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COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD

2nd Day

SLUDGE FREE UMBT, JIM & : EHB DOCKET NO.
DONNA DELLATORE, MIKE & : 2014-015-L
DIANE ZIMMERER, DEBRA & :
TOM BODINE, JOHN & TRACY :
GORMAN, BOB & TERRY :
SCHNEIDER, : VOLUME II
Appellants :
vs. :
COMMONWEALTH OF :
PENNSYLVANIA, DEPARTMENT :
OF ENVIRONMENTAL PROTECTION: :
and SYNAGRO, a.k.a. :
SYNAGRO MID-ATLANTIC, INC., :
Permittee, :
Appellees :

Friday, February 6, 2015

Continuing telephonic deposition of ERIC
ROSENBAUM, held in the offices of FOX,
ROTHSCHILD LLP, 2700 Kelly Road, Suite 300,
Warrington, PA 18976, commencing at 3:35 p.m.,
on the above date, before Mickey Dinter,
Registered Professional Reporter and Notary
Public for the Commonwealth of Pennsylvania.

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1 A P P E A R A N C E S :

2

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 Protection

19

20 Also Present: Tim Craven

21

22

23

24

25

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1 ERIC ROSENBAUM, previously
 2 sworn, resumed and testified further as
 3 follows:
 4 BY MR. YEAGER:
 5 Q. Mr. Rosenbaum, this is a continuation
 6 of your deposition from December 12, 2014.
 7 You're still under oath from that and the
 8 same instructions apply from that, okay?
 9 A. Okay.
 10 Q. Is there anyone else present with
 11 you?
 12 A. No, there is not.
 13 Q. I will try to wrap this up as quickly
 14 as we can, but if you do need to take a
 15 break, let me know.
 16 When we were together last
 17 time, at one point you said that -- you made
 18 a comment about the conclusion that, that
 19 you had reached that the sites were suitable
 20 for biosolids application, do you recall
 21 that?
 22 A. Yes.
 23 Q. I would like you to identify all the
 24 bases that you have for that conclusion.
 25 A. When you say "bases," you mean what?

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12 QUESTIONS INSTRUCTED NOT TO ANSWER
PAGE LINE
13 None

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1 Q. What do you base that conclusion on?
 2 A. Well, there would be a number of
 3 factors that I would base that conclusion
 4 on. The property history of the farm would
 5 come into play. Does the producer have
 6 realistic expectations or is the landscape
 7 or is the property suitable for crop land
 8 production?
 9 Q. For crop land production?
 10 A. Correct.
 11 Q. Okay.
 12 A. So that's the first thing I would
 13 look at when I look at a site and try to
 14 determine whether or not it's suitable for
 15 biosolid application. If they're
 16 successfully growing crops on it already,
 17 the biosolids may fit in well in that
 18 situation.
 19 The second thing I would
 20 look at will be the environmental
 21 concerns, primarily soil loss on the farm,
 22 and that's -- the big portion of the
 23 conservation plan is calculating soil loss
 24 and calculating risk of soil loss from the
 25 current management structure that the farmer

<p style="text-align: right;">Page 119</p> <p>1 is employing. Those are the two big 2 criteria that I would use to determine 3 whether or not I feel a site is suitable for 4 biosolids application. 5 Q. I'm asking you specifically with 6 regard to the sites that are the subject of 7 your conservation plans. What did you -- 8 did you come to a conclusion that these 9 sites were suitable for biosolids 10 application? 11 A. Yes. 12 Q. So, what did you rely on in reaching 13 that conclusion, not broad categories, but 14 what specifically informed that conclusion? 15 A. Again, back to the comments I just 16 made and trying to make them site specific 17 to the properties in question, when we wrote 18 the conservation plan that calculates soil 19 loss, the farmers' current management 20 structure and the practices used employing 21 are wonderful practices to employ for 22 minimizing soil loss and enhancing the soil 23 structure through crop production. 24 Looking at his yield history, 25 the yields that he's able to maintain,</p>	<p style="text-align: right;">Page 121</p> <p>1 documents that you have produced? 2 A. If I saw a soil test analysis from 3 a farm, I don't recall, so it's -- I would 4 have to answer that I'm not aware. 5 Q. And are you aware of any other 6 information or data that isn't contained in 7 the file that you produced that supports 8 your conclusion that the sites are suitable 9 for biosolids application? 10 A. I would say I'm not aware. 11 Q. Okay. I had asked you previously 12 about whether you had done any independent 13 testing to determine whether the NRCS's 14 conclusions about the suitability of these 15 sites was inaccurate and you had told me 16 that you hadn't, do you recall that? 17 A. Yes. 18 Q. Are you aware of any information from 19 any other source that would support the 20 conclusion that the NRCS's conclusions about 21 suitability or unsuitability are inaccurate? 22 A. Their classifications for 23 suitability, I'm not sure how, what 24 background information they are using to 25 come to those conclusions. My sense is that</p>
<p style="text-align: right;">Page 120</p> <p>1 there's certainly good soil there, good 2 fertility, that he's able to get average 3 yields; and based on those two criteria, I 4 think, is the easiest way to determine that 5 a site would be considered applicable for 6 biosolids. 7 Moving away from those 8 previous comments, you certainly want to 9 look at proximity to surface water and 10 making sure that there are setbacks in place, 11 which is what Synagro does with all of those 12 biosolids application sites making sure 13 that the setbacks are in place. 14 Q. Have you told me about every -- have 15 you reviewed your transcript from your prior 16 deposition? 17 A. No. I did not. 18 Q. Have you obtained any additional 19 information since we were together last 20 related to these projects? 21 A. No. 22 Q. Are you aware of any analysis related 23 to the suitability of these sites for bio- 24 solids applications that isn't contained in 25 the conservation plan and any other</p>	<p style="text-align: right;">Page 122</p> <p>1 they are arriving at those conclusions simply 2 based off of slope, but I don't know that 3 for sure. 4 When we're writing a 5 conservation plan, the focus of my work is 6 simply based around conservation plan 7 writing. We tend not to go outside of NRCS 8 structure because NRCS provide the guidelines 9 for developing these conservation plans. 10 Q. So, my question was whether you're 11 aware from any other source of any basis to 12 conclude that NRCS's conclusions are 13 inaccurate for these sites? 14 A. What kind of sources would you be 15 referring to? 16 Q. Any. Are you aware of any? 17 A. Pertaining specifically to this 18 site or just in general? 19 Q. No, to these sites. 20 A. For this particular site? 21 Q. Well, there are three sites, yes. 22 A. Besides the NRCS information, I'm 23 not aware of any. 24 MR. YEAGER: You had 25 identified that there were some regs,</p>

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1 I think, PDF's of regs, that you were
 2 relying on. Have those been provided to
 3 counsel yet?
 4 MS. GOLDSTEIN: I'm not really
 5 sure what you're saying.
 6 MR. YEAGER: When we were
 7 together last on this, he had noted that
 8 he had some regs that he relied on.
 9 MS. GOLDSTEIN: Mr. Rosenbaum?
 10 MR. YEAGER: Yes, as part of
 11 his review. It's on page 12. If you
 12 have not provided them to counsel, I
 13 would ask you to do that please, okay?
 14 THE WITNESS: Okay.
 15 BY MR. YEAGER
 16 Q. How much were you paid for the work
 17 that you've done in connection with the
 18 Angle sites?
 19 A. We bill our time at \$100 an hour. I
 20 don't recall how many hours. Generally
 21 speaking, a conservation plan is going to
 22 run from 750 to \$1,000 to develop a plan,
 23 but I would have to go back and look at my
 24 accounting records for an exact number.
 25 Q. For a project like this where you

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1 have three different farm sites, do you look
 2 at that as three different, do you consider
 3 these three different conservation plans or
 4 do you consider them to be really one?
 5 A. That will depend on the client,
 6 depending on how he likes things submitted.
 7 And I don't recall -- I think we had
 8 packaged each tract individually, but I'm
 9 not 100 percent sure.
 10 Q. Okay. I had asked you before, I
 11 believe, about the 590 standards.
 12 A. Yes.
 13 Q. And my understanding was you don't,
 14 that you're familiar with them, but that you
 15 don't apply them in every project. It
 16 depends on the nature of the project, is
 17 that right?
 18 A. Correct.
 19 Q. Do you have any reason to disagree
 20 with those standards?
 21 A. Not to my knowledge.
 22 Q. Do you, as part of your conservation,
 23 as part of your work with the project, do
 24 you look at what will happen with a cover
 25 crop if it's not harvested for grain?

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1 A. What will happen to it?
 2 Q. Yes. What happens with a cover crop?
 3 A. It depends on the goals of the
 4 producer.
 5 Q. Okay.
 6 A. Some people will -- the selection of
 7 the cover crop species will directly play
 8 into what the end result or what the
 9 intended purpose of that cover crop is going
 10 to be. So, in the case of these particular
 11 tracts, and I'm going off a vague memory
 12 here, but the farmer farming the land was
 13 positioning a cover crop following wheat
 14 harvest and, I believe, she was using a
 15 cover crop mixture of small grains and
 16 brassicas. So, the intended purpose of the
 17 small grain and brassica cover crop mix is
 18 generally to scavenge nutrients, to provide
 19 bio massing of salt go through the roots and
 20 through the top growth and, hopefully,
 21 provide some tilph into the top layer of the
 22 soil profile.
 23 Q. Do you know whether the plan was to
 24 then harvest that cover crop or to terminate
 25 it with herbicides?

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1 A. The plan was to terminate it with
 2 herbicides or frost depending on the cover
 3 crop species selected.
 4 Q. As part of your analysis, did you
 5 consider the, any off-site impacts of that
 6 herbicide use?
 7 A. Certainly, when we're discussing
 8 herbicide choices with clients, we always
 9 want them to be cognizant of the environ-
 10 mental setbacks or environmental aspects of
 11 that application. And there are many
 12 different herbicides that carry water-
 13 quality advisories, and we want to make sure
 14 and ensure that clients are being compliant
 15 with the labeling of that product.
 16 Q. Is there a specific product called
 17 out for these sites?
 18 A. Any product within the Group 58 track
 19 and Group 15(a) track would be water-quality
 20 advisories and we would want those products
 21 supplied following legal requirements.
 22 Q. Did you make any effort to make an
 23 actual determination of off-site impacts of
 24 application of those herbicides?
 25 A. Somebody in my position, we would

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1 not be able to look at off-site impacts of
 2 herbicides unless it was light. If we had
 3 severe runoff issues that killed vegetation
 4 down slope of the application area, I could
 5 go in and I could ascertain what had
 6 occurred, but to look at any kind of chemical
 7 residue or secondary compound from a
 8 herbicide or pesticide application, the
 9 effects of that residue or secondary
 10 compound, I would not be qualified to look
 11 at.
 12 Q. Okay. And any effort to consider
 13 cumulative impacts considering both the
 14 impacts of the biosolids and the herbicides?
 15 A. The cumulative impacts that we would
 16 list in the conservation plan would have
 17 been done so through the completion of that
 18 CPA 52 document that you and I had looked at
 19 when we were together.
 20 The general framework of the
 21 cumulative effect would be that if we're
 22 applying any kind of nutrient, whether it
 23 be fertilizer, biosolids or manure, if we're
 24 applying it at university-recommended rates
 25 or rates consistent with regulation and

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1 we're adhering to all setbacks, same way
 2 with pesticides, if we're applying them at
 3 labeled rates adhering to all setbacks, the
 4 cumulative effect on environment will be
 5 minimal.
 6 Q. The buffers that are talked about in
 7 your conservation plan, those are simply,
 8 I forget what the term was that was used for
 9 it, it was simply isolation distance, right?
 10 It wasn't vegetated buffers, correct?
 11 A. Depending on what specifically
 12 you're talking about, it could be either
 13 one. From my recollection of these plans,
 14 we were not calling for installation of any
 15 kind of buffer that would meet the standards
 16 of the NRCS, preparing buffer, grassland
 17 buffer practices. I believe that we're
 18 certainly listing isolation buffers for
 19 biosolid application on the maps and -- go
 20 ahead, I'm sorry.
 21 Q. No, no, I'm sorry, you finish.
 22 A. I think I lost my thought. Go ahead.
 23 Q. You were saying you do call-out
 24 isolation buffers, isolation distances.
 25 A. Yes. For application purposes, we

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1 want to make sure that every application
 2 setback, every isolation distance from
 3 surface water from wells, we want to make
 4 sure that all those are listed on our maps.
 5 Q. Do you know whether buffers get
 6 overloaded over time?
 7 MS. GOLDSTEIN: In general?
 8 MR. YEAGER: Yes.
 9 THE WITNESS: What type of
 10 buffers are you referring to?
 11 BY MR. YEAGER:
 12 Q. Whether it's an isolation buffer,
 13 an isolation distance or a vegetative buffer
 14 or something else.
 15 A. Overloaded? Can you be more specific
 16 as to overloaded with what? I'm not --
 17 Q. Is that a term that you're familiar
 18 with?
 19 A. Overloading of buffers?
 20 Q. Yes.
 21 A. Yes, in some way. That's why I
 22 asked for a little bit more clarification
 23 on the question.
 24 Q. What does that term mean to you?
 25 A. Overloading buffers can be a very

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1 long conversation. Let's take sediment, for
 2 instance. And within conservation planning
 3 in general, nothing specific to these
 4 particular tracts, but there are many times
 5 where we will call for the installation of
 6 mid-slope buffers, for contour-strip buffers,
 7 for end-of-slope buffers as a way to reduce
 8 the velocity of surface water traveling down
 9 a float. It's also to trap any kind of
 10 sediment or nutrients that may be present in
 11 that overland flow. And depending on the
 12 location of the buffer, and we're not
 13 talking about isolation buffers here, we're
 14 talking about vegetative buffers installed
 15 on landscape.
 16 Depending on the position
 17 of those, they can get overloaded with
 18 sediment through time; they can get -- I've
 19 never really seen any buffer overloaded with
 20 nutrient runoff, but sediment runoff we've
 21 certainly seen buffers overloaded at
 22 concentrated points and the practice, or
 23 the general practice of buffers on crop land
 24 and on farms in general is, we're using
 25 those buffers to actively trap any kind of

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1 sediment, any kind of nutrients that may be
2 coming off the up-slope areas before that
3 sediment or nutrients reaches our surface
4 water. And to actively manage those buffers
5 for the intended purpose, those buffers may
6 only stay in for three or five years before
7 they get burned off and reestablished to a
8 buffer because in order for a buffer to have
9 its maximum effect, it needs to be lush
10 vegetation that is managed. So, we're
11 applying fertilizer to the buffers, we're
12 applying herbicides to the buffers because
13 we want to ensure that they are as efficient
14 as they can be.
15 Q. You didn't call out any of those
16 types of buffers for these projects, correct?
17 A. We would only call for those buffers
18 if we had issue with soil loss erosion, if
19 there were big erosion problems, calculated
20 erosion problems. And within a conservation
21 plan, we're talking about sheet erosion,
22 we're not talking about gully erosion or
23 anything else. We're simply relating it to
24 sheet erosion. But, if we had calculated
25 concerns, you know, from sheet erosion, we

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1 may call for the installation of a down-
2 slope buffer or even a mid-slope buffer as
3 a way to reduce those concerns.
4 Q. My question was simply related to
5 these projects. You didn't call out any
6 such buffers for these projects, correct?
7 A. There was nothing that in the
8 project that would --
9 Q. It's just a yes or no question.
10 A. As needed, I would say no. What
11 was the question, again?
12 Q. Other than isolation distances,
13 whether you called out any of those other
14 more constructed buffers or vegetated
15 buffers that you've described.
16 A. No.
17 MR. YEAGER: Why don't we
18 take a break for a few minutes?
19 (Recess taken. Mr. Ferrence
20 left the conference room.)
21 BY MR. YEAGER:
22 Q. So, were you, Mr. Rosenbaum, was
23 there ever any discussion about including
24 a berm to direct water flow in connection
25 with any of these projects?

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1 A. No, I do not recall any conversations
2 on that.
3 Q. Give me just a second.
4 What did you rely on to come
5 to any conclusions about the depth of the
6 regional water table?
7 A. The depth regional water table?
8 Some of them would be listed in our soils
9 maps. I would say the majority I relied
10 on would come from our soils maps, not
11 necessarily the map itself, but the
12 background information associated with the
13 mapping units that are listed on the map.
14 That background information will give us an
15 indication of the, not necessarily the
16 regional water table, but the seasonal water
17 table.
18 Q. And, so, is that NRCS data?
19 A. Correct.
20 Q. Did you ever get any information
21 during the course of preparing -- you
22 prepared the maps that are in the
23 conservation plan, right?
24 A. I would have done the background
25 work, the site visits that we do in the map

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1 development process. I may not have done
2 the maps themselves. It may have been
3 somebody else in my office.
4 Q. I apologize. I meant your office
5 prepared those maps. I think you identified
6 a colleague of yours who might have worked
7 on them.
8 A. Correct.
9 Q. Do you recall any information coming
10 back that not all existing wells appeared
11 on the maps?
12 A. I don't recall any. I'm not
13 recalling anything like that.
14 Q. All right. Now, you're aware that
15 the, that there is NRCS data that identifies,
16 that classifies soils by their capabilities
17 for sewage sludge application?
18 A. Yes.
19 Q. And among the levels they have are
20 "somewhat limited" and "very limited"?
21 A. Correct.
22 Q. Are you aware of any information, and
23 you have that information from NRCS, do you
24 have that included in your conservation plan
25 for these projects?

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1 A. I do not include that information in
 2 those projects because I don't know the
 3 basis of that information, how they arrived
 4 at those, at those conclusions.
 5 Q. Are you aware of any information
 6 related to these sites that contradicts any
 7 of those analyses from NRCS specifically
 8 with regard to these sites?
 9 A. I think that question, I would go
 10 back to questioning how they are arriving
 11 at those.
 12 Q. Well, I'm just asking specifically
 13 as to these sites whether you have any
 14 information that contradicts those
 15 conclusions from NRCS?
 16 A. There is a possibility that we do.
 17 We don't know how long ago those conclusions
 18 were reached by NRCS. Certainly, if those
 19 conclusions were reached over 10 years ago
 20 and they have not been updated to current
 21 practices, we could have more information
 22 that would lead to a change in the outcomes
 23 of those maps.
 24 Q. I'm not asking about whether you can.
 25 I'm asking whether you do, whether you're

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1 aware of specifically any information that
 2 contradicts those conclusions?
 3 A. As I stated, without knowing how they
 4 have arrived at those conclusions, I don't
 5 know if I can answer that question.
 6 Q. If you had, if you had any data that
 7 was inconsistent with those conclusions,
 8 would it be contained within your files that
 9 were produced as part of this case?
 10 A. Yes.
 11 Q. All right. Your site visits, I
 12 forget, I apologize how many times you
 13 were out at these sites, do you remember?
 14 A. I was out there at least twice.
 15 Q. Were both times -- one time was in
 16 the December timeframe, is that right?
 17 A. Correct.
 18 Q. And were they both in that winter
 19 timeframe?
 20 A. Yes, they would have been both in
 21 that winter timeframe.
 22 Q. Did you make any effort to determine
 23 on site the location of any springs?
 24 A. Yes. Any springs would have been
 25 located on the maps. Any seasonal seep

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1 would not have been located on the map.
 2 Q. My question is whether you actually
 3 made an effort to identify the location of
 4 any springs?
 5 A. Yes, we did.
 6 Q. How did you do that?
 7 A. We walked the entire property.
 8 Q. And are springs noticeable, evidence
 9 of springs noticeable throughout the year?
 10 A. Evidence of springs are typically
 11 only noticeable during periods where the
 12 water table, seasonal high water table, is
 13 close to the salt surface.
 14 Q. Do you know whether that was the
 15 case when you were out there?
 16 A. I do not recall.
 17 You also see evidence of
 18 seasonal high water tables depending on when
 19 that seasonal high water table occurred. You
 20 can really notice evidence of that
 21 throughout the growing season, too, and how
 22 the crops are responding.
 23 Q. I'm asking when you were out there
 24 in that December timeframe.
 25 A. You would notice a difference. Well,

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1 obviously, if there is standing water or
 2 running water seeping out of the ground, you
 3 will notice a difference in the coloration
 4 of the soil, but for the purpose of
 5 conservation planning, we would want to know
 6 about a perennial spring and making sure
 7 that that is documented and identified. Any
 8 kind of seasonal seep would not be
 9 documented or identified.
 10 Q. And that was based on, and the
 11 conclusions that you reached, were based on
 12 your visits in the December timeframe?
 13 A. Correct.
 14 Q. And on no visits during other times
 15 of the year, correct?
 16 A. That is correct.
 17 Q. As part of your analysis, did you
 18 have, did you consider how frequently sludge
 19 would be applied?
 20 A. My analysis, really, would not
 21 consider how frequently sludge is applied.
 22 My analysis would simply deal with the soil
 23 qualities and erosional characteristics.
 24 MR. YEAGER: Okay. I don't
 25 have any other questions.

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1 MS. GOLDSTEIN: Thank you,
 2 Mr. Rosenbaum.
 3 (Deposition concluded, 4:11 p.m.)
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1 SIGNATURE PAGE
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 3
 4 I hereby certify that I have
 5 read the foregoing transcript, and the
 6 same is a true and correct transcription
 7 of the answers given by me to the
 8 questions propounded, except for the
 9 changes, if any, noted on the errata
 10 sheet.
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 15 SIGNATURE:
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 17 DATE:
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1 CERTIFICATION
 2
 3 I hereby certify that the
 4 testimony and the proceedings in the
 5 foregoing matter are contained fully and
 6 accurately in the stenographic notes taken
 7 by me, and that the copy is a true and
 8 correct transcript of the same.
 9
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