Thank you.

DIRECT EXAMINATION

BY MR. MORAN:

Q. Mr. Price, what is your business or occupation?

A. I am a civil and water resources engineer.

Q. Do you hold any professional licenses?

A. Yes, I do.

Q. What licenses do you hold?

A. I am a professional engineer licensed in the states of Illinois, Iowa, Indiana, Michigan, Wisconsin, Nebraska and Missouri.

Q. Are you employed?

A. Yes, I am.

Q. By whom?

A. Conservation Design Forum.

Q. What is Conservation Design Forum?

A. Conservation Design Forum is a multi-disciplinary consulting firm composed of civil and water resources engineers, landscape architects and ecologists. And the focus of our business is an ecological basis of sustainable planning and design.

Q. What is your position with Conservation Design Forum?

A. I am a principal and director of water resources engineering.

Q. And how long have you been with Conservation Design Forum?

A. 10 years in September.

Q. Mr. Price, what is the purpose of your testimony here today?

A. I am testifying to enhancements to the traditional surface water management systems for this site.

Q. Before going any further into your -- the

specifics of your testimony let me cover your background a little bit further. What is your education?

A. I have a Bachelor's Degree in Civil Engineering from the University of Wisconsin-Madison, and a Master's Degree from -- in Civil Engineering from Madison as well.

Q. Could you describe for us briefly your employment history?

A. Yes. After graduating I started with Donahue and Associates where I was primarily focused on preparing stormwater management plans for municipal and private clients, mostly focused on addressing drainage and flooding issues and those sorts of things.

After Donahue I went to the Army Corps of Engineers where I was the sectional chief in charge of Lake Michigan diversion accounting, and my section was responsible for measuring and calculating the diversion of lake -- water out of Lake Michigan from the surrounding states. And that diversion, the amount of the diversion is regulated by the Supreme Court decree; the Corps of Engineers was charged with monitoring

that.

In 1990 I went to the Northeastern Illinois Planning Commission, often referred to as NIPC. NIPC became part of the Chicago Metropolitan Agency for Planning, or CMAP, recently, that happened after I left. And while there I worked with local governments, municipalities, counties, etcetera helping them develop strategies for improving stormwater management and general natural resources protection. And we had a number of model ordinances, a stormwater ordinance, a floodplain ordinance.

We provided courses on the design of stormwater best management practices, where best management practices are tools or strategies we use to improve the way stormwater is managed to reduce flooding impacts and water quality impacts and those sorts of things. So we did classes on designing and implementing those strategies.

We did a number of demonstration projects to retrofit existing detention basins and things like that to improve their water quality

benefits, we -- general technical assistance such as that. We did watershed management plans for several of the watersheds around the region.

And then I was on the Technical Advisory Committee -- the Stormwater Technical Advisory Committee for Lake County and McHenry County, and I wrote the county-wide stormwater management plans for McHenry County, Kane County and Will County.

And then after NIPC, in 2000 I went to Conservation Design Forum where we have been doing watershed management plans for watersheds within the Chicago area region as well as places outside the state. We do a lot of development work, both private, public and institutional development projects all with really a focus on what we call integrated storm -- integrated and sustainable stormwater management design with the integration being where the water management is integrated into the landscape, the overall site plan even within the building systems so that those systems all work together.

Some of the strategies we use are vegetative green roofs, permeable paving,

bio-retention rain gardens, rainwater collection and reuse systems. All of those, again, integrated into the overall design of the projects. And we, on many projects, carry them all the way from sort of the master planning stage through to construction.

We also, based on a lot of that work and people liking sort of what they see, have been asked by municipalities and other groups to review their stormwater codes and ordinances to modify those ordinances to either encourage or even require some of these approaches.

We do training from time to time at the request of municipalities or, you know, counties that go and provide courses on stormwater best management practices. And I have -- since I've been there I have been on a couple occasions, four times been one of the instructors at UW-Madison's Extension courses on stormwater design for water quality, and so that's been part of my work at -- while at Conservation Design Forum.

Q. And you just mentioned some teaching experience. Could you elaborate on whether you

have any other teaching experience?

A. Sure. I -- while getting my Master's Degree I was a teaching assistant for three semesters, so I had some lecture requirements -- or lecturing was part of my requirements as well as, you know, homework and tests and those sorts of things. So I did teaching associated with that. I mentioned the courses that I did while at NIPC and the work at Conservation Design Forum both for UW-Madison Extension as well as for various other counties and such.

Q. Mr. Price, do you belong to any professional societies?

A. I do. I belong to the American Society of Civil Engineers and to the Illinois Association for Floodplain and Stormwater Management.

Q. Have you held any positions of authority within these organizations?

A. Yes, I was the treasurer, vice chair and chair of the Environmental Engineering and Water Resources Division of the Illinois section of ASCE.

Q. Have you won any awards or received any recognition for the work you have done?

A. Yes, I was awarded young government engineer of the year award while -- while I was at NIPC, and that was awarded by the Illinois section of ASCE. And I have since being at CDF, and a number of our projects have been, given awards by the American Planning Association, American Site and Landscape Architects, American Public Works Association.

And then many of -- not exactly awards, but many of our projects have been lead rated under the US Green Building Council's Leadership In Energy and Environmental Design Program, and so we have got a number of projects that have been certified under that.

MR. MORAN: Mr. Hearing Officer, may I approach the witness?

HEARING OFFICER MCCARTHY: You may.

(Petitioner's Exhibit No. 5 marked for identification.)

Q. Mr. Price, I'm going to show you what we have marked as Petitioner's Exhibit No. 5 for identification. I'll ask if you recognize that exhibit?

A. Yes, I do.

Q. Could you tell us what it is?

A. It is my resumT.

Q. Does Petitioner's Exhibit No. 5 truly and accurately reflect your education, employment history --

A. Yes, it does.

Q. -- and professional experience?

A. Yes, it does.

Q. Now, Mr. Price, is there a written report that contains your analysis and recommendations with regard to sustainable surface water management strategies?

A. Yes.

Q. And is that written report contained in the siting application --

A. Yes.

Q. -- previously admitted as Petitioner's 1?

A. Yes.

Q. And I believe that would be in Volume 2 --

A. Yes.

Q. -- of the application, correct?

Now, Mr. Price, what were you retained to do in this project?

A. I was designed (sic) to recommend and design

enhancements to the traditional surface water management systems for the project site.

Q. Now, what -- what design principles, Mr. Price, did you use in developing your recommendations?

A. Uhm, the principles are listed here. Essentially it was sort of a step process. So the first principle really was to retain precipitation as close to the point where it falls, essentially try not to even produce surface water. But then any surface water runoff that did occur would be to filter and cool that runoff using the surface water management systems. And then capture sediment that is within the sedimentation basins.

Q. And indeed I think I misspoke, your report is actually Volume 1 of the siting application.

A. Okay.

Q. Isn't that right?

A. That is correct, thank you, yes.

Q. Now, Mr. Price, are these principles generally recognized in the field of engineering and surface water management?

A. Yes, they are.

Q. Are there strategies that can be used to

implement these principles?

A. Yeah, there's a number of strategies that can be used, and strategies used may vary a little bit by if we're looking at sort of a com -- traditional commercial or residential site versus a landfill.

Strategies that we looked at for this particular site were the ones that are outlined here: native landscapes, naturalized sedimentation basins, filter berms, naturalized swales and green site practices. And I'll talk individually about these a little bit more.

So native landscapes, essentially looking at implementing adapted native vegetation really throughout the project site, and so utilizing species that were adapted to the meteorology, the hydrology and the weather conditions here, as well as the soil conditions. What that does is a couple of things. One is these species are very well adapted to utilizing the water in an efficient manner, they also help to build soil carbon, and through those measures -- or through those characteristics help improve water retention while the water is essentially held by

the soils that the native landscapes are established in and thereby reducing surface runoff, and at the same time it provides habitat for aquatic and terrestrial creatures.

We have also adapted this to utilizing actually right on the landfill cap. And so this is a variant of the slide that Mr. Nickodem showed of the cap. And so first there was the 1-foot soil grading layer that he talked about, then there is the liner that goes on the cap, and then the drainage layer, and then there's this 3-foot protective soil layer and that is where the native vegetation is established into that 3-foot protective soil layer.

So as indicated by the arrows, when it rains the water falls onto the surface, actually infiltrates into with the soil, and then much of that water is just evaporated back into the air, actually what we all transpired back into the air. The water is utilized by plants and then it is respired back into the air, much like we respire when we breathe.

So much of that sort of recycling of water, if you will, is the rainfall going into

the soil and being transpired back out, going into the soil and transpired back out. So that's, again, producing really very little surface water runoff. But during very, very heavy rainfalls or extended wet periods, say during spring or snow melt conditions, there still is the drainage layer at the bottom of all this to carry any excess runoff or excess water away from that soil layer.

This is showing how native landscapes have been utilized on other Waste Management of Illinois' sites. This is the Settler's Hill Landfill site in Geneva, a little over 20 miles from here. And this almost entire area of this photograph is the top of a landfill, or the cap of a landfill.

So you can see there's a golf course and some of these usual recognizable features to many people, but the sort of darker areas -- and this is taken in the fall and that's why the color is so dark -- is native landscaped areas. So you can see surrounding the golf course areas, kind of the rough areas of the golf course, that is all native landscape. And this

is, again, all on top of an existing landfill of Waste Management of Illinois'.

We're also utilizing native landscapes within the sedimentation basins, so we have these naturalized basins. And you may recall back from Mr. Nickodem's testimony that there was pictures of sedimentation basins that he had shown. And so we still have those sedimentation basins, but what we have done is to establish kind of broad shallow shells so that we can grow these emergent native species within that -- those sedimentation basins.

These are just some examples of created ponds that have been vegetated with native vegetation.

What that does is by, uhm -- is help improve sediment settling. As the water sort of slowly moves through the system and filters through the plant material it improves on-site aquatic habitat, and then at sort of end use with the vegetation in there and that habitat it can improve recreational opportunities once the landfill is completed and the public is allowed access to the -- potentially allowed access to

the sites.

This is a graphic of a naturalized sedimentation basin. And I'm going to go through some of the individual components here, but just so you sort of get the context of how these pieces fit together.

So first there's what we call the forebay. The water from the channels that were shown on Mr. Nickodem's -- one of his drawings take the water from the cap of the landfill, any excess water that there may be, and carry it over to this forebay area. So that's an open water area. And that's where initial settling can occur, and so we do -- it is a landfill, there's open soil in multiple areas, particularly during -- you know, during operations, and so we want to make sure we capture that sediment. And we can ease maintenance and provide sort of levels of filtering by having that water first enter this forebay area in an easily maintainable location.

Then it's going to filter through a filter berm, which I'll get to in a little bit, goes into another level of treatment in the secondary

open water area, through another filter berm, and then finally into a shallow wetland area before it is ultimately released from the basin by an outlet control structure, and this structure is designed to meet the release rate requirements of the County stormwater ordinance.

So this is a cross section showing the -- essentially the edge of the pond. So we have got this wetland shelf, sometimes called an emergent shelf or an aquatic shelf, and you may even hear me use those different terms, they're really kind of the same thing. So it's a shallow area where it goes perhaps to a depth of half a foot or 6 inches, and that area extends up to about 6 inches above normal water level of that pond level.

So this -- so then we can establish the emergent wetland vegetation in this area that provides the habitat, it also provides some protection from wave generated erosion that can sometimes cause erosion at the edges and so this helps prevent that, and then it improves the filtering of the sediments that are in the runoff water.

And so then this is a cross section kind of the long ways through that basin that I showed earlier. So this is -- this is that forebay and where that initial settling can occur, and so it's sort of that first stage of treatment, if you will, or removal of settlement. Then it goes through the filter berm and then goes into the next open water area and travels through the next -- the second filter berm into -- finally into this very shallow wetland area for final polishing, as we refer to it. And then this is that outlet control structure that restricts the discharge to those allowable release rates.

Then I have got a slide, this is that filter berm kind of in close-up. And so what we have here is a -- essentially an open-graded stone. It's, you know, kind of 1-inch or so sized stone, or up to a couple of inches. And the emergent vegetation is planted directly into that stone, and this stone extends below that normal water level. So what it does is it essentially puts the roots of the emergent vegetation in direct contact with the water

that's moving through this system. So for -- as the water is moving from the inlet towards the outlet a lot of the water is just going through this gravel.

And vegetation gets its nutrients through their root systems. They really don't take up much nutrients through the stalk, it is through the root systems. And the sediment that is washed off the site, you know, just when it rains, uhm, that sediment contains nutrients. And nutrients in the right place are a good thing, we can use it to grow our vegetation here. But if it goes downstream into lakes or wetlands or ponds it can grow algae or lead to other sorts of situations. So we want to utilize the nutrients here. And so we're putting that water again in contact with -- directly in contact with the roots so that we can maximize removal of the nutrients and filtering of those -- of the sediments.

And then here's that graphic again. Just real quick, water enters the forebay, goes through that first filter berm, goes into the next open water area which has the broad aquatic

or emergent shelves, goes through the next filter berm into the shallow wetland area where it gets its sort of final filtering through the vegetation and then out the outlet structure.

And another strategy we're using is naturalized swales. So in some cases these are occurring upstream on the settling basins and in some other cases these occur downstream of these settling basins. So in a number of cases they are located along the roadways, and so the rainfall that washes off the roads goes into these and it's not too hard to imagine as the water goes into these it gets filtered by -- physically filtered really by the vegetation. So it filters that runoff from the roads of sediments.

It is -- as the water tries to move through that vegetation it's a rough surface, it tends to slow it down, so it reduces the flood flow rates, but it also provides necessary drainage. We have got roads and -- circulation roads, we have got the landfill and such that we need to provide drainage, and so these systems are designed to provide for these water

quality-type benefits but also just general drainage as well.

And then this is just a section located along one of the roadways. So the rainfall hits the road, drains off the road, goes into the -- into this naturalized swale where again it is filtered.

And so this is showing sort of how some of these pieces work together, the naturalized swales, the naturalized sedimentation basins. So we have got swales along the roadway here, and this is one of the circulation roads -- actually backing up for a second, just to kind of orient you where we are -- sorry, not you, Bruce, me backing up.

So this is the east unit, it is located over here. The west unit is kind of way over here, and union ditch kind of comes kind of along this edge right here. So this is just the east and the west units. So this is the circulation road connecting the east and west units and allows circulation from the initial ticketing and gives them access over to the east side of that site.

So the runoff off of that road runs through a naturalized swale and then into one of these naturalized sedimentation basins. In this area runoff, again from the landfill cover, goes into the forebay, through this naturalized basin and then goes through another naturalized swale before the runoff is discharged to this existing wetland area.

And, again, we're using one of these filter berms to help not only filter the water but also dissipate the energy of that water moving through spring so that it -- the water enters the wetland in a very distributive fashion and much more attuned with how it would enter in a natural condition.

And then the final part is -- well, the parts I was just talking about mostly focused on addressing the runoff from the landfill areas. But we have also got some areas, the parking lots and buildings and things like that, that are on the site and so for that we're using what we call green site design practices. So we have got permeable paving, green roofs and bio-retention rain gardens, and I'll go into

these a little bit.

So what we're planning to use here is interlocking concrete pavers. So these are essentially concrete bricks but they're specially designed bricks that have openings between them. So you can see on this inset how there are spaces between the bricks, those are filled with gravel, that allows the water to -- the rainfall that hits the surface actually goes through the bricks, is stored in the gravel that's underneath that and then it can infiltrate.

We're limiting the use of these permeable paving to sort of employee parking areas and won't be used in the areas where the waste haul trucks and those sorts of things are traveling through.

Another thing that's illustrated in this photo though is this bio-retention rain garden. So, you know, it looks like really just sort of a landscape island. The key kind of difference is you see these curb cuts located here and another one over here. So any excess runoff from the surface of the permeable paving or

where we have got these in nonpermeable paving areas that excess runoff goes into this rain garden, and this is an engineered soil that is designed to be quite permeable and good substrate to grow vegetation, and so the water is filtered by the soil and then can slowly infiltrate into the ground.

We have also -- looking at green roof systems, and here this is Bluff City Transfer Station, it's located in Elgin. And this is sort of an inset of what a green roof looks like. Essentially it's a vegetated roof. And in many ways the cross section is very much like what is proposed for the landfill cap. We have got a soil layer and then we have got a drainage layer that takes the excess water away. It's just a lot thinner than, you know, the landfill cap. So the total thickness of this is in the range of, you know, 4 to 6 inches depending on the design.

And so just like that cap, the rainfall falls onto the surface of that green roof, much of that water is transpired back into the air, rains on the roof are transpired into the air,

and we get slow leakage from that so that it greatly reduces the amount of runoff coming off of the roof surfaces.

And then these are some more examples of bio-retention rain gardens. This is a rain garden that's located right next to a building. You can see the downspouts in here where the -- so the runoff from the roof is going into this rain garden area where it is -- where the water's filtered and absorbed into that landscape.

Here's an example of one that's used in a standard asphalt parking lot. The excess runoff from the asphalt parking lot goes off into and again is absorbed by the rain garden.

Again, more pictures to show kind of different ways to landscape those.

Q. Mr. Price, could you describe for us now how you applied these different strategies for the expansion?

A. Yes. So these are some of the basic approaches. Now to talk a little bit about where and how we applied these on the site.

So this is the overall site. We have got

the east unit over here, we have got the west unit, and then kind of the space between. Now we're going to zoom into -- into the west unit to show how these work together.

So first of all you'll see there's these dashed lines in here, what those depict are the different areas based on the grading of the cover of the landfill, which areas will go to which of these naturalized sedimentation basins.

So, for example, this portion here all comes over to this naturalized basin. This area here will come over to -- over to this basin, and similarly down here.

So we have got the naturalized basin here, we have got the naturalized swale that carries the runoff from that basin out and discharges to the union ditch. This basin actually exits to -- or water from that actually goes into this basin.

This basin over here gets runoff from over here, it's got the forebay, it goes to this basin, and that's through a wetland area -- and again, this is a created wetland, not an existing wetland -- and discharged to the union

ditch.

We have also got the green site practices. This is -- the check-in office is located here. There's employee parking in this area, so that will be permeable paving. And then the ticketing office building itself will have a green roof.

Then moving over to the east unit. We've got the same concept where we have divided the runoff on the site to these different sedimentation basins. So the west side all goes to this naturalized basin where it runs through this naturalized swale and ultimately into this existing quarry pond and then finally out into the union ditch. The runoff from the road goes into this naturalized basin there.

On the eastern half of this unit goes to this naturalized basin here, and the excess runoff from that goes into the drainage ditch along Gurler Road.

Q. Now, Mr. Price, based upon your expertise and experience do you have an opinion as to whether your recommendations will enhance the performance of the surface water management

system for the expansion?

A. Yes, it is my opinion that these will enhance the surface water management systems.

Q. And what are the benefits of your recommendations?

A. The benefits are there is no increase in peak flows relative to existing conditions, so in all cases there will either be no increase, or actually a reduction, in peak flood flows; there will be an improvement in water quality using the features that I have just talked about; and also an increase in habitat diversity on the site.

MR. MORAN: Thank you, Mr. Price.

No further questions, Mr. Hearing Officer.

HEARING OFFICER MCCARTHY: Thank you, Mr. Moran.

Mr. Moran, just a housekeeping item, I'm not sure that we ever -- you ever offered -- I think we marked Mr. Nickodem's resumT as Petitioner's Exhibit 4 but I'm not sure it was offered. Are you offering that?

MR. MORAN: Yes, we offer Petitioner's Exhibit 4.

HEARING OFFICER MCCARTHY: And is there any objection to that exhibit?

MS. CIPRIANO: No.

(Petitioner's Exhibit No. 4 admitted into evidence.)

HEARING OFFICER MCCARTHY: And the same with Applicant's Exhibit 5, the resumT of Mr. Price?

MR. MORAN: Yes, we offer that into evidence as well.

HEARING OFFICER MCCARTHY: And is there any objection to that?

MS. CIPRIANO: No.

(Petitioner Exhibit No. 5 admitted into evidence.)

HEARING OFFICER MCCARTHY: Okay. With that we'll go to the participants. We'll start with Mr. McIntyre.

CROSS-EXAMINATION

BY MR. MCINTYRE:

Q. The designs that you were showing I assume are post-life for the landfill?

A. Well, they're both during and post. Certainly the native landscapes on the top of the landfill

can't go in until, you know, the land -- they have reached final cover. But the sedimentation basins will go in as the areas that drain to them become active, and same with the naturalized swales and such, those will all go in as the components that they serve are being implemented or installed.

Q. So the southwest basin area, that drains into the pond in the lower half?

A. This here, yes. So this basin will be -- there's actually a sedimentation basin there. This is kind of a -- and this will be -- probably these two will be some of the first things that go in.

Q. And when will the swales -- when will that system actually be engaged to begin handling the stormwater runoff?

A. As soon as they're -- these areas are -- as soon as they move into these areas. At all times there will always be a sedimentation basin to serve some of the area. There will never be a time where water won't be directed to a sedimentation basin.

Q. Including the time that they excavating the old

fill?

A. That's correct, yes. For example, this naturalized swale that's going in here will -- is -- I believe it's at least partially in the way of, you know, the old area and so prior to that being exhumed and relocated the direction of that discharge may be to a different location.

Q. Over on the east side the maximum height will be 113 feet?

A. I believe that's what was previously testified to, yes.

Q. What kind of flow rate is that going to create?

A. Well, the height affects the flow rate to some degree. It's mostly affected by the size of the area and the amount and the type of cover on it. So during periods where the site is active and there's cover put on but there is -- there's no vegetation, flow rates would be higher. I don't actually have the numbers, but all of the sedimentation basin is designed for the worst case condition and designed to capture the runoff and meet the release rates -- the county release rates under worst conditions.

Q. Have you done this on a hill that's 113 foot high before?

A. We have designed many, many naturalized sedimentation basins, or detention basins is what typically we call them on more conventional developments. The systems that we are designing though is these naturalized basins are really taking the runoff once it gets off of the landfill. And so, you know, as you know, this is sort of constantly changing and so there are the interceptor swales and such that Mr. Nickodem showed in his testimony that will take the runoff and bring it to these -- into these basins.

Q. Do you have an example of a 113-foot hill that you have designed this for?

A. No.

Q. So you haven't designed one for a 113-foot hill?

A. I haven't designed one for a 113-foot hill, but what I'm trying to say is the 113-foot hill doesn't affect how we would design these basins. What we're concerned about is how much water is getting there and how fast.

MR. MCINTYRE: I have no further questions.

HEARING OFFICER MCCARTHY: Mr. Steimel?

CROSS-EXAMINATION

BY MR. R. STEIMEL:

Q. Mr. Price, you have referred to the union ditch. This ditch does carry about 2500 acres of stormwater through it. And from time to time if necessary to maintain it, bring in any equipment, will you have on both sides of the ditch ample room for equipment to move through there while spraying or cleaning out sediment in the ditch?

A. Well, that's kind of an operational question so I -- I guess I would defer that to testimony on operation.

Q. Okay. That will be important, of course, in --

A. I mean there is -- particularly on the south side there's space here and even on the north side, you know, there's room.

Q. So you designed those swales, there needs to be enough room --

A. Sure.

Q. -- on both sides, swales and wetlands, so the

equipment can move through there?

A. Yes, that shouldn't be a problem. I'm sure that we have got plenty of space.

Q. And then we talked this morning about a 20-inch tile here on the east side along Gurler, then it goes up, and we're recommending that it carries all the way over to the union ditch and you'll be able to -- with your different swales and landscaping you're putting in there you'll be able to allow for that 20-inch tile to be placed there and function?

A. Yes.

MR. R. STEIMEL: I have no further questions.

HEARING OFFICER MCCARTHY: Mr. Campbell.

MR. CAMPBELL: Thank you.

CROSS-EXAMINATION

BY MR. CAMPBELL:

Q. Good afternoon, Mr. Price. How many landfills have you designed in terms of this -- adding your expertise to a landfill design?

A. I -- I haven't designed any other landfills.

Q. This is the first time you have actually applied your water management systems and

expertise to a landfill itself?

A. We -- well, we -- the -- I guess I should clarify. We worked on the Willow Run application for Kendall County and so we did work on that one. You know, it didn't get approved.

Q. I'm not questioning your expertise, I was just looking at your resumT --

A. Sure.

Q. -- and I didn't see any landfill experience.

If you can indulge me for just a second, I want to try to understand this. It sounds to me like what you're trying to do in your business is obviously control water flow, you know, where it's going and how fast it's going to where it's going I'm assuming to prevent flooding and that sort of thing. Would that be a fair kind of a layperson's understanding?

A. Yes.

Q. Okay, and I'm assuming that one of the issues here is that you're having a big surface area that you are putting, for the lack of a better term, kind of a plastic-like substance on it so you have got to figure out, you know, where that

water's going to go that runs off of that surface; is that a fair statement?

A. Yes.

Q. And you indicated to me -- or excuse me, to the audience that -- it's my understanding that you have some soil that you can put on there and grass that you can put on there, and as that rainwater falls some of it goes back up into the atmosphere and what doesn't ends up draining away; is that a fair statement?

A. Yes.

Q. Okay. Aside from trying to prevent flooding and water problems like that, it sounded to me like you were also talking about actually filtering the water; is that correct?

A. Yes.

Q. In fact, some of the design components that I'm seeing, we have a berm and we have these different forebays and stuff like that. Again, as a layperson would understand this, you're taking the water that initially comes off of the landfill and you're running it through a system so when it gets to the other end it's, for the lack of a better term, cleaner than it was when

it started?

A. Yes.

Q. And, again, the idea is to improve the water quality over what existed when it first started off of the landfill?

A. Yes.

Q. In doing that do you actually get a sample of the water initially to determine what's in the water?

A. No.

Q. In other words, how do I know whether the quality's been improved since when it start -- from when it started, you know, when it comes out the other end? Explain to me how you figure that out.

A. Sure. Well, we -- the cap of the landfill is using on-site soils, so that's that silty clay that was previously testified to. And so we have a pretty good idea of, you know, how -- what happens. This is very much like any construction site where we have got runoff that comes off those construction sites and there's sediment in that water. And then we have got these various sedimentation basins, naturalized

retention basins which, you know, we and many other people have been designing for many years. We have got pretty good data from other sites on the performance of these, and they're fairly consistent with performance. So based on the design of it we can do a pretty good job of predicting how well these systems will work.

Q. Can you understand the concern a citizen might have? I mean we're talking about a site that's going to take garbage, so in other words there's all sorts of substances that are going to be stored here at the site. Does that water come in contact with that refuse or that trash?

A. No.

Q. You're only talking about it when it runs off of the -- after it's already been sealed when it runs off of there?

A. That's correct.

Q. Okay. Okay, so if there's any moisture -- and, again, indulge me for a second on this. Does this drainage system and this water management system deal with the site before it has that cap placed on it?

A. Yeah, throughout the process, so it is -- these

systems will be in place as the landfill is being developed and operated as well as under final capped conditions.

Q. So at -- and, again, at some point when the -- and I'm trying to get this in my mind. A truck pulls in, a truck goes to a part of the landfill, a truck deposits the trash that's in the truck, and that garbage is sitting there in the landfill, correct?

A. (Nods head.)

Q. And when it rains and comes down on that garbage, what happens to that rainwater there?

A. There's berms all around the perimeter of the refuse area, so that water that falls onto there really can't leave -- that surface water, it goes into the refuse and becomes leachate.

Q. Okay. This system that you designed, is it designed to deal with that water as well and filter that water as well?

A. No, the leachate, as previously testified to, goes to holding tanks, etcetera and it goes through waste water treatment.

Q. Okay, and clearly the quality of that water would differ from the qualify of the rainwater

that falls on this and gets drained off?

A. Yes.

Q. Okay. You indicated that -- I'm trying to look at this here. You have these ponds and you have the gravel berm. Clearly when you're designing these filtering systems you're designing them to try to eliminate certain substances that are in the water; is that correct?

A. Yes.

Q. Could you describe for me generally what substances you're trying to filter out as you're moving the water from the system?

A. It's --

Q. Are you talking like dirt?

A. Dirt, sediment.

Q. Again, I'm just trying to get this.

A. Yeah, that's fine.

Q. So your concern here isn't necessarily that there's harmful substances in the water that you're trying to get out of the water, you're just trying to get the dirt and sediment that's going to get in the water from running through the system that you have designed?

A. We're trying to catch the water so it doesn't

leave the site.

Q. Okay. What happens if it leaves the site? In other words, we're trying to do this to prevent it from leaving the site, but what happens if it does?

A. Well, sediment does get into our streams. And union ditches, as well as, you know, many of the streams, are impacted by sediment that gets into them. So it -- you know, it smothers, you know, habitat that's at the bottom of the streams for aquatic organisms and things like that. So it does impact streams generally, not just from this site but from anywhere where sediment leaves the site.

Q. So, again, we have the leachate system that's designed to deal with harmful substances. And you're, again as a layperson's perspective, trying to prevent this sediment from getting into areas where it might adversely affect the water flow?

A. That's correct.

Q. Can you drink the water when it ultimately gets at its farthest point in the system here?

A. It --

Q. I'm just curious. Not to say you can drink rainwater, because who knows what's in the rainwater, but I'm just curious you said -- you specifically stated that it improves the water quality and it sounds like it gets the dirt out of it. Describe for me the quality of the water when it gets to its end point in this whole system.

A. These systems aren't designed and aren't, you know, permitted or approved to meet drinking water standards.

Q. Kind of like a golf course --

A. Golf courses.

Q. -- you might see a nice pond, the golf course looks beautiful, but you can't drink it?

A. Right. A shopping mall.

Q. Exactly. When the rainfall falls on the -- and, again, I am being redundant here. But when the rainfall falls on the trash it's my understanding that that's not your area, that is collected -- the berm surrounds it and prevents that from leaving there?

A. Yes.

Q. So ultimately what we're trying to do is

whatever rainfall or liquid that falls on this site we either process it through the leachate system or we deal with it through your system?

A. Correct.

Q. Okay. The Kendall County site that you made reference to that you did the design for, did you determine why, yourself as a professional, that particular site was denied?

A. It was not denied because of the surface water management system.

Q. Were you able to determine exactly why it was --

A. I was -- I don't know all the specifics of why it was denied, but I know it was denied.

Q. I think Mr. McIntyre asked you if this was the highest elevation type of thing that you had done and it sounded like it was?

A. Yes, I -- probably.

Q. What's the next highest elevation that you have dealt with in terms of something natural that you're trying to plan for like this?

A. Uhm, I -- I can't say.

Q. Okay.

A. I mean we have probably had projects that, you

know, just -- for kind of evaluations of stormwater systems that were for fairly large areas, and while they may not have been as high as these and kind of this distance the overall difference in elevation may not have been that much difference.

Q. Is your company's role in this actually putting this -- implementing this entire plan?

A. No. The actual design of the channels to drain, you know, the cover of the landfill and to do the -- and the hydraulic design of these, if you will, was, you know, Mr. Nickodem's company, Golder. We did the -- again, sort of these enhancements.

As far as structure goes, the -- you know, we wouldn't necessarily be the ones that constructed that.

Q. Are you in the business of actually doing that or are you just the idea guy?

A. We have -- we do the design work of these systems, and many times that work goes out to bid. We do have a construction side of our business that can install these things too.

Q. Did you actually contact Waste Management on

this and say, hey, we have got an idea to -- this is our business, we can make this a lot better, do you recall?

A. We had worked with Waste Management previously on naturalizing the covers of their landfill sites, and so they contacted us.

Q. When you say naturalizing the cover, you mean the actual cover that goes on this?

A. Yeah, the native landscapes.

Q. So you helped design a cover that you could utilize to ultimately put the dirt on and plant the grass on, you were involved in that?

A. Not me personally.

Q. Okay. Your company?

A. Yes.

Q. Okay. After having spent -- and clearly you have expertise here. Are you curious to see how this actually, you know, all goes together when it's all done?

A. I would love to see it go.

Q. Do you follow through and go and check the water quality, the types of things you have described after it's done?

A. Well, that will depend on the terms of, you

know, contract that we have with that. You know, there's a cost associated with the monitoring. As you saw and as previously testified, there is a monitoring program that would be done with that. Whether that's us or somebody else would have to be determined.

Q. But as you sit here today your contract with Waste Management was specifically to do what you presented to us today?

A. That's correct.

MR. CAMPBELL: Okay. Thank you, sir. I have nothing further.

HEARING OFFICER MCCARTHY: Mr. Dan Steimel, do you have any questions of this witness?

CROSS-EXAMINATION

BY MR. D. STEIMEL:

Q. Mr. Price, you mentioned earlier when you were talking about the east basin there on the far east side of the proposed landfill --

A. Yes.

Q. -- and your statement was that the water that comes out of that will go into the drainage ditch along Gurler Road?

A. Yes.

Q. Would you explain where that drainage ditch is?

A. Gurler Road is I believe essentially here, and so the ditch is just along the north side of the road.

Q. So you're saying the road ditch -- you're going to plan on running that water out into the road ditch?

A. Yeah, the runoff from the area that's running to that basin naturally drains toward that road ditch, and so that would go to the same place.

Q. What is the release rate out of that basin?

A. I don't have the actual number but the -- it's in the application, but the -- it is -- the ordinance requires that it be no greater than existing conditions for the two-year event and no more than I believe it's 0.15 CFS per acre for the hundred-year event. And the actual numbers are in the application.

Q. In all of your planning and putting this design together have you had any discussions with the union drainage district on plans how to have the water enter the ditch?

A. No.

Q. So the entire process and time it took for you to plan this, there's been no contact with the union drainage district?

A. I have not had contact with the union drainage district. Golder may have had contact with them in terms of the ultimate discharge. Again, we were really focused on what's happening within these basins, not on the specific structures to release it to the ditch.

Q. Would it make sense to you that if you're designing a basin that directly feeds into the district drainage ditch that you had some communications with them as to how that's going to be done?

A. Well, the -- the roadway ditch is part of the road -- is part of the right-of-way of the road. So I -- that's -- that's typical. You know, there's a right-of-way associated with every road and you have drainage systems associated with every road, and so that's the ditch it's going into. I don't know that that's controlled by the union.

Q. No, I'm speaking --

A. Oh, union ditch here?

Q. I realize there's other basins here.

A. Right. I apologize, I thought you were talking about this basin. So you're talking about to Union Ditch No. 1 is -- your question is how is it discharged into Union Ditch No. 1?

Q. That's correct.

A. Okay. What I testified to before just that the specific structures at -- entering -- how it enters that ditch were -- were designed by Golder or have not been designed yet, I am not positive on that. And I don't know if they have had contact with the drainage district.

MR. D. STEIMEL: No further questions.

CONTINUED CROSS-EXAMINATION

BY MR. R. STEIMEL:

Q. Mr. Price, your presentation raised a couple more issues with me. The ditch along Gurler, on the north side of Gurler, do I understand that you're anticipating moving surface water from the property back into the road ditch?

A. This area currently based on the contours or the lay of the land drains towards the ditch now, and so it will continue to do that.

Q. Your pond over here on the very east side, is

there enough elevation where that water will flow to the west? You're getting right --

A. No.

Q. -- to the east edge.

A. No. The low point in the ditch is somewhere over here.

Q. I haven't seen a topographical on that lately, but I think there is some question whether the water will flow west from that point. Have you contacted the road commissioners of Cortland and Pierce Townships?

A. No.

Q. And I don't know if the other designer has or not, but I think that might be an issue of bringing surface water back into that road ditch.

A. Well, the -- the drainage pattern from the road ditch here is to the east. At this point in the road the drainage is to the east.

Q. Will water from that lagoon go east then rather than west?

A. From this one?

Q. Yeah.

A. Yes.

MR. R. STEIMEL: Okay. No further questions.

HEARING OFFICER MCCARTHY: Thank you.

Ms. Cipriano, for the County?

MS. CIPRIANO: No, actually our questions were answered earlier by the prior witness, thank you.

HEARING OFFICER MCCARTHY: And how about members of the committee, do you have questions of this witness?

MR. ONCKEN: I do.

HEARING OFFICER MCCARTHY: Why don't you state your name.

MR. ONCKEN: Riley Oncken.

CROSS-EXAMINATION

BY MR. ONCKEN:

Q. This is a similar question to what I asked the previous witness. Is there anything more that should be or could be done to improve the handling of stormwater on this site from your perspective?

A. No.

Q. And in initial I guess preparation phases of this was there anything that you proposed or

designed that was either rejected by Waste Management or by Mr. Nickodem's company?

A. Well, we went through the process of designing the system, so there's always a certain give-and-take. We worked a little bit on how the -- some of the basins are laid out, so there are certain things within the ordinance that -- some requirements that are there. And so we were trying to maximize water quality, which we think is, you know, consistent with the goals of the ordinance and the part of the ordinance. But there's certain providers of the ordinance, if you will, that change the way the design is a little bit.

Q. And is the plan fully compliant with the County's stormwater management plan?

A. Yes.

Q. Is there anything unique in designing for, for example, a landfill project like this as opposed to some other commercial project? Are the concepts generally the same, this is just a larger scale, or are there different things, for example, that you have to apply in dealing with stormwater management for a landfill than you

would with another commercial project?

A. The concepts are generally the same.

Q. Is there anything at all, I guess, that you had to take into consideration because this is a landfill site or that you took into consideration?

A. Well, it doesn't have much impervious area, instead it's all open area, so there's going to be higher sediment loads than you might -- and because of the size of the area. But, you know, it's -- in terms of hydrology and things like that it's -- you know, a lot of the -- we do the same types of calculations and those kind of things.

MR. ONCKEN: Thank you.

MR. STODDARD: Paul Stoddard, DeKalb County Board, District 9.

CROSS-EXAMINATION

BY MR. STODDARD:

Q. Couple of just basic qualifications. On the filtering I think you said during your presentation that you were looking to take out nutrients that would prevent algae growth down the stream; is that correct?

A. Yes.

Q. And, I don't know, my filters I have to change all the time. Is there a provision or is there a need to address filters -- these filters over time, and if so who does that?

A. Waste Management is responsible for operation of the site. And so there will be sedimentation in these sedimentation basins, so they will need to be maintained.

Q. Okay. What size event -- storm event would be required to overwhelm the detention ponds and so forth that you have designed?

A. The ponds are designed to meet a hundred-year storm event, and then there's a level of free bore above that, and so it's designed to meet the requirements of the County stormwater ordinance.

Q. Okay, and then some mention has been made of the height of the hill over on the east side. By my understanding, the topography of the field doesn't matter as much as the area in the bottom of the water that you have to remove in terms of the ponds and so forth, but what would make a difference is the slope and therefore the runoff

rate and erosion rates. Have you factored in for that, and if so how?

A. Well, the ponds, you know, again have the forebays in there to capture most of the sediment. And so, you know, Waste Management monitors those -- these basins, and when there's too much sediment that accumulates in them they, you know, dredge them out or remove the sediment.

Q. Actually I guess I'm more concerned about the hillsides themselves, the slopes leading down to the drainage and what sort of erosion rates you might see on there. Since we're only talking about a few foot of sediment (sic), you know, a river can carve sediment pretty quickly -- a few feet of soil I mean.

A. Yeah, the intermediate channels were not a part of our design of the channels. You may have noted that there were immediate channels partway up the slope, and that's to minimize that length of slope that the water goes to so that gullies aren't formed. So it is designed to not allow the water to run that entire length so that you will get gullies that could, you know, cut

through the thickness of the soil.

Q. Then, finally, I think you have said this already, I just want to clarify it again. The amount of water running into the ditch both along Gurler Road and also the union ditch, how is the volume going to these in this plan compared to what's currently happening?

A. The rate of discharge is either no greater than or less than the existing condition.

MR. STODDARD: Okay. Thank you.

MR. ANDERSEN: I have a couple.

HEARING OFFICER MCCARTHY: Sure.

MR. ANDERSEN: Ken Andersen.

CROSS-EXAMINATION

BY MR. ANDERSEN:

Q. In this landscape design or management for surface water design what happens to those Poplar trees? Do they stay there?

A. Uhm, the system that we have here isn't -- doesn't conflict with the Poplar trees. I'm not actually sure what the long-term plan is for those. But there's no conflict between where those are and what's shown here.

Q. So more than likely they'll probably stay

there?

A. I don't know.

Q. Or somebody else --

A. Somebody else could maybe testify to that.

Q. Okay. Then do you know, Mr. Price, if -- how is the top of the -- when this is all said and done is that going to be like a tabletop surface up there or is it going to be rolling elevations of 1 foot, 2 foot? Do we know how that's going to be actually trenched?

A. In the previous testimony there was actually contours or a grading plan shown for the top. Believe it or not I think they're on here too, but they're way too light to see. It -- that other drawing shows that there is sort of an undulating surface on the top.

MR. ANDERSEN: Okay. Thank you.

HEARING OFFICER MCCARTHY: Any other members of the committee have any questions?

Okay. Other members of the County Board who are present, any questions of this witness?

Any members of the public have any questions of this witness?

Okay. Seeing none, any redirect,

Mr. Moran?

MR. MORAN: I have no redirect for Mr. Price.

HEARING OFFICER MCCARTHY: Okay. You are excused, Mr. Price.

This is probably a good time to take a 10- or 15-minute break.

We'll resume with your next witness.

(A recess was taken at 2:45 p.m. and proceedings resumed at 3:06 p.m.)

HEARING OFFICER MCCARTHY: Let's reconvene the public hearing.

When we took a break Mr. McIntyre approached me during the break and he indicated that he had an additional question or two for Mr. Price, so I am going to allow him to ask whatever questions he may have.

Mr. Price, you remain under oath.

MR. PRICE: Okay.

HEARING OFFICER MCCARTHY: Mr. McIntyre.

MR. MCINTYRE: Thank you, Mr. Hearing Officer.

CONTINUED CROSS-EXAMINATION

BY MR. MCINTYRE:

Q. And thank you for coming back up. You had answered a question from the committee saying that the -- that there is -- would be no more runoff off the 113-foot hill as there is currently; is that true?

A. The -- uhm, the surface water management system will control the runoff rates such that what's released from the site after those basins will be -- the peak rate will be no greater than under existing conditions, that's correct.

Q. I'm trying to -- I am trying to understand how, because isn't that a clay substance that will be put on the hill to keep water from penetrating and creating leachate?

A. Uhm, the -- the protection -- the 3-foot soil protection layer is not clay. That's not a cap. So the cap of it is this geo -- this geomembrane, 40 mil geomembrane. This is soil.

Q. Is that a highly permeable soil?

A. It is, uhm, soil that would be consistent with the soils that are around the site now.

Q. Around the site but not -- I mean that's pretty fertile farmland, flat farmland that is there

now. Is that soil as permeable or less permeable than the farm soil that's there now -- topsoil?

A. I would expect it to be similarly permeable.

Q. Okay.

A. And then -- yeah.

Q. Go ahead.

A. Well, over time, you know, as the root systems develop too more and more organic matter gets added to the soil, so it will actually get more permeable over time.

MR. MCINTYRE: Okay.

HEARING OFFICER MCCARTHY: Okay. Does anyone else -- yes, Mr. Steimel.

CONTINUED CROSS-EXAMINATION

BY MR. R. STEIMEL:

Q. I dug out a map here during break but this -- my map is a conceptual end use plan, and this is going to probably -- this differs from what you have on the screen. I'm still concerned about your sedimentation basin on the east side of the property and using a ditch to get to the west side. And this map shows that you have a separate ditch on your property and that you're

not using the road ditch. Take a quick look at this.

A. Your eyes must be better than mine. Which ditch are you referring to?

Q. I'm referring to Gurler Road --

A. Yeah.

Q. Down here.

A. Right.

Q. Here it is. What's this, is that your ditch?

A. So the -- just so everybody has the benefit, there is -- there are swales -- internal swales that take water from the landfill and drain it towards each of these basins. So there's -- not every single swale is necessarily shown on here.

The one you were asking about is what takes runoff off the landfill surface and routes it to here. The channel -- the existing ditch along Gurler Road is down here, and that's where this basin will release to, and then that water will travel east.

Q. The water from the sediment basin will travel east?

A. Yes.

Q. Okay. That won't get into the drainage ditch

then. But the water coming down off of the slopes, the south slopes, is that water headed west?

A. No, it's headed east. This line is the dividing line between what goes to here and what goes to here. So this water along this side will -- basically from this line east will travel this way towards this basin.

Q. Okay. When you go east from that sediment basin there what are you going to discharge into?

A. The ditch.

Q. Gurler Road ditch?

A. Gurler Road ditch.

Q. And where is that going to go then?

A. Further east.

Q. How far east? You'll hit Hinckley Road in about 80 rods. Water doesn't travel there now I don't believe.

A. Yeah, there's no plan to change the grading of the Gurler Road ditch.

Q. I would -- have you contacted the road commissioners, Cortland or Pierce Townships?

A. No.

Q. They are responsible for those -- that road and those ditches. I think they would be very interested in visiting with you, and I would recommend that you -- you or Mr. Nickodem, whoever's responsible, make contact with them to avoid any real issues.

A. Okay.

MR. R. STEIMEL: Thank you.

HEARING OFFICER MCCARTHY: Okay. As a result of those questions are there any other questions of this witness from anyone, members of the committee, members of the County Board, the general public?

Okay. Hearing none, you're excused. Mr. Price.

Mr. Moran, you may call your next witness.

MR. MORAN: Thank you, Mr. Hearing Officer. We would call Ms. Sheryl Smith as our next witness.

HEARING OFFICER MCCARTHY: Ready?

MS. SMITH: Yes.

HEARING OFFICER MCCARTHY: All right. I'm going to have the court reporter swear you in.

SHERYL SMITH,

being first duly sworn, was examined and testified as follows:

HEARING OFFICER MCCARTHY: Mr. Moran.

MR. MORAN: Thank you.

DIRECT EXAMINATION

BY MR. MORAN:

Q. Could you please state your name, please, and spell your last name for the court reporter.

A. Sheryl Smith, S-M-I-T-H.

HEARING OFFICER MCCARTHY: Can everyone hear her?

(Whereupon multiple audience members simultaneously answered no.)

MS. SMITH: Smith, is that better? Yes?

AUDIENCE MEMBER: Can you speak into it?

MS. SMITH: Okay.

Q. Ms. Smith, what is your business or occupation?

A. I am a solid waste consultant.

Q. Are you employed?

A. Yes, I am.

Q. With whom?

A. With URS Corporation.

Q. Could you tell us what the nature of the

business of URS Corporation is?

A. Yes, URS is an architectural and engineering service with more than 56,000 employees around the world, and there's consulting services focused primarily in four years: federal projects, infrastructure, commercial and industrial developments, and facilities.

Q. What is your position with URS?

A. I am a senior project manager working in the power and solid waste sectors.

Q. Now, Ms. Smith, you're here today to talk about two of the criterion, correct?

A. Yes.

Q. Criterion 1, which relates to the need for this expansion, correct?

A. Yes.

Q. And also Criterion 8, which asks the question whether the expansion is consistent with the County's solid waste management plan; would that be correct?

A. Yes.

Q. Before we get into that testimony, let me cover your background a little bit further. What is your education?

A. I have a Bachelor of Science in Civil Engineering from the University of Illinois at Champaign-Urbana, and I have a Master's of Engineering in Civil from Cornell University.

Q. Could you now, Ms. Smith, describe for us your experience in the area of solid waste and solid waste disposal.

A. Yes. I have spent my entire career in the solid waste business. I started in the early '90s working for a company called John Sexton Contractors, which was a privately held solid waste management firm involved with running recycling, transfer stations and landfills located in Illinois, Wisconsin, Michigan, northeast Pennsylvania and upstate New York.

In that company I was in the corporate development group, so I was responsible with the growth of the company through expansions of existing facilities and acquisitions or new project start-ups. So I got involved in identifying what the markets were for certain facilities, what the solid waste plan said about particular facilities where waste was going, what the solid waste pricing was in the area,

and I also got involved in putting together due diligence reports and financial projections as to whether or not it was feasible to develop some of these projects.

I moved to Ohio in 1991, went to work for Browning-Ferris Industries of Illinois doing landfill marketing in Ohio and Indiana.

I also had my own consulting business for 13 years where I did a lot of due diligence studies for companies looking to buy solid waste firms. I prepared need and plan consistency reports for solid waste facilities, and I also got involved in preparing business plans.

In 2005 I opened up the Ohio office for Golder Associates and was focused on trying to grow that office in the area of solid waste. And I joined URS last fall.

Q. Can you describe for us your experience in evaluating the need for pollution control facilities here in Illinois?

A. I'm sorry, can you say the question again?

Q. Could you describe for us your experience in evaluating the need for pollution control facilities here in Illinois?

A. Yes, I have prepared and reviewed 23 need reports for landfills and eight need reports for transfer stations in Illinois.

Q. And you mentioned you have experience in evaluating proposed facilities for their consistency with county solid waste management plans. Could you describe what you have done in that regard?

A. Uhm, yes, in many of the projects I was involved with I reviewed the solid waste plans for the counties where the facilities were located. I also have prepared at least 12 or 14 plan consistency reports for landfills and six plan consistency reports for transfer stations. I have also been appointed to be a member of technical advisory committees for counties involved with solid waste planning, including the West Cook County Solid Waste Agency and Will County's Solid Waste Agency in Illinois, and I was a member of the Peer (phonetic) County 641 Planning Committee in Michigan, and in Ohio I was on the technical board for the Franklin County Solid Waste Advisory Committee.

Q. And, Ms. Smith, are you a member of any

professional societies?

A. Yes.

Q. Can you identify those for us?

A. I'm a member of the National Solid Waste Management Association, as well as the Solid Waste Association of North America. In Ohio I'm on the SWANA board, I chair up their training and I'm the webmaster. I'm also a member of the Illinois County Solid Waste Management Association and the Illinois Recyclable Association.

Q. Ms. Smith, have you served as an officer or director in any of these organizations?

A. Yes, I am currently on the board of the SWANA Association.

MR. MORAN: Mr. Hearing Officer, if I could approach the witness?

HEARING OFFICER MCCARTHY: You may.

MR. MORAN: Thank you.

(Petitioner's Exhibit No. 6 marked for identification.)

Q. Ms. Smith, let me hand you what we have marked as Petitioner's Exhibit No. 6. I'd ask you to take a look at that for a moment, please.

A. (Witness complies.)

Q. Do you recognize Petitioner's Exhibit 6?

A. Yes.

Q. Can you tell us what it is?

A. My resumT.

Q. Does Petitioner's Exhibit 6 truly and accurately reflect your educational background, employment history and professional experience?

A. Yes.

Q. Ms. Smith, I'll start first with your need evaluation. Is there a written report that contains your analysis regarding the need for the DeKalb County Landfill Expansion?

A. Yes.

Q. And is that contained in the siting application previously admitted as Petitioner's Exhibit 1?

A. Yes.

Q. And it's in Volume 1 of that application, correct?

A. Yes.

Q. Could you describe for us now the methodology you employed in evaluating the need for this expansion?

A. Yes. The methodology consists of reviewing the

service area or the geographic region from which the proposed landfill expansion intends to take place; reviewing the types of waste to be accepted; calculating the net amount of waste requiring disposal from the service area over the proposed operating life of the facility; identifying the solid waste facilities and their available disposal capacity to receive this waste; and then calculating the capacity shortfall, or the difference between the amount of waste requiring disposal versus the amount of available disposal capacity to receive that waste.

Q. What is the service area for the expansion?

A. The service area for the expansion is 17 counties in northeast Illinois, which includes DeKalb and 16 adjoining counties.

Q. Now, did you determine the amount of waste that is generated within that service area?

A. Yes, I did.

Q. And how was that determined?

A. The factors that I look at include the population and employment for the counties in the service area, per capita and per employee

generation rates that determine how much waste will be generated, as well as the recycling rates reported by the counties.

Q. And what did you determine?

A. What I determined is that over the proposed operating life of the expansion that a total of 841.4 million tons of waste will be generated. Of that amount, approximately 351 million tons will be recycled. And the resulting 490.4 million tons represents the amount of waste that will require disposal.

Q. Now, the next step in your analysis was determining the amount of available disposal capacity, correct?

A. Yes.

Q. And how did you go about determining the amount of available disposal capacity?

A. I did that by contacting regulators and reviewing databases on solid waste facilities located in Ohio -- pardon me, Michigan, Indiana, Illinois and Wisconsin. Most of those states publish reports and have information that identifies how much material was received at each landfill, the source of that material and

the type of material, and what the remaining disposal capacity is for each of those facilities.

This graphic outlines the 28 facilities that I evaluated that received waste or intended to receive waste from the service area during 2008. There were 14 landfills in the service area that were active. There were another three landfills outside of the service area that were permitted or active located in Illinois, there were four facilities in Indiana, three facilities in Wisconsin and one facility in Michigan.

Q. Now, Ms. Smith, based only upon the permitted disposal capacity; that is, the facilities that either have or -- facilities that have permits in place, what was the amount of capacity available to the service area from those facilities?

A. For the facilities that received permits and had non-appealable siting, approximately 123.3 million tons of disposal capacity is projected to be available to the service area as of January 1st, 2013.

Q. Now, Ms. Smith, there were also facilities you looked at that had preliminary approvals but not all required final approvals. If we took the capacity from those facilities into account, what was the amount of additional capacity available from those facilities?

A. The additional potential capacity is approximately 83.3 million tons.

Q. So if you include both the capacity from the facilities with all required approvals, all permits, and add that to those facilities that only have preliminary approval or something less than all final approval, what amount of total capacity is available for the service area?

A. 206.6 million tons.

Q. And that would, in fact, be the higher or the more conservative capacity number available for this service area, correct?

A. Yes.

Q. Is there a shortfall between the amount of available disposal capacity and the amount of waste requiring disposal for this service area?

A. Yes, there is.

Q. And what is that shortfall?

A. If we consider the available permitted capacity where all approvals have been given, approximately 123.3 million tons of disposal capacity is available as of January 1st, 2013. And we calculated that 490.4 million tons of waste will require disposal after recycling from the service area. And so if we subtract this number, which is the available disposal capacity that's permitted from the quantity of waste that requires disposal, we have a capacity shortfall of 367 million tons. And that's projected over the entire operating life of the DeKalb County Landfill Expansion. That capacity shortfall will decrease to approximately 283.8 million tons if we consider the potential additional capacity of landfills that do not have all their approvals at this point.

Q. And the proposed capacity of the DeKalb County Landfill Expansion is 23.2 million tons?

A. Yes.

Q. Now, Ms. Smith, based upon your experience and your review of the relevant data, do you have an opinion as to whether the DeKalb County Landfill Expansion is necessary to accommodate the waste

needs of the area it is intended to serve?

A. Yes, I do.

Q. And what is that opinion?

A. My opinion is that the proposed DeKalb County Landfill Expansion is necessary to accommodate the waste needs of the service area it is intended to serve.

Q. And what are the reasons for that opinion?

A. The reason for my opinion is based on the capacity shortfall that was calculated during the evaluation of this facility.

Q. Ms. Smith, now let's move onto Criterion 8 in your evaluation of the DeKalb County Solid Waste Management Plan. Again, is there a written report that sets out your evaluation of the plan and this proposed expansion?

A. Yes, there is.

Q. And that's also contained in the siting application previously admitted as Petitioner's Exhibit 1?

A. Yes.

Q. And that report is actually in Volume 2 of the siting application, correct?

A. Yes.

Q. Now, Ms. Smith, have you had an opportunity to review the DeKalb County Solid Waste Management Plan and the plan updates?

A. Yes, I have.

Q. When was that plan prepared?

A. Well, there are four documents related to the DeKalb County plan. The actual plan itself consists of two documents -- or actually two phases. The first phase was the DeKalb County waste needs assessment, which was prepared in 1994. The second phase of the plan consists of two documents: one being the solid waste management alternatives, and the second document being the solid waste management plan. Both were adopted by the DeKalb County Board in 1995.

There were also two solid waste plan updates, two five-year updates: the first one was adopted in May of 2000, and the second one was adopted in April of 2000, and then the 10-year update was adopted in April of 2005.

Q. Can you briefly describe for us the relevant provisions of the plan and the plan updates?

A. Yes, I can. The original DeKalb County plan covered the planning period from 1993 to 2015.

In the plan the County Board identified that 98 percent of the waste generated in DeKalb County was disposed of at the DeKalb County Landfill, and approximately 10 percent of the waste received at the landfill actually came in from other counties.

The plan identified that it would focus on waste reduction and final disposal elements. The waste reduction elements in the plan identified methods to source reduce, to recycle, to compost and to educate the citizens and businesses in order to reduce the amount of waste that would require disposal.

On the final disposal element the plan indicated that alternatives -- processing alternatives and final disposal technologies were considered, but that the County intended to continue to rely on existing disposal capacity to manage their waste for the 20-year period of the plan. The plan identified that the private sector was responsible for providing collection, recycling and disposal services. And then the County could consider taking waste from outside of the existing service area of the DeKalb

County Landfill if a host agreement was negotiated with the County and in place prior to waste coming in from outside of the service area.

The amendments to the plan allowed for the development of a new pollution control facility in the event the County Board deemed it necessary.

And that's about -- those are the key elements of the plan.

Q. Now, Ms. Smith, based upon your experience and your review of the plan and the plan updates, do you have an opinion as to whether the expansion is consistent with the plan?

A. Yes, I do.

Q. What is your opinion?

A. My opinion is that the proposed DeKalb County Landfill Expansion is consistent with the plan.

Q. And, Ms. Smith, what are the reasons for that opinion?

A. The reasons for the opinion are that the proposed expansion will provide additional disposal capacity, and the County has identified landfilling as the means to manage the

non-recycled waste in the County. There is a host agreement in place with the County, and that was negotiated in April of 2009. That host agreement provides for a minimum 25-year disposal capacity guaranty to manage the waste generated in the County. And the host agreement also identifies that the DeKalb County Landfill is the best location for providing additional disposal capacity.

MR. MORAN: Thank you, Ms. Smith. I have no further questions.

HEARING OFFICER MCCARTHY: Mr. McIntyre.

MR. MCINTYRE: Thank you.

CROSS-EXAMINATION

BY MR. MCINTYRE:

Q. You said you did 23 needs analysis reports in your experience?

A. Yes, I have reviewed or prepared.

Q. Has any of those reports -- or how many of those reports recommended that there was no need?

A. Three.

Q. And where were those?

A. One of those was in Kane County, another one

was for a facility in Henry County, and the third one was for a proposed development in -- near LaPorte County, Indiana.

Q. Were -- of those three were you or your company an agent for the petitioner?

A. Uhm, no, in all those instances I was not an agent for the petitioner.

Q. In the 20 cases where you recommended that the need was there were you a petitioner -- were you an agent for the petitioner?

A. I was working for the applicant.

Q. Okay. On your needs analysis does that include Spoon Ridge in Peoria -- near Peoria?

A. The capacity is not included.

Q. And that's a capacity of a hundred million tons; is that correct?

A. I don't recall what the exact capacity is, although that site is only taking about one truckload a year. It's been on inactive status for about 10 years now.

Q. Do you know the reason for that inactive status?

A. I don't know specifically.

Q. Your -- according to your report the capacity

here will be depleted in how long?

A. Well, the existing landfill is -- DeKalb County Landfill's projected to close in 2015 -- or reach capacity in 2015.

Q. But is your report -- is your report limited to DeKalb County or does it -- is that based on counties -- communities outside of DeKalb County?

A. The service area for the landfill is more than just DeKalb County. What we predicted is that approximately 490 million tons of waste will require disposal, and there's only approximately 123 million to 200 million tons of capacity.

Q. And capacity used up per year is how much?

A. Based on 2008 projections, this is based on the landfills that received waste from the service areas, almost 15 million tons a year.

Q. There was a time where I could figure out that math.

A. Well, potentially it's, I don't know, six years, seven years, eight years -- eight years, assuming that waste receipts don't change and 123 million tons is the available capacity.

Q. And that's also assuming that no new capacity

will be coming online?

A. Uhm, correct.

Q. So how then does that demonstrate an urgent need for this expansion?

A. Well, this demonstrates a need for two reasons: one, the existing facility is projected to close; two, by 2000 -- by the year 2015 of the 14 landfills that were operating in 2008 in the service area, only nine of those facilities are projected to be open by 2013. So there's a continually -- the sites that have been permitted are losing capacity, some of them are closing, and it's a more costly option to transport the waste out of county than to continue disposing of it in county. And it takes time to permit and develop these plans for --

AUDIENCE MEMBER: Speak into your mic.

A. -- these landfills.

So it's not unusual for it to take five or 10 years to plan the development of a new landfill project and take it through all the steps of doing the site investigation, going through the siting hearing and getting EPA

permit approvals and going ahead and constructing the facility.

Q. So in your professional opinion is this an urgent need?

A. It's an urgent need to develop additional disposal capacity in DeKalb County, and based on the proposed operating life of this Landfill Expansion there's insufficient disposal capacity permitted to take the waste.

Q. But there again, limited to DeKalb County when this --

A. No, that is based on the service area. The projections that were done in this report are based on the service area.

Q. So I could -- let me restate the question, in your professional opinion, in the service area, does this demonstrate an urgent need for the service area?

A. This demonstrates a need for the service area.

MR. MCINTYRE: I have no further questions.

HEARING OFFICER MCCARTHY: Mr. Campbell.

MR. CAMPBELL: Thank you, sir.

CROSS-EXAMINATION

BY MR. CAMPBELL:

Q. Ma'am, you indicated that the existing landfill will close in 2015, or the capacity for the landfill to take more trash will end in 2015; is that an accurate statement?

A. That's based on the 2008 projections or the 2008 numbers of how much waste they took in, so if that goes up the site life will increase.

Q. So if we get to 2015 we will be approaching at least the end of the ability of this landfill to take in more trash; is that correct?

A. Based on -- yes, based on how much waste was taken in during 2008.

Q. And at that time obviously -- I mean, I'm trying to see if I understand what you're saying. You're saying that this landfill will reach its capacity here in the next five or six years and therefore we should expand the size of this landfill, which will not only increase the capacity of the landfill but will also take in landfill -- or I mean, excuse me, waste from 17 other counties; is that correct?

I could rephrase that a little bit better. I'm trying to get to this notion of need. It

seems to me there's a need for DeKalb County residents, which is to store their garbage. And when you talk about the 2015 deadline, are you talking about the need of DeKalb County residents?

A. 2015 is the day when the --

AUDIENCE MEMBER: I can't hear.

MS. SMITH: Is this not on? Hello?

2015 is the year based on 2008 waste receipts when the DeKalb County Landfill is projected to reach its permitting capacity.

Q. And when that was determined in 2008 was there any outside -- waste from outside the county going into the DeKalb County Landfill?

A. Yes.

Q. Okay, and what percentage -- you might have already said this, but what percentage of the waste that was going in in 2008 or even right now is DeKalb County waste versus outside county waste?

A. I believe it's 10 percent or less, and historically it has been 10 percent or less.

Q. So we can say right now that approximately 90 percent of the trash that goes into the

DeKalb County Landfill is DeKalb County resident garbage?

A. It would be waste generated by businesses, industries and residents.

Q. I just used garbage kind of in the -- most people just say garbage. We can say waste, but to me it's very confusing.

What is the need for DeKalb County if we were to continue just -- I'm just talking if we stayed on this course that we're on right now, 90 percent DeKalb County waste, 10 percent outside DeKalb County waste. When we get to 2015 approximately clearly some arrangements will have to be made to continue our disposal needs here in DeKalb County; is that correct?

A. Hopefully before that date.

Q. Before that, obviously you don't want to get right then and you have trucks backed up and you have no place to dump the waste.

What I'm trying to get at though is it seems to me we're confusing the need of DeKalb County with the need of all these other counties. It sounds like, and correct me if I'm wrong, that you're saying that DeKalb County is

the -- is kind of taking one for the team here. In other words, there's 17 other counties that have a need to store their waste and that we're the place that is best suited right now to take that garbage in; is that correct?

MR. MORAN: Objection, relevance. The service area is defined by the Applicant. We can't cherry pick or redefine that service area for purposes of establishing need. An inquiry that asks about need within specific counties within the service area I believe is irrelevant.

MR. CAMPBELL: I'll try to rephrase the question.

HEARING OFFICER MCCARTHY: Do you understand what Mr. Moran has said?

MR. CAMPBELL: I do.

HEARING OFFICER MCCARTHY: Need is defined -- or the service area is defined by the Applicant.

Q. (BY MR. CAMPBELL) And, ma'am, as you understand the service area as defined by the Applicant, could you tell me what that is again so I'm clear on that?

A. The service area is 17 counties.

Q. So this application made by Waste Management is to service a 17-county area; is that correct?

A. The service area is an intended service area from which waste could come to this facility.

Q. And most likely will come; is that a fair statement? We don't have enough -- based on the numbers you gave us we're running out of capacity; is that a fair statement?

A. Yes, there are landfills closing in the service area.

Q. And, in fact, I think you said there's only nine going to be open by 2013; is that correct?

A. In the service area.

Q. In the service area. And I'm only referring my questions now -- and the objection, I understand the objection -- to the service area.

And I think you said that the service area is losing capacity either because sites are closing or the capacity of sites that are still open are -- the capacity is being diminished; is that a fair statement? They're getting filled up?

A. Correct.

Q. Okay. But I think it's important for DeKalb

County residents to understand that if this is approved we're agreeing to allow any gar -- waste, acceptable waste from this 17-county service area to be stored here in DeKalb County.

A. Well, the important thing though to remember is that there is a host agreement in place related to this landfill expansion, and it restricts on an annual basis how much waste can come into the site. So there are provisions there that perhaps half a million tons a year is what the limit is without further approval from the County.

Q. But my question was we would be agreeing if this is approved that any waste within that service area, acceptable waste, could be transferred here to DeKalb County and stored in this particular landfill?

A. Could be.

Q. Could be, okay. In fact, you're essentially testifying as an expert that there is a need for this plan to be approved so the capacity is increased to be able to service this 17-county area; is that correct?

A. Yes, based on waste generation projections for

the service area over the proposed operating life of the expansion there's significantly more waste that will require disposal than there is available permitted disposal capacity to receive that waste.

Q. Would we be the -- I am assuming that you studied the various other sites within the service area. Where would DeKalb County rank in terms of size of dump sites?

A. Size in terms of?

Q. Capacity, for starters. Would we -- if this is approved would DeKalb County have the largest capacity to accept waste of all these other counties in our service area?

A. No.

Q. Who would be the top, which county?

A. Well, just -- I'm just looking at general numbers of capacity. I mean, there's several other counties that have landfills with 20 -- 20 million or more tons of capacity, such as Whiteside County, LaSalle County.

Q. So it's your testimony that both Whiteside County and LaSalle County have sites with a greater capacity to accept waste than DeKalb

County would have if this is approved?

A. Right. There have been several others even outside the service area. I think Livingston County received an expansion to take in more than 20 million tons of waste.

Q. So maybe Livingston County as well?

A. (Nods head.)

Q. I noticed when we had the -- and maybe if we can put that up again, the service area, if we can look at that. I noticed that the -- there's a few counties -- neighboring counties of ours that are not included in this. If I could look at this right here. I see DeKalb County, got Boone, McHenry, Kane and Kendall County and I think DuPage County. Am I correct that none of those four neighboring counties of ours -- let me see, one, two, three, four, five -- none of those five neighboring counties of ours have an operating landfill; is that correct? I'm just making that statement based on there not being a little blue square in them.

A. Correct.

Q. Okay.

A. And by 2010 there will be no operating

landfills in Cook County.

Q. So Cook County, DuPage County, Kendall County, Kane County, McHenry County and Boone County will not have an operating landfill?

A. And Grundy County is projected to close based on 2008 receipts.

Q. So based on these other counties -- and I'm assuming they made decisions based on their own needs as to whether or not they were going to allow another landfill in their county. Essentially what you're saying, ma'am, is that DeKalb County is going to avail itself of being the waste disposal site for all these other counties -- potentially for all these other counties that have decided not to put a site within their county; is that a fair statement?

A. No, it's not a fair statement.

Q. Okay. Explain to me why that's not a fair statement.

A. Well, we have a service --

AUDIENCE MEMBER: Speak into the mic.

A. There's a service area for this proposed facility that has been identified by the Applicant. There's not enough permitted

disposal capacity from the facilities that receive waste from the service area to take the waste that's intended or it's projected to be generated and require disposal.

Q. I have got that.

A. In addition, the County through its planning process has indicated their interest in relying on landfilling the final disposal, has also identified that waste from outside of the existing service area of the DeKalb County Landfill could be received if a host agreement was in place. And the County also identified in the original solid waste plan that landfills tend to be regional in nature, that waste is imported from other counties.

Q. I got that.

A. That's a standard part of doing business.

Q. That's not really answering my question though. I was asking you of these other counties that have no landfills, are we going to be agreeing to take -- potentially take their waste and store it in this landfill if this is approved?

MR. MORAN: Objection, it's been asked and answered.

MR. CAMPBELL: I haven't gotten an answer, sir.

MR. MORAN: I believe you have.

HEARING OFFICER MCCARTHY: Overruled.

If you know, answer the question.

A. Waste from the service area could come to this landfill regardless of if there is -- whether or not there was a landfill in a particular county and was considered in my evaluation because the capacity from that particular landfill, if they took waste, from the service area would have been included. If there's no landfill there, there's no capacity, so.

Q. Kendall County's waste could be stored in DeKalb County if this is approved; is that correct?

A. It could be disposed of, yes.

Q. Cook County waste could be stored in this landfill in DeKalb County if this is approved?

A. If it's feasible to do that.

Q. DuPage County's garbage could be stored in DeKalb County Landfill if this is approved?

A. Correct, but there -- as I mentioned earlier, approximately 1700 tons per day of waste is the

limit, if you will, of what could be brought here.

Q. Kane County, our neighboring county, potentially if this is approved could store its garbage, Waste Management would transport the garbage from Kane County potentially under this plan and store it here in our landfill; is that correct?

A. Potentially, yes.

Q. Subject to the capacity obviously, correct?

A. Correct.

Q. And McHenry County and Boone County, the same thing; is that correct?

A. Correct.

Q. And none of those counties that we're going to agree to potentially accept their garbage, none of those counties, ma'am, currently have an existing landfill?

A. Correct.

Q. In your professional capacity -- I mean clearly you're qualified to talk about this stuff -- what measures are taken by a professional like yourself to try to convince these other counties to accept -- to kind of help out with the need

here?

MR. MORAN: Objection, relevance.

HEARING OFFICER MCCARTHY: Sustained.

Q. What happens to the need, ma'am, if you -- you have obviously given us your expertise on the need in this service area for this particular landfill to be approved, and you have clearly come up with some numbers on not only what the current need is but, you know, what the future need will be. Were you able to run any calculations on what will happen to the need in this service area if this landfill application is denied? In other words, we have been told what we need to do. Tell us what happens if the County Board says we're not going to approve this, what happens to the service area's need then?

A. Well, the service area's need would -- it would stay the same, because this analysis anticipates that the DeKalb County Landfill would already have reached capacity. So the same quantity of waste would be generated and require disposal, and the available disposal -- the available permitted landfills that are taking waste or are

available to take waste from the service area have already been included, so the numbers wouldn't change. The capacity shortfall that has been calculated would remain the same based on the service area.

Q. Waste Management would have to figure out what to do with the additional waste within the service area if it couldn't store it here in DeKalb County; is that correct?

MR. MORAN: Objection, relevance.

HEARING OFFICER MCCARTHY: Sustained.

You know, this would not be Waste Management's job to decide what would happen to the waste in this area. I'm not sure where you're headed with these questions.

MR. CAMPBELL: Well, I'm pretty ignorant of this whole subject matter, and what I'm trying to get at is DeKalb County is being -- the attempt is being made to convince DeKalb County that this need is there and that we can fill the need. What I'm trying to get at is, you know, what's the other end of this coin? I mean, clearly if this is denied what happens to the service area and what happens to this

additional garbage? That's what I'm trying to get at.

HEARING OFFICER MCCARTHY: That's not Waste Management's responsibility.

You may want to respond, Mr. Moran.

But this is a landfill that's owned by Waste Management.

MR. CAMPBELL: I understand that.

HEARING OFFICER MCCARTHY: They don't necessarily own these other landfills in the service area.

MR. CAMPBELL: I understand.

But when you talk about need, ma'am, you're clearly talking about the need of the service area, you're not limiting your definition of need to the citizens of DeKalb County. Is there a distinction in there? Am I understanding that correctly?

MR. MORAN: Objection. I mean, she's answered this question six times from Sunday. It's clear that the standard here is for this witness to evaluate how much waste is generated in the service area that's been identified, how much disposal capacity is available to serve

that service area, and the basis of those numbers is there a need for a proposed facility, in this case an expansion.

If the facility or the proposal is denied, what happens after that point is not in any way relevant to an evaluation of need going forward. The need analysis is done as of today, today's numbers, today's generation rates, today's capacity that's available. To inquire as to what might or could occur if there's a denial or if this doesn't go forward isn't any different. A need analysis, in fact, looks to that very point.

So that's why I have objected to the question is it's simply not relevant to this inquiry.

MR. CAMPBELL: Unfortunately, sir, you're dealing with a pretty arcane issue that I think the average citizen is not -- I appreciate you're a lawyer and so am I, but I more feel my responsibility to be for the average voter here in this county to have some understanding of what exactly it is that is being proposed here, and that's why I think a little bit of leeway on

some of these questions is necessary because it is not as cut and dry as you would seem to make it out to be, nor do I think it's as cut and dry as to what she's testifying.

But I will move forward, Mr. Hearing Officer.

This need that you have described in the service area, does that take into account future landfills? I mean, as you stand there today do you know how many applications are pending in the service area?

In other words, I think you made a statement that it takes a long time to get approval for these, and it would seem to me based on hearing what you have testified to that this is a difficult thing to get approved. When you make that need assessment are there some other landfill sites in the service area that are in application process to your knowledge?

A. Uhm, yes, and I will comment on those. In my report we -- I talked about a potential expansion in White County, and from the time the report was -- in Indiana. That does receive some waste from the service area, that expansion

was approved after the report was filed.

There was also an expansion in Newton County that was approved, and that potential capacity was also identified in my report. And just last month Viola filed a landfill expansion up in Zion for about 9 million tons capacity. So that site has not even gone through the siting process or gotten a permit, so that is a new facility.

Q. That potentially could --

A. But their service area, as identified in their application, is only Lake County, the eastern half of McHenry County and Kenosha County, so it does not include DeKalb County or the majority of our service area.

Q. So if I'm reading this correctly, out of the darkened area, the 17-county service area, only -- I only see one green, No. 7, Kankakee, so in Kankakee County there is a permitted but not developed landfill currently?

A. That site received an IEPA permit, but its siting approval was just overturned by the Supreme Court.

Q. The Supreme Court of Illinois?

A. Yes.

Q. Could you -- are you familiar with why it was overturned?

A. I -- I probably can't talk about it without referring to it, but I believe the need for planned consistency was one of the issues by which it was overturned.

Q. What was the name of that landfill there in Kankakee?

A. Town and Country Utilities, LLC.

Q. So am I correct that that's the only per -- so in other words, if you take that one out currently in the service area there's --

A. Well, there's one in Rochelle which is pending, an expansion, I think it's --

Q. Is that referenced in the legend up at the top?

A. Well, it's an active landfill, and they received siting approval for expansion but the expansion has not been approved by IEPA. But that potential capacity was included in my evaluation, 6.7 million tons.

Then there's an expansion pending at Streator Landfill, No. 13, in Livingston County, but that site has been on an inactive status

where they aren't taking any waste. And that potential capacity is about 2.8 million tons. So that was also included in my evaluation.

Besides the Viola, Zion Landfill Expansion I'm not aware of any other new siting applications in the service area.

MR. CAMPBELL: That's all I have, Mr. Hearing Officer.

HEARING OFFICER MCCARTHY: Thank you.

I see that Mr. Kenney has joined us. Welcome back.

MR. KENNEY: Thank you. I'm sorry, I had to work today.

CROSS EXAMINATION

BY MR. KENNEY:

Q. Ms. Smith, I wanted to ask you, what about Winnebago County, wasn't there a recent expansion in Winnebago County's landfill?

A. Yes, and that capacity was included in my numbers.

Q. Okay. Now, what -- of those that you cited, I didn't keep track, I saw there's 6 mil -- 9 million in White County and 6 million in Rochelle possibly given IEPA approval. What

would be the total capacity potential of those that might be coming online?

A. Well, the 9 million is actually in Lake County for Viola's Zion expansion. The potential permitted capacity at the time that this report was done was 83 million tons.

Q. 83?

A. 83 million for sites that had received siting approval and/or they had permit applications pending.

MR. KENNEY: Thank you.

HEARING OFFICER MCCARTHY: Mr. Steimel, any questions of this witness?

MR. R. STEIMEL: I don't. I'll defer to Dan.

HEARING OFFICER MCCARTHY: Dan Steimel, questions of this witness?

MR. D. STEIMEL: Yes, I do.

CROSS-EXAMINATION

BY MR. D. STEIMEL:

Q. Ms. Smith, you stated many times here that currently the garbage going into the DeKalb Landfill is approximately 90 percent from DeKalb County and about 10 percent from outside the

County; is that correct?

A. That's my understanding.

Q. And that's been the way that this landfill has been operated, well, since it opened in 1956; is that correct?

A. I can't state what happened back that far. I do know that starting with the need assessment that was done in 1994 that 98 percent of waste generated in the County based on surveys that were done and based on what the consultants evaluated in the report, that's what they stated at that time. And about 8 percent of waste received at the landfill was coming in from out of county, and about 98 percent of the waste generated from the County was being received at that landfill.

Q. It has, and since the inception of this landfill the area that's been intended to serve has been DeKalb County with that 10 percent ability, so what has all of the sudden changed the service area for the DeKalb County Landfill?

A. Well, first I would say that I believe the reason that the waste receipts from out of county have been limited to 10 percent was the

result of a siting approval for the expansion of that facility and that many landfills are regional in nature because of the feasibility -- economic feasibility of taking in waste from more than one county in order to reduce the unit operating costs. And so that was more a restriction than a reason -- historical reason of what was happening at the landfill. The operator was restricted from taking in more than just incidental loads.

The reason for the expanded service area is that this is the service area that the Applicant has identified.

Q. So for a county that's taking care of its own garbage since 1956 and only its own garbage plus maybe 10 percent, just because an applicant comes in and decides that they would love to bring in garbage from a 17-county area they're allowed to recreate a service area that includes that 17 counties?

MR. MORAN: Objection, relevance. That is the law.

HEARING OFFICER MCCARTHY: Sustained. That is the law, Mr. Steimel, that the Applicant

defines the service area.

Q. DeKalb County Board will be voting on this application, and it's ultimately the DeKalb County Board that will be deciding whether or not they want to bring in garbage from the 17-county service area; isn't that correct?

MR. MORAN: Objection. It's argumentative.

HEARING OFFICER MCCARTHY: I am going to respond anyway. The DeKalb County Board will decide whether the first criteria has been met.

Q. As I read the first criteria it says a facility is necessary to accommodate the waste needs of the area it's intended to serve. And the DeKalb County Board has always had the area that the County landfill is intended to serve has been the County plus maybe 10 percent.

HEARING OFFICER MCCARTHY: Is that a question?

MR. MORAN: If it is, I object to it.

MR. D. STEIMEL: I'm sure you would.

MR. MORAN: Well, I have no objection of Mr. Steimel asking you questions. It's just if he's posed a question for the witness, that's

the only reason I am objecting. He can ask you any question he would like.

HEARING OFFICER MCCARTHY: What I would suggest, Mr. Steimel, is, you know, that may be a valid argument that you would make in closing or as a public comment or a written comment.

MR. D. STEIMEL: That's fine, Mr. Hearing Officer.

Let me work through a few other questions that I have here for the witness.

You mentioned that it costs more to take garbage out of the County than it does to put garbage in the County; is that correct?

A. What I said was if this landfill were to close and waste had to be taken elsewhere they likely will incur additional costs.

Q. Then why are you recommending that 1700 ton per day from outside the County be brought into the County?

MR. MORAN: Objection. She's not recommending anything.

HEARING OFFICER MCCARTHY: Sustained.

Q. It would cost more for each of those counties that was previously exhibited to bring garbage

to DeKalb County than to dispose of it in their own county; is that correct?

A. I can't comment --

Q. Well, you just --

A. -- unless I know what your specific question is.

HEARING OFFICER MCCARTHY: I'm not sure I -- can you rephrase the question? I am not sure I understand the question.

Q. The witness just stated that it costs more to bring county -- to take garbage out of the County than it does to dispose of it in its county that it's originated in. So the question is then why are you recommending that all this garbage is brought out of those counties where it's originated? Shouldn't it be properly disposed of in the county of origin?

MR. MORAN: I'll object to the form of that question.

HEARING OFFICER MCCARTHY: Sustained.

Q. Back earlier in your presentation when you showed the amount of garbage that's being generated in the -- I believe it was probably the service area you had total waste,

recyclables, net waste that needs to be disposed. What time frame are these numbers for?

A. This is the projected waste generation over the proposed operating life of the expansion.

Q. And that operating life is how many years?

A. 46.

Q. So these numbers up here are for 46 years?

A. Yes.

Q. In your numbers here that you have projected what kind of increase have you used for -- I assume, are these static numbers? Are these numbers that are total waste, divided that by 46, is that currently what is generated in the 17-county service area?

A. Well, waste generation is based on population and employee projections. So the population of the service area is going to increase over time, so the per capita generation rates, per person generation rates or the per employee generation rates were the same number. However, if population goes up from one year to the next you're automatically going to generate more waste.

In the case of the industrial waste generation, which is based on per employee generation, the employment is actually going to be decreased by more than 50 percent over that same time period.

So to answer your question, you know, based on industrial waste generation, based on employee projections it might be higher today than it would be 46 years from now, but as long as the population increases you generate more waste from one year to the next keeping the per capita generation as the same.

Q. What percent population increase have you used in your figures?

A. Well, the projections that I used were -- that available data is up to the year 2030 either from the Northeastern Illinois Planning Commission or from the State of Illinois Department of Commerce and Economic Opportunity.

From 2031 to the end of these projections I used the average increase or decrease that the US Census Bureau reported over the time period 2000 to 2008, because that is what was current. In other words, the State of Illinois has

projections for every county, for every township from 2000 to 2030, and they have five-year increments. So I used that actual data to do the projections to 2030 and then used Census Bureau data to go from that point on.

Q. Okay, and do you know what those percentage increases were specifically?

A. It change -- it depends on each county, so I don't -- yes, I could calculate it right here if you want to know from one year to the next, or I could tell you from the beginning of the projection from 2013 to 2058 what the difference was.

Q. Well, I'm assuming you have calculated an average for the 17-county service area?

A. I have.

Q. And what is that increase.

A. You want an average population, is that what you're asking?

Q. Yes, that you used to help calculate what the total waste was going to be.

A. I didn't use the average, I used the actual numbers for each year.

Q. Well, I'll let you go to an average since we're

not going to probably -- I won't ask you to go county by county.

A. Okay.

Q. And you can estimate it.

A. Okay. You want the average total population for the service area?

Q. Population increase during the plan that you put forth here.

A. 15 percent.

Q. So 15 percent total increase over that 46-year time period?

A. I used the average, compared it to 2013, and that was 15 percent. Is that not what you're looking for?

Q. You used the average?

A. The average population for the service area over the 46 years as my final point, and then I used the 2013 population for the service area as the initial point and compared those numbers.

MR. D. STEIMEL: Okay. I have no further questions at this time, Mr. Hearing Officer.

HEARING OFFICER MCCARTHY: Okay. Mr. Kenney.

MR. KENNEY: I just have two more

questions.

CONTINUED CROSS-EXAMINATION

BY MR. KENNEY:

Q. And if this was brought up before I arrived just please let me know. I don't want to take any more of the people's time.

One thing is -- maybe you're not the right witness to ask this of, but you had mentioned about the capacity for DeKalb Landfill would be 46 years if the expansion is approved; is that correct?

A. The DeKalb County Landfill is estimated to reach capacity in 2015.

Q. No, I mean if the expansion is approved then the life of the landfill could be increased to 46 years; is that correct?

A. Correct.

Q. And the way I understand it, the agreement is that DeKalb County can only put their waste in there for 25 years? Are you the person to answer that? Is that correct?

A. That's not correct.

Q. Okay. Can you clarify that for me? Because I had read somewhere that the expansion would

allow 46 years worth of use for the landfill but that the DeKalb County agreement was only for 25 years of our own waste going into that landfill, so I am confused.

A. There's a 25-year guaranty for DeKalb County waste according to the host agreement.

Q. Okay, so it would be up to Waste Management's goodwill to extend us more time in the landfill to deposit our waste past the 25 years to the 46 years in the area of 21 years? There would have to be a new agreement with Waste Management for that additional 21 years of use; is that correct?

A. I think that's probably better addressed by someone from Waste Management.

Q. Okay, thank you. Have you discussed earlier the -- I think it's the 2008 IEPA capacity report?

A. No.

Q. According to that report capacity is up 10.1 percent and the capacity in our state is at an all-time high for landfill refuge (sic); is that correct? Are you familiar with the report I'm talking about?

A. Yes, I am.

Q. And isn't it correct that that report states that the capacity available in our state is up 10.1 percent this year -- or I'm sorry, in 2008, and that it is at an all-time high?

A. I believe it is at an all-time high. I do know I read that it was like 10 percent more than last year.

Q. Okay, thank you. Now, that report, I understand, is broken up by sections of the state. And what is the capacity available in the section that's in that report for the Cook County area? I'm assuming that DeKalb falls into -- for that report that DeKalb falls into that area? I didn't see a northeast section in that report. I saw the Cook County area and I saw northwest Illinois, but I didn't see like north central or northeast. Can you explain how that report's broken down a little bit?

A. Yes, the EPA divides the state into regions. Region 1 includes Cook County but it does not include DeKalb. So DeKalb falls in Region 2.

Region 1 has approximately 10 years of life left based on the 2008 receipts based on

what was generated in that region. Region 2 I think was showing about 17 years based on whatever waste receipts they have. I can tell you the exact numbers, I have the notebook in my briefcase.

MR. KENNEY: Okay. Thank you very much. No further questions.

HEARING OFFICER MCCARTHY: Thank you.

I noticed that Mr. Hass has joined us. Do you have any questions?

MR. HASS: No, I don't.

HEARING OFFICER MCCARTHY: Okay. Ms. Cipriano for the County?

MS. CIPRIANO: Yes, thank you very much.

I -- Mr. Kenney obviously asked some questions on the Illinois EPA landfill capacity reports, so he sort of stole my thunder there.

MR. KENNEY: Sorry.

MS. CIPRIANO: That's quite all right.

CROSS-EXAMINATION

BY MS. CIPRIANO:

Q. I did have one additional question, it's just really just a clarification for the service area disposal capacity. You had mentioned a number

of landfills that have received siting approval but are in the process of obtaining an IEPA permit, and Rochelle was one of the examples that you had given; is that correct?

A. Yes.

Q. And that -- and the capacity was included in your analysis for Rochelle; is that correct?

A. Yes.

Q. The other landfill is the Larroway (phonetic) facility located in Elmwood. Was that also included in your analysis, that capacity --

A. Yes, it was.

Q. -- for the expansion?

Okay. Thank you very much.

HEARING OFFICER MCCARTHY: Okay. Members of the committee have any questions of this witness?

MR. HAINES: I do. Michael Haines, District 2 County Board. Just a couple brief ones here.

CROSS-EXAMINATION

BY MR. HAINES:

Q. One is that item recyclables there, how did you determine that? Is that a percentage of total

waste? I mean is there a ratio?

A. The recyclables comes from the most current information for each county as to what they reported to the EPA. If they turned in their annual municipal recycle report, what percentage was listed there is what I used in each year of their projections.

So those ranges -- the recycling rates range from 25 percent to 55 percent. And I believe DeKalb's number was 44 percent is the number that I used. So I kept that recycling rate constant.

Q. That's -- my second question was just our recycling rate I think was right around 45 percent, so that's relatively high for DeKalb -- I mean DeKalb County as compared to other counties in the State of Illinois, is it not?

A. Actually I take that back, it was 51 percent. Yes, it's one of the higher recycling rates reported.

MR. HAINES: Thank you.

MR. ONCKEN: Riley Oncken, DeKalb County Board.

CROSS-EXAMINATION

BY MR. ONCKEN:

Q. If the Applicant had defined the service area as only DeKalb County this plan would exceed the needs for DeKalb County; is that fair to say?

A. This plan meaning?

Q. The proposed expansion.

A. The 23 million tons?

Q. Correct.

A. Well, if it was just limited to DeKalb County waste, yes, it would.

Q. And, again, that's defined by the Applicant, you're limited to -- basically your testimony can only relate to how they define the service area, is that -- my understanding is correct?

A. Correct.

Q. If we could bring up the -- I guess the map of all the landfills through northern Illinois. My question is -- and if you know off the top of your head or by looking, how many of those existing operating landfills are owner-operated operated by Waste Management? Just generally, you don't have to go through each one, if you have some idea.

A. Well, I can cheat. Eight of those landfills are owned by Waste Management, five of those are in Illinois, one is in Indiana, and one of them is in Kenosha County -- two, pardon me, in Kenosha County and I think Walworth in Wisconsin.

Q. Again, looking at those landfills that are there, and I don't know if you will know this or not, but are there any landfills that are listed that are operating landfills right now that restrict waste coming from a certain area? For example, does the Cook County Landfill No. 201, does that restrict waste only to Cook County? I am just curious as far as what other landfills are available for this service area to take potential waste to.

A. Well, some landfills have restrictions on how much waste that they can take in which may be irrespective of the service area, and there's some landfills that also have provided disposal guaranties to their county or solid waste districts, so I am going to include those kind of conditions as well.

Up in Lake County both of the landfills,

Viola, Zion and Countryside, have some limitations that they have reserved disposal capacity for. In Wisconsin the landfills there have defined -- a more defined service area, so these landfills up here principally may take waste or if they take waste outside of Wisconsin it's principally from Lake and McHenry and maybe a little bit from northwest Cook. I believe Rochelle has -- the Rochelle Landfill has disposal capacity commitments to the county, as does Orchard Hill. I believe that there's probably some capacity commitments for Lee County as well. Whiteside County has a host agreement, so there may be some disposal guaranties with that county.

LaSalle County has a service area that is restricted to the surrounding counties, although they did get an amendment to that agreement that allows them to take waste from northwest Cook County, parts of DuPage and Will, but that contract expires next year -- or 2012, and they also have a restriction of no more than 200,000 tons per year waste.

Livingston County has a host agreement,

and I believe there's some restrictions in there as far as disposal guaranties.

Q. I guess more specifically, and I appreciate that explanation, but are there any counties that have permitted or allowed landfills within their county that have restricted waste only to their county that are in operation right now that you know?

A. Oh, only to their county, yes. Prairie View Landfill in Will County, I think it's 18, they -- there's a restriction that waste can only be received from communities that are at least partially located in Will County. So if it's a community that's also in DuPage or partly in Kendall, they also have to have part of the community in Will.

Q. And if you know, what's the per day capacity of Prairie View?

A. As of January 2009, approximately 15.6 million tons. And that also has a restriction that it -- on closure by 2027.

MR. ONCKEN: I think that's all I have, thank you.

MR. STODDARD: Just a couple really

quick -- well, one, maybe, question.

CROSS-EXAMINATION

BY MR. STODDARD:

Q. Just trying to keep things in perspective. You said that the proposed expansion would increase the capacity of DeKalb to 23 million tons, 23.2?

A. Yes.

Q. What is the shortfall again for the service area for the next 46 years?

A. The shortfall ranges up to three -- from 283.8 to 367 million tons.

Q. So we would be talking at most 10 percent, 8 percent of the need, so it's necessary but not sufficient?

A. Correct.

MR. STODDARD: Okay. Thank you.

HEARING OFFICER MCCARTHY: Any other members of the committee have questions?

Members of the County Board, any questions of this witness?

Any questions from anyone else?

Yes, ma'am.

MS. VOSS: I'm Lolly Voss from DeKalb, and I just wanted clarification. It was stated

there's a host agreement in place. Is that agreement between Waste Management and DeKalb County?

HEARING OFFICER MCCARTHY: Are you asking me?

MS. VOSS: Well, I don't know who -- I just don't know who to ask that.

HEARING OFFICER MCCARTHY: Yes, the answer is yes.

MS. VOSS: Yes. And then does that host agreement include the whole service area as part of the agreement?

HEARING OFFICER MCCARTHY: Are you ask -- why don't you direct that question to the witness.

MS. SMITH: The service area does not -- is not identified in that agreement.

MS. VOSS: Thank you.

HEARING OFFICER MCCARTHY: Anyone else have a question of this witness?

MS. SMITH: Oh, may I amend my answer?

HEARING OFFICER MCCARTHY: Sure.

MS. SMITH: I'm sorry.

However, that agreement does provide that

out-of-county waste can be brought to the -- to the DeKalb County Landfill.

MR. BOIES: I'm John Boies from Sycamore. If you go back to that slide that had the -- started out with the 841 million tons. How is that -- as I understand it, you took the population of each county and projected the current 2008 use. So do you do it by county?

MS. SMITH: Yes, I did it by county.

MR. BOIES: So assuming that DeKalb County has that high recycle rate, which is great, what -- of that 841 and the 351 and the net required amount that you have up there, what's the DeKalb County portion?

MS. SMITH: Well, that number is municipal solid waste and industrial waste, so they're different numbers that go in there. The municipal solid waste portion for DeKalb County is about 11.1 million tons.

MR. BOIES: And the industrial?

MS. SMITH: That's both, that's industrial and municipal. If you want to break down, it's about 8.7 million total municipal waste and 2.4 million -- 2.5 million for industrial waste

before recycling.

MR. BOIES: Oh, before recycling. But you got the recycling subtracted there. I was trying to get of those three numbers what's the DeKalb County portion?

MS. SMITH: Okay, the total waste prior to recycling of MSW and industrial is 11.1 million. The net total waste after recycling is about 5.5 million.

MR. BOIES: So in conclusion of the -- of the -- if the project is approved and 23.2 million tons of capacity are added, only 5.5 of that over the next 46 years are projected to come from DeKalb County?

MS. SMITH: Correct, assuming --

MR. BOIES: Thank you.

MS. SMITH: -- no additional growth in the industry --

MR. BOIES: Thank you.

MS. SMITH: -- or the population beyond what was projected there.

HEARING OFFICER MCCARTHY: Okay. Anyone else?

Yes, sir.

MR. CANN (phonetic): Do waste haulers make money on those recyclables?

MR. MORAN: Objection. I don't know what the relevance is.

MR. CANN: Out of curiosity.

MR. MORAN: Who is he?

HEARING OFFICER MCCARTHY: Would you state your name.

MR. CANN: Byron Cann.

I just wondered, you know, you list recyclables and it's 351 million tons. Is there -- I -- do the waste haulers in general make money on the recyclables?

HEARING OFFICER MCCARTHY: I am not sure how that's relevant, but if she knows.

MR. CANN: I taught school for, you know, 36 years and recently retired. I had a very good recycling program going at our school. As soon as I left they cancelled the program. They said they were not making any -- you know, they were having to pay the hauler to make money and stopped the recycling program. Out of curiosity I wondered.

HEARING OFFICER MCCARTHY: I don't know

whether she knows. If she knows, try to answer the question I guess.

MS. SMITH: Well, the only comment I would offer is that it's -- the business is cyclical, and depending on sometimes what's going on in China and their needs for aluminum, scrap, it controls our markets here. So, you know, if there's too much material that's collected and you're not able to move the product that is going overseas then there's a flood and so sometimes some of the recycling programs are being stopped. So it just depends on what's going on. When markets are better you can make money.

MR. CANN: Would it depend on the individual type of material being recycled?

MS. SMITH: Yes, it depends on the type of material and it depends on where the broker's located, if it's being hauled someplace or if you're taking it to a material recovery facility or -- so there are a lot of factors that go into it.

MR. CANN: Would you happen to know where the closest transfer station is?

MS. SMITH: There are the Elburn transfer stations in Kane County, and there's one -- there's several in northwest Cook County, there's a yard waste facility also in Kane County, there's a new transfer station that opened up in McHenry County, and I believe there -- in Carroll County there's a transfer station. I have a graph.

MR. CANN: By any chance would there be one, you know, planned for this county in this proposal?

MS. SMITH: No.

HEARING OFFICER MCCARTHY: Anybody else have any questions of this witness?

Yes, sir.

MR. CHAMBLISS: Real quick. I apologize for not coming up earlier. When you were assessing the needs of these -- of the targeted area did you consult with like all the counties that were in the targeted area, you know when you were coming up with needs assessment?

MS. SMITH: Well, I collect all the county solid waste plans and the plan updates. So for

those counties that were in the process of updating their plans, some of them were just approved in 2009, I contacted those county coordinators to get copies of the information. And I also submit a FOIA, Freedom of Information request, to the EPA to get the most current recycling reports that each county files usually in June of each year. So those were the times that I talked to the county coordinators, or if I had a question about a particular siting that might be going on in their county for a new solid waste facility.

MR. CHAMBLISS: Are you aware of any -- any plans by any other counties that were in the targeted area to handle their waste in a way that might, for example, be voted on this year, maybe next year? Do they themselves have alternative plans based on their own needs assessment that maybe you came across when you were evaluating the entire needs assessment?

MS. SMITH: Well, each county has a solid waste management plan. All the counties were required in the early '90s to come up with a plan to address their planning needs over a

20-year period and identify what the existing waste system looked like, who the haulers were and how often waste was generated, where it was going to, and then looking at alternatives for managing that waste, what type of recycling, what type of composting, and then what to do with the waste that couldn't be recycled, what alternative technologies might be considered. So all of those elements are put into a plan, and the county puts that into a plan and then the state requests that those plans be updated every five years.

So the needs assessments for a county plan are typically just for the county for managing their waste. But there are some counties that are multiple county districts.

MR. CHAMBLISS: In your expert opinion would you think that there were counties that in their assessment of their own needs plan took the possibility of, say, this particular proposal into account as, well, that's something that we're kind of counting on? Do you think that happened at all?

MS. SMITH: I don't think it's likely

because the siting hearing, which is this, is usually the first stage where the public may become aware of a new project, unless there were meetings with the County Board or municipality to talk about a project.

MR. CHAMBLISS: So for the most part the counties that are in the actual area, they don't know much about this actual proposal so they're just focusing on their own issues right now and if this happens then maybe they'll readjust but at this point they have not put this possible proposal into their own needs assessment?

MS. SMITH: I would say that's likely true because when these plans are turned into the EPA, the EPA reviews them to see, you know, is it a facility that's already in existence or if you are going to develop your own transfer station what's the time line for that to happen, how are you going to fund your department -- your solid waste department.

So unless there was word out on the street about a project or if a project had started to be developed and maybe something was going through the siting process , then the county

might include it if they were writing their plan at the same time. So I don't know if that's answering your question.

MR. CHAMBLISS: No, no, you are, you're doing great. Would that have happened in the last year that -- the word on the street theory? Like do you think in the last year these assessments were done by counties?

MS. SMITH: Yes, there are some counties that updated their solid waste plan. They don't necessarily call them needs assessments.

MR. CHAMBLISS: Okay.

MS. SMITH: They're really --

MR. CHAMBLISS: So in 2009 in the counties in the targeted area there were counties that did their solid waste management plan during that year?

MS. SMITH: Yes.

MR. CHAMBLISS: And it is possible that those counties knew of this particular pro -- the possibilities of this particular project in 2009?

MS. SMITH: It's possible, because there were County Board meetings and the host

agreement was negotiated back in April of last year and that was probably covered in the news and so they may have heard of it, yes.

MR. CHAMBLISS: But do you think that in -- they're acting on their own best interest, they probably have created a waste management plan without this proposal more likely than not, right? Their plan probably had -- does not include or is not dependent on this proposal?

MS. SMITH: Well, if the county writes the plan it doesn't necessarily mean that they control how the waste is moving within the county. So they may recognize, for example, in a particular county that they need to develop a new landfill and they're going to have to start the process. So if this facility becomes available the county may decide that they would bring their waste here, or the haulers may decide that they would bring their waste to this facility irregardless of what was said in the county plan.

It's really meant to be a tool to help the county take account of how much waste is generated in the county, and the steps they can

take to minimize that, and then what should happen with the waste that is -- that requires disposal.

And many counties rely on a private sector to take the steps necessary to implement those plans that the counties themselves are not typically doing the landfill siting or developing the transfer station, they leave it up to the private sector.

MR. CHAMBLISS: So being that you looked at all the counties and you seen all these solid waste management plans and that's the way that you created the needs assessment for that particular targeted area, there's nothing that you saw that would say, Kevin, if you don't let this go and vote for this and support this there's going to be all these counties that are going to be left out to dry, you would -- that's not the case, correct?

MS. SMITH: I am not sure I can answer that question.

MR. CHAMBLISS: Okay. I guess I just wanted to make sure that we're not like Captain Save The County, you know, when everybody's

like, we really, really hope you guys do that and if you don't everybody's going to be falling down.

Being that you looked at all the counties and they all have plans, you know, it seems to me like you would be able to say, Kevin, they're not depending on you because I have seen it, I have seen their plans.

MS. SMITH: Well, what I am relying on in the plan for the counties and the service area outside of DeKalb are how did you estimate waste generation, you know, what were your projections based on, and using those numbers, the per employee or per person industrial waste generation numbers, and the recycling rates either in the plans or in their annual reports, that's what I'm using from the county plans outside of DeKalb County.

But some of the counties, for example Kane County, is recommending in their plan and in their plan update to rely on transfer stations and dispose of their waste out of county. So in that instance for counties that are looking to do that, they need landfills to manage their

waste because they don't -- they aren't developing them in their county, so.

MR. CHAMBLISS: In your assessment of the targeted area did you create a Plan B and C that would be maximum need which would be what we're trying to do, semi-maximum need, you know, and then minimum need? Did you do anything like that?

MS. SMITH: Well, I relied on the fact that information that I obtained from the Freedom of Information Act was reliable and accurate, or information prepared by the Illinois Bureau of the budget on population projections was accurate.

So I assumed the recycling goals that were reported last year that were as high as 55 percent were going to stay constant.

MR. CHAMBLISS: So you don't work with like straight numbers?

MS. SMITH: Pardon?

MR. CHAMBLISS: You don't -- the way that you created the needs assessment was based upon the gathering of the numbers pretty much?

MS. SMITH: Yeah, but here's -- here's the

worst case scenario, 841 million tons to be generated and require disposal from the service area. That -- that is your worst case scenario, it assumes zero recycling scenario.

MR. CHAMBLISS: You're using my words, worst case scenario, love it, I love that term.

MS. SMITH: And this is the best case scenario, and it could be even better, but this is based on the recycling rates last year, and that's 490 million. So you have another 350 million tons of waste that might need -- that would require disposal if the recycling goals are not identified. So this is the lowest case/highest case that you're talking about.

MR. CHAMBLISS: If you take DeKalb County's 5 percent out of that does a lot change? Like, for example, if DeKalb County -- if you were hired to still do this targeted area but we're taking DeKalb County out of the equation, does the needs assessment change?

MS. SMITH: No.

MR. CHAMBLISS: So it is what it is regardless of us?

MS. SMITH: The waste in the service area

is going to be generated and require disposal.

MR. CHAMBLISS: If our landfill -- okay, different question. If -- in the landfill chart, if our landfill in its capacity is taken out of the equation does the needs assessment at that point -- based on how much waste is generated and how much space is needed, does the needs assessment change at that point?

MS. SMITH: Well, this assessment is as of January 2013, and it assumes there is no capacity available from -- or limited capacity, whatever the -- might have been a hundred thousand, 200,000 yards. So that was included in this analysis from the existing landfill, and the capacity shortfall is still --

MR. CHAMBLISS: I'm going to ask a different question.

MS. SMITH: -- 300 million tons.

MR. CHAMBLISS: What I'm saying is -- I guess I'm thinking need, like there's obviously a need, 6, 7 percent need, whatever. Does the need change if our landfill and its possible capacity after expansion -- if that is not equated into all the landfills that are there

and all the waste that's generated, does the need for that targeted area change? Because now there's one less landfill and the capacity of all the landfills of the whole targeted area would change dramatically, I would think, if you took us out of the picture. That's the question I'm asking.

MS. SMITH: Well, the proposed expansion will only add 23.2 million tons and there was a shortfall of more than 280 million tons that was identified. So it will only fulfill a small part of the capacity shortfall.

MR. CHAMBLISS: So it's not really that big of a deal, there's not really that much need, right, I mean 25 percent?

MS. SMITH: Well, there is a big need.

MR. CHAMBLISS: So if we're taking it out there's a need increase? I guess maybe I'm not explaining it right.

MS. SMITH: If 5 million tons is taken out of the equation, then the amount of waste requiring disposal goes from 490 to 485 million.

MR. CHAMBLISS: So could you give the same presentation without DeKalb County?

MS. SMITH: No, because that's not the service area which is the subject of this siting hearing.

MR. CHAMBLISS: But you know how much waste we have and you know how much capacity we have, so just your expert opinion -- you see, I depend on you witnesses, you are a -- I can't go and like hire a witness. I depend on you to like clarify for me.

In your expert opinion if you take DeKalb County out what does that change?

MS. SMITH: What does it change? There's still a need for more landfill disposal capacity in the service area.

MR. CHAMBLISS: So basically I'm going to have to go somewhere else to fulfill that need?

MS. SMITH: They'll have to go to where available landfills are located.

MR. CHAMBLISS: Okay. Thanks.

HEARING OFFICER MCCARTHY: Anybody else?

Mr. Moran, any redirect?

MR. MORAN: On just one topic.

HEARING OFFICER MCCARTHY: Okay.

REDIRECT EXAMINATION

BY MR. MORAN:

Q. Ms. Smith, you indicated that you included that landfill in Kankakee County known as the Town and Country Landfill, you included that within the available disposal capacity you have identified?

A. It's in the 83 million tons of potential additional disposal capacity.

Q. Exactly. And how much capacity is attributable to that landfill? And it's a proposed landfill?

A. Yes, it's about 27 million tons.

Q. So you included that 27 million tons in your 83.3 million ton number for available capacity, correct?

A. Yes.

Q. And you were asked about whether that permit -- and, in fact, there has been a permit issued for that facility, correct?

A. Yes.

Q. But there's not siting approval for that facility, correct?

A. Yes.

Q. In fact, the siting approval was overturned by the Illinois Appellate Court for the Third

District in the County of Kankakee versus Town and Country, correct?

A. I guess I misspoke. I guess, yes, it's the Appellate Court.

Q. And the basis for that reversal of the siting approval was that that proposal was not consistent with the Kankakee County Solid Waste Management Plan, correct?

A. Yes.

Q. And so that if at this point that facility does not have a valid permit by virtue of that Appellate Court decision, that capacity ought by all accounts be removed from the total capacity that you have said is available to this service area, correct?

A. Correct.

MR. MORAN: Thank you. That's all.

HEARING OFFICER MCCARTHY: Any other questions of this witness based upon Mr. Moran's redirect?

Yes, sir.

RECROSS-EXAMINATION

BY MR. MCINTYRE:

Q. How many tons again was the Town and Country

that we can subtract?

A. I said 27, but I just want to make sure that's what it is. 27.4.

Q. So if we can bring that chart up that showed the capacity available, so we should -- right there, the 841, is that -- so we should subtract 27 tons from that?

A. No, this -- you would subtract it from the capacity.

Q. Okay.

A. So not on the generation.

Q. So which one of those numbers should I subtract it from?

A. It would be from here (indicating).

Q. Then shouldn't we add a hundred million tons capacity for Spoon Ridge?

A. No.

Q. And why not?

A. Because that facility is not servicing this service area and it's inactive.

Q. And why is it inactive?

A. The company elected to take one load a year so they wouldn't have to close it.

Q. So that's a voluntary decision?

A. Well, it's also at least 180 miles away from Cook County, and if it's not operating on a daily basis you can't count on its capacity being available.

Q. What does the word potential mean then?

A. Potential here means that it's a facility that has gone through local zoning and has gotten siting approval, or in the case of Town and Country that was a facility that had received an IEPA permit but had not received its final non-appealable approval. So it is not open or operating, and now the siting has been taken away.

Q. Okay, but you had it added before you were made aware or reminded that there was a court order that closed that down that it was inactive, yet you included it?

A. Well, it was inactive -- it received that permit, the decision from the Appellate Court came out after the time that we filed the siting -- Waste Management filed the siting application.

Q. And because of that court ruling you should take it off?

A. Well, it doesn't have valid siting now. The siting was overturned.

Q. Does Spoon River (sic) have valid siting?

A. Spoon Ridge, yes.

MR. MCINTYRE: I have no further questions.

RECROSS-EXAMINATION

BY MR. KENNEY:

Q. Did your need analysis include waste going to other facilities other than landfills?

MR. MORAN: Objection, beyond the scope of the redirect.

HEARING OFFICER MCCARTHY: I'm going to allow the question.

A. I identified other solid waste facilities such as transfer stations in the report.

Q. But you didn't include like in Evansville, Indiana the waste to energy plant that's being built and the potential amount of garbage going from Cook County to that plant under their agreement with Cook County?

A. I did not.

MR. KENNEY: Okay. Thank you.

HEARING OFFICER MCCARTHY: Okay. Any

other questions of this witness?

Mr. Moran, are you going to move to admit Petitioner's Exhibit 6, which is the resumT of Sheryl Smith?

MR. MORAN: Yes.

HEARING OFFICER MCCARTHY: Any objection?

Hearing none, it will be admitted.

(Petitioner's Exhibit No. 6 admitted into evidence.)

HEARING OFFICER MCCARTHY: We will now -- it's about five after 5. We'll adjourn until 7 o'clock, when we will have public comment.

Oh, I should add that the college has informed me that the room will be secured, it will be locked, and so if you would like you can leave your materials here.

(The hearing recessed for the day at 5:07 p.m.)

STATE OF ILLINOIS

IN RE: THE APPLICATION)
FOR APPROVAL OF THE DEKALB)
COUNTY LANDFILL EXPANSION,)
) Kishwaukee Community
) College
) DeKalb, IL
) March 2, 2010

We, Julie K. Edeus and Callie S. Bodmer, hereby certify that we are Certified Shorthand Reporters of the State of Illinois; that we are the ones who, by order and at the direction of the Hearing Officer, JOHN J. McCARTHY, reported in shorthand the proceedings had or required to be kept in the above-entitled case; and that the above and foregoing is a full, true and complete transcript of our said shorthand notes so taken.

Dated at Dixon, Illinois, this 2nd day of March, 2010.

Julie K. Edeus
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Callie S. Bodmer
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