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COMMONWEALTH OF PENNSYLVANIA  
ENVIRONMENTAL HEARING BOARD

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SLUDGE FREE UMBT, JIM and : EHB DOCKET NO. 2014-015-L  
DONNA DELLATORE, MIKE and :  
DIANE ZIMMERER, DEBRA and :  
TOM BODINE, JOHN and TRACY :  
GORMAN, BOB and TERRY :  
SCHNEIDER, :

Appellants :

vs. :

COMMONWEALTH OF PENNSYLVANIA:  
DEPARTMENT OF ENVIRONMENTAL :  
PROTECTION and SYNAGRO, :  
a.k.a. SYNAGRO MID-ATLANTIC, :  
INC., Permittee, :

Appellees :

- - -

Oral Deposition of ERIC ROSENBAUM, taken  
pursuant to notice, held at the law offices of Fox  
Rothschild, 10 Sentry Parkway, Suite 200, Blue Bell,  
Pennsylvania, on Thursday, December 11, 2014, commencing  
at 9:45 a.m., before Wendy A. Crowley, Court  
Reporter-Notary Public, there being present.

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(It is hereby stipulated and agreed by and between counsel for the respective parties that reading, signing, sealing, certification, and filing are waived and that all objections, except as to the form of questions, be reserved until the time of trial, each counsel reserving, however, the right to advise his client or clients not to answer any questions considered by counsel to be improper.)

- - -

ERIC ROSENBAUM, after having been first duly sworn, was examined and testified as follows:

- - -

BY MR. YEAGER:

Q. All right. Sir, can you please state what your full business title and what your role is and what the name of your business entity is?

A. My name is Eric Rosenbaum. I am the owner of Rosetree Consulting, which is a agricultural and environmental consulting company providing integrated pest management, soil testing and regulatory services.

Q. Okay. And are you the sole owner?

A. Yes.

Q. Any employees?

A. I have four.

1 Q. What are the roles that they serve, the four  
2 employees?

3 A. I have one that is a soil testing person. I have  
4 an administrative assistant, and I have two field scouts  
5 that also assist in developing regulatory documents.

6 Q. What kind of regulatory documents are you talking  
7 about?

8 A. Nutrient management plans and manure management  
9 plans, odor management plans. That's about it.

10 Q. Okay. And do you have any other employment or are  
11 you the owner of any other business entities?

12 A. I have a small Christmas tree farm.

13 Q. Anything else?

14 A. That's all.

15 Q. And what's your educational background?

16 A. I have a bachelors degree in agricultural sciences  
17 from Penn State University.

18 Q. Anything else?

19 A. I have some certifications.

20 Q. Okay. What certifications?

21 A. Certified crop advisor, nutrient management  
22 specialist in both Pennsylvania and New Jersey, odor  
23 management specialist in Pennsylvania, conservation  
24 planning certification. I believe that covers them all.

25 Q. Okay. Who issues those certifications?

1 A. NRCS would issue the certification for conservation  
2 planning and then the Pennsylvania State Conservation  
3 Commission would issue the certifications for odor  
4 management and the nutrient management and then the  
5 American Society of agronomy is the house for the  
6 certified crop advisors program.

7 Q. And what's required for each of those  
8 certifications, to obtain the certifications?

9 A. To obtain the CCA certification, you must pass --

10 Q. The CCA is the crop advisor?

11 A. Correct.

12 Q. Okay.

13 A. You must pass an exam and then obtain 40 hours of  
14 continuing education credits every two years.

15 For the nutrient management certification, you also  
16 have to pass an exam and obtain a number of continuing  
17 education credits every three years.

18 For the conservation planning certification, every  
19 three years -- well, I had to pass an exam. Every three  
20 years, I have to obtain a certain number of continuing  
21 education credits to maintain that certification.

22 The same with the odor management, as well as  
23 there was a test to pass that exam.

24 Q. How many, for the conservation planning  
25 certification, how many credits do you need in a

1 three-year period?

2 A. I would have to take a guess. I believe it's  
3 somewhere around 30.

4 Q. Okay. And do the courses that you take for the  
5 other certifications that you have, are you able to apply  
6 them to each?

7 A. No.

8 Q. Okay. Have you ever sat for a deposition before?

9 A. No, I have not.

10 Q. Okay. Just so you understand, it's a simple  
11 question and answer session just like we've been doing.  
12 The court reporter is here to take down what we all have  
13 to say. The court reporter can only take down words. So  
14 nods and shakes don't show up well in the transcript.  
15 Uh-huhs look a lot like uh-uhs in the transcript. So  
16 you've done a good job so far. I'd ask you just to  
17 continue to speak in words. Okay?

18 A. (Witness nods head affirmatively.)

19 Q. Okay?

20 A. Okay.

21 Q. If at any point you don't understand a question  
22 that I ask or a portion of a question I ask, just let me  
23 know and I'll try to rephrase it. Okay?

24 A. Okay.

25 Q. And if at any point you need to take a break, just

1 let me know. All right?

2 A. Okay.

3 Q. Have you reviewed any material in preparation for  
4 your deposition?

5 A. Yes.

6 Q. What did you review?

7 A. I reviewed the conservation plan that I wrote for  
8 the Angle properties.

9 Q. Okay. Anything else?

10 A. No.

11 Q. And have you spoken to anyone in preparation for  
12 your deposition?

13 A. Yesterday, I had a call with Julie, and she kind of  
14 walked me through what a deposition is and what to expect.

15 Q. Anyone else?

16 A. I did talk to my wife and kids about it, just  
17 explaining where I was going.

18 Q. Other than with them?

19 A. No.

20 Q. How long have you been the owner of your consulting  
21 business?

22 A. Since 2009.

23 Q. And what were you doing prior to that?

24 A. I was a consultant for another agricultural  
25 consulting company.



1 Q. Called what?

2 A. Stutzman Crop Care.

3 Q. I'm sorry. What was the first?

4 A. Stutzman, S-T-U-T-Z-M-A-N.

5 Q. Okay. How long have you held a certification in  
6 conservation planning?

7 A. Since 2007.

8 Q. What year did you graduate from Penn State?

9 A. 1999.

10 Q. What were you doing prior to Stutzman?

11 A. I was a agricultural consultant for Brubaker  
12 Consulting Group.

13 Q. And how long were you with Stutzman? I'm sorry.

14 A. I was with Stutzman from 2000 to 2009 and then I  
15 was with Brubaker from 1998 until 2000.

16 Q. Prior to graduation?

17 A. Correct.

18 Q. And the work that you're doing now, is that the  
19 same work that you were doing when you were with Stutzman  
20 and Brubaker?

21 A. I've obtained additional certifications as time has  
22 progressed. So some of the work is the same, some of the  
23 work is new.

24 Q. Which is the same?

25 A. Crop scouting and the soil testing, the nutrient

1 management work is all the same. The conservation  
2 planning certification was obtained when I worked for  
3 Stutzman Crop Care. The odor management certification was  
4 obtained since I started my own company.

5 Q. Tell me what scouting is.

6 A. Integrated pest management, we're going out into  
7 crop fields, vegetable fields and we're looking for  
8 potential problems that affect economic profitability of a  
9 corn crop or soy bean crop and we're providing  
10 recommendations to that client as to what they can do to  
11 address the particular concern that we find.

12 Q. Okay. Prior to taking the exam for the  
13 conservation planning certificate, did you have to take a  
14 class?

15 A. It was about a two-year process until I could  
16 obtain all the classes necessary to finally take the test.

17 Q. Okay.

18 A. And then once I took the test, final certification  
19 was not granted until I submitted two plans to NRCS that  
20 met their criteria.

21 Q. Okay. How many classes did you have to take, how  
22 many credit hours?

23 A. I would have to guess. It was 40 to 60 hours.

24 Q. Total over that two-year period?

25 A. Yeah.

1 Q. And is there a place to go online to get an  
2 understanding of the nature of the coursework?

3 A. Probably. I would start with the NRCS websites and  
4 check out some of the requirements there. There is a --  
5 at least when I log onto my account, I can see some of the  
6 courses that are necessary for conservation planning.

7 Q. Okay. And who offers those?

8 A. Some of them are offered through NRCS. Some of  
9 them are offered through the Pennsylvania Association of  
10 Conservation Districts. Some of them are offered through  
11 the State Conservation Commission. I think those are  
12 about it.

13 Q. Okay. Have you ever had any engineering training?

14 A. No.

15 Q. Have you ever had -- and you're not a professional  
16 engineer, correct?

17 A. Correct.

18 Q. So what does it mean to be a conservation planner?

19 A. Conservation planning is working with farmers,  
20 predominantly farmers. It can be other landowners as  
21 well, but we're going out onto the farm, looking for  
22 environmental concerns that would potentially impact water  
23 quality, soil quality, air quality, plant quality, and  
24 developing a plan that addresses those concerns and would  
25 bring them into compliance with basic agricultural

1 regulations.

2 Q. What do you mean basic agricultural regulations?

3 A. Those regulations set forth by the Pennsylvania  
4 DEP.

5 Q. Can you be more specific?

6 A. They're the agricultural ENS regulations. I think  
7 it's Chapter 102 or Chapter 92.

8 Q. Do you know?

9 A. I think it's 102.

10 Q. Okay. You're not sure?

11 A. No.

12 Q. Well, as you're doing your work, do you have to  
13 refer to the regs?

14 A. Oh, yes.

15 Q. So which regs do you refer to?

16 A. I refer to the PDF document that's on my computer.  
17 That is the regs that I downloaded from the DEP website.

18 Q. When did you download them?

19 A. I would have downloaded the new regulations  
20 probably within the last year.

21 Q. Okay. You don't have a copy of them with you, do  
22 you?

23 A. No.

24 Q. I'm going to ask that you produce whatever those  
25 regs are that you rely on. Okay?

1 A. Okay.

2 MR. YEAGER: Julie, will you be able to  
3 coordinate that?

4 MS. GOLDSTEIN: I don't think that will be a  
5 problem.

6 MR. YEAGER: Okay. Thank you.

7 BY MR. YEAGER:

8 Q. Besides that one PDF, are there other regs that  
9 you're regularly working in to do your work as a  
10 conservation planner in Pennsylvania?

11 A. Yes. Depending on the type of conservation  
12 planning that you're writing and the agency in which  
13 you're submitting that conservation plan to, there would  
14 be additional regulations that you would want to follow.

15 Q. Okay. Such as?

16 A. Anything set forth through NRCS in their  
17 programming regulations.

18 Q. Such as?

19 A. If you're writing a plan for CNMP, Comprehensive  
20 Nutrient Management Plan, if you're writing a plan for an  
21 EQIP, Enviromental Quality Incentives Program, if you're  
22 writing a plan for Conservation Reserve or CRP program, if  
23 you're writing a plan for FSA, the Farm Service Agency,  
24 they would all have different things that those programs  
25 or those agencies would like to see in a conservation

1 plan.

2 Q. Okay. You had told me about the part of the work  
3 that you do as a conservation planner, as I understood it,  
4 was working with farmers to help them with regulatory  
5 compliance; is that accurate?

6 A. Yes.

7 Q. So what regulations are you helping farmers work  
8 toward compliance with?

9 A. The agricultural ENS regulations set forth by DEP.

10 Q. Are there any portions of those that you don't  
11 consider yourself qualified to assist with?

12 A. If we identify an environmental concern on a farm,  
13 and to give you an example, if we're working on a farm  
14 that has animal livestock and there's a need for a manure  
15 storage or heavy use area that would require engineering  
16 design, we're not qualified to do that. We simply state  
17 that there is an environmental concern, this type of best  
18 management practice will address that concern and then  
19 they go out, they being the client goes out and finds an  
20 engineer to design a structure that will address the  
21 concern.

22 Q. Okay. So you're not qualified to do engineering  
23 design; is that accurate?

24 A. Correct.

25 Q. Yes?

1 A. Correct.

2 Q. Do you consider yourself qualified to calculate  
3 stormwater flow?

4 A. No.

5 Q. Do you consider yourself qualified to calculate  
6 stormwater rate?

7 A. No.

8 Q. Do you consider yourself qualified to calculate  
9 whether any land activity will result in any change to  
10 stormwater flow or rate?

11 A. Can you repeat that or rephrase it?

12 Q. Why don't I take a step back. Why don't you tell  
13 me further about what you -- you said, you identified  
14 water, air, soil, and plant quality issues that you're  
15 looking at?

16 A. Yes.

17 Q. Okay. So as a conservation planner, what issues  
18 with regard to water do you assist with?

19 A. Quality and quantity.

20 Q. What do you mean?

21 A. We are looking at the landscape, looking at the  
22 crop land area, the pasture area, the farmstead area,  
23 whatever land use area we are looking at, and we're  
24 looking to make sure that the quality of runoff emerging  
25 from that area is not causing issues or is not problematic

1 and then we're also looking at the quantity of water  
2 coming from those areas to make sure that it is also not  
3 causing problems.

4 Q. How do you assess the quantity of runoff?

5 Do you do a calculation of some kind?

6 A. No, it's a visual assessment.

7 Q. Okay. So you're not qualified to do a calculation  
8 of the quantity of runoff?

9 A. That's right.

10 Q. And what about the quality of runoff, is that also  
11 just a visual assessment?

12 A. Just a visual assessment.

13 Q. So are you able to make an assessment about whether  
14 runoff would impact an existing use of a water body?

15 Do you know what the term "existing use" means?

16 A. Yes. Is there a way you could phrase that around,  
17 like, a conservation planning or something like that to  
18 help me understand the question?

19 Q. Well, tell me what you don't understand.

20 A. Okay. Can you repeat the question?

21 MR. YEAGER: Can you read it back, please?

22 - - -

23 (Whereupon, the preceding question  
24 was read back at this time.)

25 - - -



1 THE WITNESS: For certain cases, yes.

2 BY MR. YEAGER:

3 Q. Okay. How do you go about doing that?

4 A. It's a visual assessment.

5 Q. What does that mean?

6 A. We're looking at the runoff, where it's coming  
7 from. To give you an example, if we have runoff coming  
8 from a animal concentrated area, there would be evidence  
9 of nutrients associated with that runoff and there would  
10 be very easily identifiable symptoms of nutrient runoff  
11 from that animal concentrated area.

12 Q. Okay. Are you able to assess whether an increase  
13 in -- whether a change in the landscape will impact  
14 existing uses?

15 A. From a construction standpoint, certainly, if we're  
16 building agricultural buildings and we're changing that  
17 landscape, it is going to affect the amount of runoff that  
18 is coming from the site.

19 Q. Okay.

20 A. Whether we need a sediment basin or whether we need  
21 some filter strips to account for the roof area that we're  
22 installing, certainly there's going to be changes from  
23 that construction.

24 Q. But are you able to calculate what the changes  
25 would be?

1 A. Nope. We simply state that there would be a need  
2 for additional practices to address the concern.

3 Q. But you're not able to design what -- identify what  
4 would be adequate practices and what would not, correct?

5 A. No.

6 MS. GOLDSTEIN: No, that's not correct or  
7 no -- I'm sorry.

8 MR. YEAGER: No, no, no. I appreciate it.

9 THE WITNESS: No, because --

10 BY MR. YEAGER:

11 Q. You're agreeing with me that you're not able to  
12 make that assessment?

13 A. I would not be able to judge what kind of sediment  
14 basin or filter strip would be necessary from a building  
15 that's being constructed.

16 Q. Okay. And is that true with regard to -- whenever  
17 there's a determination that there's a need for a BMP,  
18 that your role doesn't extend to identifying what an  
19 adequate BMP would be; is that accurate?

20 A. Depends on the BMP.

21 Q. Okay. What do you mean?

22 A. Well, there's over a hundred BMPs.

23 Q. Right.

24 Q. So some of them I would certainly be able to  
25 develop. Others we would need an engineer to help us out

1 with.

2 Q. Okay. If you can't do a -- if you can't measure,  
3 from an engineering standpoint, you can't measure what the  
4 change would be from whatever you're doing on the land,  
5 how do you go about assessing whether a BMP is adequate?

6 A. What land use are you --

7 Q. Any.

8 A. Okay. Well, let's take the farmstead area. We  
9 would know from NRCS documents, they would have criteria,  
10 they would have benchmarks that we would read through to  
11 make sure that we are meeting those benchmarks or meeting  
12 those criteria with the practice that we want to install.  
13 If we don't feel that we're meeting the benchmark or the  
14 criteria from those practices, then we look to some other  
15 practice. If we feel that it's above what we're able to  
16 decide, then we'd get NRCS involved or we'd get a private  
17 engineering firm involved to do those calculations for us  
18 so that we can be assured that those practices we want to  
19 install are going to fit.

20 Q. What does runoff look like?

21 A. Runoff can be clear water coming off of your yard.  
22 Runoff can be clear water coming off of a forested area.  
23 Runoff can be dirty water coming off of an animal feed  
24 lot. Runoff is simply water moving downhill.

25 Q. Okay. And primarily what you do in making a visual

1 assessment is you're observing that water flow?

2 A. We're observing evidence of water flow.

3 Q. Okay. You're not making calculations about the  
4 nature or the amount of that flow?

5 A. We are not.

6 Q. Okay. All right. What happens when -- why is  
7 runoff a concern?

8 A. Runoff by itself may not be a concern.

9 Q. Okay. Under what circumstances is runoff a  
10 concern?

11 A. Runoff is a concern when it contains sediment.

12 Q. Okay. Is that it?

13 A. Runoff could be a concern when it contains  
14 bacteria, pathogens, nutrients, if there's not adequate  
15 practices in place to reduce the potential for that.

16 Q. If you have soil that doesn't drain well, you have  
17 a higher likelihood of runoff?

18 A. Yes.

19 Q. What other factors increase likelihood of runoff  
20 besides poorly drained soil?

21 A. Compaction, the slope, the amount of surface cover,  
22 the smoothness of the soil surface.

23 Q. Anything else?

24 A. Not that I can think of.

25 Q. Are soil types relevant?

1 A. Certainly.

2 Q. How so?

3 A. Each soil type is going to have a different  
4 percentage of rocks, different percentage of sand, silt  
5 and clay, different percentage of organic matter, all of  
6 which are going to have some amount of influence on water  
7 infiltration and water runoff.

8 Q. Do you make -- well, why don't you tell me how you  
9 go about preparing a conservation plan.

10 A. Can be a very lengthy process. Typically the  
11 conservation plan development will start with an initial  
12 meeting with the client where we'll talk about his farming  
13 practices, the type of crops that he raises, the order in  
14 which he raises them, type of tillage that he uses to  
15 establish them, fertilizer usage, the type of seed that  
16 he's planting, average yields that he may obtain from his  
17 fields. We get a head count on the number of animals that  
18 may be present, any kind of barnyards, any kind of animal  
19 housing areas, manure storages that might be on the site.  
20 Once we get a list of everything that he's doing, then  
21 we'll go out into the barnyard with him, into the  
22 headquarters area and we'll ask him to identify every  
23 structure that's there, every practice that he's doing and  
24 with him we will look for evidence of surface water  
25 runoff, nutrients that might be included in that surface

1 water runoff.

2           The crop land and pastural land, we'll go out and  
3 visually inspect, typically driving around in our  
4 four-wheelers or walking the edges of the entire cropland  
5 unit or pastureland unit. We'll go into the interior of  
6 the cropland and pastureland unit. Based on the time of  
7 the year, if the corn is ten feet high, we're not going to  
8 see much if we go into the interior, but when the corn is  
9 small or during times of the year where the corn or the  
10 crops are not actively growing, we'll go into the field  
11 interior with the farmer's permission and look for any  
12 kind of evidence of runoff concerns.

13           As we write conservation plans today, we are very  
14 aware of manure management regulations and ensuring that  
15 we have consistency between the manure management plan and  
16 the conservation plan. So some of the regulations that  
17 would go into the manure management plan or even a  
18 nutrient management plan may be a little bit differnt from  
19 what a conservation plan would require, but we want to  
20 show consistency between those documents. So we'll talk  
21 with the client to make sure that the practices associated  
22 with the manure management are consistent with the  
23 practices we have listed in the conservation plan.

24           Once we get done with that initial development,  
25 we'll go back to our office, we'll develop some site maps,

1 develop the soils maps, the topographic maps, then we'll  
2 start looking through all of the best management practices  
3 to figure out which ones the client needs to implement and  
4 which ones the client can implement and which ones are  
5 simply not relevant to the operation. These standards are  
6 standards that we're well-familiar with. Sometimes we  
7 have to go back and read the definitions to make sure that  
8 the client meets the definition of that standard. It's  
9 not always necessary that the client meet the definition  
10 of a standard in order to implement a particular practice.

11         If it comes to that where he is implementing that  
12 particular practice but does not meet the direct  
13 definition of that standard, we'll call him and explain to  
14 him why he's not going to see that in his conservation  
15 plan under that standard. We may list it somewhere else  
16 just to document that the environmental concern is being  
17 addressed.

18         So we'll go through all the practices and make sure  
19 that we have all the relevant ones in there and then we'll  
20 start looking at the soil loss calculation, and that's  
21 called RUSLE2, it's a computer program designed by NRCS,  
22 and we will enter in all of the information that we gather  
23 from him on his crop rotation, sequence of crops, his  
24 yields, the type of seed that he's using, the equipment  
25 that he has on hand, any kind of manure applications that

1 he's making, any kind of residues that are being removed  
2 from the field, and then we cross-reference that with the  
3 type of soil that he has, the slope, slope length, the  
4 climate in that particular area that he's in and then the  
5 computer program crunches all these numbers and produces a  
6 soil loss estimate, and for compliance, that soil loss  
7 number has to be less than the regenerative properties of  
8 the particular soil on which we're working.

9 Q. And is that the focus of the conservation plan is  
10 soil loss?

11 A. The focus of the conservation plan is everything,  
12 soil loss, best management practices, taking a holistic  
13 approach to management on the farm.

14 Q. Crop yields?

15 A. Yes.

16 Q. I had asked you earlier about existing uses.  
17 What's your understanding about what an existing use is  
18 when we're talking about a water body?

19 A. From my point of view, existing use is how DEP has  
20 that water body classified. I want to know when I'm  
21 writing regulatory documents whether I'm looking at a  
22 stream designated as a coldwater fishery, as a trout  
23 stocking area, as exceptional value, high quality, I want  
24 to know what those designations are.

25 Q. Why?



1 A. That can influence from a nutrient management  
2 standpoint how we're able to manage our nutrients and how  
3 we're able to apply our nutrients.

4 Q. How so?

5 A. Exceptional valued watersheds, high quality  
6 watersheds, we like to run or we're required to run  
7 phosphorus index on them for Act 38 and NRCS 590, nutrient  
8 management plans. So it does get a little bit more work  
9 for us when we're working in those watersheds.

10 Q. So other than running a phosphorus index, anything  
11 else different in working in a EV or HQ watershed?

12 A. No.

13 Q. What does it mean to run a phosphorus index?

14 A. Phosphorus index is looking at the potential for  
15 phosphorus loss from a particular landscape.

16 Q. Just phosphorus?

17 A. Just phosphorus.

18 Q. Why?

19 A. That's what the regulations require.

20 Q. Which regs?

21 A. The Act 38 nutrient management regulations, as well  
22 as the NRCS 590 nutrient management standard.

23 Q. And so other than running a phosphorus index, when  
24 you're dealing with a EV or HQ watershed, do you do  
25 anything else differently?

1 A. No. And those phosphorus indexes only pertain to a  
2 small amount of farms that would be required to implement  
3 in Act 38 nutrient management plan or to have the NRCS 590  
4 plan.

5 Q. Okay.

6 A. So 10 percent of the farms in the state.

7 Q. The Angle farms, did you have to run a phosphorus  
8 index?

9 A. No.

10 Q. Why not?

11 A. They don't have any livestock. They're not  
12 required to implement an Act 38 nutrient management plan.  
13 They're also not cooperating with NRCS, any of the NRCS  
14 programs.

15 Q. What's that mean, cooperating with NRCS and  
16 any of the NRCS programs?

17 A. Means they didn't approach NRCS for cost shared to  
18 implement any kind of best management practices. It means  
19 they're not receiving cost share payments for implementing  
20 practices that would maybe otherwise cost them money.

21 Q. Okay. So was there any consideration in the work  
22 that you did with the Angle farms, any consideration given  
23 to the existing uses of the waters in that watershed?

24 A. Our consideration was that it was currently  
25 farmland and that the proposed usage was continuing that

1 use of farmland.

2 Q. I'm asking about existing, about the definition of  
3 existing uses that we were just using that relates to the  
4 water quality.

5 Was there any consideration of the water quality in  
6 the watershed of the Angle farms?

7 A. Yes.

8 Q. Okay.

9 A. The consideration being that if a conservation plan  
10 is fully implemented as we have written it, that it will  
11 have no adverse effect on the water quality.

12 Q. Okay. Why don't you tell me everything you do to  
13 make that determination.

14 A. We write the conservation plan.

15 Q. You're going to have to be more specific than that,  
16 sir.

17 A. Well, we'll go back to the site visits and as we're  
18 talking with the farmer, documenting everything that he is  
19 doing, looking at his nutrient applications that he's  
20 currently making versus the nutrient applications that he  
21 may be planning to make through whatever practices he  
22 wants to adopt. We'll look and see if or we're looking  
23 and make sure that we're not overloading the nitrogen  
24 application rates. We're also looking to make sure that  
25 he is putting on enough nutrients to meet his expected

1 yield goal. So, for instance --

2 Q. How does that relate to --

3 A. The water quality?

4 Q. Yeah.

5 A. If we are not maximizing nutrient use efficiency  
6 from all the nutrients that we apply, we're exposing  
7 ourselves to additional losses in the ground water and  
8 surface water. So every nutrient matters, whether we're  
9 talking about borane, whether we're talking about  
10 chloride, copper, every essential nutrient matters in  
11 doing what we can to ensure that the runoff from our  
12 cropland is minimized.

13 Q. Okay. So what effort did you make to determine  
14 what the existing uses were of the water bodies that were  
15 fed from the Angle farms?

16 A. In our meeting with Mr. Smith, he explained that  
17 he's been farming the tracts for a number of years. He  
18 explained to us what his crop rotation was and that he  
19 expected to continue that crop rotation and with that  
20 crop --

21 Q. I want to make sure -- you're telling me about the  
22 crops that are being used. I'm talking about existing  
23 uses. I'm not talking about existing use of the farmland.  
24 I'm talking about the existing uses of the waters.

25 A. With our cropland practices that we're doing, as

1 long as that management continues, we would not expect any  
2 change to occur with our water quality.

3 Q. So what effort do -- do you make any effort to  
4 determine the classification of existing uses of the  
5 receiving waters?

6 A. We go to the DEP website, and we look at what DEP  
7 has those water bodies classified as.

8 Q. Why do you do that?

9 A. Because we want to know.

10 Q. Why?

11 A. We like to document what kind of watershed is  
12 present.

13 Q. Why?

14 A. Because we try to be as thorough as possible.

15 Q. Doesn't change what you do at all though, does it?

16 A. Does not change what we do. We just try to produce  
17 a thorough document that presents the farmer with as much  
18 information as we possibly can.

19 Q. Do you know whether some water quality existing  
20 use, some existing uses, and I'm talking about water  
21 quality, is more fragile than others?

22 A. No.

23 Q. You're not sure about that or you don't know  
24 whether that's true?

25 A. If I understand your question correctly, then no.

1 Q. Okay. Did you do a nutrient management plan for  
2 the Angle farms?

3 A. It was not required to have a nutrient management  
4 plan.

5 Q. You did not do one?

6 A. It was not required to and we did not do one.

7 Q. Did you do any other planning or prepare any other  
8 documents, other than the conservation plan?

9 A. No.

10 I take that back. We did a adjoining landowner  
11 paperwork for you where we went onto the Northampton  
12 County parcel viewer and looked at the adjoining  
13 landowners for all these properties, we compiled that and  
14 then we sent it on over to Pete.

15 Q. An identification of who the adjoining landowners  
16 are?

17 A. Correct.

18 Q. Anything else, other than that identification?

19 A. No.

20 Q. And just so the record was clear, when you were  
21 saying, "you," you were looking at Mr. Price from Synagro,  
22 correct?

23 A. Yes.

24 Q. So other than what you've told me with regard to  
25 the Angle farms, did you do anything else to determine

1 whether there would be an adverse effect on water quality?

2 A. No.

3 Q. What makes nutrient losses off site likely?

4 A. Nutrient losses will occur wherever biological  
5 activity is occurring. So if there's biological activity  
6 on Mars, there's a potential for nutrient loss.

7 Q. Okay. What makes nutrient losses relatively more  
8 likely?

9 A. Proximity to surface water.

10 Q. Okay. Anything else?

11 A. Excessive soil loss.

12 Q. Anything else?

13 A. Application timing would matter. Application  
14 place would matter. The source of the nutrients would  
15 matter. The rate of nutrients would matter.

16 Q. Application place?

17 A. Physical place on the --

18 Q. One of the four Rs? Are you familiar with the four  
19 Rs?

20 A. I am the PA four R coordinator.

21 Q. Is that right?

22 A. Yeah.

23 Q. So what are the four Rs?

24 A. It's applying nutrients at the right source, the  
25 right rate, the right time, and the right place.

1 Q. What makes for the right place?

2 MR. YEAGER: You didn't know he was the four  
3 R coordinator, did you?

4 MS. GOLDSTEIN: I didn't know, no.

5 THE WITNESS: The right place really varies  
6 on the type of crop that you're growing and also  
7 varies based on the type of nutrient that you want  
8 to apply.

9 BY MR. YEAGER:

10 Q. What are the factors that you consider in  
11 determining whether a place is the right place?

12 A. Place, equipment, equipment is a big thing, the  
13 type of equipment that somebody has in order to apply the  
14 nutrients is huge in determining what place they are  
15 capable of putting that nutrient.

16 Q. Anything else?

17 A. If a nutrient is able to be foliar uptaken, then  
18 place, the right place may be as a foliar application. A  
19 lot of nutrients cannot be uptaken readily through foliar  
20 roots, so then a soil or root uptake is what we're after  
21 and from that --

22 Q. That goes to whether it's the right application?

23 A. You got it.

24 Q. I'm asking about the right place.

25 A. It is the right place. Right place will vary based